Procedural Guidelines For County Projects

Local Transportation Bureau

Recommended for Approval

ALDOT State Local Transportation Engineer — Date: 10/10/2017

Approved

ALDOT Chief Engineer — Date: 10-31-17

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INITIATING DATA SUBMITTAL CHECKLIST

(Date)

Region Engineer

Dear Sir:

RE: SPONSOR NO. _____
COUNTY _____

Attached is the following data to initiate the subject project:

( ) ●Resolution (Location Map)
( ) ■✶◆USGS Map
( ) ◆Request for Bridge Hydraulic Design/Review
( ) ◆Pictures for Hydraulic Design/Review
( ) ◆Plan & Profile Sheet(s)
( ) ■✶◆Project Review Consultation (Alabama Historical Commission)
( ) ■✶◆Pictures for Alabama Historical Commission
( ) ●Letter of Involvement (4-F Lands, etc.)
( ) ●Traffic Counts or Letter or Request for Traffic Counts by ALDOT
( ) ●Airport Involvement Letter, if applicable
( ) ●R.O.W. Recording Data Letter
( ) ■ROW-RA-1 Form
( ) ■Views and Comments Letter
( ) Other _____

Project Design Criteria (Check one)
Pavement Preservation ( ) RRR ( )
New Roadway & Bridges ( ) Other ( )

Project Letting (Check one)
State Contract ( ) Force Account ( ) Combination ( )

Requested Letting Date: _____ Estimated Cost: _____
Railroad Involvement: Yes ( ) No ( ) Project Length: _____

Please contact this office if additional information is required.

_____
LPA Engineer/Project Manager

● All Projects
■ If ROW is acquired
◆ Bridge Replacement Projects
✶ Bridge Maintenance Projects

Revised 4/10/18

OMIT PAGE

PLANS AND SUPPORTING DATA SUBMITTAL CHECKLIST FOR OTHER FEDERAL AID PROJECTS

(Date)

Region Engineer

Dear Sir:

RE: Project No. _____
County No. _____
County _____

Attached are the original plans and the following supporting data for the subject project:

( ) Acquired Right-of-Way Recording Data Letter, if applicable
( ) BI-1 Form (BIN Assignment Card) for Proposed Bridge Size Structure, if applicable
( ) Certification of Railroad Involvement
( ) County Cost Estimate ✸
( ) Earthwork Summary Submittal Sheet, if applicable
( ) Engineering and Inspection (E&I) Reduction Letter, if applicable
( ) Engineering Personnel and Equipment Certification
( ) Hydraulic Data Sheet(s), if applicable
( ) Materials Report
( ) National Pollutant Discharge Elimination System, (NPDES) Permit Certification
( ) Plan Checklist
( ) Right-of-Way Certification
( ) Right-of-Way Encroachment Certification
( ) Non-Contract Items of Work Certification
( ) Utility Agreement(s), if applicable
( ) Utility Certificate
( ) Other _____

✸ The county will prepare a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

It is requested this project be let to contract during the month of_____, 20_____, (at least 16 weeks after submittal to Region). _____ County recommends the contractor/county be allowed ___ working days to complete this project.

_____
County Engineer

In addition to the above items, the Region County Transportation Engineer prepares and submits the scope of work, if applicable, and the plan, specifications, and estimate (PS&E) report and a copy of the "Trns•port Preconstruction" estimate to the Bureau of County Transportation. The electronic "Trns•port Preconstruction" estimate file should be passed to the Local Transportation Bureau. The materials report is approved by the Region Materials Engineer.

OMIT PAGE

PLANS AND SUPPORTING DATA SUBMITTAL CHECKLIST FOR INDUSTRIAL ACCESS (IA), AND TWO-CENT (2¢) PROJECTS LET TO CONTRACT THROUGH THE STATE

(Date)

Region Engineer

Dear Sir:

RE: PROJECT NO. _____
COUNTY NO. _____
COUNTY _____

Attached are the original plans and the following supporting data for the subject project:

( ) Acquired Right-of-Way Recording Data Letter, if applicable
( ) BI-1 Form (BIN Assignment Card) for Proposed Bridge Size Structure, if Applicable
( ) Certification for Railroad Involvement
( ) County Cost Estimate ✸
( ) Earthwork Summary Submittal Sheet, if applicable
( ) Engineering and Inspection (E&I) Reduction Letter, if applicable
( ) High Density Criteria Letter (2¢ projects only)
( ) Hydraulic Data Sheet(s), if applicable
( ) Materials Report (not required on 2¢ projects unless let through state services)
( ) National Pollutant Discharge Elimination System (NPDES) Permit Certification
(Not required on 2¢ projects unless let through state services)
( ) Plan Checklist
( ) Utility Agreement(s), if applicable
( ) Utility Certificate
( ) Other _____

✸The county will prepare a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

It is requested that this project be let during the month of _____ 20_____, (at least 16 weeks after submittal to Region). _____ County recommends the contractor/county be allowed _____working days to complete this project.

_____
County Engineer

This data is to be forwarded to the Local Transportation Bureau for **IA and 2¢ projects to be let to contract by the state**. See Section 5 for procedures for IA projects that are to be let to contract by the county. In addition to the above items, the Region County Transportation Engineer prepares and submits the scope of work, if applicable, and the plans, specifications, and estimate (PS&E) report to the Local Transportation Bureau. The electronic "Trns•port Preconstruction" estimate file should be passed to the Local Transportation Bureau. The materials report is approved by the Region Materials Engineer.

PROCEDURAL GUIDELINES FOR FEDERAL AID COUNTY RESURFACING PROJECTS - PAVEMENT PRESERVATION AND 3R PROJECTS

Any Federal Aid County "Pavement Preservation" project or "Resurfacing, Restoration, and Rehabilitation" project (3R Project) shall be designed in accordance with the policies and procedures as defined in the *Alabama Department of Transportation, County Road Design Policy* (Section 9 of this manual). These projects shall be processed in accordance with the guidelines as noted in **Section 2-A** and **Section 2-B**.

The County Engineer shall initiate the proposed project through the appropriate Region. The transmittal letter submitting the initial information should state the requested month and year for the project letting. The date requested should be a minimum of six (6) months from the time the resolution and supporting data is submitted to the Local Transportation Bureau.

The county's special work authorization (SWA) account will be used to pay for preliminary engineering costs incurred by state personnel. If the balance drops below $1,000.00, the county will be invoiced the amount required to bring the balance back up to $2,000.00.

The environmental clearance for all pavement preservation projects, and any 3R projects, **where no additional right-of-way is acquired**, is covered by the Statewide Categorical Exclusions guidelines concurred by the Federal Highway Administration (FHWA) on March 19, 1981.

Information required by the FHWA shall be submitted in letter form to this office, through the Region, with a signature concurrence approval line for the State Local Transportation Engineer. The document should contain the following information:

- A statement indicating that the project is covered by one of the two Categorical Exclusions (Widening & Resurfacing or Signing) concurred by the FHWA on March 19, 1981, for the particular category of work involved.

- A brief description of project location, existing design and traffic data. (Traffic Data should include present and future ADT, percent trucks, number of school busses and other busses).

- The scope of the proposed work.

- A request for exception to current design standards for any nonstandard features involving the proposed work only. For resurfacing projects, this will be for pavement widths or narrow bridges only.

- A map showing project location.

Other information should be furnished to this office at the same time the above information is submitted. This letter should contain:

- An analysis of the Accident Data (furnished by this office) showing any high accident areas along with any proposed action to help eliminate the problem or a statement that the problem will be corrected as funds become available.

- A statement giving any design features that do not meet current standards covered in the FHWA's letter; such as shoulder widths, horizontal or vertical curves, design speed, etc.

The information will be requested from the county by this office at the proper time.

SECTION 2-A
PROCEDURES FOR PAVEMENT PRESERVATION PROJECT SUBMITTALS

1. The following information should be **SUBMITTED TOGETHER** to initiate a "Pavement Preservation" project:

- RESOLUTION of the county governing body setting up the project. (One with original signatures for the Local Transportation Bureau and one copy for the Region). (See example on page 12.63). Attach a **letter size legible** location map (1:120 000 scale official Alabama Department of Transportation county map) and link node map. (See examples on pages 12.27 and 12.28).

  As soon as the Local Transportation Bureau receives the above information, an up-to-date traffic count will be requested from the Transportation Planning and Modal Programs Bureau, or provided by the county in accordance with the "Standards for Traffic Volume and Classification Counts" as shown on page 12.77. The latest accident data on record will also be requested from the Transportation Planning and Modal Programs Bureau. This information can also be accessed under the "Alabama Traffic Data" link at https://aldotgis.dot.state.al.us/atd/default.aspx

2. As soon as the accident data and traffic counts are received by this office, the County Engineer will be notified to contact the Region County Transportation Engineer to schedule a **"Scope of Work"** review, to be conducted jointly by the Region County Transportation Engineer and the County Engineer (or an official representative from the county and Region). The Local Transportation Bureau should be notified of the time and date for the scope of work review.

During this review (See example on pages 12.69 - 12.73) the designer should make recommendations for proposed safety improvements, design standards, etc. (See pages 9.5 - 9.8). **Note that the "Scope of Work" will serve as the official materials report for the project** and should specify the recommended pavement buildup and shoulder material. Recommended pavement buildup and/or surface treatments shall be in accordance with design criteria and paving limitations, as noted in Section 9/Chapter 5 of the *Procedural Guidelines for County Projects.* Material recommendations shall conform to the bituminous surface treatment guidelines and bituminous plant mix guidelines and applicable laydown rates, as noted in Sections 6-8 and 6-10 of the ALDOT's *Guidelines for Operations.*

The county should submit the "Scope of Work" review letter to the Region for review and approval. Once the "Scope of Work" has been approved by the Region Engineer, the signed original should be forwarded to the Local Transportation Bureau for final approval. Approved copies of the final document will be distributed to the County Engineer and the Region Engineer, along with a notice to proceed with the plan preparation. **Note that the "Scope of Work" will serve as the approved environmental document for all pavement preservation projects.**

3. **If the project has not been authorized within three (3) years from the approval date on the "Resolution", the county will be required to resubmit an updated Resolution and "Scope of Work" reevaluation.**

4. Once the plans and preliminary costs estimate is completed, the County Engineer will furnish one 11" x 17" set of prints to the Region Office and the Local Transportation Bureau, for a "Plans, Specifications, and Estimate" **(PS&E)** review. 8½" x 11" plan sheets are permitted if the county plans to develop letter size plans. The plans should reflect the recommended items of work, as noted in the "scope of work" review, and conform to the design criteria in the approved "scope of work". The County Transportation Bureau will coordinate with the Region and the County to schedule a time, date, and location for the PS&E review.

Following are some general guidelines for letter size plan assemblies:

- Make sure all sheets are clearly legible. Use a font size, script type, and line weight that is easy to read. A three digit number is required within the parenthesis field for the project number. Please allow ample space to insert the number. It is recommended that the closing parenthesis mark be left off.

- Due to the space limitations on the title sheet, the site location map may be shown on a separate sheet if necessary; however, the project site description must be shown on the title sheet. This will also apply to multiple sites.

- Any project detail drawings that have to be added to the plans **will be the responsibility of the county**. Design file drawings are available for the standard TCP sheets (2 lane closure sketches & TCP notes), details for guardrail protection at culverts, and the "end anchor type special drawings". These sheets are in **"Microstation"** format and will be made available to anyone upon request; however, the county will be responsible for replicating all of the design detail sketches and applicable notes on letter size sheets.

5. After the county has addressed all comments, as noted during the PS&E review, one set of final plans should be submitted to the Region County Transportation Engineer for review and approval. This submittal should also include a 11" x 17" copy of the title and summary of quantities sheets for a "Disadvantaged Business Enterprise" (DBE) Review. **This submittal should be sent to the Region office at least 12 weeks prior to the requested letting date**.

Plan sheets for full size plan submittals may be on paper, with the exception of the title sheet, which is required to be on Mylar. Title sheets on paper are acceptable for letter size plan submittals. **The County Engineer's signature is required on the title sheet.** Any plans that were developed by a consultant will require the designer of record's official seal and signature on the title sheet. Any original signatures on letter size plans should be in **blue ink**.

The Region County Transportation Engineer should review the plans to ensure that all PS&E comments have been complied with and then have the Region Engineer sign the title sheet. The Region will then forward the final plans to the Local Transportation Bureau. Final plans should be received in this office at least 10 weeks prior to the letting date. Applicable supporting documentation, as listed below, should be included with this transmittal.

REQUIRED SUPPORTING DATA (PAVEMENT PRESERVATION PROJECTS)	EXAMPLE PAGE NO.
County Cost Estimate (See note below) ✸	N/A
Certification of Railroad Involvement	8.9
Disadvantaged Business Enterprise Prints (11" x 17" copy of Title Sheet and Summary of Quantities)	N/A
Engineering and Inspection (E & I) Reduction Letter if applicable	12.6
Engineering Personnel and Equipment Certification	12.7
List of Applicable General Application Special Provisions ◆	N/A
National Pollutant Discharge Elimination System (NPDES) Permit Certification	12.38
Plan Checklist	12.40 – 12.48
Plans, Specifications, & Estimate Letter (PS&E)	12.49 – 12.51
ROW Certification for Physical Construction	6.15
Right-of-Way Encroachment Certification	12.65

✸The county will prepare a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

◆The county will be responsible for furnishing a list of all General Applications Special Provisions required for the project. A current list of all General Applications Special Provisions is available on the ALDOT website at the following link:

http://www.dot.state.al.us/conweb/GASP.htm

Contact the Local Transportation Bureau for any project with pay items that are not covered by the Standard Specifications or General Application Special Provisions.

6. The Local Transportation Bureau will complete a final review of the contract plan submittal to ensure that the PS&E comments were complied with, all required signatures have been obtained, and all special project details have been included in the plan assembly. This office will provide the Bureau of Office Engineer with recommended working days, construction fuel percentage, and applicable special provisions required for the project.

Prior to project authorization, the county should furnish a "Non-Contract Items of Work Certification" (See example on page 12.68) to the Local Transportation Bureau, specifying that all applicable non-contract items of work, as noted in the "scope of work" review, have been completed by the county. A copy of this certification should be furnished to the Region. N**ote that the project funding agreement will not be prepared if this document is not received.**

7. The Local Transportation Bureau will prepare a project funding agreement upon receipt of the cost estimate from the Bureau of Office Engineer, which is typically 4 weeks prior to the scheduled letting date for contract projects. These agreements must be approved by all parties prior to award of the contract. All material is submitted to the Federal Highway Administration requesting authorization approximately 4 weeks prior to the letting date.

8. As soon as possible after the bid review, invoices will be prepared and sent to the county. The county's portion of the project cost and the award of the contract must be received within 30 days (4 weeks) of the letting date. **IF THE COUNTY'S CHECK IS NOT RECEIVED BY THE LOCAL TRANSPORTATION BUREAU BY THE DEADLINE DATE, THE BIDS MAY HAVE TO BE REJECTED AND THE COUNTY'S FEDERAL FUNDS WILL REVERT TO THE DEPARTMENT OF TRANSPORTATION.**

After the award is made, the contractor has 15 days to return the contract to the Department of Transportation, and then the Transportation Director and the Governor have 20 days to sign the contract. After the contract is signed by all parties, the Office Engineer has 15 days to issue the work order. After the work order is issued, the contractor has 15 days to begin work, unless modified by a special provision.

SECTION 2-B
PROCEDURES FOR RESURFACING, RESTORATION, AND REHABILITATION (3R) SUBMITTALS

1. The following information should be **SUBMITTED TOGETHER** to initiate a "3R" project:

   - RESOLUTION of the county governing body setting up the project. (One with original signatures for the Local Transportation Bureau and one copy for the Region). (See example on page 12.63). Attach a **letter size legible** location map (1:120 000 scale official Alabama Department of Transportation county map) and link node map. (See examples on pages 12.27 and 12.28.

   - LETTER OF INVOLVEMENT (4-F LANDS, ETC.) stating whether or not there is any involvement with lands from a public park, recreation area, wildlife refuge, archaeological or historical site, navigable water, airport, or railroad (one copy for Region, one copy for the Local Transportation Bureau). (See example on page 12.26).

   - If an airport is located within 2 miles of the project, an "Airport Involvement" letter (See example on page 12.1) should be submitted to the Local Transportation Bureau. For construction projects causing a significant increase in elevation, contact the Local Transportation Bureau for the proper procedures to follow.

   - RIGHT-OF-WAY (ROW) RECORDING DATA LETTER stating the basic width of the existing right-of-way, the date it was acquired, recording information (location of recording, deed book, and page) and whether or not any additional right-of-way is required. (See example on page 6.14).

   - If no recorded right-of-way exists, submit a letter stating this and indicate how much right-of-way will be required (one copy for the Region and one copy for the Local Transportation Bureau). Preliminary Relocation Assistance Analysis is required if additional right-of-way is necessary; use the ROW-RA-1 Form, (one copy for the Region and one copy for the Local Transportation Bureau). (See examples on pages 6.11 and 6.12).

   - VIEWS AND COMMENTS LETTER is prepared by the county and sent to the review agencies listed on pages 12.97 and 12.98. This letter (example on page 12.96) is prepared and circulated only for those projects for which additional right-of-way is required. In the event the county receives comments and/or questions from an agency, notify the Local Transportation Bureau for further assistance if needed.

2. As soon as the Local Transportation Bureau receives the above information, an up-to date traffic count will be requested from the Transportation Planning and Modal Programs Bureau, or provided by the county in accordance with the "Standards for Traffic Volume and Classification Counts" as shown on page 12.77. The latest accident data on record will also be requested from the Transportation Planning and Modal Programs Bureau. The County Engineer **should not** proceed with any plan work until this information is received.

3. As soon as the accident data and traffic counts are received by this office, the County Engineer will be furnished an up-to-date example of the "Project Engineering Record" (PER) and instructed to contact the Region County Transportation Engineer to schedule a "scope of work" review to be conducted jointly by the Region County Transportation Engineer and the County Engineer (or an official representative from the county and the Region). The Local Transportation Bureau should be notified of the time and date for the scope of work review. During the scope of work review (See example on pages 12.74 and 12.75) the designer should make recommendations for proposed safety improvements, design standards, proposed pavement buildup, etc. as shown on pages 9.5 – 9.8. Requirements for analyzing existing horizontal and vertical curvature are shown on pages 9.18 and 9.19.

   This information should be included in a written report prepared by the County Engineer and submitted to the Region Engineer and the Local Transportation Bureau.

   After the scope of work review is completed, the County Engineer should prepare **and sign** the PER and submit the original and one copy (the copy should be retained by the Region) to the Local Transportation Bureau, through the Region. **The scope of work included in the PER should conform to the recommendations made by the Region during the scope of work review.**

4. The County Engineer should prepare a materials report and submit it to the Region for review by the Region Materials Engineer. To avoid a possible delay in letting the project, this report should be submitted to the Region as soon as possible. Any requested waivers to the material specifications should be included in the materials report. The report must be signed by the County Engineer. The materials report will be reviewed and approved at the Region level by the Region Materials Engineer. A copy of the approved materials report will be sent by the Region to the Local Transportation Bureau and the Construction Bureau. (See example on pages 12.29 – 12.37).

5. When the PER is approved by the Alabama Department of Transportation's State Local Transportation Engineer, the County Engineer will be advised to proceed with the plan preparation. Approved copies of the final document will be distributed to the County Engineer, Region Engineer, and the Local Transportation Bureau. The original document will be forwarded to the Bureau of Office Engineer for permanent filing. **FINAL PLAN PREPARATION OR RIGHT-OF-WAY ACQUISITION SHOULD NOT BEGIN UNTIL THE PER IS APPROVED. ACQUISITION OF RIGHT-OF-WAY PRIOR TO APPROVAL OF THE PER WILL MAKE THE PROJECT INELIGIBLE FOR FEDERAL FUNDS.**

   If the project has not been authorized within three (3) years from the approval date on the PER, the county will be required to resubmit the project engineering record and request a reevaluation.

6. Once the plans and preliminary costs estimate is completed, the County Engineer will furnish one (1) 11" x 17" set of prints to the Region Office and the Local Transportation Bureau, for a "Plans, Specifications, and Estimate" **(**PS&E) review. 8½" x 11" plan sheets are permitted if the county plans to develop letter size plans. This option is intended solely for minor resurfacing and/or widening projects. Letter size plan submittals are not permitted for any projects involving plan & profile sheets, cross sections, etc. **See page 2.4 for guidelines for letter size plan submittals.**

   The plans should reflect the recommended items of work, as noted in the "scope of work" review, and conform to the design criteria in the approved "PER". The County Transportation Bureau will coordinate with the Region and the county to schedule a time, date, and location for the PS&E review. Electronic plan submittals (Microstation design files or "PDF" format) will be acceptable. No signatures on the title sheet are required for the PS&E review.

7. Once the County Engineer has revised the plans, based on the PS&E review comments, one (1) 11" x 17" set of prints and the required supporting documentation, should be furnished to the Region County Transportation Engineer for a Construction Bureau plan review. A list of the required supporting documentation is shown below. **This information should be sent to the Region office for review at least 18 weeks prior to the requested letting date**.

   No signatures on the title sheet are required at this time. The Region County Transportation Engineer will review the plan submittal to ensure that all PS&E review comments have been satisfactorily addressed. The Region office will contact the county to discuss any additional corrections or revisions that may be required. Once the Region has verified that the plans are in compliance with the PS&E review comments, the plans and required supporting documentation should be forwarded to the Local Transportation Bureau in accordance with "part 8 below".

REQUIRED SUPPORTING DATA	EXAMPLE PAGE NO.
County Cost Estimate (See note below) ✸	N/A
Acquired ROW Recording Data Letter, if applicable	6.13
BI-1 Form (BIN Assignment Card) for Proposed Structure, if applicable	N/A
Certification of Railroad Involvement	8.9
Earthwork Summary Submittal Sheet, if applicable	12.5
Engineering and Inspection (E & I) Reduction Letter if applicable	12.6
Engineering Personnel and Equipment Certification **Ø**	12.7
Hydraulic Data Sheet, if applicable	12.13
National Pollutant Discharge Elimination System (NPDES) Permit Certification	12.38
Plan Checklist	12.40 – 12.48
Plans, Specifications, & Estimate Letter (PS&E)	12.49 – 12.51
ROW Certification for Physical Construction	6.15
Right-of-Way Encroachment Certification	12.65
Utility Agreements, if applicable	12.79 – 12.93
Utility Certificate	12.94 – 12.95

✸ The county will prepare a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

Ø The county has the option to use an "on-call" consultant for inspection purposes. Contact the Region office for a list of approved consultants.

8. Construction Bureau review plans and supporting data should be submitted to the Local Transportation Bureau at least 16 weeks prior to the requested letting date. An additional plan review will be conducted by this office to check the plans for accuracy and to verify that any project detail drawings that are not included in (or modified from) the current Alabama Department of Transportation Special and Standard Drawing Book are added to the plans. The Local Transportation Bureau will contact the county to discuss any additional corrections or revisions that may be required.

PROCEDURAL GUIDELINES FOR FEDERAL AID COUNTY RESURFACING PROJECTS - PAVEMENT PRESERVATION AND 3R PROJECTS

The plans and supporting data are submitted to the Construction Bureau for review at least 12 weeks prior to the letting date. This review is made to ensure that the plans conform to Federal and State requirements. The Construction Bureau also specifies special provisions to be included in the bid proposal and the recommended working days for completion of the project. Comments from the Construction Bureau will be addressed in a written letter. Both the county and the Region will receive a copy of the comment letter. The county will be responsible for the corrections/revisions required as a result of the Construction Bureau plan review. All comments made by the Construction Bureau must be resolved during the first 4 weeks of this 12 week period (8 weeks prior to the proposed letting date).

After the county has addressed all changes or corrections, as noted in the Construction Bureau review letter, one set of final plans should be submitted to the Region County Transportation Engineer for review and approval. Plan sheets for full size plan submittals may be on paper, with the exception of the title sheet, which is required to be on Mylar. Title sheets on paper are acceptable for letter size plan submittals. **The County Engineer's signature is required on the title sheet.** Any plans that were developed by a consultant will require the designer of record's official seal and signature on the title sheet. Any original signatures on letter size plans should be in **blue ink**.

The Region County Transportation Engineer should review the plans to ensure that all Construction Bureau review comments have been complied with and then have the Region Engineer sign the title sheet. The Region will then forward the final plans to the Local Transportation Bureau. Final plans should be received in this office at least 10 weeks prior to the letting date.

The plan transmittal should include a letter addressing the disposition of all of the Construction Bureau comments, especially noting any justifications or reasons for not complying with a specific comment. This does not have to be a formal letter. A copy of the Construction Bureau review letter, with legible hand written notations for each comment, will be acceptable.

Prior to project authorization, the county should furnish a "Non-Contract Items of Work Certification" (See example on page 12.68) to the Local Transportation Bureau, specifying that all applicable non-contract items of work, as noted in the "scope of work" review, have been completed by the county. A copy of this certification should be furnished to the Region. N**ote that the project funding agreement will not be prepared if this document is not received.**

9. The Local Transportation Bureau will prepare a project funding agreement upon receipt of the cost estimate from the Bureau of Office Engineer, which is typically 4 weeks prior to the scheduled letting date for contract projects. These agreements must be approved by all parties prior to award of the contract. All material is submitted to the Federal Highway Administration requesting authorization approximately 4 weeks prior to the letting date.

10. As soon as possible after the bid review, invoices will be prepared and sent to the county. The county's portion of the project cost and the award of the contract must be received within 30 days (4 weeks) of the letting date. **IF THE COUNTY'S CHECK IS NOT RECEIVED BY THE LOCAL TRANSPORTATION BUREAU BY THE DEADLINE, THE BIDS MAY HAVE TO BE REJECTED AND THE COUNTY'S FEDERAL FUNDS WILL REVERT TO THE DEPARTMENT OF TRANSPORTATION.**

    After the award is made, the contractor has 15 days to return the contract to the Department of Transportation, and then the Transportation Director and the Governor have 20 days to sign the contract. After the contract is signed by all parties, the Office Engineer has 15 days to issue the work order. After the work order is issued, the contractor has 15 days to begin work, unless modified by a special provision.

PROCEDURAL GUIDELINES FOR FEDERAL AID COUNTY BRIDGE REPLACEMENT PROJECTS

Any Federal Aid county bridge replacement project shall be processed in accordance with the following guidelines. The County Engineer shall prepare the necessary documents and submit them to the Local Transportation Bureau, through the Region. The transmittal letter submitting the initial information should specify a requested letting date. The date requested should be a minimum of nine (9) months from the time the resolution and supporting data is submitted to the Local Transportation Bureau.

Any bridge being replaced with Federal Aid Bridge Replacement Funds **MUST** be on the Bridge Inventory, **MUST** have a sufficiency rating less than 50.0, and **MUST** be either structurally deficient or functionally obsolete. This is not a requirement when Federal Aid Surface Transportation Program (STP) funds are used.

The county's special work authorization (SWA) account will be used to pay for preliminary engineering costs incurred by state personnel. If the balance drops below $1,000.00, the county will be invoiced the amount required to bring the balance back up to $2,000.00.

1. The following information should be **SUBMITTED TOGETHER:**

a) RESOLUTION of the county governing body setting up the project – include complete structure number, bridge identification number (BIN), sufficiency rating, status, creek name, location, and county route number in the project description. (One with original signatures for the Local Transportation Bureau and one copy for the Region). (See example on page 12.64). Attach a **letter size legible** location map (1:120 000 scale official Alabama Department of Transportation county map). (See example on page 12.28).

b) Two (2) letter size portions of a 7½" USGS map showing the project location. (See example on page 12.78).

c) Four (4) prints (one copy for the Region) (1:120 000 scale location map and 7½" USGS map showing project location attached to each print) of a plan/profile sheet along with a request for an on-site hydraulic review. (Request for Bridge Hydraulic Design Form; example on pages 12.61 and 12.62) Four (4) color photographs (upstream channel, downstream channel, and each end of the present structure) must be provided to the Local Transportation Bureau.

d) Plan and Profile Sheet

1) Plan view with in-place and proposed horizontal alignment shown (Show the horizontal alignment data in accordance with page 12.44, no. 13). ALSO, SHOW THE LOCATION OF THE DOWNSTREAM FLOODPLAIN CROSS-SECTION (distances, angles, stations, etc. as related to the roadway alignment.)

2) Profile view with in-place and proposed vertical alignment shown (show the vertical alignment data in accordance with page 12.44, no. 14). Also show profile alignment under in-place bridges.

3) Profile view shall also show the floodplain cross-section taken downstream of the proposed structure. THIS SECTION SHOULD BE TAKEN FAR ENOUGH DOWNSTREAM TO ENSURE THE CROSS-SECTION IS TAKEN IN THE NATURAL FLOODPLAIN AND STREAMBED. This section should be taken ninety degrees to the floodplain which is not always parallel to the proposed structure or roadway alignment.

4) Streambed profile 500 feet upstream and 500 feet downstream of the proposed structure, for all sites with a drainage area of less than 20 square miles.

REQUESTS FOR HYDRAULIC SITE INSPECTIONS WILL NOT BE FORWARDED TO THE BRIDGE BUREAU UNTIL THE ABOVE INFORMATION IS RECEIVED.

e) Project Review Consultation Form (Alabama Historical Commission). (See example on pages 12.59 and 12.60). (One copy for the Local Transportation Bureau and one copy for the Region).

f) LETTER OF INVOLVEMENT (4-F LANDS, ETC.) stating whether or not there is any involvement with lands from a public park, recreation area, wildlife refuge, historical site, navigable water, airport, or railroad (One copy for the Local Transportation Bureau and one copy for the Region). (See example on page 12.26).

If an airport is located within 2 miles of the project an "Airport Involvement" letter (See example on page 12.1), should be submitted (One copy for Local Transportation Bureau and one copy for the Region). If the project significantly increases the elevation of the roadway in relation to the airport, you should contact the Local Transportation Bureau for the proper procedures to follow.

If the bridge replacement project involves a structure over a railroad, a Railroad Agreement shall be required. See "Section 8" for railroad procedures.

g) RIGHT-OF-WAY (ROW) RECORDING DATA LETTER stating the basic width of the existing right-of-way, the date it was acquired, recording information (location of recording, deed book, and page), and whether or not additional right-of-way is required. (See example on page 6.14).

If no recorded right-of-way exists, submit a letter stating this and indicate how much right-of-way will be required (one copy for the Region and one copy for the Local Transportation Bureau). Preliminary Relocation Assistance Analysis is required if any additional right-of-way is necessary; use the ROW-RA-1 Form

(one copy for the Region and one copy for the Local Transportation Bureau). (See examples on pages 6.11 and 6.12).

h) VIEWS AND COMMENTS LETTER is prepared by the county and sent to the review agencies listed on pages 12.97 and 12.98. This letter (example on page 12.96) is prepared and circulated only for those projects for which additional right-of-way is required. In the event the county receives comments and/or questions from an agency, notify the Local Transportation Bureau for further assistance if needed.

As soon as the Local Transportation Bureau receives the above information, an up-to-date traffic count will be requested from the Transportation Planning and Modal Programs Bureau, or provided by the county, in accordance with the "Standards for Traffic Volume and Classification Counts" as shown on page 12.77. The latest crash data on record will also be requested from the Transportation Planning and Modal Programs Bureau. The County Engineer **should not** proceed with any plan work until this information is received.

2. The Local Transportation Bureau will forward the plan and profile sheet(s) to the Bridge Bureau, along with a request for a site inspection.

3. As soon as the site inspection has been made, the traffic counts are received, and the required reviews of other agencies are completed, the County Engineer will be advised to prepare the "Project Engineering Record" (PER). An up-to-date example of the PER will be furnished by the Local Transportation Bureau at this time. This example should be followed as closely as possible changing only the project description and information pertinent to your particular project. If additional right-of-way is required, a Farmland Conversion Impact Rating Form AD-1006 (See page 12.8) must be attached to each copy of the PER. When the Form AD-1006 is initiated by the county, in addition to completing Parts I and III, also use the Alabama Department of Transportation Assessment Criteria (See pages 12.9 – 12.12) to complete Part VI. If the total site assessment points from Part VI is less than 60, the form **WILL NOT** have to be sent to the Soil Conservation Service (SCS) and will be ready to accompany the submission of the PER for the project. If the assessment is 60 points or greater, the form **WILL** have to be forwarded to the SCS for evaluation and processing.

4. The County Engineer should prepare a materials report and submit it to the Region for review by the Region Materials Engineer, **if the approach work is included in the contract items of work**. **A materials report is not required if the county is constructing the approaches.** To avoid a possible delay in letting the project, this report should be submitted to the Region as soon as possible. Any requested waivers to the material specifications should be included in the materials report. The report must be signed by the County Engineer. The materials report will be reviewed and approved at the Regional level by the Region Materials Engineer. A copy of the approved materials report will be sent by the Region to the Local Transportation Bureau and the Construction Bureau. (See example on pages 12.29 – 12.37).

5. The County Engineer will prepare **and sign** the PER and submit the original and two (2) originally signed copies to the Local Transportation Bureau, through the Region. For most bridge replacement county projects, involving ROW acquisition, the PER will be a categorical exclusion. **DO NOT SEND A COPY TO FHWA**.

The PER will be reviewed by this office and forwarded to the Environmental Technical Section for their review and approval. For projects with right-of-way acquisition exceeding ½ acres and/or significant environmental impacts, the PER will be submitted to the Federal Highway Administration for final approval. Approved copies of the final document will be distributed to the County Engineer, Region Engineer, Environmental Technical Section, and the Local Transportation Bureau for their files. The original document will be forwarded to the Bureau of Office Engineer for permanent filing. **THE COUNTY ENGINEER SHOULD NOT PROCEED WITH FINAL PLAN PREPARATION OR RIGHT-OF-WAY ACQUISITION UNTIL THE PER IS APPROVED. ACQUISITION OF RIGHT-OF-WAY PRIOR TO APPROVAL OF THE PER WILL MAKE THE PROJECT INELIGIBLE FOR FEDERAL FUNDS.**

If the project has not been authorized within three (3) years from the approval date on the PER, the county will be required to resubmit the project engineering record and request a reevaluation.

6. In the event the environmental impacts of the project are such that a more detailed document is required for the environmental clearances, i.e. a "Finding of No Significant Impact (FONSI) or an "Environment Impact Statement" (EIS), the County Engineer, assisted by the Local Transportation Bureau, in consultation with the Environmental Technical Section, shall prepare the necessary documents and process the project as required.

7. PRELIMINARY SUBMITTAL - BRIDGE PLANS BY BRIDGE BUREAU

If the County wants the Bridge Bureau to design the required structure, a request must be sent to the Local Transportation Bureau with five (5) copies of the title sheet, typical section(s), plan/profile sheet(s) and a three-line profile. The three-line profile will consist of the existing groundline along the centerline of the proposed structure and existing groundline profiles left and right of centerline at, or near, the extreme outside limits of the structure. The Local Transportation Bureau will contact the Bridge Bureau and request a cost estimate for the geotechnical foundation investigation and bridge plan preparation. If the county wishes to use a consultant for the geotechnical foundation investigation, only three (3) copies will be required. The county should state in their request letter that consultant services will be utilized for the geotechnical work.

The county will be notified once the cost estimates have been received, and requested to submit a check for the estimated design cost. This check will be credited to the county's SWA account to be used for project charges by personnel from the Bridge Bureau and the Materials and Tests Bureau. No design work will be performed until the funding for this cost has been added to the county's SWA account.

Once the Bridge Bureau has completed the bridge design and has computed the estimated quantities and required pay items for the proposed structure, one (1) 11" x 17" set of plans and a cost estimate for the bridge construction will be furnished to the county for their information.

8. PRELIMINARY SUBMITTAL - BRIDGE PLANS BY COUNTY OR CONSULTANT

If the county utilizes consultant contract services (or county personnel) for the design of the required structure, a preliminary bridge layout should be submitted to the Local Transportation Bureau for processing to Bridge Bureau prior to beginning work on the final bridge plans. A copy of the transmittal letter should be sent to the Region County Transportation Engineer. This transmittal should include the following:

a) Two (2) 11" x 17" prints of the roadway plan & profile drawing that provides sufficient information to establish the geometrics of the proposed structure.

b) Two (2) 11" x 17" prints of the preliminary bridge layout showing the type, size, and location (TS&L) of the proposed structure. The TS&L drawing should include proposed span lengths, type(s) of girder(s), girder spacing, alignment information, stationing of abutment and bents, skew (if applicable), groundline (three line profiles) information, and profile grade data.

c) Proposed foundation type along with justification for the type of foundations being proposed.

d) A contact person and telephone number (also recommend furnishing e-mail address). Provide a preliminary engineering account number for project charges provided by the Bridge Bureau personnel. In most cases this will be the county's SWA number, unless a project specific PE budget has been established for the bridge replacement. The charge number will be the same number that is shown on the title sheet (4356 CSWA6 1000XXXXX).

This applies to all bridge projects, **with the exception of ALDOT standard precast structures,** that are to be reviewed and approved by the ALDOT Bridge Engineer.

9. FINAL BRIDGE PLANS – PLANS BY COUNTY OR CONSULTANT

Once the preliminary layout has been approved by the Bridge Bureau, the County/Consultant may begin work on the final bridge plans.

One (1) set of 11" x 17" prints of the proposed bridge plans, including title sheet and typical section, should be submitted to the Bridge Bureau a minimum of **24 weeks** prior to the requested letting date. This transmittal should include a stamped copy of the bridge design calculations and a copy of the foundation report. A copy of the transmittal letter should be sent to the Local Transportation Bureau and the Region County Transportation Engineer.

The Bridge Bureau will review the submitted prints and return a set of marked up prints to the County/Consultant with review comments and corrections. Once the County/Consultant has addressed all the Bridge Bureau review comments, the following items should be transmitted to the Bridge Bureau. A copy of the transmittal letter should be sent to the Local Transportation Bureau and the Region County Transportation Engineer. Two (2) complete 11" x 17" sets of bridge plans should be furnished for Construction Bureau review. All required signatures and seals should be affixed (i.e. County Engineer and designer of record). The following additional information should also be submitted:

a) The original check prints with review comments.

b) One (1) set of 11" x 17" bridge plans for the HS-20 and operating ratings.

c) Under separate cover letter (See example letter on page 12.39) submit one (1) 11" x 17" set of prints to the Local Transportation Bureau for overtopping elevation data. This submittal should include a copy of the plan & profile sheet, the bridge general plan and elevation sheet, and any additional bridge sheets necessary to calculate the actual low girder elevation. Include the new BIN, if available.

COUNTY BRIDGE PROJECTS USING PRECAST MEMBERS AND PILE BENT CONSTRUCTION

NOTE: The following information and policy guidelines are from the *ALDOT Guidelines for Operations,* Section 3-70, approved on 08/01/12.

Precast bridges are intended for use on the State's County Road system only. Precast bridges are not for use on curved or skewed alignments or if the bridge is to be constructed on grade or in vertical curvature. Precast bridges shall be constructed in normal crown using a $^{3}/_{16}$" per foot slope from centerline in accordance with the Precast Bridge Standard Drawings.

General Design Requirements

- Precast bridges shall be designed in accordance with the *AASHTO Standard Specifications for Highway Bridges, 17th Edition* and latest interims, and the latest ALDOT Construction Specifications unless otherwise noted in this guideline. Live Load used in design shall be HS20-44. No future wearing surface dead load is to be considered in the design since overlaying of the bridge deck units with asphalt, concrete, etc. is not allowed.

- The 25 year flood event shall be used in establishing finished grade. A minimum of 2 feet of freeboard shall be provided above the 25 year stage elevation in determining the low chord elevation. For foundation design, minimum factor of safety of 2.0 shall be provided for the unscoured condition and a minimum factor of safety of 1.10 shall be provided for the maximum scour event.

Foundation Investigation

- Subsurface information shall be collected in general accordance with AASHTO R 13. Penetration tests ("N"-blow count) and split-barrel sampling shall be performed as given in AASHTO T 206. If auger refusal is reached within 20 feet of the drilling surface, coring below auger refusal elevation will be required. Cores shall be taken to a depth of 10 feet below auger refusal elevation in order to determine (1) the character of the non-augerable material and (2) if pile bents using pre-drilled pilot holes are a viable design or if an alternative foundation design should be considered.

- A minimum of one boring per every three spans and one boring at each abutment shall be provided to determine soil types, soil layer thicknesses, and "N" (blow count) values. At least one boring shall be taken in or adjacent to the stream for the purpose of collecting soil samples to determine D50 values. D50 values shall be determined in accordance with ALDOT 442. Additional borings, testing and analyses such as settlement analysis may be necessary depending on geological site conditions and the presence of soft soils in the abutment area (See Core Boring Requirements, page 3.9).

- If the County's Engineering Department has historical information on the existing bridge which includes sufficient engineering data regarding the subsurface conditions, then the county may simply gather D50 data from the streambed in order to calculate the anticipated scour depths. Sufficient engineering data would be defined as geotechnical borings with SPT-N values and soil descriptions for every five feet of penetration for the depth of the hole. The borings need to cover the entire bridge site and not be limited to a single location.

Scour

- All precast bridges shall be designed for scour in accordance with *FHWA's Hydraulic Engineering Circular No. 18* (HEC-18), Evaluating Scour at Bridges, 4th Edition.

Minimum Pile Size Requirements

- The Department's Precast Standard Drawings are based on a minimum pile section of HP 12x53 for abutment piles and bent piles as well as wing and anchor piles. Design parameters satisfying this pile section are noted on the Precast Standard Drawings. The Designer of Record is responsible for determining the actual pile size requirements and any additional strengthening (bracing, encasements, etc.) that may be required when design parameters noted on the standard drawings are exceeded.

Pile Driving Requirements

- All abutment piles, bent piles, and abutment anchor piles shall be installed in accordance with Section 505 of the Standard Specifications.

- Wing piles shall be driven to refusal or 20', whichever is less. The minimum penetration for wing piles shall not be less than 10 feet into natural ground.

Test Piles and Loading Tests

- Test piles and loading tests shall be provided in accordance with Section 505 of the Standard Specifications and as noted on the contract drawings.

Foundation Report

- A foundation report, prepared by a licensed geotechnical engineer, shall be submitted on each project. The report, at a minimum, shall consist of an evaluation of the pile type that is recommended with a discussion of pile types considered and reason for not recommending. If drill shafts are the preferred foundation, then information on construction technique (wet/dry) shall be specified. The consultant shall make recommendations on pile/shaft tip elevations, minimum tips (where scour is considered), and estimated pile/shaft tips. The report shall also include recommendations on load test to include the number and location of each recommended test. Any unusual conditions or circumstances which could impact the

foundation should be discussed. The report shall also include an evaluation of the approach fill to determine the amount of settlement and impacts on the bridge abutment.

Guideline Exceptions

- All exceptions to this guideline shall have prior approval of the State Bridge Engineer.

Core Boring Requirements

No. of Spans	Min. No. of Borings	Comments
1	1	Taken between abutment and stream
2	2	Taken at one abutment and bent
3	3	Taken at both abutments & one bent
4	3	Taken at both abutments & one bent
5	3	Taken at both abutments & one bent
6	4	Taken at both abutments & two bents
7	4	Taken at both abutments & two bents
8	4	Taken at both abutments & two bents
9	4	Taken at both abutments & two bents
10	5	Taken at both abutments & three bents

Note: The above Table represents the minimum number of borings that are required in the absence of existing core boring information. If the bridge is to be replaced on existing alignment or in proximity to existing alignment and sufficient boring data *(data with penetration tests ("N"- values) or rock core with Recovery and RQD values)* is available from the previous foundation investigation that was conducted on the bridge to be removed, then consideration can be given to reducing the number of borings needed for design of the replacement structure.
As stated in the guideline, all precast bridges shall be designed for scour therefore one of the required borings noted above shall be taken in or adjacent to the stream in order to collect soil samples for determining D50 particle size values. Additionally, penetration tests ("N"-blow count) and split-barrel sampling shall be performed on this sample as given in AASHTO T 206 and the results of this testing/sampling shall be used in design of the replacement structure.

10. The County Engineer prepares a materials report and submits it to the Region for review by the Region Materials Engineer, if the approach work is included as part of the contract items of work. The counties may perform the approach work by requesting a waiver on a project by project basis. All requests for waivers must be in writing, addressed to the Region County Transportation Engineer. The request should include a concurrence signature line for the Region Engineer and a signature approval line for the State Local Transportation Engineer. **No materials report is required when the county is performing the approach work**. To avoid a possible delay in

letting the project, the materials report should be submitted to the Region as soon as possible. Any requested waivers to the material specifications should be included in the materials report. The report must be signed by the County Engineer. The materials report will be reviewed and approved at the Regional level by the Region Materials Engineer. A copy of the approved materials report will be sent by the Region to the Local Transportation Bureau and the Construction Bureau. (See example on pages 12.29 – 12.37).

11. The County Engineer will furnish one (1) 11" x 17" set of prints to the Region County Transportation Engineer, when the plans and cost estimate are complete, for a "plans, specifications, and estimate" (PS&E) review. One additional copy of the plans should be furnished to the Local Transportation Bureau. The Local Transportation Bureau will coordinate with the county and the Region to schedule a time, date, and location for the PS&E review. The plans should reflect the recommended structure size and type, the profile grade requirements (as noted in the site review), and conform to the design criteria in the approved "Project Engineering Record".

Utilize larger scale plots (i.e., 1" = 50') for the plan and profile sheets, when possible. The larger scale plots should especially be utilized for bridge sites with minimal approach work or short project/work limits (See Section 10, Plan Preparation, for guidelines on establishing project/work limits on bridge projects). Larger scale plots should also be used in areas with dense topographic features (overhead and/or underground utilities, buildings, etc.). Remember that all contract proposals are plotted at half scale. This needs to be considered for selection of font sizes. Plot scales should be represented by a graphic (or bar) scale. Electronic plan submittals (Microstation design files or "PDF" format) may be acceptable, depending on the number of sheets in the plan assembly. It is recommended that both the Region Office and the Local Transportation Bureau be contacted prior to submitting plans electronically. No signatures on the title sheet are required for the PS&E review. The Region County Transportation Engineer will prepare a summary of the PS&E review comments (See examples on pages 12.49 - 12.51). This report will be submitted to the Local Transportation Bureau with the plans and required supporting documentation for a Construction Bureau plan review, as noted in "part 13" below.

12. Once the County Engineer has revised the plans, based on the PS&E review comments, two (2) 11" x 17" set of prints and the required supporting documentation, should be furnished to the Region County Transportation Engineer for a Construction Bureau plan review. A list of the required supporting documentation is shown below. **This information should be sent to the Region office for review at least 18 weeks prior to the requested letting date**.

PROCEDURAL GUIDELINES FOR FEDERAL AID COUNTY BRIDGE REPLACEMENT PROJECTS

No signatures on the title sheet are required at this time; however, any bridge plans prepared by the county or a consultant shall have both the signature and seal of the designer of record on the first bridge sheet. The Bridge Engineer will not sign the bridge sheets unless the seal and signature is affixed. The Region County Transportation Engineer will review the plan submittal to ensure that all PS&E review comments have been satisfactorily addressed. The Region office will contact the county to discuss any additional corrections or revisions that may be required. Once the Region has verified that the plans are in compliance with the PS&E review comments, the plans and required supporting documentation should be forwarded to the Local Transportation Bureau in accordance with "part 13 below".

REQUIRED SUPPORTING DATA	EXAMPLE PAGE NO.
Construction Bureau Review Plans	N/A
County Cost Estimate (See note below) ✸	N/A
Acquired ROW Recording Data Letter, if applicable	6.13
BI-1 Form (BIN Assignment Card) for Proposed Structure, if applicable	N/A
Certification of Railroad Involvement	8.9
Earthwork Summary Submittal Sheet, if applicable	12.5
Engineering and Inspection (E&I) Reduction Letter if applicable	12.6
Engineering Personnel and Equipment Certification Ø	12.7
Hydraulic Data Sheet, if applicable	12.13
National Pollutant Discharge Elimination System (NPDES) Permit Certification	12.38
Plan Checklist	12.40 – 12.48
Plans, Specifications, & Estimate Letter (PS&E)	12.49 – 12.51
ROW Certification for Physical Construction	6.15
Right-of-Way Encroachment Certification	12.65
Utility Agreements, if applicable	12.79 – 12.93
Utility Certificate	12.94 – 12.95

✸The county will generate a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

Ø The county has the option to use an "on-call" consultant for inspection purposes. Contact the Region office for a list of approved consultants.

13. Construction Bureau review plans and supporting data should be submitted to The Local Transportation Bureau at least 16 weeks prior to the requested letting date. An additional plan review will be conducted by this office to check the plans for accuracy and to verify that any project detail drawings that are not included in (or that are modified from) the current ALDOT Special and Standard Drawings Book are added to the plans. The Local Transportation Bureau will contact the county to discuss any additional corrections or revisions that may be required.

The plans and supporting data are submitted to the Construction Bureau for review at least 12 weeks prior to the letting date. This review is made to ensure the plans conform to Federal and State requirements. The Construction Bureau also specifies any special provisions to be included in the bid proposal and the recommended working days for completion of the project. Comments from the Construction Bureau will be addressed in a written letter. Both the county and the Region will receive a copy of the comment letter. In the case of an AASHTO or precast bridge structure, the comments for the roadway and bridge portion of the plans will be addressed in two separate letters. The county will be responsible for all non-bridge related corrections/revisions required as a result of the Construction Bureau plan review. The Bridge Bureau will be responsible for all bridge related comments **if their office did the bridge design**. If the structure was designed by the county or consultant, the "designer of record" will be responsible for all corrections pertaining to the bridge related comments. The "designer of record" shall contact the responsible bridge reviewer to discuss the comments prior to making any revisions. All comments made by the Construction Bureau must be resolved during the first 4 weeks of this 12 week period (8 weeks prior to the proposed letting date).

After the county has addressed all changes or corrections, as noted in the Construction Bureau Review Letter, one set of final plans should be submitted to the Region County Transportation Engineer for review and approval. Plan sheets for full size submittals may be on paper, with the exception of the title sheet, which is required to be on Mylar. The plan transmittal should include a letter addressing the disposition of all of the Construction Bureau comments, especially noting any justifications or reasons for not complying with a specific comment. This does not have to be a formal letter. A copy of the Construction Bureau review letter, with legible hand written notations for each comment, will be acceptable.

The County Engineer's signature is required on the title sheet. Any plans that were developed by a consultant will require the designer of record's official seal and signature on the title sheet and the first bridge sheet. The Region County Transportation Engineer should review the plans to ensure that all Construction Bureau comments have been complied with and then have the Region Engineer sign the title sheet. The Region will then forward the final plans to the Local Transportation Bureau. All changes have to be made and the project has to be ready to go to contract at least 8 weeks prior to the letting date.

14. A design risk assessment is required on all Federal Aid bridge replacement projects involving waterways or drainage relief structures. This form should be prepared and submitted to the Local Transportation Bureau after the county has received the overtopping flood data provided by the Local Transportation Bureau. See example on pages 12.2 and 12.3.

15. Prior to project authorization, the county should furnish a "Non-Contract Items of Work Certification" (See example on page 12.68) to the Local Transportation Bureau, specifying that all applicable non-contract items of work, as noted in the "scope of work" review, have been completed by the county. A copy of this certification should be furnished to the Region. N**ote that the project funding agreement will not be prepared if this document is not received.**

16. The Local Transportation Bureau will prepare a project agreement approximately 4 weeks prior to the scheduled letting date for contract projects. These agreements must be approved by all parties prior to award of the contract. All material is submitted to the Federal Highway Administration requesting authorization 4 weeks prior to the letting date.

17. As soon as possible after the bid review, invoices will be prepared and sent to the county. The county's portion of the project cost and the award of the contract must be done within 30 days (4 weeks) of the letting date. **IF THE COUNTY'S CHECK IS NOT RECEIVED BY THE LOCAL TRANSPORTATION BUREAU BY THIS DEADLINE, THE BIDS MAY HAVE TO BE REJECTED AND THE COUNTY'S FEDERAL FUNDS WILL REVERT TO THE DEPARTMENT OF TRANSPORTATION.**

After the award is made, the contractor has 15 days to return the contract to the Department of Transportation, and then the Transportation Director and the Governor have 20 days to sign the contract. After the contract is signed by all parties, the Office Engineer has 15 days to issue the work order. After the work order is issued, the contractor has 15 days to begin work unless modified by a special provision.

PROCEDURAL GUIDELINES FOR FEDERAL AID PROJECTS OTHER THAN BRIDGE REPLACEMENT, PAVEMENT PRESERVATION OR 3R PROJECTS

Any Federal Aid county project, other than bridge replacement, pavement preservation, or 3R projects, shall be processed in accordance with the following guidelines. The County Engineer shall prepare the necessary documents and submit them to the Local Transportation Bureau, through the appropriate Region. The transmittal letter submitting the initial information should state when the project is to be let to contract. The date requested should be a minimum of six (6) months from the time the resolution and supporting data are submitted to the Local Transportation Bureau.

The county's special work authorization (SWA) account will be used to pay for preliminary engineering costs incurred by state personnel. If the balance drops below $1,000.00, the county will be invoiced the amount required to bring the balance back up to $2,000.00.

1. The following information should be **SUBMITTED TOGETHER** to initiate any federal aid project other than bridge replacement, pavement preservation, or 3R projects.

- RESOLUTION of the county governing body setting up the project. (One with original signatures for the Local Transportation Bureau and one copy for the Region). (See example on page 12.63). Attach a **letter size legible** location map (1:120 000 scale official Alabama Department of Transportation county map) and link node map. (See examples on pages 12.27 and 12.28.)

- LETTER OF INVOLVEMENT (4-F LANDS, ETC.) stating whether or not there is any involvement with lands from a public park, recreation area, wildlife refuge, archaeological or historical site, navigable water, airport, or railroad (one copy for Region, one copy for Local Transportation Bureau). (See example on page 12.26).

- If an airport is located within 2 miles of the project, an “Airport Involvement” letter (See example on page 12.1) should be submitted to the Local Transportation Bureau. For construction projects causing a significant increase in elevation, contact the Local Transportation Bureau for the proper procedures to follow.

- Two (2) letter size portions of a 7½" USGS map showing the project location. (See example on page 12.66).

- Project Review Consultation Form (Alabama Historical Commission). (See example on pages 12.59 and 12.60) (One copy for the Local Transportation Bureau and one copy for the Region).

- RIGHT-OF-WAY (ROW) RECORDING DATA LETTER stating the basic width of the existing right-of-way, the date it was acquired, recording information (location of recording, deed book, and page) and whether or not any additional right-of-way is required. (See example on page 6.14).

- If no recorded right-of-way exists, submit a letter stating this and indicate how much right-of-way will be required (one copy for Region and one copy for the Local Transportation Bureau). Preliminary Relocation Assistance Analysis is required if additional right-of-way is necessary; use the ROW-RA-1 Form, (one copy for the Region and one copy for the Local Transportation Bureau). (See examples on pages 6.11 and 6.12).

- VIEWS AND COMMENTS LETTER is prepared and sent to the review agencies listed on pages 12.86 and 12.87. This letter is prepared and circulated only for a project for which additional right-of-way is required. (See example on page 12.85).

  As soon as the Local Transportation Bureau receives the above information, an up-to-date traffic count will be requested from the Transportation Planning and Modal Programs Bureau, or provided by the county in accordance with the "Standards for Traffic Volume and Classification Counts" as shown on page 12.76. The latest accident data on record will also be requested from the Transportation Planning and Modal Programs Bureau. The County Engineer **should not** proceed with any plan work until this information is received.

2. As soon as the traffic counts are received and the required reviews of other agencies are completed, the County Engineer will be advised to prepare the "Project Engineering Record" (PER). An up-to-date example of the PER will be furnished by the Local Transportation Bureau at this time. This example should be followed as closely as possible, changing only the project description and information pertinent to your particular project. If additional right-of-way is required, a Farmland Conversion Impact Rating Form AD-1006 (See page 12.11) must be attached to each copy of the PER.

When the Form AD-1006 is initiated by the county, in addition to completing Parts I and III, also use the Alabama Department of Transportation Assessment Criteria (See pages 12.12 – 12.15) to complete Part VI. If the total site assessment points from Part VI is less than 60, the form **WILL NOT** have to be sent to the Soil Conservation Service (SCS) and will be ready to accompany the submission of the PER for the project. If the assessment is 60 points or greater, the form **WILL** have to be forwarded to the SCS for evaluation and processing.

3. The County Engineer will prepare and sign the PER (in most cases the county projects will be categorical exclusions) and submit the original and four (4) originally signed copies to the Local Transportation Bureau, through the Region. **DO NOT SEND A COPY TO FHWA.**

The PER will be reviewed by this office and forwarded to the Environmental Technical Section for their review and approval. For projects with right-of-way acquisition exceeding ½ acre and/or significant environmental impacts, the PER will be submitted to the Federal Highway Administration for final approval. Approved copies of the final document will be distributed to the County Engineer, Region Engineer, Environmental Technical Section, and Local Transportation Bureau for their files. The original document will be forwarded to the Bureau of Office Engineer for permanent filing. **THE COUNTY ENGINEER SHOULD NOT PROCEED WITH FINAL PLAN PREPARATION OR RIGHT-OF-WAY ACQUISITION UNTIL THE PROJECT ENGINEERING RECORD IS APPROVED. ACQUISITION OF RIGHT-OF-WAY PRIOR TO APPROVAL OF THE PROJECT ENGINEERING RECORD WILL MAKE THE PROJECT INELIGIBLE FOR FEDERAL FUNDS.**

If the project has not been authorized within three (3) years from the approval date on the PER, the county will be required to resubmit the project engineering record and request a reevaluation.

4. In the event the environmental impacts of the project are such that a more detailed document is required for the environmental clearances i.e. a "Finding of No Significant Impact (FONSI) or an "Environment Impact Statement" (EIS), the County Engineer, assisted by the Local Transportation Bureau, in consultation with the Environmental Technical Section, shall prepare the necessary documents and process the project as required.

5. The County Engineer should prepare a materials report and submit it to the Region for review by the Region Materials Engineer. To avoid a possible delay in letting the project, the materials report should be submitted to the Region as soon as possible. Any requested waivers to the material specifications should be included in the materials report. The report must be signed by the County Engineer. The materials report will be reviewed and approved at the Regional level by the Region Materials Engineer. A copy of the approved materials report will be sent by the Region to the Local Transportation Bureau and the Construction Bureau. (See example on pages 12.33 – 12.39).

6. The County Engineer will furnish one (1) 11" x 17" set of prints to the Region County Transportation Engineer, when the plans and cost estimate are complete, for a "plans, specifications, and estimate" (PS&E review). One additional copy of the plans should be furnished to the Local Transportation Bureau. The Local Transportation Bureau will coordinate with the county and the Region to schedule a time, date, and location for the PS&E review. The plans should conform to the design criteria in the approved PER.

Utilize larger scale plots (i.e., 1" = 50') for the plan and profile sheets, when possible. Larger scale plots should also be used in areas with dense topographic features (overhead and/or underground utilities, buildings, etc.). Remember that all contract proposals are plotted at half scale. This needs to be considered for selection of font sizes. Plot scales should be represented by a graphic (or bar) scale. Electronic plan submittals (Microstation design files or "PDF" format) may be acceptable, depending on the number of sheets in the plan assembly. It is recommended that both the Region Office and the Local Transportation Bureau be contacted prior to submitting plans electronically. No signatures on the title sheet are required for the PS&E review. The Region County Transportation Engineer will prepare a summary of the PS&E review comments (See examples on pages 12.52 - 12.54). This report will be submitted to the Local Transportation Bureau with the plans and required supporting documentation for a Construction Bureau plan review, as noted in "part 8" below.

7. Once the County Engineer has revised the plans, based on the PS&E review comments, one (1) 11" x 17" set of prints and the required supporting documentation, should be furnished to the Region County Transportation Engineer for a Construction Bureau plan review. A list of the required supporting documentation is shown below. **This information should be sent to the Region office for review at least 18 weeks prior to the requested letting date**.

No signatures on the title sheet are required at this time. The Region County Transportation Engineer will review the plan submittal to ensure that all PS&E review comments have been satisfactorily addressed. The Region office will contact the county to discuss any additional corrections or revisions that may be required. Once the Region has verified that the plans are in compliance with the PS&E review comments, the plans and required supporting documentation should be forwarded to the Local Transportation Bureau in accordance with "part 8 below".

PROCEDURAL GUIDELINES FOR FEDERAL AID PROJECTS OTHER THAN BRIDGE REPLACEMENT, PAVEMENT PRESERVATION OR 3R PROJECTS

REQUIRED SUPPORTING DATA	EXAMPLE PAGE NO.
Construction Bureau Review Plans	N/A
County Cost Estimate (See note below) ✸	N/A
Acquired ROW Recording Data Letter, if applicable	6.13
BI-1 Form (BIN Assignment Card) for Proposed Structure, if applicable	N/A
Certification of Railroad Involvement	8.9
Earthwork Summary Submittal Sheet, if applicable	12.8
Engineering and Inspection (E&I) Reduction Letter if applicable	12.9
Engineering Personnel and Equipment Certification Ø	12.10
Hydraulic Data Sheet, if applicable	12.16
National Pollutant Discharge Elimination System (NPDES) Permit Certification	12.40
Non-Contract Items of Work Certification	12.41
Plan Checklist	12.43 – 12.51
Plans, Specifications, & Estimate Letter (PS&E)	12.52 – 12.54
ROW Certification for Physical Construction	6.15
Right-of-Way Encroachment Certification	12.61
Utility Agreements, if applicable	12.67 – 12.82
Utility Certificate	12.83 – 12.84

✸ The county will prepare a project cost estimate and submit a copy to the Region with the plans. The Region will be responsible for preparing an estimate in "Trns•port Preconstruction" format and verifying unique item numbers, quantities, and unit bid prices. The "Trns•port Preconstruction" estimate should be passed electronically to the Local Transportation Bureau. A hard copy of the estimate should be submitted with the final plans submittal.

Ø The county has the option to use an "on-call" consultant for inspection purposes. Contact the Region office for a list of approved consultants.

8. Construction Bureau review plans and supporting data should be submitted to the Local Transportation Bureau at least 16 weeks prior to the requested letting date. An additional plan review will be conducted by this office to check the plans for accuracy and to verify that any project detail drawings that are not included in (or that are modified from) the current ALDOT Special and Standard Drawings Book are added to the plans. The Local Transportation Bureau will contact the county to discuss any additional corrections or revisions that may be required.

PROCEDURAL GUIDELINES FOR FEDERAL AID PROJECTS OTHER THAN BRIDGE REPLACEMENT, PAVEMENT PRESERVATION OR 3R PROJECTS

The plans and supporting data are submitted to the Construction Bureau for review at least 12 weeks prior to the letting date. This review is made to ensure the plans conform to Federal and State requirements. The Construction Bureau specifies any special provisions to be included in the bid proposal and the recommended working days for completion of the project. Comments from the Construction Bureau will be addressed in a written letter. Both the county and the Region will receive a copy of the comment letter. The county will be responsible for the corrections/revisions required as a result of the Construction Bureau plan review. All comments made by the Construction Bureau must be resolved during the first 4 weeks of this 12 week period. (8 weeks prior to the proposed letting date).

After the county has addressed all changes or corrections, as noted in the Construction Bureau review letter, one set of final plans should be submitted to the Region County Transportation Engineer for review and approval. Plan sheets for full size plan submittals may be on paper, with the exception of the title sheet, which is required to be on Mylar. Title sheets on paper are acceptable for letter size plan submittals. **The County Engineer's signature is required on the title sheet.** Any plans that were developed by a consultant will require the designer of record's official seal and signature on the title sheet. Any original signatures on letter size plans should be in **blue ink**.

The Region County Transportation Engineer should review the plans to ensure that all Construction Bureau review comments have been complied with and then have the Region Engineer sign the title sheet. The Region will then forward the final plans to the Local Transportation Bureau. Final plans should be received in this office at least 10 weeks prior to the letting date.

The plan transmittal should include a letter addressing the disposition of all of the Construction Bureau comments, especially noting any justifications or reasons for not complying with a specific comment. This does not have to be a formal letter. A copy of the Construction Bureau review letter, with legible hand written notations for each comment, will be acceptable.

Prior to project authorization, the county should furnish a "Non-Contract Items of Work Certification" (See example on page 12.68) to the Local Transportation Bureau, specifying that all applicable non-contract items of work, as noted in the "scope of work" review, have been completed by the county. A copy of this certification should be furnished to the Region. N**ote that the project funding agreement will not be prepared if this document is not received.**

9. The Local Transportation Bureau will prepare a project funding agreement approximately 4 weeks prior to the scheduled letting date for contract projects. These agreements must be approved by all parties prior to award of the contract. All material is submitted to the Federal Highway Administration requesting authorization 4 weeks prior to the letting date.

10. As soon as possible after the bid review, invoices will be prepared and sent to the county. The county's portion of the project cost and the award of the contract must be done within 30 days (4 weeks) of the letting date. **IF THE COUNTY'S CHECK IS NOT RECEIVED BY THE LOCAL TRANSPORTATION BUREAU BY THIS DEADLINE, THE BIDS MAY HAVE TO BE REJECTED AND THE COUNTY'S FEDERAL FUNDS WILL REVERT TO THE DEPARTMENT OF TRANSPORTATION.**

After the award is made, the contractor has 15 days to return the contract to the Department of Transportation, and then the Transportation Director and the Governor have 20 days to sign the contract. After the contract is signed by all parties, the Office Engineer has 15 days to issue the work order. After the work order is issued, the contractor has 15 days to begin work unless modified by a special provision.

STATE AND INDUSTRIAL ACCESS (IA) FUNDED COUNTY PROJECTS

NOTE - These procedures are in accordance with *ALDOT Guidelines for Operations,* Section 1-20, approved February 14, 2001.

No work can be performed and no contracts can be let prior to having a fully executed project agreement, submittal of project plans to Region, and notification from the Region that advertisement for bids can be made, or, in the case of negotiated projects, work can begin.

A project agreement will be prepared and furnished to the county upon receipt of grant award letter signed by the Director or Governor. The Region will prepare and submit an F-7A Budget Allotment request upon receipt of a project funding agreement at the time it is submitted to the county for their execution.

The county will submit plans prepared and signed by a Registered Professional Engineer showing work to be performed. Plans must match the project agreement description. It is not necessary for the Region to perform an in-depth review of plans. The county will submit a certification signed by a Registered Professional Engineer stating that the plans have been prepared so that all items included in the plans meet ALDOT specifications. The county will include a letter certifying that the county owns all right-of-way on which the project is to be constructed.

Upon receipt of the executed agreement, the executed F-7A, final plans from the county, and the right-of-way certification, the Region may notify the county to proceed with advertising the project for letting or proceed with work in the case of a force account project.

For force account projects, the Region will prepare a cost estimate based on in-place annual bid prices furnished by the county. This will be the amount used by the state for reimbursement.

Where the county is letting a contract locally, the county will furnish to the Region the three lowest bids with their recommendation for award. The Region will review the bids, and, if in order, advise the county to proceed with award of the contract to the lowest responsible bidder. The county's estimate for reimbursement will be based on the bid prices concurred in by the state and supported with documentation that the contractor has been paid for work performed (copy of cancelled check).

A certification will be submitted with the county's final estimate stating that the project was constructed in accordance with final plans submitted to the state and with the specifications, supplemental specifications, and special provisions which were shown on the plans or with the state's latest specifications which were applicable at the time of plan approval.

STATE AND INDUSTRIAL ACCESS (IA)
FUNDED COUNTY PROJECTS

The county will notify the Region when the project is complete and the Region will perform a final ride-through to determine whether the project was completed in substantial compliance with the original final plans. Final acceptance will be made by the Region with a copy of the letter furnished to the Local Transportation Bureau.

All required test reports, weight tickets, materials receipts, and other project documentation required by the specifications, applicable supplemental specifications, and special provisions will be retained by the county for a period of three (3) years following receipt of final payment and made available for audit by the state upon request. If an audit is performed and proper documentation is not available to verify quantities and compliance with specifications, the county will refund the project cost to the state or do whatever necessary to correct the project at their cost.

All County Industrial Access or state funded projects let to contract by the state will follow normal project procedures and comply with all current plan processing requirements.

Procedures For County-Aid Right Of Way Acquisition

Note: This document is a section of the County Transportation Manual, and is provided on the Alabama Department of Transportation webpage as a reference document for informational purposes only. This will be posted under the "Procedural Guidelines for County Projects" web page at the following link:

http://www.dot.state.al.us/ctweb/Documentation.html

The policies contained within this document are effective immediately for any projects for which right-of-way acquisition has not begun. Any questions related to the information contained within this document should be directed to ALDOT's State Local Transportation Engineer.

Forms "A-7A" (Waiver Valuation) and "ROW-RA-1" (Preliminary Project Relocation Analysis), as referenced in these procedures, are available in downloadable format from the Right-of-Way Bureau's web page at the following link:

http://www.dot.state.al.us/rwweb/relocationforms.html

RIGHT-OF-WAY ACQUISITION ON FEDERAL AID CONSTRUCTION PROJECTS

The following procedures **MUST** be followed in acquiring right-of-way (ROW) on all Federal Aid Projects. **FAILURE TO FOLLOW THESE PROCEDURES IN ACQUIRING RIGHT-OF-WAY ON MAJOR COLLECTOR PROJECTS AFTER DECEMBER 1969, AND ON MINOR COLLECTOR AND LOCAL ROAD AND STREET PROJECTS AFTER JANUARY 4, 1975, WILL MAKE THE PROJECT INELIGIBLE FOR FEDERAL AID FUNDING**. The minimum right-of-way required when new or additional right-of-way is obtained is 80 feet unless there is adequate justification and approval by the Local Transportation Bureau for less. **No Federal or State aid will be provided for right-of-way acquisition**.

If right-of-way is to be acquired on a *Federal Aid* project, a cultural resource assessment *must* be submitted to the Local Transportation Bureau. *State funded* projects *do not* require this assessment.

1. **UNDER NO CIRCUMSTANCES SHOULD RIGHT-OF-WAY BE ACQUIRED BEFORE THE "PROJECT ENGINEERING RECORD" (PER) IS APPROVED AND YOU ARE ADVISED TO PROCEED WITH RIGHT-OF-WAY ACQUISITION BY THE LOCAL TRANSPORTATION BUREAU.** Once the PER is approved, the County Engineer will be notified by the Local Transportation Bureau to proceed with right-of-way acquisition.

2. Acquisition of property on Federal-aid projects must be in accordance with Public Law 91-646, The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, commonly called the Uniform Act. In addition to adhering to the following procedures, you should become familiar with the Bureau of Right of Way's Appraisal and Negotiations Procedural Manuals for additional guidance. These procedures are in accordance with the Uniform Act regulations and can be accessed at the Right-of-Way Bureau's web page:

   http://www.dot.state.al.us/rwweb/proceduralmanuals.html

   It must be documented in the county's files that each affected property owner was fully informed of his/her right to receive just compensation based on an appraisal for the acquisition of his/her property. A copy of this documentation shall be furnished to the Region office. If, after being so advised, the property owner is willing to donate and release the county from its obligation to appraise the property, he/she should be asked to sign a form similar to the example on page 6.4. If the owner does not want to sign the form, it should be noted, and the County Engineer or negotiator should state on the form that the owner understood all of his/her legal options in the acquisition of his/her property.

3. If the owner donates the property, the county accepts his/her donation and processes the title to the property in the usual manner.

4. If the owner indicates he/she wants compensation and the property value is anticipated to be *greater than* $10,000.00, then an appraisal **MUST** be made by a qualified appraiser and reviewed by a qualified review appraiser (for right-of-way acquisition of property values of $10,000.00 or less, see Section 6 below). At this point, the Region office **MUST** be contacted for appraisal and appraisal review assistance before any further discussion with the property owner concerning compensation is conducted. **IMPORTANT – The property owner must be given an opportunity to accompany the appraiser during the examination of his/her property.**

5. After the offer of just compensation has been determined based on the appraisal review, the County Engineer or his designee can negotiate for the property. This person must be someone other than the appraiser or review appraiser, except when the value of the acquisition is $10,000.00 or less. This initial offer must conform to the amount contained in the review appraiser's determination of value. This offer *must be furnished* to the property owner in writing (see example on pages 6.5 and 6.6 – written offer to property owner). The breakdown of the offer at the end of this letter ***MUST*** be completed. This negotiation should be made promptly after the offer is determined. Any counteroffer considered reasonable by the County Engineer is to be recommended to the Region Right of Way Engineer for approval in accordance with ALDOT policy. If an agreement cannot be reached, then acquisition by condemnation should proceed in the usual manner. A copy of the offer letter to the property owner should be retained in the county's file.

6. When the property to be acquired has a value anticipated to be $10,000.00 or less and the valuation problem is uncomplicated, the county may prepare a waiver valuation instead of an appraisal. The written offer forms shown on pages 6.7 and 6.8 should be used.

After the "Waiver Valuation" form (example on page 6.10) has been completed, it should be submitted to the Region Right of Way Engineer for approval. After approval, the form will be returned to the county, and negotiations for the property can proceed.

7. As soon as the right-of-way has been acquired and recorded, a right-of-way recording data letter giving property owners, date of acquisition, method acquired (donation, purchase, and/or condemnation), and deed book and page where recorded shall be submitted to the Local Transportation Bureau, through the appropriate Region. See example on page 6.13.

8. A right-of-way "Certification for Physical Construction" form **MUST** be submitted to the Local Transportation Bureau, through the Region, at this time (See example on page 6.15).

Indicate by checking the appropriate box on this form whether right-of-way was acquired before or after December 1969 for major collectors or January 4, 1975 for minor collectors and local roads and streets.

If right-of-way is acquired specifically for the proposed project, indicate if the right-of-way was donated, purchased or condemned. Provide the total cost on this form. All ROW work involving displacement and relocation of occupants will be performed by the appropriate Region personnel.

9. **The counties shall be required to maintain a record of all negotiation contacts with property owners** in order to document important information, such as the name of the negotiator, amount of the offer, counter-offers made, and upon completion of negotiations, the negotiator's signature and date. A negotiator's log is needed to thoroughly document the course of events leading to an amicable settlement, and if necessary, condemnation. It also serves to document that Uniform Act requirements were met; such as to encourage acquisition by agreement and avoid litigation, to show there was no coercion to accept the offered amount, and to ensure consistent treatment for owners. **Form ROW 10C** (pages 6.16 and 6.17) should be used to document these negotiations.

EXAMPLE LETTER TO PROPERTY OWNERS

(Revised 03/25/09)

_____ COUNTY

COUNTY ENGINEERING DEPARTMENT

_____, ALABAMA

Property Owner's Name & Address

_____

_____

_____

Dear Sir or Madam:

Re:

Project No. _____
County No.. _____
Tract No. _____
County _____

_____ County is in the process of acquiring Rights-of-Way (ROW) for the purpose of constructing the above referenced project. The proposed construction of this project will necessitate the acquisition of approximately _____ acre(s) of your property, which is identified as Tract No. _____ on our ROW map. You have the right to receive just compensation as determined by our Agency for your property which is based on an appraisal or waiver valuation. You also have the right to obtain your own appraisal to be considered by the Agency. You may choose to donate the property. Please indicate at the bottom of this letter if you choose to donate or receive just compensation for your property.

Yours truly,

County Engineer
_____ County

ACKNOWLEDGEMENT: This is to certify that I have been advised of my right to receive just compensation for my property and understand that I have the right to an appraisal.

_____No. I do not wish to donate my property for the ROW for the project. I request to be paid just compensation.

_____ Yes. I desire to donate the property for the ROW and release the agency from the need to appraise the property.

_____
Property Owner

_____
Date

EXAMPLE OF WRITTEN OFFER TO PROPERTY OWNERS WHEN APPRAISAL IS MADE

_____COUNTY
COUNTY ENGINEERING DEPARTMENT
_____, ALABAMA

Property Owner's Name & Address
_____
_____
_____

Dear Sir:

RE: Project No. _____
County No. _____
Tract No. _____
County _____

_____County is in the process of acquiring Rights-of-Way for the purpose of constructing the above referenced project.

The proposed construction of this project will necessitate the purchase of approximately _____ acre(s) of your property, which is identified as Tract No. _____ on our Right-of-Way map. We have had your property appraised by a qualified independent or staff real estate appraiser, who was instructed to make a careful study of all legally compensable elements of value which contribute to the present worth of your property. The appraiser was also instructed to carefully consider the effect of the project on the value of your remaining lands and improvements, if any. A breakdown of the offer due you is given below.

Should this offer not be acceptable, and no reasonable compromise can be reached, it will be necessary to acquire your property by exercising the right of Eminent Domain as set out by Alabama Law. In such proceedings, a petition of condemnation is filed in the Probate Court of _____ County. The Probate Court appoints a three-member commission to indicate the price to be paid by the county. These commission members view the property, hear testimony from both sides, and then arrive at their estimate of value. Should you or the county be dissatisfied with the price set by the commission, either party may request a trial in the Circuit Court. This action must be taken promptly as the Courts specify a time limit for taking such appeals. The valuation set by the Circuit Court is binding on both parties unless it can be established that some part of the court proceedings was irregular, in which case an appeal by either you or the county may result in a second trial.

The person delivering this letter to you is employed by the _____ County Engineering Department. He/she can explain to you the elements of value which constitute our offer and the effect of the Right-of-Way acquisition on your remaining property, if any. This person is also in a position to answer your questions relative to the procedure outlined above. If you have any further questions, please contact me at (phone number and address).

Yours truly,

County Engineer

EXAMPLE OF WRITTEN OFFER TO PROPERTY OWNERS (Continued)

Delivered By: _____ - Negotiator

Date Delivered: _____

Received By:_____ - Owner

Date Received by Owner: _____

BREAKDOWN OF OFFER

Land - $_____

Improvements - $_____

Damages to Remaining Land
and/or Improvements - $_____

Cost of Relocating Improvements - $_____

County's Contractor to Relocate

_____

_____

Sub Total $ _____

Less Enhancement to Remaining Land - $ _____

TOTAL AMOUNT OF OFFER DUE - $ _____

EXAMPLE OF WRITTEN OFFER TO PROPERTY OWNERS WHEN NO APPRAISAL IS MADE

_____COUNTY

COUNTY ENGINEERING DEPARTMENT

_____, ALABAMA

Property Owner's Name & Address
_____
_____
_____

Dear Sir:

RE: Project No. _____
County No. _____
Tract No. _____
County _____

_____ County is in the process of acquiring Rights-of-Way for the purpose of constructing the above referenced project.

The proposed construction of this project will necessitate the purchase of approximately _____ acre(s) of your property, which is identified as Tract No. _____ on our Right-of-Way map. We have estimated the value of your property that is needed for construction of the above referenced project. A breakdown of the offer due you is given below.

Should this offer not be acceptable, and no reasonable compromise can be reached, it will be necessary to acquire your property by exercising the right of Eminent Domain as set out by Alabama Law. In such proceedings, a petition of condemnation is filed in the Probate Court of _____ County. The Probate Court appoints a three-member commission to indicate the price to be paid by the county. These commission members view the property, hear testimony from both sides, and then arrive at their estimate of value. Should you or the county be dissatisfied with the price set by the commission, either party may request a trial in the Circuit Court. This action must be taken promptly as the Courts specify a time limit for taking such appeals. The valuation set by the Circuit Court is binding on both parties unless it can be established that some part of the court proceedings was irregular, in which case an appeal by either you or the county may result in a second trial.

EXAMPLE OF WRITTEN OFFER TO PROPERTY OWNERS (Continued)

The person delivering this letter to you is employed by the _____ County Engineering Department. He/she can explain to you the elements of value which constitute our offer and the effect of the Right-of-Way acquisition on your remaining property, if any. This person is also in a position to answer your questions relative to the procedure outlined above. If you have any further questions, please contact me at (phone number and address).

Yours truly,

County Engineer

Delivered By: _____ - Negotiator

Date Delivered: _____

Received By:_____ - Owner

Date Received by Owner: _____

BREAKDOWN OF OFFER

Land -$_____

Improvements - $_____

Damages to Remaining Land
and/or Improvements - $_____

Cost of Relocating Improvements - $_____

County's Contractor to Relocate
_____
_____

Sub Total $ _____

Less Enhancement to Remaining Land - $ _____

TOTAL AMOUNT OF OFFER DUE - $ _____

WAIVER VALUATION

The following is the minimum requirements for proper completion of the County Waiver Valuation Form. This form may be expanded to legal size or a second page to allow room for inclusion of all needed information.

A property plat is not required with the submission of each separate tract form *when a right-of-way map is submitted*. It is suggested this map conform to ALDOT mapping standards published in the Engineering Section on the Right of Way Bureau website. However, at a minimum, the map should identify the project location, specific tract numbers, the owner's name, the total "before", "after", and "acquired" areas of the affected tract(s), clearly labeled existing and acquired right of way, and labeled topography of any buildings or minor site improvements within or near the area of acquisition. A separate plat attached to each report will be required containing the above stated information *if no map is submitted* for the ALDOT review.

Form A-7A - (For County Use Only)
Rev. 2/05

WAIVER VALUATION

(The valuation problem is uncomplicated and the anticipated value of the proposed acquisition is estimated at $10,000.00 or less, based on a review of available data)

Owner(s):_____ RW/CPMS No. _____
Property Address: _____ Project No. _____
_____ Tract No. _____
_____ County _____

This is an appraisal waiver as described in 49 CFR Part 24.2(a)(33). This form is intended to comply with the basic acquisition policy as described in 49 CFR Part 24.102 (c) (2) (ii). The value determination assigned to this tract is based on a review of:

☐ Comparable sales in the report on Tract _____, Project No. _____,
County _____

☐ Comparable sale(s) number _____ in the Master File of (name of appraiser) _____,
Project No. _____, County _____

☐ Data contained in the project files in the County Engineer's office of _____ County.

BASIS OF WAIVER VALUATION:

Land To Be Acquired:	0.0000	Ac.	@	$0.00	Per Ac	=
Temporary Easement(s)	Show Calculations					=
Minor Site Improvement(s):						=
Cost to Cure Item(s):						=
					Total	=
					Rounded	=

I hereby certify that I have no interest, direct or indirect, in the real property being valued herein.

Waiver Valuation Preparer: _____

County Engineer or Applicable Title

Date of Waiver Valuation: _____

APPROVAL:

I have considered this waiver valuation and hereby approve ($0.00) for negotiations. See attached memo if amount is different from the above waiver valuation or $500.00 minimum payment.

_____ Date: _____
type name
Region Right-of-Way Engineer

Cc: File

FORM ROW-RA-1
Revised 3/01

ALABAMA DEPARTMENT OF TRANSPORTATION
PRELIMINARY PROJECT RELOCATION ANALYSIS

(To be prepared prior to Corridor Public Hearing)

Project No. _____ County: _____
Description _____ Alternate No. _____

DISPLACEMENT AND REPLACEMENT HOUSING INVENTORY ESTIMATE

ESTIMATED NUMBER DISPLACEES						**INCOME LEVEL**			
				Minority					Over
Type of Displacees	**Owners**	**Tenants**	**Total**	**Own.**	**Ten.**	***0-15**	**15-30**	**30-50**	**50**
Individuals and Families									
Businesses									
Farms									
Non-Profit Organizations									
Signs									

OWNERS **VALUE OF DWELLING**

DISPLACED DWELLINGS	***0-40**	**40-60**	**60-80**	**80-100**	**Over 100**
1 - 3 BEDROOMS					
4 - OVER BEDROOMS					
AVAILABLE DWELLINGS					
1 -3 BEDROOMS					
4 - OVER BEDROOMS					

TENANTS **MONTHLY RENTAL RATE**

DISPLACED UNITS	**$0-150**	**$151-300**	**$301-400**	**$401-500**	**$501 +**
1 - 3 BEDROOMS					
4 - OVER BEDROOMS					

AVAILABLE UNITS

1 -3 BEDROOMS					
4 - OVER BEDROOMS					

Items numbered 1 through 7 (attached) must be answered and explained. Number the corresponding responses and attach additional pages as needed.

I certify that the above is a realistic estimate.

Date: _____ Signed: _____ Title: Region Relocation Officer

(Submit in duplicate to Bureau of Right of Way)
Attached: Narrative Explanations
*Denotes Thousands
**DSS dwellings currently available.

The information listed below must be furnished as a narrative analysis to the extent appropriate for the project and in accordance with 49 CFR 24.205 and Section III, Paragraph G, of the State's Relocation Assistance Manual.

1. An estimate of the number of households to be displaced, including the family characteristics (e.g. Minority, ethnic, handicapped, elderly, large family, income level and owner/tenant status). However, where there are very few displacees, information on race, ethnicity and income levels should not be included in the EIS to protect the privacy of those affected.

2. A discussion comparing available (decent, safe and sanitary) housing in the area with the housing needs of the displacees. The comparison should include: (1) price ranges, (2) sizes (number of bedrooms), and (3) occupancy status (owner/tenant).

3. A discussion of any affected neighborhoods, public facilities, non-profit organizations and families having special composition (e.g. ethnic, minority, elderly, handicapped or other factors) which may require special relocation considerations and the measures proposed to resolve these relocation concerns.

4. A discussion of the measures to be taken where the existing housing inventory is insufficient, does not meet relocation standards, or is not within the financial capability of the displacees. A commitment to the last resort housing should be included when sufficient comparable replacement housing may not be available.

5. An estimate of the numbers, descriptions, types of occupancy (owner/tenant) and sizes (number of employees) of businesses and farms to be displaced. Additionally, the discussion should identify: (1) sites available in the area to which the affected businesses may relocate. (2) Likelihood of such relocation, and (3) potential impacts on individual businesses and farms caused by displacement or proximity of the proposed highway if not displaced.

6. A discussion of the results of contacts, if any, with local governments, organizations, groups and individuals regarding residential and business relocation impacts, including any measures or coordination needed to reduce general and/or specific impacts. These contacts are encouraged for projects with large numbers of relocatees or complex relocation requirements. Specific financial and incentive programs or opportunities (beyond those provided by the Uniforms Relocation Act) to residential and business relocatees to minimize impacts may be identified, if available through other agencies or organizations.

7. A statement that: (1) the acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended, 42 U.S.C. 4601 *et seq*. (the Uniform Act) as published in the *Federal Register* / Vol. 70, No. 2 / Tuesday, January 4, 2005 / Rules and Regulations; and by the Surface Transportation & Uniform Relocation Assistance Act of 1987, and (2) relocation resources are available to all residential and business relocatees without discrimination.

RIGHT-OF-WAY RECORDING DATA LETTER (ACQUIRED) - EXAMPLE

(Date)

Mr._____
State Local Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Blvd.
Montgomery, AL 36110-2060

RE: Project No. _____
County No._____
County_____

Dear Sir:

Listed below are the property owners from which right-of-way was acquired for the above referenced project. Listed opposite of the property owners are the dates of acquisition, methods of acquisition, deed books and page numbers of recording.

PROPERTY OWNER	ACQUISITION	METHOD ACQUIRED	DEED BOOK & PAGE NUMBER
George Newman	7/19/94	Donated	Book 183 Page 705
Sarah Nell Richter	7/8/94	Donated	Book 183 Page 707
Curtis N. Peters, Jr	7/19/94	Donated	Book 183 Page 703

Please contact this office if further information is needed.

Very truly yours,

_____
County Engineer

RIGHT- OF - WAY RECORDING LETTER (EXISTING) – EXAMPLE
(DATE)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Blvd.
Montgomery, AL 36110-2060

Dear Sir:

RE: Project No. _____
County No. _____
Tract No. _____
County _____

The basic R.O.W. width of the above subject proposed project is 80 feet, 40 feet each side of the centerline. The R.O.W. was acquired in 1963 by _____ County as Project No. SACP-7609-A and recorded in Deed Book No. 65, Pages 31 and 32 in the _____ County Courthouse. No additional R.O.W. is needed.

_____

County Engineer

DATE: _____

State Project No: _____
County Project No: _____
Description: _____
_____
County: _____
Total No. Tracts: _____
Total No.
Relocatees - Residential: _____
Business: _____

CERTIFICATION FOR PHYSICAL CONSTRUCTION

Original _____

Update _____

In accordance with the provisions of 23 CFR Part 635 and 49 CFR Part 24, this is to certify that:

1. _____(a) All Right-of-Way necessary for the construction of the above project has been acquired and/or legal possession obtained in accordance with the current FHWA directives covering the acquisition of real property. There may be some improvements remaining on the Right-of-Way but all occupants have vacated the lands and improvements and the County has physical possession and the right to remove, salvage or demolish these improvements and enter all land.

_____(b) Right-of-Way for the above referenced project was acquired prior to the effective date of the provisions of the Uniform Relocation Assistance and Real Property Acquisition Regulations. No additional Right-of-Way was acquired for this project.

_____(c) Right-of-Way for the above referenced project was acquired on a previous Federal Aid project in accordance with the Uniform Relocation Assistance and Real Property Acquisition Regulations. No additional Right-of-Way was acquired for this project.

_____(d) The County maintains the above referenced county road as prescriptive Right-of-Way. No additional Right-of-Way was acquired for this project.

2. _____ All necessary Rights-of-Way have not been fully acquired. The right to occupy and to use all Rights-of-Way required for the proper execution of the project has been acquired. Occupants of all land and improvements have vacated and the County has physical possession and right to remove, salvage or demolish these improvements with exceptions, if any, noted in Attachment "B".

3. _____ Circumstances relating to the unacquired parcels, if any, listed in Attachment "A" and occupied improvements, if any, listed in Attachment "B" below, if any, warrant that the public interest would be served by proceeding with the advertisement for bids or with force account construction in advance of acquisition of such parcels.

4. _____ All Right-of-Way has been cleared of improvements except as noted in "B" below.

5. _____(a) All necessary actions relative to relocation advisory assistance and payments as required by current FHWA directives covering the Highway Relocation Assistance Program have been taken.

_____(b) No persons are being displaced on this project.

_____(c) All persons displaced prior to the date of this certification have been relocated into decent, safe and sanitary housing, or have been offered decent, safe, and sanitary housing. Also, persons remaining on the Right-of-Way as of this date, if any, have the right of immediate possession of adequate replacement housing (as noted in "C" below), or have been offered decent, safe, and sanitary housing which is available for immediate occupancy.

There was/were _____ property owners.

1. ( ) Donated
2. ( ) Purchased (Total Price $_____)
3. ( ) Condemned (Total Price $_____)
4. ( ) Administrative Settlement [Above initial offer (See 49 CFR, Part 24.102(i)] (Total Price $_____)

5. Total Compensation (Line Items 2-4) $_____

Signed:_____
County Engineer

Signed:_____
Division Right-of-Way Manager

ALABAMA DEPARTMENT OF TRANSPORTATION
NEGOTIATOR'S REPORT FOR COUNTY PROJECTS

NEGOTIATOR ______________________ PAGE ________OF __________
Project No.________________________ Owner ____________________
County Project No. ________________
Tract No.____________ WM( ) WF( ) BM( ) BF( ) Other( )
County______________________ Address ____________________________________
Area Acq'd _________________ ____________________________________
Home Phone_________________ Work Phone ________________

Acquisition Contains:
Residence( ) Business( ) Farm( ) Vacant Land( ) Non-Profit Org.( ) Sign( )

Acquisition Brochure:
( )Owner had obtained previously ( )Given one by negotiator on ____________________________

Offer
1. No Obligation $_______________
2. Other $_______________
(Explain in detail basis on any amended offer by county) ______________________________________
____

Owners option of retaining improvements was explained and owner does ( ) does not ( ) choose to retain improvements. Pertinent comments on owner retention ______________________________________
____
( )Owner requested contacts be made with the representatives:____________________________
Name ______________________________ Relationship to Owner ______________________

Date of Contact: ______________________ Person(s) Contacted: ______________________
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion: ____
____
____
Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: ______________________ Person(s) Contacted: ______________________
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion: ____
____
____
Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: ______________________ Person(s) Contacted: ______________________
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion: ____
____
____
Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Complete certification following conclusion of negotiations:
I certify that: (1) the written agreement secured embodies all of the considerations agreed upon between the negotiator and the property owner; (2) the agreement was reached without coercion, promises other than those shown in the agreement, or threats of any kind whatsoever by or to either party;** (3) it is understood that the parcels are to be secured for use in connection with a Federal-aid highway project; (4) I have no direct or indirect present or contemplated future personal interest in the parcels or in any benefit from the acquisition of such property.

(Signed)________________________________ ________________________________
Negotiator of Record County Engineer
(Date) ______________________________

**If use on a non-Federal-aid project, strike through provision three (3) which is not applicable.

Project No.________________________ Negotiator ________________________________
County Project No. _________________
Tract No.__________________________Page _____ of _____

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

Date of Contact: Person(s) Contacted:
Place of Contact: ( ) Home ( ) Office ( ) Hwy. Office ( ) Phone
Substance of Discussion:

Result: ( ) Pending ( ) Rejected ( ) Counteroffer # ( ) Accepted Offer #

UTILITIES

A "Utility Certificate" must be furnished for all projects. The following information should be included on the plan/profile sheet or project note sheet: Names, addresses, and phone numbers of all utilities within the project limits.

For projects with no utilities in conflict: If no utility relocations are involved, the names and addresses of the utilities located within the project should be shown on the plans and the following project note added to the plans:
"THERE ARE NO KNOWN UTILITY CONFLICTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS TO VERIFY LOCATIONS. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE DUE TO HIS FAILURE TO PROPERLY LOCATE UTILITIES AND SHALL REPAIR ANY DAMAGES TO THE SATISFACTION OF THE UTILITY OWNERS AT THE CONTRACTOR'S EXPENSE."
(See "Utility Certificate" example on page 12.94)

For projects with utilities in conflict: Provide the name of the utility company and the date the utility relocation work is planned to begin and the date that the relocation work is expected to be completed. In lieu of actual dates, the "Utility Certificate" may state that work will begin within a specified time from the notice to proceed and how long the work will take to complete. Also state who is to do the utility work (utility's own forces, utility contractor, etc.). (See "Utility Certificate" example on page 12.95).

If utilities are to be relocated, whether a part of the project cost or not, a proper utility agreement shall be executed between the county and the utility. The original signed agreement should be forwarded to the Local Transportation Bureau for final approval and distribution. All utility agreements must have any applicable exhibits attached (cost estimate, relocation plans, etc.), or the agreement will not be processed.

If the utility requires the services of a consultant for any preliminary engineering that is to be reimbursed using Federal or State funds, contact the Local Transportation Bureau for the appropriate procedures to follow. Under no circumstances should the consultant begin work until notified by the Local Transportation Bureau. The consultant must be a registered professional engineer as authorized by the Alabama Board of Registration for Professional Engineers and Land Surveyors.

See the example on pages 12.79 – 12.81 for the non-reimbursable agreement, "County Form No. 1". This is to be used when the utility is to relocate facilities without cost to the project.

See the example on pages 12.82 – 12.86 for the reimbursable agreement, "County Form No. 2". This is to be used when the county is to pay the utility for relocation using utility's own forces, utility contractor, etc.) , either as a part of the project cost or 100% county funds.

UTILITIES

See the example on pages 12.87 – 12.90 for the reimbursable agreement, "County Form No. 3". This is to be used when the utility relocation is performed by State contract. These agreements should be processed as soon as possible after the extent of relocation is determined.

See the example on pages 12.91 – 12.93 for the supplemental agreement, "County Form No. 4". This is for use when the actual costs for reimbursable utility relocation costs exceeds the original estimate by 25% or if additional work is required that was not covered in the original reimbursable agreement. Contact the Local Transportation Bureau before submitting a supplemental agreement.

The above referenced agreements must be photocopied from this manual or downloaded from the County Transportation web site. Do not retype these agreements or use agreements from other sources.

Under no circumstances should any utility relocation work, either non-reimbursable or reimbursable, begin until notified by the Local Transportation Bureau. Reimbursable agreements must be approved by the Bureau of Office Engineer and a notice to proceed with utility relocation work will not be issued until the project is authorized by FHWA.

All utilities located on the rights-of-way of Federal Aid projects at the time of construction or in the future shall be in accordance with the State of Alabama Department of Transportation Utility Manual.

RAILROAD COORDINATION

In accordance with Title 23 CFR 635.309 (b), all federal-aid projects require a statement of railroad coordination verifying all relevant work has been completed or that necessary arrangements have been made to complete the work. The "Certification of Railroad Involvement" (See example letter, page 8.9) contains this statement and **must be furnished for all projects.**

The county should identify which project(s) in their long-term paving plan include a railroad crossing within the limits or near the terminus and begin railroad coordination as soon as possible. This process has two levels of coordination as shown below:

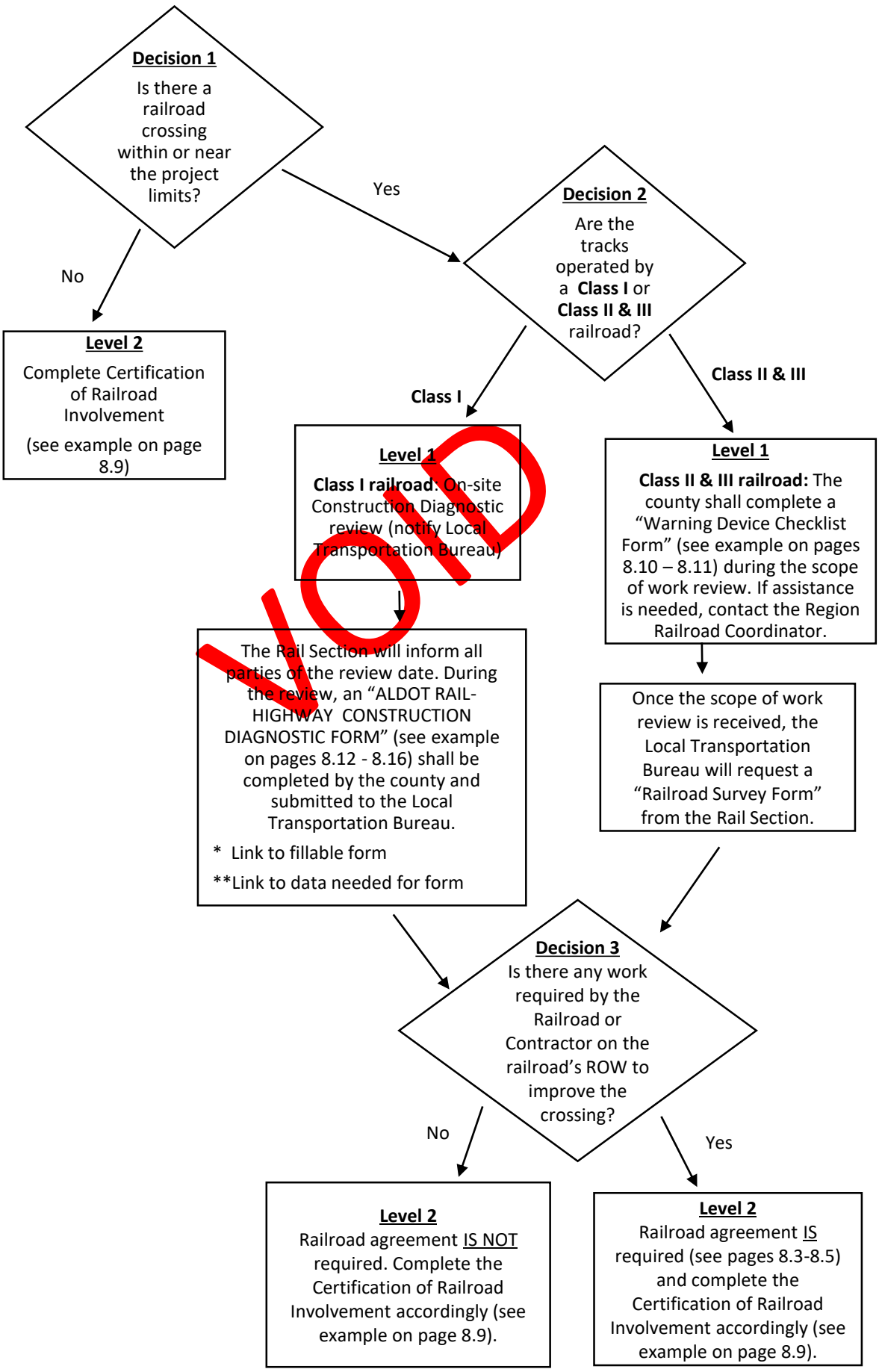
Level 1: Diagnostic on Site Review (Class 1 Railroads) or a Railroad Survey Form (all others)

Note: As of August 23, 2016, CSX, Norfolk Southern, Canadian National Illinois Central, and BNSF Railroads are identified as Class 1 Railroads in the State of Alabama. Contact the Region Railroad Coordinator for verification.

Level 2: Railroad Agreement (if necessary)

Note: See next page for Flow Chart concerning Railroad Coordination procedures.

ALDOT Railroad Coordination Flow Chart
(Federal-Aid Projects ONLY)



* http://www.dot.state.al.us/dsweb/div_ted/Traffic_SOS/pdf/Rail/ConstructionDiagnosticReviewform.pdf

**http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx

LEVEL 2: RAILROAD AGREEMENT

All projects let to contract, where work is being performed within the railroad's ROW (e.g., railroad bridge replacement/bridge rehabilitation, paving, paint striping, markings and legends, **warning devices**, etc.), **will require a properly executed railroad agreement.** This agreement, in most cases, should be prepared by the Alabama Department of Transportation. If the agreement is prepared by the county, the original signed document shall be furnished to the Local Transportation Bureau for further processing, with a copy provided to the Region.

Pavement Preservation & Resurfacing, Restoration, & Rehabilitation (3R) Projects

The required contract items of work will determine the appropriate work limits. The station to station limits at the railroad, where no work is being performed, shall be noted on the title sheet as an "Exception". As a general rule, a 20' railroad exception is recommended, measuring 10' back and ahead of the centerline of the track. The paving limits can extend up to this point. These exception limits will allow for the placement of the stop line closest to the track without encroaching into the exception limits. If no work is required within the railroad right-of-way, the station to station limits for the "exception" will reflect the railroad right-of-way limits.

The county shall furnish to the Local Transportation Bureau all information necessary for preparation of the agreement (See example letter, page 8.6). This letter should identify the name of the railroad, the DOT crossing number and the railroad milepost. This office will forward this information on to the Bureau of Transportation Planning and Modal Programs for preparation of the railroad agreement. This submittal should be sent after the "Project Engineering Record" is approved and shall include the following:

1. Two (2) 11" x 17" prints of the title sheet showing the location of the project and the location of the railroad crossing. The name of the railroad and the exception limits should be noted on the title sheet in the appropriate place.

2. Two (2) 11" x 17" prints of the typical section sheet with a pavement tie-in sketch showing the paving limits in relation to either the centerline of the track or the nearest rail.

3. Two (2) prints of a plan layout or detail sketch showing the following information:
   (See example- page 8.8)

   NAME OF RAILROAD
   RAILROAD ROW (Labeled and dimensioned)
   LIMITS OF PAVING
   DOT CROSSING NUMBER
   RAILROAD MILE POST AT THE CROSSING
   MARKINGS AND LEGENDS

The layout sketch may be either 11" x 17" or letter size and does not have to be to scale. No profile information is required, unless the grade is being adjusted. The schematic does not need to show any stationing. The "Markings and Legends" should be shown on the layout, but there is no need to show any dimensions or stations for these items since they will be placed in accordance with Special Drawings RRX-107-3, PS-701-6, and Section 8B.27 of the 2009 MUTCD.

4. Railroad Involvement Certification Letter – Signed by Region Engineer (See example letter, page 8.7). The letter should include the following information:

   (8) Name of the RR

   (b) The DOT crossing number and RR milepost

   (c) The condition of the existing railroad crossing.

   (d) Whether the crossing is wide enough for the improved pavement.

   (e) The condition of the existing traffic markings and legends and railroad advance warning signs. If these items are not in-place or are in poor condition, provide information on who will furnish these items and how the cost is to be handled.

   (f) Whether the railroad-highway crossing (crossbuck) signs are in-place.

   (g) A description of the work being performed within the railroad's ROW.

   (h) The estimated number of working days within the railroad's ROW.

NOTE: Plan submittals for railroad agreements may be on (11" x 17") or legible letter size sheets. In lieu of the two sets of prints, electronic file copies (PDF files) may be furnished.

New and/or Reconstructed Roadways

In addition to items numbers 1, 2, 3, and 4, as noted above, the county should furnish two (2) 11" x 17" prints of the plan-profile sheets, as well as other plan sheets that may be available such as paving layout sheets or project detail sheets pertaining to the work to be done at the railroad crossing.

Bridge Replacement Projects

All bridge replacement projects spanning a railroad will require a railroad agreement. The county should furnish the Local Transportation Bureau two (2) 11" x 17" prints of the title sheet, typical section, and plan & profile sheets in the area of the railroad. The plan & profile should contain a railroad traverse 500 feet each side of the centerline and the distance to the nearest milepost with milepost number. This information should be submitted as early as possible, since it takes several months to obtain an executed railroad agreement. This information will be forwarded to the Bridge Bureau for their use in the bridge design. **The Bridge Bureau will furnish the Bureau of Transportation Planning and Modal Programs all information necessary for preparation of the railroad agreement**.

The railroad agreement must be approved prior to the Construction Bureau plan review in accordance with step 252.0 of the ***ALDOT Guide for Developing Construction Plans,*** which states in part:

252.0 MILESTONE – CONSTRUCTION REVIEW SUBMITTAL
Transmit (1) **complete plan set** ready for letting and (1) construction cost estimate to the Construction Bureau. Plans shall be submitted at least **12** weeks prior to the "Work Plan Date" A Railroad Agreement shall also accompany plans if railroad coordination is required.

The Construction Bureau will not complete their plan review until the agreement is approved.

RAILROAD AGREEMENT REQUEST - EXAMPLE

(Date)

Mr. D. E. Phillips, Jr., P.E.
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Dear Sir:

Re: Project No. _____
County No. _____
County _____

Attached are two (2) 11' x 17" size prints of the title sheet, typical section, and a plan layout sheet showing the railroad crossing for the above referenced project. We are requesting your assistance in preparing a railroad agreement for Marengo County with Alabama & Gulf Coast Railway for this project. The DOT crossing number is "665154X". The milepost is 760.05.

You may contact this office if you need any additional information.

Sincerely,

_____
County Engineer

Copy: Region

OR

****

ALTERNATE SUBMITTAL – ELECTRONIC FILES

The attachment contains PDF files for the title sheet, typical section, and a plan layout sheet showing the railroad crossing for the above referenced project. We are requesting your assistance in preparing a railroad agreement for Marengo County with Alabama & Gulf Coast Railway for this project. The DOT crossing number is "665154X". The milepost is 760.05

You may contact this office if you need any additional information. (Copy to Region)

RAILROAD INVOLVEMENT CERTIFICATION - EXAMPLE

(Date)

Mr. D. E. Phillips, Jr., P.E.
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36130-3050

Dear Sir:

Re: Project No. _____
County No. _____
County _____
DOT Crossing No. _____
Milepost _____

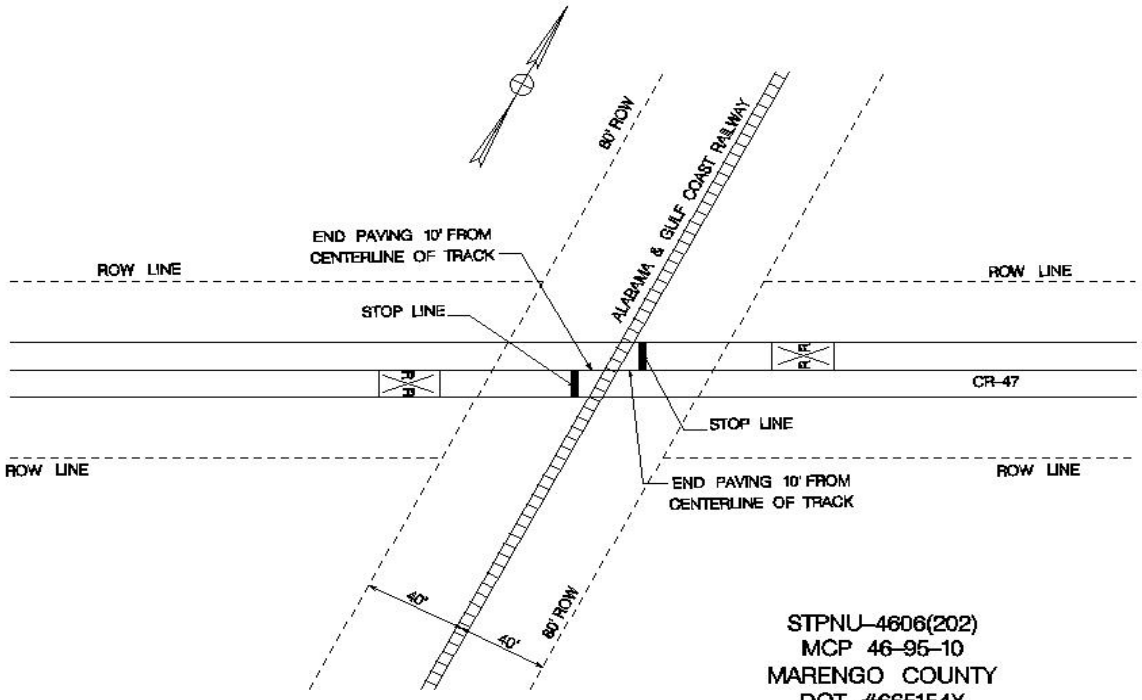
Alabama & Gulf Coast railway crosses CR-47 within the limits of the above referenced project. The in-place pavement at the crossing is in good condition with no apparent signs of settlement. The existing crossing is wide enough to accommodate the proposed typical section. The railroad crossing signs (crossbucks) are in-place and in good condition. Stop signs, advance warning signs, and "No Passing" signs are also in-place and in good condition. The proposed pavement buildup will tie in to the existing pavement ten feet on either side of the railroad (measured from the centerline of the track). Traffic markings and legends are in-place; however these will be replaced as part of this project due to the paving limits.

Work within the railroad right-of-way will consist of resurfacing, paint striping, placing markings and legends, and placement of pavement markers. It is estimated that the required work within the railroad right-of-way will take 2 (two) working days.

A representative from this Region has verified that the existing railroad crossing meets the conditions as stated above and that any required items of work are included in the proposed project.

APPROVED: _____
Region Engineer

RAILROAD CROSSING DETAIL



STPNU-4606(202)
MCP 46-95-10
MARENGO COUNTY
DOT #665154X
MILEPOST 760.05
Not to Scale

Required Traffic Stripe and Markings & Legends Will Be Placed In Accordance With Section 8B-27 Of The MUTCD, 2009 Edition and Special Drawings RRX-107-3 AND PS-701-6.

DATE: _____

CERTIFICATION OF
RAILROAD INVOLVEMENT

Federal-Aid Project
Construction No. _____
CPMS #_____
Description _____
_____
_____
_____
_____
County _____

Original _____
Update _____

In accordance with the provisions of 23 CFR Part 635.309(b), this is to certify that:

1. _____ The above referenced project has no railroad involvement or railroad coordination required that would need to be undertaken and completed with the physical construction.

2. _____ All railroad arrangements/coordination have been made for the above referenced project to be undertaken and completed within the project as part of the project cost.

3. _____ All railroad arrangements/coordination have been made for the above referenced project to be undertaken and completed prior to project completion at no cost to the project.

Signed:

_____
County Engineer

Railroad Crossing Warning Device Checklist

Federal-Aid Project No. _____
Date of Inspection:_____ County:_____
Roadway:_____ Crossing No:_____
Existing Warning devices:_____
Description of Crossing:_____

The following checklist is an aid to determine the adequacy of existing rail-highway traffic control devices, when a rail-highway crossing is located within or immediately adjacent to the project limits and within the projected limits of the public right of way on Federal-aid projects. This checklist is developed according to the regulations listed in Title 23 CFR 646.214 (b)(3)(i).

Check the statement that applies to this rail-highway crossing:

Yes	No	
☐	☐	(A) Multiple main line railroad tracks. a. Main line.-The term "main line" means a segment or route of railroad tracks over which 5,000,000 or more gross tons of railroad traffic is transported annually.*
☐	☐	(B) Multiple tracks at or in the vicinity of the crossing which may be occupied by a train or locomotive so as to obscure the movement of another train approaching the crossing.
☐	☐	(C) High Speed train operation combined with limited sight distance at either single or multiple track crossings. a. A high speed train is one that travels at a speed greater than 79 mph.* • Note: no rail routes within Alabama are identified as High Speed b. Limited sight distance is where available sight distance is less than desirable intersection sight distance as defined by AASHTO. • Sight distance is based on field measurements.
☐	☐	(D) A combination of high speeds and moderately high volumes of highway and railroad traffic. a. *All four conditions below must exist to meet (D). Basically an 'AND' condition.* Definitions: • A high speed roadway is one that has a posted speed of 50 mph or more.* • Moderately high volumes of highway traffic are when a highway's volume exceeds a Level of Service of 'D' (near capacity).* • A high speed train is one that travels at a speed greater than 79 mph.* • Moderately high volumes for a railroad traffic are when the railroad's volume exceeds a Level of Service of 'E' (at capacity). LOS information provided by railroad representative.

Data Source: Included in FRA Crossing Inventory
Revision Date: 5/5/2016

☐ ☐ (E) Either a high volume of vehicular traffic, high number of train movements, substantial numbers of school buses or trucks carrying hazardous materials, unusually restricted sight distance, continuing accident occurrences, or any combination of these conditions.

a. *If any of these conditions exist then (E) is met. Basically an 'OR' condition.*

- Definitions:
  - *<u>High</u> volumes of vehicular traffic are those highways that are operating at a Level of Service of 'E' or greater.**
  - *<u>High</u> number of train movements will be identified as those rail lines where the railroad's volume exceeds a Level of Service of 'F' (above capacity). LOS information provided by railroad Representative.*
  - *<u>Substantial</u> school bus traffic is defined as locations that have twice the state wide average for school bus crossings.**
  - *<u>Substantial</u> hazardous materials truck traffic is defined as locations that have twice the national average for hazardous materials truck traffic.*
    - *<u>Note:</u> National average, trucks transporting hazardous materials 7.2%.*
  - *<u>Unusually</u> restricted sight distance is defined as sight distance that is restricted by a permanent, fixed object; or due to a severe skew of the crossing, where the acute angle between the rail line and highway is 30 degrees or less.*
  - *<u>Continuing</u> crashes are applicable only to those sites that currently have'lights and bells' but not 'gates' and there are documented crashes at those locations after the installation of the 'lights and bells' (Data Source: CARE).*

☐ ☐ (F) A diagnostic team recommends active devices.

☐ ☐ (G) A diagnostic team justifies that gates are not appropriate and the above Requirements are not applicable

One of the statements below should also be selected:

☐ The condition of signs, marking, striping, and legends located at this crossing meet current MUTCD standards.

☐ The condition of signs, markings, striping, and legends located at this crossing **<u>do not meet</u>** current MUTCD standards and will be updated prior to or during the construction of the subject project.

BY: _____
County Engineer

_____
Type name of County Engineer

_____
Date

**Data Source: Included in FRA Crossing Inventory*
Revision Date: 5/5/2016

ALDOT RAIL-HIGHWAY CONSTRUCTION DIAGNOSTIC REVIEW FORM (FEDERAL-AID ROADWAY PROJECT)

AAR/DOT No:	Date of Diag. Rev:	Federal-Aid Project No:

LOCATION DATA

Railroad:	County: (please select)
Street/Road Name:	City:

DIAGNOSTIC TEAM

	Name	Affiliation	Tel. No.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

RAILROAD DATA

Initial Info.*	Revised Info.	Crossing Characteristics
		Total Trains/Day (24 Hours)
____	____	Day Thru
____	____	Night Thru
____	____	Day Switching
____	____	Night Switching
____	____	Number of Main Tracks
____	____	Number of other Tracks
____	____	Maximum Train Speed
____	____	Amtrak Movements Per Day
____	____	Crossing Surface Type
____	____	Smallest Crossing Angle
____	____	Legal railroad speed limit through municipality
____	____	

**Initial information obtained from the U. S. DOT/AAR Crossing Inventory Form.*

ROADWAY DATA

Initial Info.*	Revised Info.	Crossing Characteristics
____	____	No. of Traffic Lanes Crossing RR
		____Bound____Ft.
		____Bound____Ft.
____	____	Average Daily Traffic (ADT)
____	____	Percent Trucks
____	____	Type Highway Surface

School Buses

Number per day: _____

State Average: _____

Comments:

AAR/DOT NO:

EXISTING WARNING DEVICES

Quantity	Type of Warning Device	Quantity	Type of Warning Device
____	Advance Warning Signs	____	Mast Mounted Flashing Lights
____	Stop Signs	____	8" ____ 12"
____	Stop Ahead Signs	____	Cantilever Flashing Lights
____	"No Passing " Pennants	____	8" ____ 12"
____	"No. of Tracks" Signs	____	Side Lights
____	Crossbucks	____	8" ____ 12"
____	R X R Pavement markings	____	Gates
____	Stop Bar	____	Bell (s)
____	Double Yellow	____	Variable Message Signs
____	Interconnected Highway Traffic Signals	____	No Right Turn ____ No Left Turn
____	Inventory Tags	____	Illumination at Crossing

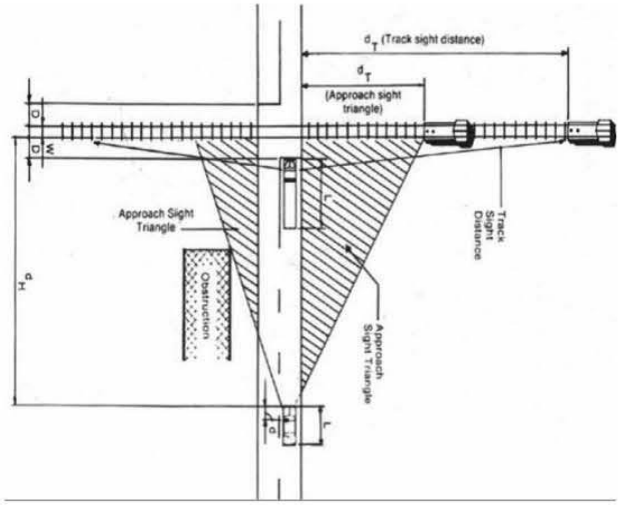
Is crossing flagged by a train crew? Yes ☐ No ☐

Comments:

FIVE YEAR ACCIDENT DATA

Time period: ____ to ____	____ No. of Property Damage Only Acc.	____ Total No. of Personal Injuries
TOTAL NUMBER OF ACC. ____	____ No. of Personal Injury Acc.	____ Total Number of Fatalities
	____ No. of Fatal Acc.	

SIGHT DISTANCE LOCATION SKETCH



Note: for reference, see pages 65 - 69 of the Railroad Highway Grade Crossing Handbook, Second Edition, August 2007

AAR/DOT NO:

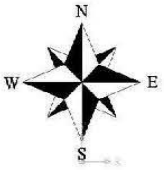
REQUIRED DESIGN SIGHT DISTANCE FOR COMBINATIONS OF HIGHWAY AND TRAIN VEHICLE SPEEDS

Train Speed (mph)	HIGHWAY SPEED MPH								
	0	10	20	30	40	50	60	70	80
	DIST. (FT.) ALONG RAILROAD FROM CROSSING (D_t)								
10	240	146	106	99	100	105	111	118	126
20	480	293	212	198	200	209	222	236	252
30	721	439	318	297	300	314	333	355	378
40	961	585	424	396	401	419	444	473	504
50	1201	732	530	494	501	524	555	591	630
60	1441	878	636	593	601	628	666	709	756
70	1681	1024	742	692	701	733	777	828	882
80	1921	1171	848	791	801	833	888	946	1008
90	2162	1317	954	890	901	943	999	1064	1134
	DIST. (FT.) ALONG HIGHWAY FROM CROSSING (D_h)								
	n/a	69	135	220	324	447	589	751	931

D_t = Sight distance along the railroad tracks to permit the vehicle to cross and be clear of the crossing upon arrival of the train.
D_h= sight distance measured along the highway from the nearest rail to the driver of a vehicle, which allows the vehicle to be safely stopped without encroachment of the crossing area, feet.

SKETCH OF SIGHT DISTANCE AND EXISTING CONDITIONS
(Passive devices/bells and lights crossing locations only)

NORTH ARROW:



Typical Train Speed:					MPH	Typical Highway Speed:					MPH
APPROACH SIGHT DISTANCE						STOPPED VEHICLE SIGHT DISTANCE					
Required Dist. D_t		Ft.	Required Dist. D_h		Ft.	Required Dist. D_t (With Vehicle Speed of 0)					Ft.
NORTHWEST QUADRANT						NORTHEAST QUADRANT					
Sight Obstruction:	Approach		At Stop Bar			Sight Obstruction:	Approach		At Stop Bar		
Actual Dist. D_t		Ft.		Ft.		Actual Dist. D_t		Ft.		Ft.	
SOUTHWEST QUADRANT						SOUTHEAST QUADRANT					
Sight Obstruction:	Approach		At Stop Bar			Sight Obstruction:	Approach		At Stop Bar		
Actual Dist. D_t		Ft.		Ft.		Actual Dist. D_t		Ft.		Ft.	

AAR/DOT NO.

Yes No

☐ ☐ (A) Multiple Mainline railroad tracks

a. Mainline.- The term "main line" means a segment or route of railroad tracks over which 5,000,000 or more gross tons of railroad traffic is transported annually.*

☐ ☐ (B) Multiple tracks on or in the vicinity of the crossing which may be occupied by train or locomotive so as to obscure the movement of another train approaching the crossing

☐ ☐ (C) High Speed train operation combined with limited sight distance at either single or multiple track crossings.

a. A high speed train is one that travels at a speed greater than 79 MPH. *
   - Note: no rail routes within Alabama are identified as High Speed.

b. Limited sight distance is where available sight distance is less than desirable intersection sight distance as defined by AASHTO.
   - Sight distance is based on filed measurements.

☐ ☐ (D) A combination of high speeds and moderately high volumes of highway and railroad traffic.

a. *All four conditions below must exist to meet (D). Basically an 'AND' condition.*
Definitions:
- A high speed roadway is one that has a posted speed of 50 mph or more.*
- Moderately high volumes of highway traffic are when a highway's volume exceeds a Level of Service of 'D' (near capacity).*
- A high speed train is one that travels at a speed greater than 79 mph.*
- Moderately high volumes for a railroad traffic are when the railroad's volume exceeds a Level of Service of 'E' (at capacity). LOS information provided by railroad representative.

☐ ☐ (E) Either a high volume of vehicular traffic, high number of train movements, substantial numbers of school buses or trucks carrying hazardous materials, unusually restricted sight distance, continuing accident occurrences, or any combination of these conditions.

a. *If any of these conditions exist then (E) is met. Basically an 'OR' condition.*
   - Definitions:
     - *High volumes of vehicular traffic are those highways that are operating at a Level of Service of 'E' or greater.**
     - *High number of train movements will be identified as those rail lines where the railroad's volume exceeds a Level of Service of 'F' (above capacity). LOS information provided by railroad representative.*
     - *Substantial school bus traffic is defined as locations that have twice the state wide average for school bus crossings.**
     - *Substantial hazardous materials truck traffic is defined as locations that have twice the national average for hazardous materials truck traffic.*
       - *Note: National average, trucks transporting hazardous materials 7.2%.*
     - *Unusually restricted sight distance is defined as sight distance that is restricted by a permanent, fixed object; or due to a severe skew of the crossing, where the acute angle between the rail line and highway is 30 degrees or less.*
     - *Continuing crashes are applicable only to those sites that currently have 'lights and bells' but not 'gates' and there are documented crashes at those locations after the installation of the 'lights and bells' (Data Source: CARE).*

☐ ☐ (F) A diagnostic team recommends active devices.

☐ ☐ (G) A diagnostic team justifies that gates are not appropriate and the above requirements are not applicable.

One of the statements below should also be selected:

☐ The condition of signs, markings, striping, and legends located at this crossing meet current MUTCD standards.

☐ The condition of signs, markings, striping, and legends located at this crossing **do not meet** current MUTCD standards and will be updated prior to or during the construction of the subject project.

*Data Source: Included in FRA Crossing Inventory
Revision Date: 5/5/2016

AAR/DOT NO:		
RECOMMENDATIONS		
Are improvements to the crossing recommended? Yes ☐ No ☐	**Comments:**	
Prepared by:	**Title:**	**Date:**

ALABAMA

Department of Transportation

County Road Design Policy

Proposed By ACEA

Adopted by the Association of County Engineers of Alabama — Date 5/10/16

Adopted by the Association of County Commissions of Alabama — Date 8/16/16

Recommended for Approval

President of the Association of County Engineers of Alabama — Date 8/16/16

President of the Association of County Commissions of Alabama — Date 8/16/16

ALDOT State County Transportation Engineer — Date 8/22/16

Approved

ALDOT Chief Engineer — Date 8/24/16

Table of Contents

Chapter 1 Design Policies

Chapter 2 Clear Zone Requirements

Chapter 3 Scope of Work Review Requirements for Pavement Preservation and Resurfacing, Restoration, and Rehabilitation (3R) Projects

Chapter 4 Guardrail Requirements

Chapter 5 Design Criteria for Pavement Preservation (All Traffic Volumes with Design Speeds 45 MPH or Less)

Design speed for Pavement Preservation projects shall be defined as the selected speed for the roadway determined by analyzing factors such as average speed, posted speed, or roadway geometric features along with a review of accident data.

Chapter 6 Design Criteria for Resurfacing, Restoration and Rehabilitation (3R) (All Traffic Volumes with Design Speeds 45 MPH or Less)

Design speed for 3R projects shall be defined as the selected speed for the roadway determined by analyzing factors such as average speed, posted speed, or roadway geometric features along with a review of accident data.

Chapter 7 Design Criteria for New Roadways and Bridges with Traffic Volumes Less Than 2,500 ADT Designed for 45 MPH or Less

Design speed for this chapter shall be defined by AASHTO's *A Policy on Geometric Design of Highways and Streets*.

Chapter 1
Design Policies

These design criteria have been approved by the State of Alabama Department of Transportation for county roads for projects which qualify for and are actually funded through the Alabama Department of Transportation.

All projects approved by and funded through the Alabama Department of Transportation must be designed and constructed according to these criteria.

These criteria shall not apply to any roads not funded through the Alabama Department of Transportation.

Industrial Access Projects must meet the minimum cross sections of 1600-2500 ADT regardless of actual design ADT, unless the design ADT is greater than 2500, then AASHTO criteria will apply.

Transportation Research Board (TRB) *Special Report 214* shall be used as a guide for Pavement Preservation projects and Resurfacing, Restoration and Rehabilitation (3R) projects **designed for 50 MPH or greater**. If the recommended minimum geometric design values contained in TRB 214 are met, and the accident history and traffic counts are documented, then no design exception is required.

Pavement Preservation projects designed for 45 MPH or less shall refer to Chapter 5 of the *Alabama Department of Transportation County Road Design Policy*.

3R projects designed for 45 MPH or less shall refer to Chapter 6 of the *Alabama Department of Transportation County Road Design Policy*.

The design of new roadways and bridges with **design traffic counts of 2,500 ADT or more, or a design speed of 50 MPH or greater** will be based on the AASHTO publication, *A Policy on Geometric Design of Highways and Streets, current edition*. Chapter V will apply to all local roads and streets; Chapter VI will apply to all collector roads. Other sections of this book are also applicable to these projects.

New roadways and bridges having **less than 2,500 design year ADT designed for 45 MPH or less** will be based on Chapter 7 of the *Alabama Department of Transportation County Road Design Policy*. All design criteria will be based on the future (i.e., 20 year) ADT.

Any feature not meeting the above standards must be approved by the State County Transportation Engineer as a design exception.

Chapter 2

Clear Zone Requirements

The following is given as guidance for clear zones and treatment for slope and drainage structure protection for different type projects:

NEW ROADWAYS AND BRIDGES WITH DESIGN TRAFFIC COUNTS BELOW 2,500 ADT DESIGNED FOR 45 MPH OR LESS.

The suggested clear zone width is shown in Chapter 7 of the *Alabama Department of Transportation County Road Design Policy*.

NEW ROADWAYS AND BRIDGES WITH DESIGN TRAFFIC COUNTS OF 2,500 ADT OR MORE OR DESIGNED FOR 50 MPH OR GREATER.

The suggested clear zone width is shown in the American Association of State Highway and Transportation Officials publication, *A Policy on Geometric Design of Highways and Streets, current edition.*

Chapter 3

Scope of Work Review Requirements

Pavement Preservation Projects

The Region County Transportation Engineer or representative is required to conduct a scope of work review in company with the County Engineer or his/her representative for **all projects excluding bridge replacement projects with minor or no approach work**. The Bureau of County Transportation should be notified of the time and date of this review. The designer should make recommendations for design and safety improvements. The following should be addressed, if applicable:

1. Provide the Functional Classification of the proposed project.

2. Provide a brief description including the limits of the project, design speed, scope of work review date, and persons attending.

3. Include the present and future traffic counts, truck percentage and existing pavement width.

4. Specify the type and thickness of the existing pavement as well as the proposed pavement buildup and/or surface treatments. Indicate if planing is required and if yes, specify the depth of planing needed. Also state material for flushing shoulders, if applicable.

5. Indicate the existing shoulder width as well as the existing Right-of-Way width.

6. Indicate whether or not there are any existing bridges located within the project limits. Also indicate if a guardrail system and end anchors are in place. If not, specify whether or not guardrail will be installed as part of the project or as non-contract items of work. **Note: Existing guardrail and end anchors at bridge approaches should be reviewed by visual inspection to determine if repair or replacement of the guardrail system is needed. Guardrail related items are addressed in "GUARDRAIL REQUIREMENTS" as shown in chapter 4 of this design policy.**

7. Indicate if bridge width meets requirements as outlined in Chapter 5 of Alabama Department of Transportation County Road Design Policy or TRB 214, whichever is applicable. Also, indicate if bridge posting is required and if posting signs are in place.

8. Indicate if there are any bridge culverts located within the project limits and if so, provide the BIN, begin & end culvert station, skew angle and the overall bridge culvert width. Also, indicate whether or not guardrail is in place as well as if guardrail installation in required.

9. Determine if there is a railroad crossing within the project limits or adjacent to the project. If yes, see section 8 of the current edition of ALDOT's *"Procedural Guidelines for County Projects".*

10. Indicate whether or not there any existing sidewalks, pedestrian or school crossings, or other features within the project limits that will require upgrading to meet the Americans with Disabilities Act. If so, specify the general location and general description of the required upgrades.

11. Determine if there is any evidence of any informal bicycle/pedestrian activities within the project limits or the surrounding area that would require accommodations.

12. Determine if any non-contract items of work will be performed by the county and if so, specify the type of work.

The scope of work, as prepared by the county, shall be furnished to the Region allowing ample time for approval by both the Region and Bureau of County Transportation; conducting the PS&E review; and having the final plans received by the Region and sent to the Bureau of County Transportation at least **10** weeks prior to the anticipated letting date.

3R Projects

A detailed scope of work is essential with these 3R guidelines and should include recommendations for eliminating any unusual condition which may be considered hazardous.

The Region County Transportation Engineer or his/her representative is required to conduct a scope of work review in company with the County Engineer or his/her representative for **all projects excluding bridge replacement projects with minor or no approach work.** The Bureau of County Transportation should be notified of the time and date of this review. The designer should make recommendations for design and safety improvements. The following should be addressed, if applicable:

1. Provide a brief project description including limits of the project, scope of work review date, persons attending, and tentative letting date.

2. Indicate the design speed and the clear zone requirements of the section to be reviewed.

3. Provide the number and location of the existing horizontal and vertical curves that will not accommodate the design speed. The design speed of the existing sub-standard curves must also be included. The proposed improvements for these sub-standard curves must be indicated.

4. Include the accident data of the section to be reviewed. Also, show the present and future traffic counts and truck percentage.

5. State the width and type of the existing and proposed pavement. The general condition of the existing pavement must also be addressed. Indicate whether patching is needed and if leveling and/or planing is required for cross slope correction. Retain current slopes (without steepening side slopes) when widening lane and shoulders, unless warranted by special circumstances.

6. The widths and types of the existing and proposed shoulders must be shown. Indicate what type of work will need to be done to the shoulders (i.e., machine grading shoulders, additional borrow needed, etc.)

7. Indicate the width and condition of all existing bridges. Provide the bridge identification number (BIN) and bridge stations. **NOTE: Guardrail related items are addressed in "GUARDRAIL REQUIREMENTS" as shown in chapter 4 of this design policy.**

8. Provide a general statement concerning the length and condition of existing culverts and crossdrain pipes. Any relocation or replacement of sidedrain pipes and headwalls must also be indicated. Crossdrain pipes and culverts will only be extended as required to provide the width for the pavement and shoulders. Headwalls will be retained on existing crossdrain structures that will not require adjustment to obtain the width for the pavement and shoulders. Sidedrain pipe will be relocated as required to obtain the width for the pavement and shoulders, and slope paved headwalls provided. Headwalls will not be replaced on existing sidedrain pipe that will remain in place. **Consideration will be given to replacing large vertical headwalls that are close to the pavement and are a potential hazard.**

9. Indicate if intersection improvements are required.

10. Include recommendations for eliminating any unusual condition that may be considered hazardous.

11. Indicate any environmental considerations (e.g., wetland impact, stormwater permit, etc.). Indicate if erosion or sedimentation control items are needed.

12. Clearly define the work to be performed by the contractor and work performed by the county.

13. State the existing right-of-way width and whether right-of-way will be required.

14. Indicate any utility conflicts.

15. Determine if there is a railroad crossing within the project limits or adjacent to the project. See section 8 of the current edition of ALDOT's "*Procedural Guidelines for County Projects*".

16. Indicate whether or not there any existing sidewalks, pedestrian or school crossings, or other features within the project limits that will require upgrading to meet the Americans with Disabilities Act. If so, specify the general location and general description of the required upgrades.

17. Determine if there is any evidence of any informal bicycle/pedestrian activities within the project limits or the surrounding area that would require accommodations.

The scope of work, as prepared by the county, shall be furnished to the Region allowing ample time for preparing the Project Engineering Record; completing the plans; conducting the PS&E review; and having the Construction Bureau review plans received by the Region and sent to the Bureau of County Transportation at least **16** weeks prior to the anticipated letting date.

Chapter 4

Guardrail Requirements

Projects utilizing federal aid funds **shall** require guardrail and end anchor protection at existing and proposed bridge and culvert structures in accordance with the following guidelines:

For County projects with **design speeds of 45 mph or less and design year traffic of 2,500 ADT or less**, the **length of need* requirement is waived and the approach guardrail length is dictated by the type anchors used, applicable drawings, and warranty criteria.

For County projects with **design speeds greater than 45 mph or design year traffic greater than 2,500 ADT**, a 75 foot **length of need* is applicable.

> **Note: The "Length of Need" is defined as the total length of a longitudinal barrier needed to shield an area of concern.*

For County pavement preservation projects, any guardrail that is not damaged and in good working condition shall be allowed to remain in place. Missing or unconnected bridge approach guardrail shall be included as part of the project or as non-contract items of work. All guardrail end anchors shall meet the requirements of NCHRP 230. Any new guardrail and end anchors that are to be installed on a pavement preservation project must meet the applicable guardrail length of need requirements previously listed in this chapter.

The Scope of Work review should include the following guardrail related items.

1. Indicate the areas of proposed guardrail and/or end anchor placement such as on bridges or at bridge ends, culverts, and at other hazardous locations. Indicate whether there is any in place guardrail or end anchors that will need to be removed and what type, if known.

2. For bridges requiring guardrail work, indicate what type of barrier is across the structure (e.g., class A or class B steel beam guardrail, concrete rail, etc.). Also, provide the post spacing and the bridge clear width (curb to curb). Indicate whether the guardrail is blocked out properly or if the blockouts are to be reconfigured. A project detail sketch should be added to the plans if

blockouts are to be reconfigured. For projects where steel beam guardrail across a structure is to be replaced, the review should include the condition of the existing bolts and whether bolts are to be retained or replaced.

3. For culverts requiring guardrail and/or end anchor work, provide the length of parapet wall (station to station), final proposed shoulder width, distance from the outside edge of the proposed shoulder to the first edge of the parapet wall, and the approximate slope from the outside edge of the final shoulder to the first edge of the parapet wall.

4. Guardrail should be considered for all slopes and structures within the clear zone that do not satisfy clear zone requirements.

Chapter 5

Design Criteria for Pavement Preservation (All Traffic Volumes with Design Speeds 45 MPH or Less)

Pavement Preservation projects **shall** not exceed an overlay of 225 lbs/sy with less than 50% of the existing roadway requiring spot leveling. All overlays shall conform to the laydown rate requirements found in *ALDOT's Guidelines for Operations*, Section 6-10. Planing the existing pavement to provide depth for the required overlay is acceptable under this design criteria. **If widening is required to meet the minimum lane widths shown in this chapter, the roadway will not be eligible for pavement preservation. In such cases, the county shall refer to the "3R" design procedures found in chapter 6 of this document.**

Before developing construction plans, the designer shall prepare a Pavement Preservation Scope of Work based on the 7 guidelines listed below. This document shall be submitted to Alabama Department of Transportation for review and approval. (See page 12.69 - 12.73).

Assess Current Conditions

Guideline 1: Designers should assess existing physical and operational conditions affecting safety:

- Conduct a thorough site inspection of all physical elements and geometry within the project limits that are maintained by your agency.
- Analyze existing roadway users, functional classification, ADT, and design criteria (see page 9.3).
- Analyze crash data, to include field inspection, and concerns expressed by the public to determine site-specific locations where crash data may indicate the need for additional improvements.

Determine Project Scope

Guideline 2: In addition to pavement restoration, the designers should consider, where appropriate, to incorporate; intersection, roadside, and traffic control improvements that may enhance safety. Based on guideline #1 the designer should:

Determine Lane and Shoulder Width

Guideline 3: The following values should be considered:

US Customary

Design Year ADT [a]	Design Speed [b]	< 10% Trucks/ Machinery [c]		≥ 10% Trucks/ Machinery [c]	
	(mph)	Lane Width	Shoulder Width	Lane Width	Shoulder Width
1 - 750	≤45	9 ft	2 ft	10 ft	2 ft
751 - 2000	≤45	10 ft	2 ft	10 ft	2 ft
2000 >	≤45	11 ft	3 ft	12 ft	3 ft

[a] Design Year ADT should be based on a 10 year projection

[b] Design speed for pavement preservation projects shall be defined as the selected speed for the roadway determined by analyzing factors such as average speed, posted speed, or roadway geometric features along with a review of accident data. Projects with design speeds exceeding 45 MPH shall refer to the TRB 214.

[c] Some types of vehicles may require additional roadway widths

Determine Bridge Width

Guideline 4: The designer should evaluate bridge replacement or widening if the bridge is less than 100 ft. long and the usable width of the bridge is less than:

Design Year ADT [a]	Design Speed (mph)	Usable Bridge Width [b, c, d]
1 - 1000	≤45	Width of approach lanes
1001 - 4000	≤45	Width of approach lanes plus 2 ft
4000 >	≤45	Width of approach lanes plus 3 ft

a Design Year ADT should be based on a 10 year projection

b If the roadway width (lane plus shoulder) is paved, the bridge should be equal in width

c Bridge usage by trucks, farm machinery, or recreational vehicles should be considered in determining the appropriate width

d Existing bridges may remain in place without widening unless there is evidence of a site-specific safety problem

Determine Guardrail Need for Bridge Approaches

Guideline 5: The designer should develop consistent procedures for evaluating the need for guardrail, with the following considerations:

- Determine if bridge approaches contain guardrail and/or end anchors. If no guardrail and/or end anchors are in place, determine if the guardrail system will be installed by the contractor as part of the project or if this work will be done as non-contract items of work. **Note: Existing guardrail and end anchors at bridge approaches should be reviewed by visual inspection to determine if repair or replacement of the guardrail system is needed. If guardrail and/or end anchors are needed, they must conform to the applicable length of need requirements as shown in chapter 4 of this document.**

- Identify site-specific safety locations.

Evaluate Right-of-Way Encroachments

Guideline 6: The designer should evaluate right-of-way encroachments based upon the following definition and guidelines:

Definition

Encroachment: An item that occupies or utilizes the county's rights of way without authorization from the County. A fence that meets the following criteria is not considered an encroachment:

1. The fence is determined to be in the public interest and serves a transportation related purpose; and
2. The fence shall not impair or interfere with the free and safe flow of traffic; and
3. The fence is located outside of the clear zone as defined in the County Road Design Policy or the AASHTO Roadside Design Guide (whichever is applicable to the subject road/ project).

Identify and Remove Encroachments

Counties should diligently review their rights-of-way to prevent new items from being placed within the county's rights-of-way. Prior to the scope of work review, the County Engineer shall review the project for any encroachments placed within the County's rights of way.

Mailboxes and utilities are authorized to be within the clear zone. Non-breakaway mailboxes shall be removed and replaced with a breakaway type structure meeting federal standards.

During the scope of work review, the County Engineer shall identify to ALDOT the encroachments that will be removed prior to project authorization. Plan preparation and review shall not be contingent on receipt of the Encroachment Certification Letter (see page 12.65) from the County. However, receipt of the Encroachment Certification Letter will be required prior to project authorization.

An example notification letter (see page 12.66) is provided for landowners who have encroachments that must be removed from the County rights-of way.

The County should also provide notice to the adjacent land owner of any fence that is allowed to remain in the County's rights of way. This notification should specify the terms and conditions under which the use will be authorized. This notice shall remain in the project file and be available for ALDOT and/or FHWA review (see page 12.67)

Determine Pavement Edge Drop and Shoulder Type

Guideline 7: The designer should develop consistent procedures for evaluating pavement edge drop problems and the type of shoulder construction, with the following objective:

- All shoulders shall be flushed up to the required pavement utilizing any number of applicable shoulder construction applications. No shoulder widening will be permissible under the pavement preservation policy, with the exception of required shoulder widening for guardrail and/or guardrail end anchor installation.

- Selectively pave shoulders at points where there is site-specific safety problems (outside or inside of horizontal curves, across from intersecting roads, etc.).

Chapter 6
Design Criteria for Resurfacing, Restoration and Rehabilitation (3R) (All Traffic Volumes with Design Speeds 45 MPH or Less)

Significant improvements in safety should be systematically designed into each county roadway 3R project. Designers should seek opportunities specific to each project and apply sound safety and traffic engineering principles. Attention to safety, along with documentation of the design process improve design decisions.

Before developing construction plans, the designer shall prepare a Project Engineering Record based on the 12 guidelines shown below. Additional information regarding specific elements, not mentioned above, may be included in this report.

This document shall be submitted to Alabama Department of Transportation for review and approval. The format of the document will be established by the Alabama Department of Transportation. Any waivers of the design criteria shall be submitted to and approved by the Alabama Department of Transportation.

Assess Current Conditions

Guideline 1: Designers should assess existing physical and operational conditions affecting safety:

- Conduct a thorough site inspection of all physical elements and geometry within the roadway limits that are maintained by your agency.
- Analyze existing roadway users, functional classification, ADT, and design criteria (see page 9.3).
- Analyze crash data, to include field inspection, and concerns expressed by the public to determine site-specific locations where crash data may indicate the need for additional improvements.

Determine Project Scope

Guideline 2: In addition to pavement repairs, the designers should consider, where appropriate, to incorporate; intersection, roadside, and traffic control improvements that may enhance safety. Based on guideline #1 the designer should:

Determine Lane and Shoulder Width

Guideline 3: The following values should be considered:

US Customary

Design Year ADT [a]	Design Speed [b]	< 10% Trucks/ Machinery [c]		≥ 10% Trucks/ Machinery [c]	
	(mph)	Lane Width	Shoulder Width	Lane Width	Shoulder Width
1 - 750	≤45	9 ft	2 ft	10 ft	2 ft
751 - 2000	≤45	10 ft	2 ft	10 ft	2 ft
2000 >	≤45	11 ft	3 ft	12 ft	3 ft

[a] Design Year ADT should be based on a 10 year projection.

[b] Design speed for 3R projects shall be defined as the selected speed for the roadway determined by analyzing factors such as average speed, posted speed, or roadway geometric features along with a review of accident data. Projects with design speeds exceeding 45 MPH shall refer to the TRB 214.

[c] Some types of vehicles may require additional roadway widths.

Determine Normal Pavement Crown

Guideline 4: The designer should develop consistent procedures for evaluating the existing pavement crown, with the following objectives:

- The pavement cross slope should match existing normal crown criteria. Typically 2 - 2.5 % cross slope.
- The shoulder cross slope should allow rainfall to drain the roadway. Typically 4 - 6 % cross slope.

Determine Horizontal Curvature and Superelevation

Guideline 5: The designer should review each horizontal curve to determine the appropriate action that may be required.

- The designer should adjust the existing cross section with increased superelevation to match the average speed of vehicles.
- It is acceptable for the designer, when evaluating curves with low average vehicle speeds, **<45 mph,** to resurface without changing the existing curve geometry and cross section if the nominal design speed of the curve is within **15 mph** of the average vehicle speeds, and if there is no clear evidence of a site-specific safety problem associated with the curve.
- The designer, when evaluating curves with high average vehicle speeds, **45 mph and higher**, should consider reconstruction when the nominal design speed of the existing curve is more than **15 mph** below the average vehicle speeds, and the projected traffic volume is greater than 1000 ADT, or if there is a site-specific safety problem associated with the curve.
- Acceptable substitutes for curve reconstruction include measures to reduce speed (signing, pavement markings, rumble strips, traffic control devices, etc.), measures to improve the roadside (clearing slopes, flattening steep side-slopes, removing, relocating, or shielding obstacles, etc.), or measures to improve the roadway (widening lane width, widening shoulder width, paving shoulders, etc.).

Determine Vertical Curvature and Stopping Sight Distance

Guideline 6: The designer should review each vertical curve to determine the appropriate action that may be required.

- It is acceptable for the designer, when evaluating curves with low average vehicle speeds, **<45 mph,** to resurface without changing the existing curve geometry if the nominal design speed of the curve is within **20 mph** of the average vehicle speeds, and if there is no clear evidence of a site-specific safety problem associated with the curve.

- The designer, when evaluating curves with high average vehicle speeds, **45 mph and higher,** should consider reconstruction when the design speed of the existing curve is more than **20 mph** below the average vehicle speeds, and the projected traffic volume is greater than 1000 ADT, or there is a site-specific safety problem associated with the curve.

- Acceptable substitutes for curve reconstruction include measures to reduce speed (signing, traffic control devices, etc.) and/ or measures to improve the roadside (removing, relocating, or shielding driveways, intersections, sharp horizontal curves, narrow bridge, etc.).

- Sag vertical curves typically do not create sight restrictions and do not have to be reconstructed, unless there is a site-specific safety problem.

Determine Bridge Width

Guideline 7: The designer should evaluate bridge replacement or widening if the bridge is less than 100 ft. long and the usable width of the bridge is less than:

Design Year ADT [a]	Design Speed (mph)	Usable Bridge Width [b, c, d]
< 1000	≤45	Width of approach lanes
1001 - 4000	≤45	Width of approach lanes plus 2 ft
4000 >	≤45	Width of approach lanes plus 3 ft

a Design Year ADT should be based on a 10 year projection

b If the roadway width (lane plus shoulder) is paved, the bridge should be equal in width

c Bridge usage by trucks, farm machinery, or recreational vehicles should be considered in determining the appropriate width

d Existing bridges may remain in place without widening unless there is evidence of a site-specific safety problem

Determine Side Slopes and Clear Zones

Guideline 8: The designer should develop consistent procedures for evaluating and improving roadside features with the following objectives:

- A clear zone of any width should provide some contribution to safety. Thus, where clear zones can be provided at little or no additional cost, their incorporation in design should be considered. A 2 - 3 ft. shoulder is recommended.

- Retain current slopes (without steepening side slopes) when widening lanes and shoulders, unless warranted by special circumstances.

- Flatten side slopes steeper than 3:1 at site-specific locations where there is evidence of safety problems.

- Remove, relocate, or shield isolated roadside obstacles.

- Where constraints of; cost, terrain, right-of-way, or potential social / environmental impacts make the provision for a clear recovery area impractical, clear recovery areas less than desired may be used.

Evaluate Right-of-Way Encroachments

Guideline 9: The designer should evaluate right-of-way encroachments based upon the following definition and guidelines:

Definition

Encroachment: An item that occupies or utilizes the county's rights of way without authorization from the County. A fence that meets the following criteria is not considered an encroachment:

1. The fence is determined to be in the public interest and serves a transportation related purpose; and
2. The fence shall not impair or interfere with the free and safe flow of traffic; and
3. The fence is located outside of the clear zone as defined in the County Road Design Policy or the AASHTO Roadside Design Guide (whichever is applicable to the subject road/ project).

Identify and Remove Encroachments

Counties should diligently review their rights-of-way to prevent new items from being placed within the county's rights-of-way. Prior to the scope of work review, the County Engineer shall review the project for any encroachments placed within the County's rights of way.

Mailboxes and utilities are authorized to be within the clear zone. Non-breakaway mailboxes shall be removed and replaced with a breakaway type structure meeting federal standards.

During the scope of work review, the County Engineer shall identify to ALDOT the encroachments that will be removed prior to project authorization. Plan preparation and review shall not be contingent on receipt of the Encroachment Certification Letter (see page 12.65) in Procedural Guidelines) from the County. However, receipt of the Encroachment Certification Letter will be required prior to project authorization.

An example notification letter (see page 12.66) is provided for landowners who have encroachments that must be removed from the County rights-of way.

The County should also provide notice to the adjacent land owner of any fence that is allowed to remain in the County's rights of way. This notification should specify the terms and conditions under which the use will be authorized. This notice shall remain in the project file and be available for ALDOT and/or FHWA review (see page 12.67)

Determine Guardrail Need for Embankments and Culverts

Guideline 10: The designer should develop consistent procedures for evaluating the need for guardrail, with the following considerations:

- Examining the shoulder slopes and culvert sizes.
- Identify site specific safety locations.
- Clear zone encroachments

Determine Pavement Edge Drop and Shoulder Type

Guideline 11: The designer should develop consistent procedures for evaluating pavement edge drop problems and the type of shoulder construction, with the following objectives:

- All shoulders shall be flushed up to the required pavement utilizing any number of applicable shoulder construction applications.
- Selectively pave shoulders at points where there is site-specific safety problems (outside or inside of horizontal curves, across from intersecting roads, etc.).

Determine Intersection Improvements

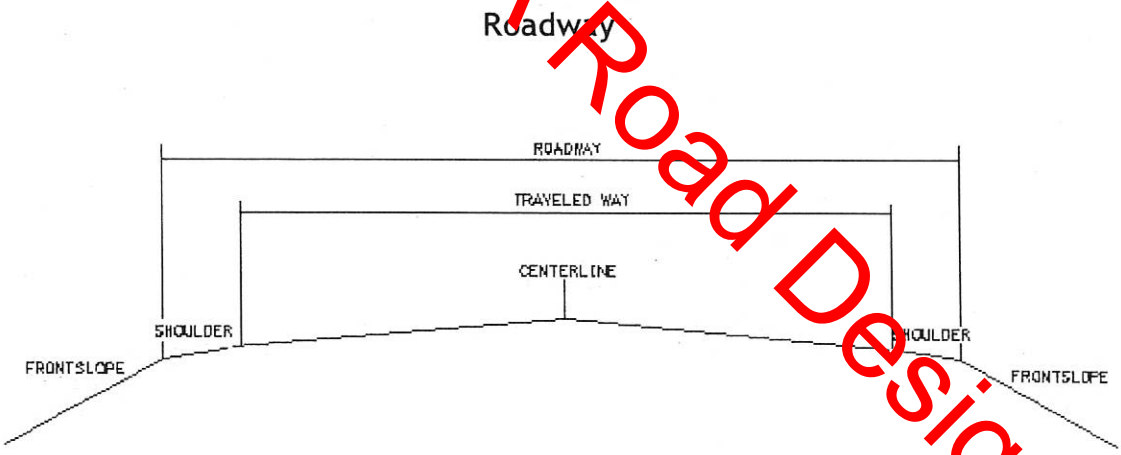
Guideline 12: The designer should develop consistent procedures for evaluating intersection improvements, with the following:

- Collision diagrams showing vehicle paths, time of occurrence, and weather conditions.
- Condition diagrams showing important physical features that affect traffic movements.
- Field review of the intersection to detect hazards not apparent from collision and condition diagrams.
- Designer should consider intersection improvements to site-specific safety problem areas.
- Improvements may be organized on three primary design objectives: reduction of potential conflicts (traffic signals, turn lanes, etc.), improve driver decision-making (longer lines of sight, lane markings, etc.), and improve the braking capability of the vehicle (warning signs, increased pavement skid resistance, etc.).

Chapter 7

Design Criteria for New Roadways and Bridges with Traffic Volumes Less Than 2,500 ADT Designed for 45 MPH or Less

Typical Roadway Cross Section



Typical Design Speed [1]

Type of Terrain	1 - 99 ADT (mph)	100 - 399 ADT (mph)	400 - 1599 ADT (mph)	1600 - 2500 ADT (mph)
Level	20	25	30	40
Rolling	15	20	25	30
Mountainous	10	15	20	25

[1] Design speeds, for some roads, may be a lower or higher speed based on its functional classification. For county road design projects involving traffic volumes greater than 2,500 ADT, consult *AASHTO, A Policy on Geometric Design of Highway and Streets.*

Minimum Hydrology

Side Drain	10 year flood
Cross Drain	25 year flood

Typical Bridge Width and Loading Design [2]

24' Minimum or Traveled Way + 4 ft. Whichever is greater	HS 20

[2] Bridge widths, for some roads, may need additional width based on its functional classification. For county road design projects involving traffic volumes greater than 2,500 ADT, consult *AASHTO, A Policy on Geometric Design of Highway and Streets.*

Roadway Design Criteria for 1 - 99 ADT

Design Speed (mph)	Traveled Way Width (ft)	Shoulder Width (ft)	Clear Zone [3] (ft)
15	18	2	2
20	18	2	2
25	18	2	2
30	18	2	2
35	18	2	2
40	18	2	2
45	20	2	4

[3]Clear Zone: The area adjacent to the traveled way that is clear of obstructions and having a slope no steeper than 3 horizontal to 1 vertical foreslopes.

Roadway Design Criteria for 100 - 399 ADT

Design Speed (mph)	Traveled Way Width (ft)	Shoulder Width (ft)	Clear Zone [3] (ft)
15	18	2	2
20	18	2	2
25	18	2	2
30	18	2	2
35	18	2	4
40	18	2	4
45	20	2	6

[3]Clear Zone: The area adjacent to the traveled way that is clear of obstructions and having a slope no steeper than 3 horizontal to 1 vertical foreslopes.

Roadway Design Criteria for 400 - 1599 ADT

Design Speed (mph)	Traveled Way Width (ft)	Shoulder Width (ft)	Clear Zone [3] (ft)
20	18	2	2
25	18	3	4
30	20	3	4
35	20	3	4
40	20	3	6
45	22	3	6

[3] Clear Zone: The area adjacent to the traveled way that is clear of obstructions and having a slope no steeper than 3 horizontal to 1 vertical foreslopes.

Roadway Design Criteria for 1600 - 2500 ADT

Design Speed (mph)	Traveled Way Width (ft)	Shoulder Width (ft)	Clear Zone [3] (ft)
25	20	4	4
30	22	4	4
35	22	4	6
40	22	5	6
45	22	5	8

[3] Clear Zone: The area adjacent to the traveled way that is clear of obstructions and having a slope no steeper than 3 horizontal to 1 vertical foreslopes.

COUNTY ROAD DESIGN POLICY SUPERELEVATION CHART FOR 2-LANE ROADWAY

e (%)	DESIGN SPEED																	
	15 mph		20 mph		25 mph		30 mph		35 mph		40 mph		45 mph		50 mph		55 mph	
	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL	R (ft)	STL
NC	932	0	1640	0	2370	0	3240	0	4260	0	5410	0	6710	0	8150	0	9720	0
RC	676	70	1190	70	1720	70	2370	80	3120	80	3970	90	4950	90	5990	100	7150	110
2.20	605	70	1070	70	1550	80	2130	80	2800	90	3570	90	4440	100	5400	110	6450	110
2.40	546	80	959	80	1400	80	1930	90	2540	90	3240	100	4030	100	4910	110	5870	120
2.60	496	80	872	80	1280	80	1760	90	2320	90	2960	100	3680	110	4490	120	5370	120
2.80	453	80	796	80	1170	90	1610	90	2130	100	2720	110	3390	110	4130	120	4950	130
3.00	415	80	730	90	1070	90	1480	100	1960	100	2510	110	3130	120	3820	120	4580	130
3.20	382	80	672	90	985	90	1370	100	1820	110	2330	110	2900	120	3550	130	4250	140
3.40	352	90	620	90	911	100	1270	100	1690	110	2170	120	2700	120	3300	130	3970	140
3.60	324	90	572	100	845	100	1180	110	1570	110	2020	120	2520	130	3090	140	3710	150
3.80	300	90	530	100	784	100	1100	110	1470	120	1890	120	2360	130	2890	140	3480	150
4.00	277	100	490	100	729	110	1030	110	1370	120	1770	130	2220	140	2720	150	3270	160
4.20	255	100	453	110	678	110	955	120	1280	120	1660	130	2080	140	2560	150	3080	160
4.40	235	100	418	110	630	110	893	120	1200	130	1560	140	1960	150	2410	160	2910	170
4.60	215	110	384	110	585	120	834	130	1130	130	1470	140	1850	150	2280	160	2750	170
4.80	193	110	349	120	542	120	779	130	1060	140	1390	150	1750	160	2160	170	2610	180
5.00	172	110	314	120	499	130	727	130	991	140	1310	150	1650	160	2040	170	2470	180
5.20	154	120	284	120	457	130	676	140	928	140	1230	150	1560	160	1930	180	2350	190
5.40	139	120	258	120	420	130	627	140	870	150	1160	160	1480	170	1830	180	2230	190
5.60	126	120	236	130	387	140	582	140	813	150	1090	160	1390	170	1740	190	2120	200
5.80	115	120	216	130	358	140	542	150	761	160	1030	170	1320	180	1650	190	2010	200
6.00	105	130	199	130	332	140	506	150	713	160	965	170	1250	180	1560	200	1920	210
6.20	97	130	184	140	308	150	472	150	669	160	909	170	1180	190	1480	200	1820	210
6.40	89	130	170	140	287	150	442	160	628	170	857	180	1110	190	1400	210	1730	220
6.60	82	140	157	140	267	150	413	160	590	170	808	180	1050	200	1330	210	1650	220
6.80	76	140	146	150	248	160	386	170	553	180	761	190	990	200	1260	220	1560	230
7.00	70	140	135	150	231	160	360	170	518	180	716	190	933	200	1190	220	1480	240
7.20	64	150	125	150	214	160	336	170	485	180	672	190	878	210	1120	230	1400	240
7.40	59	150	115	160	198	170	312	180	451	190	628	200	822	210	1060	230	1320	250
7.60	54	150	105	160	182	170	287	180	417	190	583	200	765	220	980	240	1230	250
7.80	48	160	94	160	164	170	261	180	380	190	533	210	701	220	901	240	1140	260
8.00	38	160	76	170	131	180	214	190	314	200	444	210	587	230	758	240	960	260

NOTES: 1. WITH DESIGN SPEEDS OF 20 MPH OR LESS, CONDITIONS MAY WARRANT THE ELIMINATION OF SUPERELEVATION.

2. STL LENGTHS, AS SHOWN, ARE BASED ON 12' LANES, 2% NCS, AND ROTATION ABOUT CENTERLINE OF ROADWAY. FOR LANE WIDTHS LESS THAN 12', REFER TO DRAWING SSEC 1 (INDEX NO. 807) FOR STL CALCULATIONS.

3. FOR RESURFACING PROJECTS ON EXISTING ROADWAYS, IN-PLACE SUPERELEVATION TRANSITION LENGTHS THAT VARY FROM THOSE PRESCRIBED HERE MAY BE RETAINED PROVIDED THAT NO OPERATIONAL OR DRAINAGE PROBLEMS ARE KNOWN.

Crest and Sag Vertical Curves

US Customary

Design Speed (mph)	Crest Vertical Rate, K [4]	Sag Vertical Rate, K [4]
15	3	10
20	7	17
25	12	26
30	19	37
35	29	49
40	44	64
45	61	79

[4] Rate of vertical curvature, K, is the length of curve per percent of algebraic difference in intersecting grades (A). K=L/A

Maximum Percent Grade

Design Speed (mph)	Percent Grade [5] %
15	17
20	16
25	15
30	14
35	13
40	13
45	12

[5] For roadway grade less than 1000 ft in length, the maximum grade may be increased by 2 percent.

Stopping and Passing Sight Distances

US Customary

Design Speed (mph)	Stopping Sight Distance (ft)	Passing Sight Distance (ft)
15	80	----
20	115	400
25	155	450
30	200	500
35	250	550
40	305	600
45	360	700

Intersection Sight Distance

US Customary

Design Speed (mph)	Distance for Left Turn Maneuver from Stop [6]
15	170
20	225
25	280
30	335
35	390
40	445
45	500

[6] Intersection Sight distance is measured from a point on the minor road 15 ft. from the edge of the major road pavement and measured from an eye height of 3.5 ft. on the minor road to an object height of 3.5 ft. on the major road. Guidance in determining additional sight distances is provided in AASHTO, *Policy on Geometric Design of Highways and Streets*.

PLAN PREPARATION

TITLE SHEET - GENERAL GUIDELINES

Heading of the Title Sheet

- Show the project number that identifies the funding type, route identifier, and agreement number centered in the middle of the title sheet.
- Define the major item of work in the description and the project location, e.g., "Precast Concrete Bridge on CR-55 at Dry Creek or "Widening and Resurfacing on CR-1 from CR-32 to CR-14".
- Project descriptions with U.S. routes should show the state route identification with the U.S. route shown in parenthesis, e.g., “Resurfacing on CR-53 from SR-3 (US-31) to CR-27”. On U.S. routes with more than one state route identification, use the lowest state route number assigned to the route.
- If a county road has a locally used name, in addition to a county route number, use both in the description, e.g., “Widening and Resurfacing on Gin Mill Road (CR-27) from the Morgan County Line to CR-12”. An example format is shown below.

ALABAMA
DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED PROJECT NO.

STPNU-3645(204)

WIDENING, RESURFACING, AND TRAFFIC STRIPING ON CR-38
FROM PINE LAKE ROAD (CR-16) TO SR-2 (US- 72)
JACKSON COUNTY

Project Identification Box

The project identification box, located in the upper right corner of the title sheet, should show the following project information as shown in the example below:

STATE	REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.	LAST SHEET NO.
AL	STPNU-XXXX( )	2013	1	21

CONTRACT ID _____

Note: The contract ID number will be completed by the Office Engineer Bureau.

PLAN PREPARATION

The project identification box for the remaining sheets should only list the "Reference Project Number", "Fiscal Year", and "Sheet No." as shown in the example below:

REFERENCE PROJECT NO.	FISCAL YEAR	SHEET NO.
STPNU-XXXX( )	2013	3

Design Designation Box

In the "Design Designation" box, the current and design traffic counts and years, TADT, design speed, and stopping sight distance must be shown. The traffic counts should indicate current and 10 year counts for 3R and pavement preservation projects and current and 20 year counts for bridge replacement and new location projects. Traffic counts are based on calendar year, not fiscal year. The approval date for the "Project Engineering Record" should also be shown below the "Design Designation" box and keyed to the design speed. If there is an addendum to the "Project Engineering Record", then the approval date for the addendum should also be indicated.

Summary of required information

- ADT (Calendar Year) - the highest two-way direction average daily traffic volume for the calendar letting year on the mainline. The year should be labeled within the parenthesis.
- ADT (Design Year) – the highest two-way direction average daily traffic volume for the design year on the mainline - 10 year counts for 3R and pavement preservation projects and 20 year counts for bridge replacement and new location projects. The year should be labeled within the parenthesis.
- TADT – the percentage of the average daily traffic that is estimated to be heavy truck traffic.
- V (Design Speed) – the speed of the roadway that will govern the degree of curvature, superelevation, stopping sight distance, and other design parameters.
- Min Stopping Sight Dist. – the minimum stopping sight distance required for the design speed. If the minimum stopping sight distance for the design speed of any roadway within project limits is not met a design exception should be processed.

An example box is shown below:

DESIGN DESIGNATION		
ADT	(2013)	490
ADT	(2023)	600
K		
D		
TDHV		
TADT	4.5%	
V (DESIGN SPEED)	45 MPH*	
MIN. STOPPING SIGHT DIST. (FT.)	360	

PLAN PREPARATION

The following statement should be shown below the Design Designation box:

"These plans have been prepared to conform to the Alabama Department of Transportation Standard Specifications for Highway Construction, 20__ Edition."

Project Location Map

- Show the State of Alabama map with a callout leader identifying the project location in the upper left hand corner of the title sheet.
- The project vicinity map must include the following:
- The stations of the "begin and end work" and the "begin and end project" (to two decimal places).
- The Section, Township, Range, and County lines together with Section, Township, and Range numbers to make the location clear. The size of the map should be chosen so that it will not interfere with other features on the Title Sheet. Other boundaries that should be shown are national forests, city limits, military bases, etc. County maps typically should be used for rural projects, whereas, city maps may be appropriate for projects within an urban area. The latest census year population data for incorporated municipalities should be labeled and the census year listed below (this information is listed on ALDOT county maps).
- On the location map, show the begin work, begin project, end work, and end project stations. In-place bridges, or bridge culverts, should be flagged on the location map and labeled on the left side of the title sheet. For bridge replacement projects, the required bridges, or bridge culverts, should be identified on the map and also labeled on the left side of the Title Sheet. (See Bridge Information below).
- The location of station equations and exceptions should be identified on the map and also labeled on the left side of the title sheet. The station equations and exceptions will be numbered consecutively from the beginning of the project to the end. The symbol used should be a circle and the station equation and/or exception number should be placed inside the circle (See Equation and Exception Information below).
- The project location map must be orientated with a displayed north arrow pointing up, located preferably on the right side of the title sheet below the "Design Designation" box.
- Show the destination and location of major roads.
- The proposed construction route should be shown (a reasonable amount of exaggeration is permissible for clarity) with a bold line or some distinguishable line symbology.

PLAN PREPARATION

Bridge Information

The location of existing and required bridge structures and/or bridge culverts must be identified on the map and also labeled on the left side of the title sheet. Use an inverted triangle (▽) to identify existing and/or required bridges and bridge culverts. Existing bridge structures shall be identified by a letter designation and required bridge structures designated by a numeric designation. The bridge structures shall be numbered/lettered consecutively from the beginning of the project to the end with the alpha/numeric symbols used placed inside the inverted triangles.

Note that the ALDOT Standard Specifications defines a bridge as **"a structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet {6.1 m} between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening."** Any structures 20' or less should not be shown on the title sheet and will have no effect on the project stationing.

- Show the station to station limits and length for both in-place and required bridges. When a bridge structure is shown as "in-place" on a resurfacing type project, indicate in parenthesis any work to be done, e.g., "to be striped over only", "plane and resurface", " stripe over and guardrail replacement", etc. The "Net Length of Bridges" shown in the mileage box will be equal to the total bridge(s) length.

- Show the bridge identification number (BIN) for the existing and required structure on all bridge replacement projects. Structures not meeting the length requirements for a bridge structure, as defined above, will not have an assigned BIN and should not be shown on the title sheet. The county shall submit a BI-1 form requesting a new BIN for the proposed structure to the Local Transportation Bureau. This should be submitted at or before the plan submittal stage.

- When there are no existing and/or required bridges within the project limits, it should be noted by inserting "N/A" next to the applicable heading.

Equations and Exceptions

List the station location of equations and exceptions. Station equations are required whenever a re-alignment to the existing roadway will result in changes to the existing stationing, when stationing errors occur, and/or when alignments with different stationing are connected. In such cases, the "station back" is shown first, followed by the "station ahead". The exceptions should be listed with the station to station limits, and supplemented with a location description, e.g., Exception Station 100 + 25.00 to Station 101 + 25.00 = 100.00' (CSX Railroad)

When there is not a station equation or exception within the project limits, it should be noted by inserting "N/A" next to the "Equations and Exceptions" heading.

PLAN PREPARATION

Project Stationing Information

The following guidelines should be used for project/work limits and stationing:

- All Projects shall be stationed in a general direction of south to north for odd numbered routes and west to east for even numbered routes.

- **Bridge/Bridge Culvert - No Approach Work** – Use the actual bridge or bridge culvert stationing for the begin project and end project limits. Note that the centerline length of a bridge culvert is measured from the inside faces of the exterior walls along the centerline of the project. This length must be reflected throughout the plans. The begin work and end work limits should be set to allow for guardrail placement (if part of contract), plus an additional 10 to 25 feet buffer zone.

- **Bridge/Bridge Culvert - With Approach Work as Part of Contract** – The project limits should be based on either the vertical or horizontal ties to the existing roadway or profile. The greater limits shall dictate the project limits. In the event that the horizontal approach work is on new alignment and ties to the present alignment with a horizontal curve, the PC or PT of the curve should be used for the project limits, but the superelevation runoff distance should be considered in establishing the work limits.

- **Grade, Drain, Base, & Pave (New Alignment)** – The same guidelines as noted above for "Bridge or Bridge Culvert with Approach Work" will apply.

- **Pavement Preservation & 3R Projects**– Typically, the work limits and project limits will be the same. Station limits should be based on the paving limits as shown on the typical section.

- **Multiple Sites** – Multiple "begin/end" project limits are not permitted within a single plan assembly. Projects with multiple site locations, within a single set of plan, should indicate only the **"Begin Work"** and **"End Work"** limits at each site, unless the sites are on the same route and are in proximity (for example, a main channel structure and a relief structure), and the proposed project limits will encompass both sites.

Mileage Box

Below is an example of the mileage box as shown in the lower left hand section of the "Title Sheet".

	FEET	MILES
TOTAL STATIONING OF PROJECT	545.00	
EQUATIONS AND EXCEPTIONS	0.00	
NET LENGTH OF PROJECT	545.00	0.102
NET LENGTH OF BRIDGES	45.00	0.008
NET LENGTH OF ROADWAYS	500.00	0.094

PLAN PREPARATION

The following guidelines should be used for the calculation and display of the lengths as shown in this box:

- **Total Stationing of Project** – This length is based on the actual project length expressed to two (2) decimal places and is shown in the "Feet" column. This length is not shown in the "Miles" column.

- **Equations and Exceptions** – List the net effect of any equations or exceptions. This length should be expressed to two (2) decimal places and shown only in the "Feet" column. This length is not shown in the "Miles" column.

- **Net Length of Project** – This length as shown in the "Feet" column will be the same length as shown in the "Total Stationing of Project" unless there are equations or exceptions that effect the net length of the project. This length should be expressed to two (2) decimal places and shown in the "Feet" column. Do not use this as the basis for calculating the net length as shown in the "Miles column. This length will be the sum of the "Net Length of Roadways" and the "Net Length of Bridges". Mileage lengths for the bridge and roadways are truncated at three (3) decimal places without rounding. It is recommended to set your calculator to 5 (five) decimal places for calculation purposes. In the example above, if calculations are set to 3 (three) decimal places, the 500' roadway length would convert to 0.095 miles instead of 0.094 miles as shown.

- **Net Length of Bridges** – This is the actual stationing of the bridge structures (bridges and/or bridge culverts) expressed to two (2) decimal places and shown in the "Feet" column. This length should be shown in the "Miles" column expressed to three (3) decimal places (no rounding).

- **Net Length of Roadways** – This is calculated by subtracting the net length of bridges from the net length of project. This length should be expressed to two (2) decimal places and shown in the "Feet" column. This length should be shown in the "Miles" column expressed to three (3) decimal places (no rounding).

MILEAGE BOX – MULTIPLE SITES

	SITE 1		SITE 2		SITE 3		TOTAL	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
TOTAL STATIONING OF PROJECT	120.56		200.65		370.00		691.21	
EQUATIONS AND EXCEPTIONS	0.00		0.00		0.00		0.00	
NET LENGTH OF PROJECT	120.56	0.022	200.65	0.037	370.00	0.069	691.30	0.130
NET LENGTH OF BRIDGES	50.25	0.009	64.25	0.012	44.92	0.008	159.42	0.030
NET LENGTH OF ROADWAYS	70.31	0.013	136.40	0.025	325.08	0.061	531.79	0.100

PLAN PREPARATION

Miscellaneous

- The title sheet **MUST** have the signatures of the County Engineer and the Region Engineer when received by the Local Transportation Bureau. Any plans that have been prepared by a consulting engineering firm **MUST** have the registered Engineer's signature and professional stamp affixed to the title sheet. A consultant logo adjacent to the signature area for the Professional Engineer is optional. The State Local Transportation Engineer's signature will be added in this office. The Chief Engineer's and Transportation Director's signatures are obtained by the Bureau of Office Engineer.

- A three digit agreement number, assigned by the Bureau of Office Engineer, is required within the parenthesis field for the project number. This number appears in the heading for the title sheet, typical sections, summary of quantities sheets, etc. and also the project identification box (upper right hand corner of all sheets). This number is often not assigned at the time that plans are submitted for the Construction Bureau review. In these cases it will be manually inserted by this office. Please allow ample space to insert the number. It is recommended that the closing parenthesis mark be left off if plans are submitted without the designated agreement number.

- In the note referencing the Alabama Department of Transportation specifications book, ensure that the current edition is shown.

- Show the "Preliminary Project Number" in the upper right corner of the Title sheet below the project identification box. In most cases this will be the county project number, e.g., CCP 16-24-13

- Show the "Code Number" below the "Preliminary Project Number". This is the PE budget charge number assigned to the project. In most cases it will be the County Special Work Authorization (SWA) number, e.g., 4356 CSWA6 1000XXXXX

- The ALDOT seal should appear on the right-hand side of the title sheet, preferable directly above the signature block.

- A combination bid note is required for any project wholly or partially financed by the county in accordance with subarticle 102.08(b) of the Standard Specifications, or applicable special provision.

INDEX TO SHEETS (SHEET 1-A) – GENERAL GUIDELINES

The title "INDEX TO SHEETS" should be placed at the top center of each individual Index Sheet.

PLAN PREPARATION

Plan Sheets

- A complete list of all plan assembly sheet titles should be provided exactly as they appear on each of the individual plan sheets in the plan set.

- A minimum of two columns should be created as to provide a proper and adequate description of each individual sheet in the plan set. The first column should be titled “SHEET NO” followed by a second column titled “DESCRIPTION”.

- Several "OMITTED" sheets should be shown in the index. The reason for this is it may be necessary to add a project detail or other sheets. However, no "OMITTED" sheet should be listed as the last sheet in the plan assembly.

- Every plan sheet must be accounted for in the index listing and each shall have a unique numeric or numeric/alpha identification. When using a numeric/alpha format to identify plan sheets, the page reference for all plan sheets shall begin with a number. When a numeric/alpha sheet designation is used, the alpha part of the sheet number should immediately follow the number; however, there are two exceptions to this rule. When the alpha character is an “O” or “I” a dash shall be inserted between the number and letter, i.e. 30-O, 32-I, etc.

- There is no need to list each plan sheet within the plans separately. It is preferred that similar plan sheets be shown on the Index Sheet as a plan sheet group. Utility Sheets, Erosion and Sediment Control Plan Sheets, Paving Layouts, Plan/Profile Sheets, etc., are some examples of index sheet groups.

- Each special project detail sheet shall be listed separately with the appropriate description.

- The last sheet in the plan assembly shall end in a whole number and shall not be an “OMITTED” sheet.

Special and Standard Drawings

- List all applicable special and standard drawings pertaining to the project in accordance with the latest “Alabama Department of Transportation Special & Standard Highway Drawings” Book. These sheets can be listed on the Title sheet, if space will permit a complete listing. The drawings can be accessed on the ALDOT web site at the following link:

  http://alletting.dot.state.al.us/Docs/Standard_Drawings/StdDrawingSelect.htm

- Three columns should be used to provide a full description of each special and standard drawing in the plan set. The 1st column should be titled “INDEX NO” followed by a 2nd column titled “DRAWING NO” followed by a 3rd column titled “DESCRIPTION.”

PLAN PREPARATION

- A note stating "THE FOLLOWING ARE SPECIAL OR STANDARD DRAWINGS CONTAINED IN THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIAL and STANDARD HIGHWAY DRAWING BOOK (U.S. CUSTOMARY UNITS OF MEASUREMENT) DATED (Year of Current Edition) WHICH APPLY TO THIS PROJECT" should be inserted above the listing of drawings.

TYPICAL SECTION SHEET – GENERAL GUIDELINES

- The title "Typical Section" should be placed at the top center of each individual "Typical Sheet."

- Typical sections are not scaled drawings, but it is beneficial when drawing the typical to utilize some degree of horizontal scale; with an exaggerated vertical scale. "NTS" or "Not to Scale" should be labeled within the sheet border at the bottom right of the plan sheet (this is where the bar scale is located on a plan view sheet).

- Dashed lines should be used to depict the in-place pavement layers, slopes, etc. Solid lines should be used for the required items.

- Show the required build up by material layer. All layers of all materials should be shown as stated in the approved materials report; however, do NOT show patching, spot leveling, joint sealant, or tack coat on the typical section. Identification numbers for required materials should be displayed within a circle and progress sequentially from top to bottom with the top layer typically identified as 1. When leveling is used at a specific rate on a project, it should be shown on the typical section and the approximate rate shown in parenthesis. An application rate range may also be shown.

- The "Legend" should include the complete item number (unique number) for each item, the complete item description (as shown on the Summary of Quantities Sheet), the description of each layer of the materials buildup, and the width for all items paid for by the square yard. Use consistent legend numbers for the same item number throughout all typicals shown in the plan set. Numerical legend numbers (1, 2, 3, 4, etc.) are to be used for required items and should be placed within a circle. Alphabetical letters (A, B, C, D, etc.) are to be used for in place items and should be placed within a square. The same material item may be required to be placed at different rates on separate typicals or on the same typical. If this occurs the first reference to this material item should be a number and subsequent references to this same material item to be applied at different rates should be referred to using a sequencing numeric/alpha character (1, 1A, 1B, 1C, etc.). List only those material items within the "Required Materials Legend" for those material items shown on that plan sheet.

- All typical components should be shown as "In-place" or "Required", e.g., roadbed, bituminous treatments, base and subbase course items, etc. Indicate the disposition of all existing components (retain, remove, partial removal, plane, etc.), as appropriate. Approximate poundage rates and widths should be indicated in the item description.

PLAN PREPARATION

- Example: "Required Improved Bituminous Concrete Wearing Surface Layer, ____ in. Maximum Aggregate Size Mix, ESAL Range ____ (approximately ____ lbs/yd$^{2)}$.

- When more than one project typical is required, show the "Station to Station" limits that apply to each typical. Clearly identify the roadway if there is more than one roadway included in the project.

- Show equation and/or paving exception stations (bridges, railroads, major route crossings, etc.). Add a detail depicting the pavement tie-in transition requirements. Any pavement to be removed for the tie-in should be referenced to the following note: **Remove existing pavement so as to construct a uniform thickness of bituminous concrete wearing surface. The cost for removal and disposal of the existing pavement shall be a subsidiary obligation of Item 424A-___.** This note may be shown on the project note sheet and keyed to the pavement removal on the typical section.

- Show equation or paving exception stations and a note stating transition requirements, if needed. Symbols can be used when required to relate features with project or general notes.

- List only applicable GN-2 notes and "Project Notes" on a plan sheet which are relevant to the typical(s) on that particular plan sheet. For turn lanes with a materials buildup the same as the mainline, add a note to see paving layout sheets for dimensions, tapers, etc. For turn lanes with a different materials build-up than the mainline, a turn lane typical section is required.

- Provide typical roadway ditch depth and width. If the roadway contains any curb and gutter sections, provide a curb and gutter detail showing material placement and thickness as per Special Drawing 623-XY (Index No. 703); minimum 6"; maximum 10" @ face of gutter are allowable dimensions for a standard curb. A modified curb is defined as a curb with dimensions outside these standard dimension limits.

- Display normal cut and normal fill sections as a solid line on each typical, e.g., left side cut and right side fill.

- Note all dimensions of roadbed, lanes, and shoulder widths and provide a dimension from the roadway centerline or base line. Decimals should be used when incremental horizontal dimensions need to be denoted, not inches. Examples of proper horizontal dimensioning are 12' not 12.00' or 2.5' not 2' - 6". Vertical dimensions are typically in inches (18" not 1' - 6"; or 1.5').

- Label the approximate pavement thickness of in-place roadway pavement and shoulder pavement that will be removed or retained. This should be done within the "Required Materials Legend" table and to the right of the item description.

PLAN PREPARATION

Pavement Slopes

- Indicate the cross slope for all required layers of surface, base, subbase, widening, and shoulders. The required cross slope should be labeled as "**Match Existing**", unless the county plans to correct substandard pavement cross slopes as part of the scope of work for the project.

- If the county plans to correct the pavement cross slopes as an overall part of the project, then the typical section should indicate the required cross slope, e.g., 2% or "e". The required superelevation drawing(s) should be indexed or superelevation transition diagrams included in the plans. Horizontal curve data should be included in the plans. A box summary should be provided that indicates the following items: ① Station to station limits for the cross slope corrections, ② Existing superelevation or cross slope rate, ③ Required superelevation or cross slope rate, ④ Estimated leveling quantity required for cross slope correction. In lieu of this information, **for minor cross slope corrections, the following project note may be added to the plans:**

  > THE LOCATION AND RATE OF PLACEMENT OF LEVELING SHALL BE AS DIRECTED BY THE ENGINEER; HOWEVER, THE PROJECT ENGINEER AND THE PROJECT SUPERINTENDENT WILL SURVEY THE PROJECT TO DETERMINE THE AREAS THAT ARE TO BE LEVELED INCLUDING THE REESTABLISHMENT OF SUPERELEVATION WITHIN THE CURVES. – (This note may be modified if a specific placement method, such as drag box and patrol, is required.)

- Proposed front slopes and back slopes should indicate the maximum slopes, e.g., 3:1 Max. If a cut and/or special ditch is required, show this on the typical section, and detail the ditch appropriately (i.e. front slope, back slope, width, and depth**). Please Note - The use of any slopes steeper than 3:1 will have to have prior approval by the State Local Transportation Engineer**. If it is determined during the initiation and pre-construction approval phase of the project that steeper slopes will be required, it should be noted in the Project Engineering Record. The Project Engineering Record should define the justification for the use of the steeper slopes, such as eliminating the need for ROW acquisition and minimizing environmental impacts. It should also be noted that the county will be using "best management practices" during construction, and specify what erosion and sediment control measures will be utilized. If it is determined during the design phase of the project that slopes exceed 3:1, an addendum to the Project Engineering Record will be required. An approval letter should be sent to this office for concurrence by the State Local Transportation Engineer. The Region office must also concur with the use of the steeper slopes (see example letter on page 12.76).

- Indicate the profile grade by an arrow if plan and profile sheet(s) are included in the plans, and show the proper GN-2 note(s) on the first plan and profile sheet.

- Reference **GN-2 notes** pertaining to the typical section only. If no plan/profile sheet is in the plan assembly, list all applicable GN-2 notes on the typical section sheet.

PLAN PREPARATION

NOTE SHEET – GENERAL GUIDELINES

Number all notes according to the following schedule:

200 - 299	Typical Section Notes
300 - 399	Summary of Quantity Sheet Notes
400 - 499	Plan/Profile Sheet Notes
500 - 599	Signal Sheet Notes
600 - 699	Electrical Sheet Notes
700 - 799	Traffic Control Sheet Notes
800 - 899	Utility Sheet Notes
900 - 999	Railroad Notes / NPDES Note / Any notes that apply to other specific sheets
1000 Series	Sign Notes

All numbered notes are to be placed under the appropriate category on a special project note sheet. The project note sheet(s) is to be placed after the typical section sheet in the plan assembly. Do NOT list GN-2 notes on the project note sheet. **Leave space between each project note category** so that additional notes may be inserted if needed.

The following project notes are recommended for use on County Projects as applicable:

Right of Way Markers
All references to "ALDOT" shown on the required right-of-way markers, as detailed on drawing M-602, shall be changed to "_____ county". Cost of this work shall be considered a subsidiary obligation of Item no. 602A-___.

Drainage Sump Excavation (quantities under 500 cu. yds.)
Any required drainage sump excavation shall be performed in accordance with Subarticle 665.04(o) of the standard specifications. This work shall be paid for as unclassified excavation. (Reference to standard specification in this note may require modification if general application special provisions apply.)

Precast Bridges (approach work by county)
Item 210D-____ has been set up for the contractor's use in constructing the required fill for the wire rope abutment anchor assemblies. The contractor shall fill bridge ends, extending from wingwall to wingwall and from ends of bridge to a minimum of 10 feet behind tieback piling. Fill shall be placed and compacted by the contractor to required subgrade elevation, or one foot above tieback cables, whichever is less. Cost shall be a subsidiary obligation of Item 507A-000, wire rope abutment anchor assembly.

PLAN PREPARATION

The contractor shall construct abutment fill at bridge ends, extending from wingwall to wingwall and from ends of bridge to a minimum of 10 feet behind tieback piling with fill provided by the county. This material will be provided by the county at no cost to the project. Fill shall be placed and compacted by the contractor to required subgrade elevation or one foot above tieback cables, whichever is less. Cost shall be a subsidiary obligation of Item 507A-000, wire rope abutment anchor assembly. The contractor shall give _____ hours' notice to the county prior to needing the material.

Guardrail Notes

Fills shall be widened to accommodate guardrail installation as shown on appropriate guardrail and guardrail end anchor drawings. This work will be performed by county forces at no cost to the project. This work shall include all erosion and sediment control measures in accordance with standard specifications and/or applicable special provisions and ESC drawings.

Required guardrail which is to be bent to less than a 150' radius, shall be shop-formed. The rail shall be installed using breakaway wood post without blockouts through the limits of the radius. Guardrail through the limits of the radius, including the cost of bending, shall be paid for under Item 630A-____. The guardrail shall be terminated with a " ____* anchor" as detailed on special drawing GA-630-___.

*Note: Type 8 anchors shall be used on residential or private drives. The steel tube option is recommended due to right-of-way constraints. Type 10 series or Type 20 series anchors shall be used on public roads.

Drilling, new bolts and posts are required for the installation of the guardrail on the bridge from station _____ to station _____. The spacing for the required posts shall not exceed 6'-3" on center. The contractor shall field verify the width of the bridge curb prior to installation. Threaded rods shall meet the requirements of ASTM A325 or A449. Hex nuts shall meet the requirements of ASTM A563 grade 'b' or better. Bolts, nuts and washers shall be galvanized in accordance with ASTM A153. Bolts and nuts shall be recessed on the curb adjacent to traffic with the cost being a subsidiary obligation of Item number 630A-004.

Erosion Control Notes

Erosion and sediment control items have been set up to be used as directed by the Engineer.

The county will provide and maintain all necessary erosion and sediment control items in accordance with standard specifications and/or applicable special provisions and ESC drawings at no cost to the project.

At the completion of the contractor's work at each site the county shall assume responsibility for the maintenance and removal of all erosion and sediment control items.

PLAN PREPARATION

Traffic Control Note – Tied Projects

The following traffic control devices required for the lane closure operations for this proposal are included in the quantities for project no. _____

2 – W20-1(Expwy/Frwy)
2 – W20-4(Expwy/Frwy)
2 – W20-7(Expwy/Frwy)
1 – Pilot Car (or cones)

The unit bid price for these items shall reflect the costs for the relocation and maintenance of these devices for project no. _____, which is included in this proposal. The G20-1 signs, the G20-2 signs, and the other required constructions signs, as shown on sheet ___, shall remain in place until the contract items of work for both projects are completed and the projects are accepted for maintenance. The contractor shall only be paid for the maximum number of traffic control devices provided at any one time. See Standard Specification 740.05(a).

Traffic Control Note – Multiple Sites

The following traffic control devices required for the lane closure operations for this proposal are included in the quantities for site no. ___

2 – W20-1(Expwy/Frwy)
2 – W20-4(Expwy/Frwy)
2 – W20-7(Expwy/Frwy)
1 – Pilot Car (or cones)

The unit bid price for these items shall reflect the costs for the relocation and maintenance of these devices for site no. ____. The G20-1 signs, the G20-2 signs, and the other required constructions signs, as shown on sheet ___, shall remain in place until the contract items of work for both projects are completed and the projects are accepted for maintenance. The contractor shall only be paid for the maximum number of traffic control devices provided at any one time. See Standard Specification 740.05(a).

Required Shoulder Work – County Forces

All required shoulder work, including shoulder widening for guardrail, will be performed by county forces at no cost to the project. This work shall be completed within 15 days of completion of the paving operations by the contractor. All other items of work deemed necessary for the satisfactory completion of the project for which pay items are not shown shall be performed by the county at no cost to the project.

Salvageable Material Notes

Material deemed salvageable by the Engineer during removal of the bridge shall be stockpiled on the project right-of-way at a location as directed by the Engineer. Cost to be a subsidiary obligation of Item 206A-___. All other materials in the existing bridge to be removed shall become the property of the contractor upon removal.

PLAN PREPARATION

The county shall retain possession of the existing guardrail and post to be removed. The contractor shall stockpile the guardrail in an area to be designated by the Engineer within the row limits of the project to be picked up by county forces.

Leveling Note (when not shown as a full width layer on the typical section)
Leveling is to be placed as directed by the Engineer.

Utility Note - No Conflicts
There are no known utility conflicts. It shall be the contractor's responsibility to determine the exact location of all utilities prior to beginning work. In the event of any damage to in-place utilities, they shall be repaired or replaced to the satisfaction of the Engineer and utility owner at the contractor's expense.

SUMMARY OF QUANTITY SHEET – GENERAL GUIDELINES

- Show the unique item number, description, and unit exactly as written on the Alabama Department of Transportation Item Description List. This list can be obtained from the Bureau of Office Engineer link on the ALDOT web page at the following address:

  http://alletting.dot.state.al.us/OfficeEngineer/OtherFiles.htm

- List required items in numeric/alpha order by ALDOT pay item and unique number (e.g. 210A-000, 210A-002, 210B-001, 610A-010, etc.)

- Do not show decimals or commas in the quantity columns, except for "Lump Sum" pay items, when the quantity is prorated based on multiple sites within a project, or another project is included in the bid proposal.

- Separate bridge quantities from roadway quantities. An exception is permitted for bridge replacement projects with no approach work when the roadway items are incidental to the bridge or bridge culvert construction, e.g., guardrail, rip-rap, silt fence, hay bales, etc. If two (2) or more bridges are involved in the project, a summary box must be provided indicating quantities for each bridge and the total for each item shown on the main summary sheet.

- Place Bridge and Bridge Culvert items in the Bridge Column (include structure excavation, foundation backfill, concrete, and steel for bridge culverts).

- Removal of Old Bridge is always listed in the Bridge Column on the pay sheet.

- Removal of Old Bridge Culvert is always listed in the Bridge Column on the pay sheet.

- Separate quantities for non-Federal participating and Federal participating.

- Projects using two types of funding must have the quantities separated by funding category and a total column included.

PLAN PREPARATION

BOX SUMMARY SHEET – GENERAL GUIDELINES

A general description should be used for each individual summary box, with column subheadings showing the item description and unique items number for each specific pay item. List any applicable drawings and project detail sheet numbers that are relevant to the pay items. Include remarks as needed. (See example below).

REQUIRED STEEL BEAM GUARDRAIL & END ANCHORS					
STATION TO STATION	SIDE	STEEL BEAM GUARDRAIL, CLASS A, TYPE 2	GUARDRAIL END ANCHOR, TYPE 10 SERIES	DRAWINGS	REMARKS
		630A-001 (LIN. FT.)	630C-070 (EACH)		
43+00.875 TO 43+38.375	LT.		1	GR-630-S (2 SHEETS) GA-630-10 (4 SHEETS) SHEET NO. 5	FILLS TO BE WIDENED BY COUNTY FORCES FOR GUARDRAIL INSTALLATION
43+38.375 TO 44+00.875	LT.	62.5			
44+00.875 TO 44+38.375	LT.		1		
TOTAL		63	2		

- Do not place zeros (0) in any column on the box sheets. Decimals may be placed in certain quantity columns, such as guardrail or minor structure concrete, but all total columns shall be whole numbers that have been rounded up. Commas shall not be used to separate numerical digits.

- Provide total in total columns for items that transfer to the summary of quantities sheet (not columns such as concrete collars – this item is paid for using the pay item "minor structure concrete").

- When quantities for an item appear in two or more places throughout the plans, a cross-referencing statement, such as "FOR ADDITIONAL QUANTITIES - SEE SHEETS ___ and ___", shall be included.

- Box sheets are required for bridges when more than one bridge is required within the project limits.

- The cumulative item total shown on all box sheets throughout the plans for a pay item shall be transferred to the Summary of Quantities sheet(s).

Reminders

- Do not set up structure excavation and foundation backfill for sidedrain pipe. It is included in the bid price for sidedrain pipe.

PLAN PREPARATION

- If temporary pipe is used under Item 530A, be sure to provide for the removal & disposal of the pipe in the summary box. Structure excavation, foundation backfill quantities, and applicable standard/special drawings shall be included in the box.

Removal of Old Bridge or Bridge Culverts

- A separate unique item number should be provided for **each** existing bridge structure to be removed. Give a detailed description of the bridge to be removed in a summary box. Include the stations, length and width, number of spans, and deck, superstructure, and substructure types. On the Plan and Profile sheet(s), flag the in-place bridge structure, provide the stationing, and indicate that the bridge is to be "removed."

- Removal of existing bridges should be paid for under Item No. 206A-___, Removal of Old Bridge, Station _____.

- Removal of existing culverts, or bridge culverts, should be paid for under Item No. 206B-___, Removal of Old Box Culvert, Station _____.

Channel Excavation

- Show a column and the quantity of channel excavation in the roadway culvert and bridge culvert summary boxes, if required.

- Show the traverse and channel excavation limits on the plan view of the plan/profile sheet and include cross sections in the plan assembly.

Permanent Traffic Striping

- A striping summary box should be included for all projects. Quantities for all striping items utilizing “per mile” units should be shown to two decimal places in the sub-total columns and rounded up to the next even mileage increment (no decimals) in the total column.

Temporary Traffic Striping

- Temporary striping is not required on county federal aid projects with current ADT’S less than 3000. While the use of temporary striping is encouraged, it is optional and will be based on the County Engineer’s recommendation. Quantities should be rounded as noted above.

Traffic Control Markings and Legends

- Show locations for “Traffic Control Markings” (stop lines, yield lines, railroad markings, pavement arrows, etc.) and/or “Traffic Control legends” by station locations (left or right) or location description, e.g., Stop Line – Hailey Road Intersection, or Stop Line – Station 145+00 Left.

PLAN PREPARATION

Erosion and Sedimentation Control Box

- Show stations, items, quantities, and standard drawings columns. See pages 10.31 to 10.35 for "Erosion and Sediment Control Procedures".

- When the item of "Drainage Sump Excavation" (Item 665K-000) is required, **the Construction Bureau has requested that the pay item ONLY be set up for projects involving quantities of 500 cubic yards or greater**. If less than 500 cubic yards of drainage sump excavation is anticipated during construction, the quantity will be paid for under the item of "unclassified excavation". The column heading in the box summary should contain the heading "Drainage Sump Excavation" but not show the unique item number. In such cases, the quantity should be keyed and referenced to the sump excavation project note (see page 10.12).

- The estimated quantity should be clearly noted in the plans. If cross sections are included in the plans, the earthwork summary should show a separate estimated quantity for the drainage sump excavation under the unclassified excavation totals, as shown in the example below.

Unclassified Excavation (Cross Sections)	1365 Cu. Yds.
Unclassified Excavation (Drainage Sump)	325 Cu. Yds.
Total Unclassified Excavation	1690 Cu. Yds.

DRAINAGE INFORMATION - GENERAL GUIDELINES

Roadway Pipe or Roadway Culvert Data, Selection, and Summary Boxes

- When roadway pipes and/or roadway culverts are required on a project, the "Hydraulic Data" sheet must be submitted for each structure (see page 12.13). Pages 12.14 - 12.25 provide additional information needed to complete this form.

- The hydraulic data is also required if a structure is to be extended a significant amount. The Region County Transportation Engineer, in consultation with the County Engineer, should make this determination.

- For projects involving structure extensions (whether of significant length or not), a letter must be provided to the Local Transportation Bureau, through the Region, detailing the following: the condition of the existing structure, and whether there is any history of flooding.

- Show stations, size and quantity, standard/special drawings, structure excavation, foundation backfill, fill height, and skew columns in the required roadway pipe or roadway culvert box. The summary box should also include required end treatment and end treatment slope columns. Culvert concrete and steel reinforcement columns are required in the roadway culvert box.

- Show gauge on all metal pipes.

PLAN PREPARATION

- See the *Alabama Department of Transportation Guidelines for Operation, Section 3-22* for selection of the type of roadway pipe and possible testing requirements.

Roadway and Bridge Culvert Standard Drawings

- When computing quantities of steel and concrete for roadway and bridge culverts, it will be necessary to use the latest standard drawings. Copies of these drawings will be furnished upon request. Local Transportation Bureau personnel will insert the required culvert standard film sheets into the plan assembly prior to sending the plans to letting.

- To determine the centerline length of a culvert, measure the distance between the inside faces of the exterior walls. The stationing of the culvert throughout the plans must reflect this measurement.

- If the structure is on a skew, the correct centerline length can be obtained by dividing the unskewed length by the cosine of the skew angle. Express the length to two (2) decimal places (feet).

Foundation Backfill – General Information
(Alabama Department of Transportation's Construction Manual & Standard Specifications)

- Additional structure excavation (Undercut) to provide for placing foundation backfill, will be measured in cubic yards by the cross section and average end area or other accepted feasible methods.

- Foundation backfill will not be measured directly, but the volume will be fixed at 150% of the volume of the excavation which it replaces that lies between the bottom of the structure and the bottom elevation of the trench ordered excavated.

- Where satisfactory structure foundation is provided by the normal process of removing and backfilling unsuitable material under fill areas, during normal grading operations, none of such backfill removed and used when laying pipe, will be classified as foundation backfill.

- Foundation backfill may be defined as material taken from selected grading operations or areas beyond the right-of-way.

Foundation Backfill for Roadway and Bridge Culverts - Recommended Formula:

Foundation Backfill (Cu. Yds) = L x (W + 4) x 1.5* ÷ 27

L = Average net length of the structure measured along the flowline, tip to tip of wings

W = Outside width of the barrels @ right angle to culvert skew

Figure foundation backfill for culverts from the bottom of the structure to the bottom elevation of the trench. Quantities will be based on replacing this material with 150 percent of foundation backfill material.

***Calculations are based on 1.0 foot excavation below the bottom elevation of the culvert. If more than 1.0 foot needs to be excavated below the bottom of the structure, the volume of foundation backfill will be fixed at 150 percent of the volume of the excavation which it replaces. Any material to be removed within the limits of the culvert, above or below the flow line will be classified as structure excavation (See Standard Specifications).**

Foundation Backfill for Roadway Pipes 48" or Less - Recommended Formula:

Foundation Backfill (Cu. Yds) = L x (W + 3) x 1.5* ÷ 27

L = Average net length of the structure measured along the flowline, including end treatments

W = Inside diameter of pipe

Figure foundation backfill for roadway pipes, 48" or less, from the bottom of the structure to the bottom elevation of the trench. Quantities will be based on replacing this material with 150 percent of foundation backfill material.

*** Calculations are based on 1.0 foot excavation below the bottom elevation of the pipe .If more than 1.0 foot needs to be excavated below the pipe, the volume of foundation backfill will be fixed at 150 percent of the excavation which it replaces.**

PLAN PREPARATION

Structure Excavation – General Guidelines

Structure Excavation for Roadway and Bridge Culverts – Recommended Formula:

Structure Excavation (Cu. Yds) = L x (W + 4) x Vertical Depth** ÷ 27

L = Average net length of the structure measured along the flowline, tip to tip of wings

W = Outside width of the barrels @ right angle to culvert skew

****The average vertical depth is from ground elevation or subgrade elevation, whichever is lower, to the bottom of the required bottom slab + 1.0 feet.**

Excavation above subgrade elevation will be classified and paid for as unclassified excavation.

Structure Excavation for Roadway Pipe 48" or Less - Recommended Formula:

Structure Excavation (Cu. Yds) = L x (W + 3) x Trench Depth▪ ÷ 27

L = Average net length of the structure measured along the flowline, including end treatments

W = Inside diameter of the pipe

▪ Trench Depth – The depth of the excavation for the trench shall extend at least 1 foot above the elevation of the top of the pipe, or from subgrade elevation in cut sections.

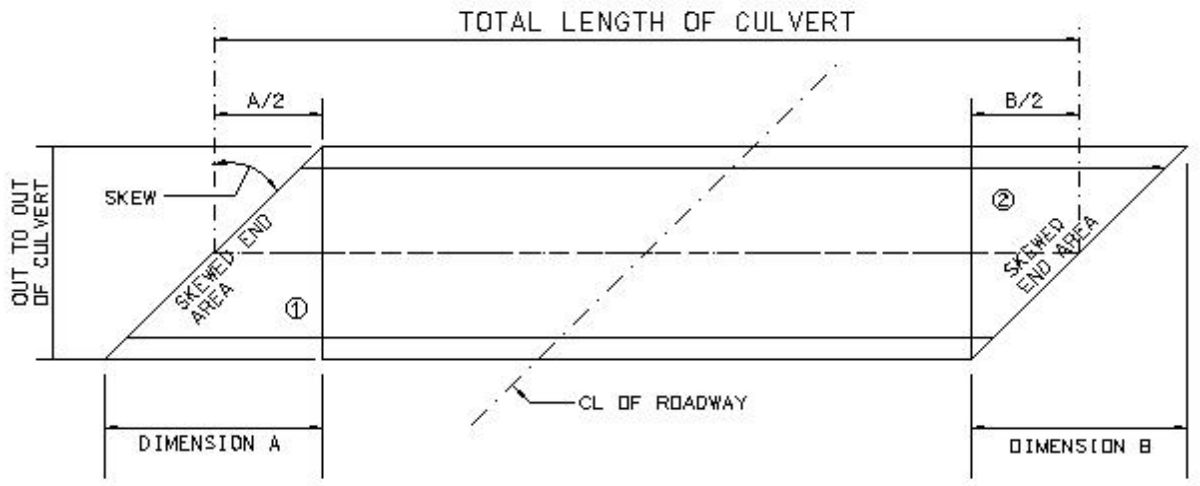
Excavation above the subgrade elevation will be classified and paid for as unclassified excavation.

See page 10.30, referenced from the *Alabama Department of Transportation's Construction Manual*, for guidelines regarding structure excavation and backfill.

PLAN PREPARATION

Calculating Steel Reinforcement Quantities for Skewed Culverts

Standard Drawing No. CS-3-1 (Index No. 1509) requires a change in steel bar reinforcement and the spacing of the bars in the "skewed end area" of culverts on skew. This drawing should be referenced for details and a note specifying the bars to be eliminated, their replacement, and spacing.



Calculate the reinforcing steel quantity for the total length of the culvert using the quantities shown on the standard drawing and add the following amounts for the skewed end areas:

Dimension A or B (feet) =
(Out to Out Culvert Length) X (Tangent of the Skew)

Additional Steel Reinforcement for Skewed End Area ① – Lbs =
(Lbs/ft for the Fill Height on Skewed Area 1) X (Dimension A/2)

Additional Steel Reinforcement for Skewed End Area ② - Lbs =
(Lbs/ft for the Fill Height on Skewed Area 2) X (Dimension B/2)

Calculation Example for Steel Reinforcement Quantities for Skewed Culverts

Given:
Required Bridge Culvert: CQ 16X16X46 (Cast in Place)
12 Degree Skew Rt. Ahead with 5' of fill

Solution:
Dimension A or B (feet) = (67.58' X Tan 12 Degree) = 14.36 ft
Additional Steel Reinforcement for Skewed End Area 1 – Lbs = (1537 lbs/ft X 7.18ft) = **11,035.66 lbs**
Since Area 2 = Area 1, Additional Steel Reinforcement for Skewed End Area 2 = **11,035.66 lbs**

Add curb, toewall, and wing quantities to the above steel reinforcement quantities.

PLAN PREPARATION

PLAN AND PROFILE SHEETS - GENERAL GUIDELINES

Plan and Profile Sheets

- The first plan/profile sheet should always be sheet no. 4 in the plan assembly.

- Show all GN-2 notes that are applicable to the plan/profile sheet. **Do not show any GN-2 notes that apply to the typical section sheet.**

- Show names, addresses, and phone numbers for all utilities within the project limits.

- The plan/profile sheet displays the project's horizontal and vertical alignments in reference to existing elements and illustrates a majority of the required items of work. When possible, the sheet should display the plan view along the top of the page with the profile view, representing the same station to station limits, shown on the bottom portion of the same page. When the required scales result in a plan view or profile view that is too big to fit both on the same page, then the sheet number of the profile view will be the plan view sheet number with the suffix of "A". For example, if the plan view of sheet 5 displays the horizontal alignment from station 120+00 through station 135+00 then sheet 5A will display the profile view from station 120+00 through station 135+00.

- Plotting should typically be performed at a horizontal scale of 1" = 50' on a full size plan sheet (24" x 36" or 22" x 34"). A scale of 1" = 100' can be used on a full size plan sheet when there are limited topographic features and the information can be clearly displayed. As a general rule, bridge replacement projects, with limited approach work, should be plotted on scale of 1" = 50' if it can be fitted on a single plan sheet. Scales should be noted for both plan and profile views by use of a bar scale. This enables an accurate estimate of distances or scaled measurements in case the scale of the plans has been altered by electronic copying. Please note that full size plan sheets are reduced and copied to half size plan sheets (12" x 18") when plan proposals are sold. Therefore, all elements shown and labeled on a full size plan sheet must be legible when reduced to half size.

- Main roadways should be shown first in the plan assembly, followed by secondary roads, side streets, driveways, etc.

- The title "Plan/Profile Sheet" shall be placed at the top center of each individual plan/profile sheet. When the plan view and profile views are broken on two different sheets the title "Plan Sheet" and "Profile Sheet" shall be used as the title on the respective sheet.

PLAN PREPARATION

Plan View General Guidelines

- The baseline survey and/or centerline of construction should be centered in the plan portion of the sheet. For North/South roadways, the roadway shall be stationed from south to north, with the southernmost station beginning on the left side of the plan sheet. For East/West roadways, the roadway shall be stationed from west to east, with the western most station beginning on the left side of the plan sheet. For resurfacing projects, simple projects, or sections of a project without a profile view, "stacking" multiple plan views on one sheet is generally permitted if clarity and legibility are maintained. When multiple plan views are shown on a plan sheet, they shall be stacked from top to bottom.

- A "major tick" mark shall be placed perpendicular and across the centerline at every 500’ station. In addition, intermediate ticks shall be placed at 100" stations. Intermediate ticks shall begin at the centerline and be placed perpendicular to it. The intermediate tick marks should be half the length of major tick marks placed at 500’ stations.

- Station numbers should be placed close to tick marks for scales up to and including 1" = 50' and outside the ROW lines for smaller scales. Place station numbers at 500’ stations.

- A north arrow shall be shown at a point of maximum visibility, preferably in the upper right portion of the plan view.

- PC and PT points of horizontal curves shall be indicated by small circles with short radial lines drawn from these points and identified. Curve data shall be displayed for each horizontal curve using the following format:

P.I. Station	P.I.	=
Degree of Curve	D	=
Deflection Angle (left or right)	Δ	=
Radius	R	=
Tangent Length	T	=
Curve length	LC	=
Superelevation Rate (se).	se	=

- Care must be taken in the clipping of plan sheets to properly orient the horizontal curves within the plan view. In cases where the curve extends over more than one sheet, the curve data should be repeated on each sheet showing the curve.

- The project construction limits should be shown and labeled. **Construction limits are defined as proposed earthwork limits (with no offset buffer) with modifications made to these limits for other work such as the construction of drainage structures, channel diversions, sedimentation/detention basins, energy dissipation structures/devices, ditches, etc. Basic erosion/sediment control items and clearing and grubbing are not considered the majority of**

times when setting initial construction limits; however, an adequate buffer should be considered that will allow drainage detention and sediment basin placement at larger cross-drains. As a general rule, it will be the point at which the fill slope, or back slope in a cut section, ties into natural ground as depicted on the cross sections.

- Label and flag the beginning and ending of the project.

- Existing ROW shall be labeled as "Present ROW" (PRES ROW). Required or additional ROW shall be labeled as "Acquired ROW" (ACQD ROW). The limits of the ROW should be displayed with notation of the incremental station distance and offset distance from the project centerline when changes to the present ROW and/or acquired ROW transition distances occur. If the ROW distance remains constant for a distance greater than one plan sheet station range, then the ROW distance should always be shown on each plan/profile sheet regardless if a ROW distance transition occurs or not. For constant ROW widths, the distance should be shown a minimum of two times, once on the left side of the sheet and once on the right side of the sheet. When the acquired ROW connects with the present ROW do not label the ROW point as "tie to present ROW". Always use a station and offset distance to describe an acquired ROW point and/or when tying to the existing ROW Except in unusual situations ROW should be shown as whole station (i.e. 12+32) and offsets in whole feet (+52). When not shown as above, the degree of accuracy should not exceed 1/100.

- Show property lines and property owners.

- Show and label construction easements and/or drainage easements.

- All major existing topography should be shown. Existing roads, streets, drives, buildings, walls, curbs, pavements, fences, railroads, bridges, drainage structures, control points, and similar items shall be plotted and labeled. Existing topography within the ROW shall be labeled as "existing" or "in place". Label the disposition of existing topography, such as "retain", "remove", "partially remove", etc. Label structures to be removed with appropriate symbol and structure number. Streams, wetlands, ponds, lakes, wooded areas, ditches, and all other physical features shall also be shown. Existing gasoline storage tanks within limits of topographical survey shall be located and labeled. Hazardous material site(s) shall be shown and labeled. Existing topographic survey data may be shaded so that required elements are easier to view. Existing pavement shall be shaded appropriately as designated on the "Plans Legend Sheet".

- Required items shall be shown and labeled as "Required"(REQD).

- Bearings, in the direction of stationing, shall be shown for all tangent sections.

- Station equivalencies, angles with mainline centerline and/or bearings in the direction of stationing of the crossroad shall be shown for all roads and streets intersecting or crossing the project.

PLAN PREPARATION

- All the survey control points shall be shown.

- If section lines or city limits are encountered within the limits of the project, the lines or limits shall be tied by station, bearing, and angle of intersection with the centerline.

- Label the beginning and ending of exceptions and equations.

- Proposed roadway cross drain pipes, sidedrain pipes, inlets, manholes, junction boxes, etc, shall be shown. Roadway cross drain pipe sizes and type shall be shown. All required roadway cross drain pipe and storm sewer pipe shall be flagged at each end by a circle with the index number in the top half of the circle and the drainage sheet number that contains the detailed drainage section within the lower half of the circle. The index numbers shall be assigned with the lower number at the inlet and the larger number at the outlet. Side drains pipes shall have the letters "SD" in the top half of the identification circle with the drainage structure index number in the lower half of the circle. (See "Plans Legends Sheet" in Special and Standard Drawing Book.)

- Box culvert size and length shall be shown. Box culverts (single or multiple) of 20 feet total span or more (measured from the extreme ends of openings along the centerline) shall be designated as bridge culverts and shall be identified by both a Bridge Identification Number (BIN) and a drainage structure number. The beginning and ending stations (inside wall to inside wall) shall be flagged and labeled.

- Proposed bridges and approach bridge end slabs shall be shown by simple outline. Bridges shall be identified by BIN, length of bridge, and the beginning and ending stations noted by station flags. The beginning and ending stations of bridge end slabs shall be labeled.

- The begin/end stations and class and type of required guardrail in addition to the required type of end anchor and end treatment can be shown on this sheet. This information can be shown on the Paving Layout Sheets if they are included in the plan assembly.

- Limits of wetlands shall be shown based on permit or regulatory requirements.

- Bench mark data shall be shown on the plan sheet for all bench marks within the station limits shown on the plan sheet. Bench mark data is normally shown in the top-left corner of the plan sheet. Bench marks may be labeled by station and offset (preferred) or Northing and Easting.

- List all of the GN-2 and "Project Notes" that apply to the roadway items that appear on the plan sheet.

- Every known roadway name shall be labeled. Label the roadway as "unnamed" if it does not have a designated name or road number.

PLAN PREPARATION

Profile View - General Guidelines

- Provide a horizontal and vertical bar scale for the profile portion of the sheet. The horizontal scale shall be the same as that used for the plan portion. Station limits of the profile shall correspond to those of the plan portion of each sheet. Station numbers shall be placed across the bottom of the sheet just above the inside sheet border. Intervals for profile stations shall be the same as those in the plan view.

- Vertical elevation datum selected shall be such that the profile will not crowd either the upper or lower limits of the profile format and allow for labeling of the profile. A general guideline is the vertical scale should be exaggerated using a 10:1 ratio. A vertical scale of 1”=10’ should normally be used if the horizontal scale is 1”=100’ and a 1”=5’ vertical scale should be used if the horizontal scale is 1”=50’. Elevation data shall be shown on both the left and right sides of the profile grid.

- The existing ground line profile shall be shown and labeled “Existing Ground”. All high water elevations affecting base clearance or roadway grades shall be shown and labeled. Show the most critical minimum vertical distance of bridge girders below and/or above roadway, railroad tracks, vehicle passage way, etc., if applicable.

- Station equations and exceptions shall be labeled and flagged.

- The beginning and ending stations for bridges/ bridge culverts, the beginning and ending work stations for the roadway, and the beginning and ending project stations for the roadway shall be labeled and flagged.

- The profile grade line identified on the typical sections shall be drawn with a solid line to represent the elevation of the roadway on the profile grade. The roadway profile grade shall be labeled “Profile Grade”.

- Vertical curve PVC's and PVT's shall be indicated by small circles and PVI's by a small triangle with short sections of tangent shown on each side of the PVI.

- Percents of grade to 4 significant digits shall be shown on the tangent line (trailing zeros need not be shown).

- Vertical lines shall be extended from the PVC and PVT points and a dimension line placed between these lines indicating the length of the vertical curve and the K factor that is a measure of the available sight distance. Normally, the curve length with dimension lines and also profile grade elevations shall be placed and labeled above the grade line for sag vertical curves and below the grade line for crest vertical curves. The PVC and PVT stations and elevations shall be indicated on the vertical lines.

PLAN PREPARATION

- The location of existing and required bridges, bridge culverts, culverts, and roadway cross drain pipes shall be shown to scale on the profile view. The proper symbol shall be used. The flow line elevation at the centerline shall be calculated (if not provided in survey) and the size and type of drainage structure labeled.

- Vertically label existing ground and profile grade elevations at least every 100' station. This is normally done at the bottom of the profile grid. Label the profile grade elevation to the left of station grid line and the existing ground elevation to the right of station grid line.

On all new bridge and bridge culvert projects, the following information will be needed:

- Detour information - If an on-site detour is required by the construction plans, whether it is to be built by the contractor, or the county at no cost to the project, the following information should be shown:

    - Vertical alignment
    - Horizontal alignment
    - Size and type of temporary drainage structure(s)
    - Typical section showing width of travelway and shoulders
    - Traffic control plan with all required traffic control devices

- This information is needed in order to determine the design speed of the detour, adequacy of the temporary drainage structure(s), placement of the necessary traffic control devices, and stormwater permit requirements.

- If the plans show an off-site detour, and after the project is let to contract, the county decides to install an on-site detour, the county shall provide a letter to the Region confirming the detour is not constructed as part of the project and the costs are not charged against the project. Furthermore, the county assumes all responsibility for the placement and maintenance of the detour and shall indemnify and hold harmless the State and the Transportation Director from any and all liabilities resulting from the on-site detour. This letter should be on file with the Region prior to the placement of the on-site detour.

- For an off-site detour which is to be included in the contract, indicate the location of the traffic control devices on the traffic control sheet, show quantities in a summary box, and list the total on the summary sheet.

- If the county is to handle the off-site detour at no cost to the project, provide a project note on the project note sheet indicating this.

- Show all hydraulic data included in the Bridge Bureau's site inspection report on the bridge general elevation plan sheet or the culvert drainage section.

TRAFFIC CONTROL SHEET – GENERAL GUIDELINES

- Prepare the traffic control sheet showing traffic handling according to the situation and by using the *Manual on Uniform Traffic Control Devices* (current approved edition).

- For 3R and pavement preservation projects, the Local Transportation Bureau will, at the request of the county, insert a cone and/or pilot car traffic control plan (TCP) into the plan assembly. This request should be noted at the PS&E review and requested in writing when the plans are submitted for Construction Bureau review. Most of the required traffic control project notes are included on these TCP drawings and should not be repeated on the project note sheet. If additional notes are required, list them on the project note sheet. The county should ensure these additional notes do not conflict with or restate the notes listed on the inserted TCP(s). The county is responsible for developing the TCP for all bridge replacement projects, or any other project where the TCP deviates from a standard lane closure operation.

- When multiple sites or combined projects are involved, a project note specifying payment and reuse of the construction signs should be added to the plans (see example notes on page 10.13). The note(s) should specify the following items:

    - Number of projects or sites that may be worked on at one time.

    - Indicate which project or site the TCP quantities are being included in for payment purposes.

    - If the intersection roads/streets signs are to be left in place for the striping, markings, etc. operations while work is being performed at another site.

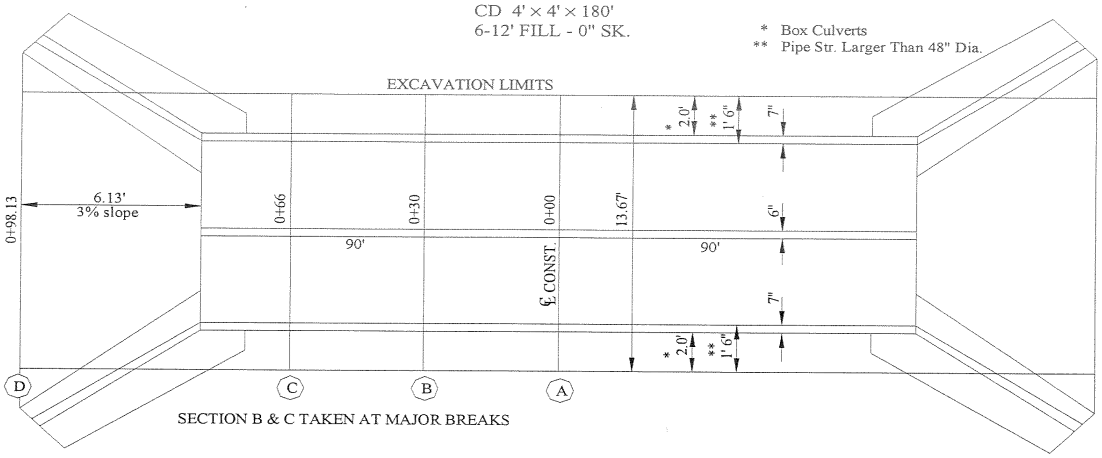
Drainage Section Sheet(s)

- A drainage section shall be required for all drainage structures, including pipe or culvert extensions. NOTE: These sections should be drawn to scale and must be plotted along the skew angle of the structure. The sections should label the inlet and outlet elevation and the flowline elevation at centerline. The percent slope of the structure should also be indicated. Show limits of rip rap along with a placement detail.

PLAN PREPARATION

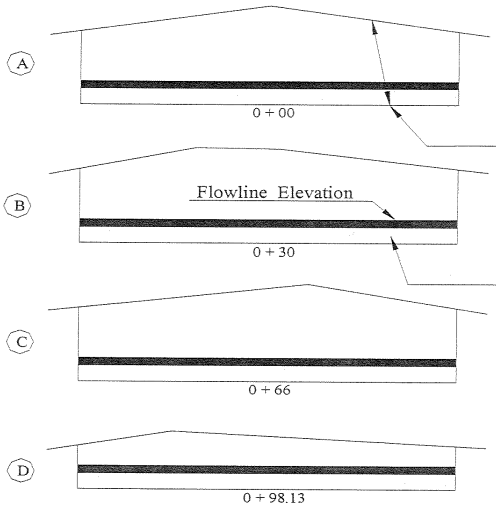
STRUCTURE EXCAVATION AND BACKFILL FOR
DRAINAGE STRUCTURES & MINOR STRUCTURES
PROJECT NO. _____
STA. 478 + 15
CD 4' × 4' × 180'
6-12' FILL - 0" SK.

* Box Culverts
** Pipe Str. Larger Than 48" Dia.



SECTION B & C TAKEN AT MAJOR BREAKS

THIS EXAMPLE FOR LEFT SIDE ONLY



SEE MINOR STRUCTURE, BOOK 1, PAGE ____

STD. DWG. NO. CD - 44
STD. DWG. NO. W4 - 31 - 0

Total Structure Excavation Shall Be Measured By Cross Section Or Other Approved Method, Including All Undercut.

Foundation Backfill Shall Be Measured By The Actual Volume In Place Plus 50%.

NOTE:
THIS SHEET SHALL BE USED FOR BOX CULVERTS AND PIPE LARGER THAN 48" IN DIAMETER.

AREA		VOL.	
Str. Exc.	Found. B'fill	Str. Exc.	Found. B'fill
185	60		
		211	67
196	60		
		270	80
210	60		
		196	71
120	60		
TOTALS		677	218
			109*
			327

* +50%

REFER TO ARTICLE 214.04 FOR METHOD OF MEASUREMENT

PLAN PREPARATION

CROSS SECTIONS – GENERAL GUIDELINES

Cross sections depict the existing ground conditions, along with the proposed cross-sectional elements of the new roadway, at set intervals perpendicular to the respective stations along a survey baseline or construction centerline.

- Cross sections should be drawn on standard grid pattern cross section sheets. Grid patterns may be five or ten grid lines per inch, both vertical and horizontal. The recommended vertical scale is 1" = 10'. The horizontal scale shall be such that the entire roadway right-of-way width is shown on the sheet. The recommended horizontal scale is 1" = 10', but a scale of 1" = 20' will be accepted. Cross sections should be plotted to the larger scale if space will permit. Match lines may be used if the entire right-of-way cannot be shown on a single section. A horizontal and vertical bar scale shall be shown at the bottom right corner of the sheet.

- Exclude bridge spans, large culverts or other exceptions where earthwork is not required.

- Sections shall be centered on the sheet with the survey baseline or the construction centerline located vertically in the center of the sheet. The centerline will be shown as "0", with horizontal distances shown at 50' intervals left and right of the centerline or baseline. Vertical elevations should be shown at 10' intervals, beginning with an even 10' contour elevation, e.g., 150, 160, 170, etc., and should be shown on the left and right side of the cross section. The station number of the section shall be located below each section in the center of the section.

- Cross section stationing shall progress from the bottom to the top of the sheet. When right of way is narrow enough and a horizontal scale of 1" = 20' is used, two columns of cross sections may be placed on a sheet. Multiple columns shall be placed from the left to the right.

- Station equations shall be shown, even though a cross section may not be plotted at that point.

- Cross section should depict additional shoulder width requirements in areas of guardrail and/or guardrail end anchor locations. Guardrail should be depicted on the cross section in these locations.

- Cross sections are generally not required for 3R projects. For new construction and reconstruction, the normal interval for cross sections is 100 feet for rural projects and 50 feet for urban projects. Bridge replacement projects with minor approach work (500' or less on both sides of the proposed bridge structure) should utilize 50' cross section intervals. Approach lengths exceeding 500' can utilize 100' cross section intervals. Cross sections are not required if approaches are not part of the contract items of work.

- As a minimum, the existing groundline should be plotted to the right-of-way limits.

PLAN PREPARATION

Borrow Excavation, Unclassified Excavation, and Topsoil

Calculate cut and fill end areas and volumes for each section. These should be shown with the individual sections or in a summary box on the last cross section sheet.

- The earthwork summary submittal sheet, shown on page 12.5, indicates the method for calculating borrow excavation, unclassified excavation, and topsoil. If these earthwork items are to be a part of the project, this sheet must be submitted as part of the supporting data to the Region with the plan assembly.

- An earthwork summary should be shown in the plans on the last cross section sheet. Shrinkage factors will not be shown in the plans (See the *Alabama Department of Transportation Guidelines for Operation*, page 3-11). These quantities should be reflected on the main summary sheet. Page 12.4 shows the correct format to use.

EROSION & SEDIMENT CONTROL – GENERAL GUIDELINES

In order to address ADEM regulations regarding stormwater runoff on construction sites, and to comply with all requirements of the "National Pollutant Discharge Elimination System" (NPDES), the following erosion control procedures shall be used for all county projects let to contract through the Alabama Department of Transportation, regardless of the funding source.

Importance of Compliance

Full compliance with both ADEM Stormwater regulations and ALDOT procedures are required to protect the quality of water and the quality of life during any phase of roadway and/or bridge construction. Any noncompliance with the requirements constitutes a violation and is grounds for potential enforcement actions by ADEM, and the U.S. Environmental Protection Agency (EPA). An enforcement action could include, but not be limited to, a warning letter, notice of violation, consent or administrative order with monetary penalty, civil or criminal litigation, monetary fines imposed by ADEM, or an order to stop work on the site.

The ADEM Stormwater Regulations require that the stormwater runoff from construction activities be protective of water quality to the maximum extent practicable. To accomplish this goal, the regulations require that all site operators of NPDES Construction Sites develop and fully implement and maintain effective and applicable BMPs. "NPDES Construction Sites" are construction activities that are required to obtain NPDES permit coverage under the ADEM regulations and are defined as the following:

- Construction activities with land disturbance that will disturb 1 acre or greater

- Construction activities that will disturb less than 1 acre but are part of a larger common plan of development or sale whose land-disturbing activities total 1 acre or greater.

PLAN PREPARATION

NOTE: Construction activities that will disturb less than 1 acre may not be required to obtain NPDES permit coverage, but are still required to implement the appropriate BMPs to protect water quality. The continual assessment of the compliance status of an NPDES Construction Site is the responsibility of the construction site NPDES permit holder. This is accomplished through the full implementation of the Construction Best Management Practices Plan (CBMPP) and the inspection and maintenance activities required by the ADEM regulations and ALDOT Standard Specifications.

Because ADEM has primary regulatory authority of NPDES permitting of regulated construction activities in Alabama, permitting, compliance, and enforcement are all under the ADEM NPDES jurisdiction. Permitting and enforcement are under the ADEM Water Division.

Stormwater Permit Guidelines (Construction vs. Maintenance)

We have summarized some fundamental ADEM and ALDOT interpretations which are outlined below.

- Limited blading or placing fill next to a road that has been repaved to ensure safe grade transition to existing shoulder of the roadway for safety purposes, or routine blading to regularly maintain the grade of an existing safety shoulder (with immediate stabilization as needed) is considered normal maintenance and not construction. Blading or placing fill next to a road to widen the road, shoulder, or adding a new safety lane is considered construction.

- Adding width to the road, shoulder, or adding/lengthening a turn lane is considered new construction and is not normal maintenance.

The following examples, although not all inclusive, provide some general guidelines:

Bridge Replacement Projects (Includes Cast-In-Place, Precast, & Bridge Culverts)

The county (or consultant under contract with the county) should provide a **complete "Erosion & Sediment Control Plan"** showing the proposed location and type of **all erosion & sediment control items needed to complete the contract items of work.** All ESC Drawings, as listed in Special and Standard Drawing Book (Index 1160-1171), shall be indexed.

1. **Bridge Replacement - Approach Work Included In Contract.** – The contractor shall be responsible for all erosion and sediment control measures, and these items should be shown as part of the erosion and sediment control plan and included in the pay quantities for the project.

2. **Bridge Replacement - Approach Work Done By County Forces**. – The contractor shall be responsible for only the erosion and sediment control measures within the project limits at the bridge or culvert site. The county will be responsible for all erosion and sediment control items associated with the approach fill. A note should be placed in the plans that states the county will assume responsibility for the erosion and sediment control measures at the time they begin this work. An example note is shown below.

PLAN PREPARATION

COUNTY FORCES WILL COMPLETE THE ROADWAY APPROACHES, INCLUDING THE SHOULDER WIDENING FOR GUARDRAIL INSTALLATION (if applicable). AT THE BEGINNING OF THE APPROACH CONSTRUCTION, THE COUNTY WILL ASSUME RESPONSIBILITY FOR THE MAINTENANCE AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL ITEMS.

Resurfacing Projects

As a **general** rule, no erosion control plan or pay items are required for a **typical** resurfacing project. This in no way absolves the counties of complying at all times with ADEM "Best Management Practices" (BMPs) requirements.

- Based on the previously referenced interpretations from ADEM and ALDOT, any blading along the side of an existing road that has been repaved in order to raise (but not widen) the shoulder elevation to that of the roadway is considered "maintenance" and not "construction." This bladed area should be stabilized (grassing, aggregate surfacing, etc.) **immediately**.

- The plans should specifically address erosion and sediment control measures if shoulder widening and additional fill requirements are required prior to the contractor's installing the guardrail and/or end anchors, especially since these sites are often located at existing bridges or culverts. **According to ADEM, and this office, the additional width of the shoulders and fill are outside of the limits of "maintenance" operations, as defined above, and should be considered as "construction."** The controlling item(s) of work will again determine whether the contractor or the county is responsible for the erosion control measures.

- It is **recommended** to set up an erosion and sediment control summary box using the approximate guardrail stationing for silt fence limits and determining other erosion control measures that may be needed.

Widening & Resurfacing

Widening operations fall outside of the defined limits of "maintenance" and should be considered as "construction" for the purpose of determining whether a stormwater registration is required. The following guidelines should be used for the purpose of determining disturbance acreage:

1. The additional paved lane width times the length of the project should be used to calculate the total disturbance area. If there is significant pavement edge raveling, then this should also be factored into the total width of the widening. The example below is based on a 2.5 mile project with one foot of pavement widening on each side **and no increase in the shoulder width**. NOTE: The

construction staging areas, including equipment parking areas, should be also considered as part of the total disturbance acreage.

Pavement Widening ↴
(2.5 miles x 5,280') x 2' = 26,400 sq. ft. = 0.61 acres

Construction Staging and Equipment Parking
20' x 250' = 5,000 sq. ft. = 0.11 acres

Total Disturbance Area
0.61 acres + 0.11 acres = 0.72 acres

The shoulders do not need to be considered as part of the disturbed area **as long as there is no increase in the final shoulder width.** The total disturbance area in this example is less than one acre and would not require stormwater registration with ADEM.

2. Using the same project length as noted above, if the final shoulder width is being increased from two feet to three feet, then this additional width must also be considered. The total disturbance is now greater than one acre and would require stormwater registration with ADEM.

Pavement Widening↴ ↧Shoulder Widening
(2.5 miles x 5,280') x (2' + 2') = 52,800 sq. ft. = 1.21 acres

Please note that the same guidelines pertaining to shoulder widening and fill placement for guardrail, as noted in the "Resurfacing" section, are also applicable for "Widening and Resurfacing" projects.

Multiple Site Projects

The disturbance area for multiple sites within one project does not need to be considered collectively for the purpose of determining permit requirements, provided there is significant distance and/or time separating the individual sites/activities.

PLAN PREPARATION

NPDES Project Note

The following note shall be included in all plans as a "900" series note:

A NOTICE OF INTENT FOR NPDES PERMIT COVERAGE HAS BEEN FILED WITH ADEM FOR THIS PROJECT.

or

NPDES PERMIT COVERAGE IS NOT REQUIRED FOR THIS PROJECT.

These procedures will be applicable even if no stormwater registration is required for the project. **The county, under authority of the County Commission, is the owner of record for the NPDES Notice of Intent (NOI) and is therefore ultimately responsible for any ADEM citations for noncompliance or unsatisfactory conditions on a project site.** The county is the ultimate responsible party, whether or not an official "Notice of Intent" is required, so it is to the county's benefit to take all necessary measures to protect the project site, adjacent property, and State waters from contaminated stormwater runoff.

MAINTENANCE OF COUNTY ROADS

The 67 counties in Alabama have agreed, in writing, to maintain all roads/projects constructed in full or in part with Federal and/or State funds to an acceptable level. These roads/projects have maintenance inspections performed annually by the ALDOT Region County Transportation Engineer, accompanied by the County Engineer, or their representatives.

The purpose of these inspections is to ensure that the investment made by the State of Alabama and/or Federal Government is being protected by the county, and to identify any maintenance needs that may jeopardize the safety of the traveling public.

These roads/projects are scored based on the grading criteria adopted by ALDOT (see *Guidelines for Grading County Roads*). Should a county road/project be considered unsatisfactory for three consecutive years, the county will be subjected to losing future Federal and/or State funding until the road/project is repaired to a satisfactory level.

Form BM-137 (revised 2015) will be used to grade each county road/project. Numerical grades are assigned and a total grade of less than 70% is considered unsatisfactory.

The **BM-137** and the County Road Maintenance Inspection Database can be accessed via a link located on the Local Transportation Bureau's Intranet/Internet home pages.

All county structures (bridges and culverts) that are 20 feet or greater in length are required to have a detailed structural inspection performed every 24 months by an NBIS Certified Bridge Inspector. Posted structures, along with structures in poor condition, are given more frequent interim inspections that vary in frequency from 30 days to 12 months. These inspections are conducted in accordance with the Code of Federal Regulations (Title 23 Part 650), which defines the National Bridge Inspections Standards (NBIS). In addition to the NBIS, bridge/culvert inspections and FHWA data reporting must also meet the criteria outlined in *The Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (1995)* and the *Alabama Department of Transportation Bridge Inspection Manual (2014)*.

AIRPORT INVOLVEMENT – EXAMPLE

(Date)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Dear Sir:

Re: Project No. _____
County No. _____
County _____

There is an airport within 2 miles of the above referenced project; however, the project does not effectively result in an increase in elevation. Actual increase in elevation = _____ feet.

Sincerely,

_____
County Engineer

SUBMITTED FOR CONCURRENCE:

CONCUR

_____ _____
State Local Transportation Engineer Date

DESIGN RISK ASSESSMENT RECORD
FOR DESIGN OF FLOOD PLAIN ENCROACHMENT

DATE:_____
PROJECT NO: _____ COUNTY PROJECT NO._____
PROJECT DESCRIPTION: _____
_____
LOCATION: _____

COUNTY: _____

1.0 Conventional Design Data:

Drainage Area: _____ Sq. Miles
Design Frequency _____ Years
Discharge: _____ Cu. Ft per sec.
Structure Size & Type: _____
_____

1.1 Approximate Fill Height (culverts only): _____ Ft.

1.2 Estimated Structure Cost $_____

1.3 (a) Overtopping elevation: _____ Ft.
(b) Overtopping Discharge: _____ Cu. Ft per sec.
(c) Overtopping Frequency: _____ Year
(d) Upstream Stage: _____ Ft.

2.0 Are significant embankment/pavement repair costs likely at this location?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 3.1)
Explanation: _____
_____
_____
_____
_____

3.0 Risk (Flood Damage)

3.1 Are there significant flood damages prior to design?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 3.2)
Explanation: _____
_____
_____
_____
_____

3.2 Are there significant flood damages after design?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 4.0)
Explanation: _____
_____
_____
_____
_____

4.0 Are there any additional factors to be considered in the assessment process?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 4.1)
Explanation: _____
_____
_____
_____
_____

4.1 Are there any recommended additional studies needed for clarification of risks?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 5.0)
Explanation: _____
_____
_____
_____
_____

5.0 Are risks significant in relation to capital costs (Adjacent property, structures, etc.)?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 6.0)
Explanation: _____
_____
_____
_____
_____

6.0 Is a risk analysis required?
Yes _____ (Provide explanation below) No _____ (Proceed to Section 6.1)
Explanation: _____
_____
_____
_____
_____

6.1 The risk associated with this encroachment are ( ) are not ( ) acceptable.
Capital costs are ( ) are not ( ) excessive.
Further studies involving risk are ( ) are not ( ) necessary.

_____ _____
County Engineer Date

EARTHWORK SUMMARY FOR PLAN ASSEMBLY – EXAMPLE

UNCLASSIFIED EXCAVATION:	_____	Cu. Yds.
BORROW EXCAVATION:	_____	Cu. Yds.
TOPSOIL FROM STOCKPILES:	_____	Cu. Yds.
TOPSOIL:	_____	Cu. Yds.

Note: If muck excavation, underwater backfill, underwater embankment, etc. are required, these items should also be shown in the earthwork summary

EARTHWORK SUMMARY SUBMITTAL SHEET – EXAMPLE

1. EXCAVATION AVAILABLE FOR FILL: Cu. Yds

	_____	Cu. Yds. (Cut)
Minus	_____	Cu. Yds. (Topsoil in Cut)
Equals	_____	Cu. Yds. (Subtotal)
Minus	_____	Cu. Yds. (Shrinkage Quantity)
Equals	_____	Cu. Yds. (Total)

2. BORROW NEEDED:

	_____	Cu. Yds. (Fill)
Plus	_____	Cu. Yds. (Topsoil Beneath Fill)
Minus	_____	Cu. Yds. (Excavation Available for Fill)
Equals	_____	Cu. Yds. (Subtotal)
÷	(*) _____	* 1 minus (Estimated % Shrinkage/100)
Equals	_____	Cu. Yds. (Total)

3. UNCLASSIFIED EXCAVATION:

	_____	Cu. Yds. (Cut)
Plus	_____	Cu. Yds. (Topsoil Beneath Fill)
Equals	_____	Cu. Yds. (Total)

4. TOPSOIL FROM STOCKPILES:

	_____	Cu. Yds. (Topsoil Beneath Fill)
Plus	_____	Cu. Yds. (Topsoil from Cut)
Equals	_____	Cu. Yds. (Total)

5. REQUIRED TOPSOIL:

	_____	Cu. Yds. (Topsoil Needed)
Minus	_____	Cu. Yds. (Topsoil from Stockpiles)
Equals	_____	Cu. Yds. (Total)

Note: If muck excavation, underwater backfill, underwater embankment, etc. are required, these items should also be shown in the earthwork summary

ENGINEERING AND INSPECTION (E & I)
REDUCTION LETTER - EXAMPLE

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Dear Sir:

Re: Project No. _____
County No. _____
County _____

Please be advise that _____ County respectively requests that _____ percent (_____%) of the cost estimate be set up for E & I on the above referenced project.

Sincerely,

_____
County Engineer

CC: Region Engineer

ENGINEERING PERSONNEL & EQUIPMENT CERTIFICATION

(Date)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Dear Sir:

Re: Project No. _____
County No. _____
County _____

This is to certify that _____ County has the following engineering equipment and personnel for use on the above referenced project.

EQUIPMENT:

Other miscellaneous equipment as needed to properly handle the project.

ENGINEERING PERSONNEL

_____ CERTIFIED TRAFFIC CONTROL INSPECTOR

_____ CERTIFIED CONCRETE TECHNICAN
CERT. # _____ EXPIRATION DATE _____

_____ CERTIFIED ROADWAY TECHNICAN
CERT. # _____ EXPIRATION DATE _____

_____ CERTIFIED STORMWATER QCI
CERT. # _____ ISSUANCE DATE _____

_____

It is also hereby agreed that the County will leave each piece of equipment on the project until the controlling item of work for that piece of equipment is completed.

Sincerely,

_____
County Engineer (or County Commission Chairman)

A representative from this Region has checked to assure that the equipment and personnel as listed above are adequate to inspect the construction of this project according to Alabama Department of Transportation standards, policies, and specifications

APPROVED: _____
Region Engineer

U.S. Department of Agriculture

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request		
Name Of Project		Federal Agency Involved		
Proposed Land Use		County And State		
PART II *(To be completed by NRCS)*		Date Request Received By NRCS		
Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☐ No ☐	Acres Irrigated	Average Farm Size	
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %		
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS		

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side) **Form AD-1006 (10-83)**

This form was electronically produced by National Production Services Staff

A downloadable version of Form AD-1006 may be obtained at the following web site: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045394.pdf

FARMLAND AND CONVERSION IMPACT RATING
ALDOT ASSESSMENT CRITERIA FOR FORM AD-1006

The following guidelines should be used in rating the twelve Site Assessment criteria:

1. How much land is in non-urban use within a radius of 1.0 mile from where the project is intended?

	Points
More than 90 percent	15
85 to 90 percent	14
80 to 84 percent	13
75 to 79 percent	12
70 to 74 percent	11
65 to 69 percent	10
60 to 64 percent	9
55 to 59 percent	8
50 to 54 percent	7
45 to 49 percent	6
40 to 44 percent	5
35 to 39 percent	4
30 to 34 percent	3
25 to 29 percent	2
20 to 24 percent	1
Less than 20 percent	0

2. How much of the perimeter of the site borders on land in non-urban use?

	Points
More than 90 percent	10
83 to 90 percent	9
76 to 82 percent	8
68 to 75 percent	7
60 to 67 percent	6
52 to 59 percent	5
44 to 51 percent	4
36 to 43 percent	3
28 to 35 percent	2
20 to 27 percent	1
Less than 20 percent	0

FARMLAND AND CONVERSION IMPACT RATING
ALDOT ASSESSMENT CRITERIA FOR FORM AD-1006 (CONT.)

3. How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last ten years?

	Points
More than 90 percent	20
87 to 90 percent	19
83 to 86 percent	18
80 to 82 percent	17
76 to 79 percent	16
72 to 75 percent	15
69 to 71 percent	14
65 to 68 percent	13
61 to 64 percent	12
58 to 60 percent	11
54 to 57 percent	10
50 to 53 percent	9
47 to 49 percent	8
43 to 46 percent	7
39 to 42 percent	6
36 to 38 percent	5
32 to 35 percent	4
28 to 31 percent	3
25 to 27 percent	2
21 to 24 percent	1
Less than 20 percent	0

4. Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected: 20 points
Site is not protected: 0 points

Note: This factor should always be 0

5. How close is the site to an urban built-up area?

Not Applicable

6. How close is the site to water lines, sewer lines and/or other local facilities and services whose capacities and design would promote nonagricultural use?

Not Applicable

FARMLAND AND CONVERSION IMPACT RATING
ALDOT ASSESSMENT CRITERIA FOR FORM AD-1006 (CONT.)

7. Is the farm unit(s) containing the site (before the project) as large as the average-size farming unit in the county?

As large or larger = 10 points
95 percent as large = 9 points
90 percent as large = 8 points
85 percent as large = 7 points
80 percent as large = 6 points
75 percent as large = 5 points
70 percent as large = 4 points
65 percent as large = 3 points
60 percent as large = 2 points
55 percent as large = 1 point
50 percent as large or less = 0 points

8. If this site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent = 25 points
20% - 24% = 20 points
15% - 19% = 15 points
10% – 14% = 10 points
5% - 9 % = 5 points
Acreage equal to less than 5 percent = 0 points

9. Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All = 5 points
Most = 4 points
Adequate = 3 points
Some = 2 points
Few = 1 point
None = 0 points

10. Does the site have substantial and well-maintained on farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High = 20 points
Many = 15 points
Medium = 10 points
Few = 5 points
None = 0 points

FARMLAND AND CONVERSION IMPACT RATING
ALDOT ASSESSMENT CRITERIA FOR FORM AD-1006 (CONT.)

11. Would the project at this site, by converting farmland to nonagricultural use, reduce the support for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction = 25 points
Large reduction = 20 points
Medium reduction = 15 points
Small Reduction = 10 points
Slight Reduction = 5 points
No reduction = 0 points

12. Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of the surrounding farmland to nonagricultural use?

Incompatible = 10 points
76% - 99 % = 8 points
51% - 75% = 6 points
25% - 50% = 4 points
1% - 24% = 2 points
Compatible = 0 points

Hydraulic Data Sheet

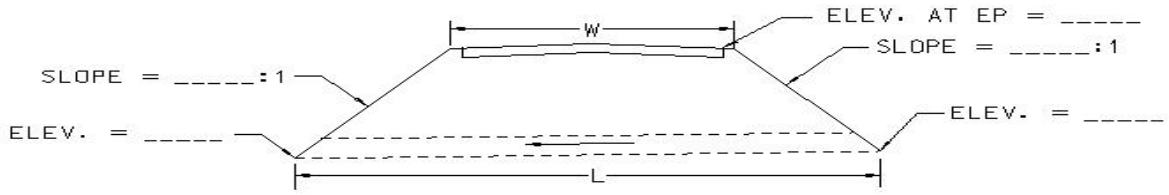
Project No. _____ Station _____
County Project No._____
County _____

Q (cfs) = CIA

C	(See Page 12.15)	=	_____
T_C	(See Page 12.16)	=	_____
I	(See Pages 12.17 – 12.20)	=	_____
A	(Acres)	=	_____

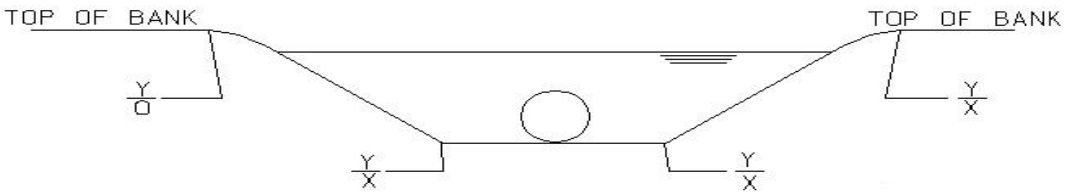
Proposed Structure: (a) Size = _____
(b) Material = _____
(c) Length (Ft.) = _____

Roadway Data : (a) Roadway Width (Ft.) = _____
(b) Overtopping Elevation or Allowable Headwater Elevation, Whichever is Lower = _____



Downstream Channel Data:
(a) Manning's "n" value (See pages 12.21 – 12.25) = _____
(b) Channel Slope (ft/ft) = _____
(c) Cross-Section Coordinates: Y = Elevation
X = Distance

Y	_____	_____	_____	_____	_____	_____
X	0					



STORM RECURRENCE INTERVALS FOR USE IN HYDRAULIC DESIGN OF COUNTY STRUCTURES LESS THAN BRIDGE SIZE

Structure Type	Return Frequency*
Crossdrain	25 year
Sidedrain	10 year

*NOTE: Return frequency can be larger based upon the designer's discretion after a review of the specific factors involved in the design, such as high ADT volumes, speed, land use, etc. Local regulation shall govern if the return frequency is equal to or greater than those shown above.

Example Runoff Coefficients.

Urban areas - The use of average coefficients for various surface types, which are assumed not to vary through the duration of the storm, is common. The range of coefficients, classified with respect to the general character of the tributary reported in use is:

Description of area	Runoff coefficients
Business:	
Downtown areas	0.70 to 0.95
Neighborhood areas	0.50 to 0.70
Residential:	
Single-family areas	0.30 to 0.50
Multi-units, detached	0.40 to 0.60
Multi-units, attached	0.60 to 0.75
Residential (suburban)	0.25 to 0.40
Apartment dwelling areas	0.50 to 0.70
Industrial:	
Light areas	0.50 to 0.80
Heavy areas	0.60 to 0.90
Parks, cemeteries	0.10 to 0.25
Playgrounds	0.20 to 0.35
Railroad yard areas	0.20 to 0.35
Unimproved areas	0.10 to 0.30

It is often undesirable to develop a composite runoff coefficient based on the percentage of different types of surface in the drainage area. This procedure is often applied to typical "sample" blocks as a guide to selection of reasonable values of the coefficient for an entire area. Coefficients with respect to surface type currently in use are:

Character or surface	Runoff coefficients
Streets:	
Asphaltic and concrete	0.70 to 0.95
Brick	0.70 to 0.85
Roofs	0.75 to 0.95
Lawns; sandy soil:	
Flat, 2%	0.05 to 0.10
Average, 2% to 7%	0.10 to 0.15
Steep, 7%	0.15 to 0.20
Lawns; heavy soil:	
Flat, 2%	0.13 to 0.17
Average, 2% to 7%	0.18 to 0.22
Steep, 7%	0.25 to 0.35

The coefficients in these two tabulations are applicable for storms of 5-year to 10-year frequencies. Less frequent higher intensity storms will require the use of higher coefficients because infiltration and other losses have a proportionally smaller effect on runoff. The coefficients are based upon the assumption that the design storm does not occur when the ground surface is frozen.

Rural Areas	Soil Texture		
Topography & Vegetation	Open Sandy Loam	Clay & Silt Loam	Tight Clay
Woodland			
Flat 0-5% slope	0.10	0.30	0.40
Rolling 5-10% slope	0.25	0.35	0.50
Hilly 10-30% slope	0.30	0.50	0.60
Pasture			
Flat	0.10	0.30	0.40
Rolling	0.16	0.36	0.55
Hilly	0.22	0.42	0.60
Cultivated			
Flat	0.30	0.50	0.60
Rolling	0.40	0.60	0.70
Hilly	0.52	0.72	0.82

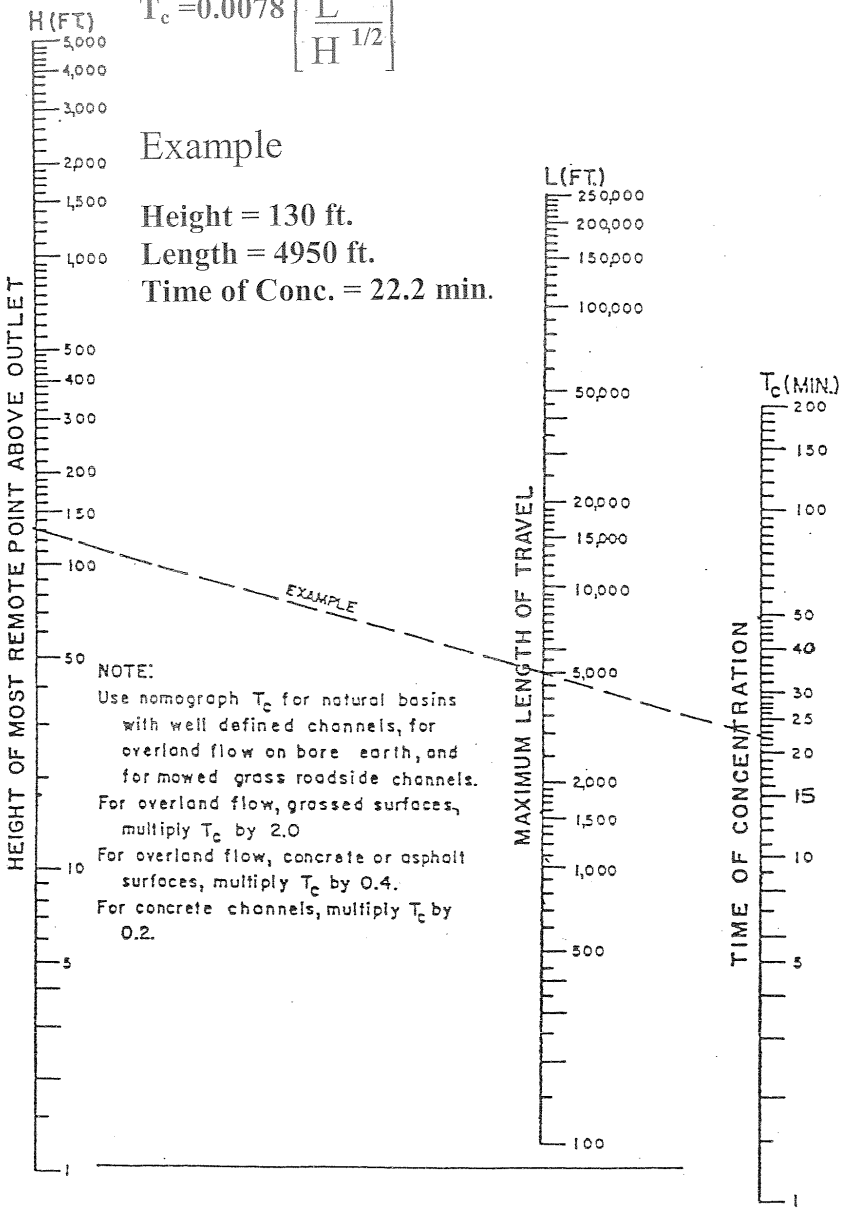
FROM: B. J. Barfield, R. C. Warner, and C. T. Haan, Applied Hydrology and Sedimentology for Disturbed Areas (Oklahoma Technical Press, 1983), p. 111-112.

Equation

$$T_c = 0.0078 \left[\frac{L^{3/2}}{H^{1/2}} \right]^{0.770}$$

Example

Height = 130 ft.
Length = 4950 ft.
Time of Conc. = 22.2 min.

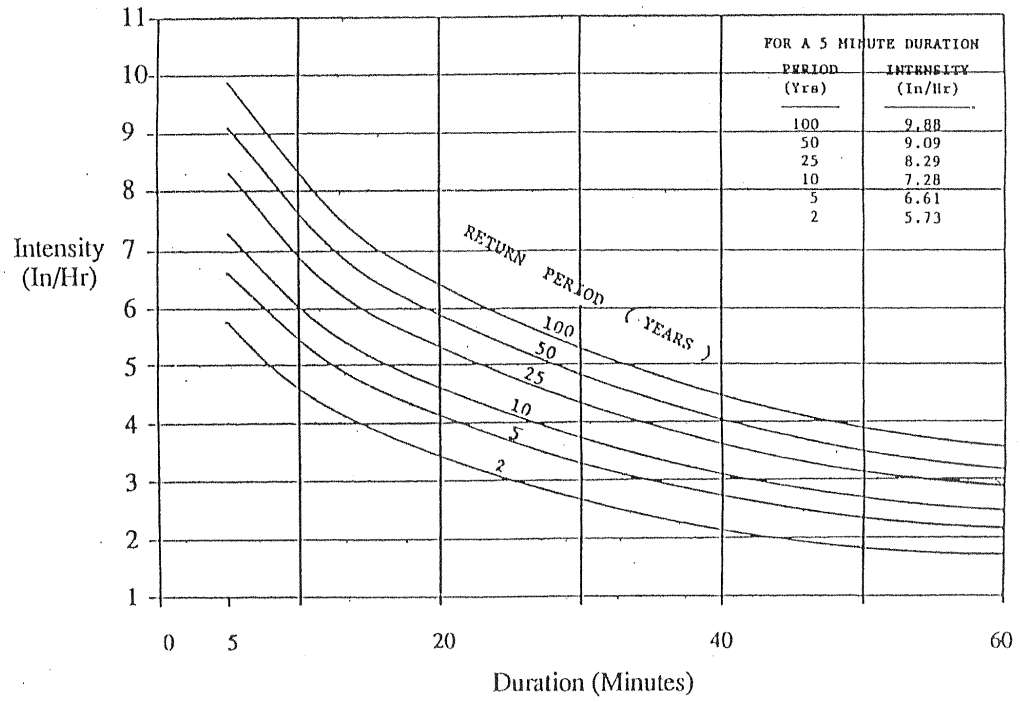


Time of Concentration Nomograph.

From Equation Developed By Z. P. Kirpich.

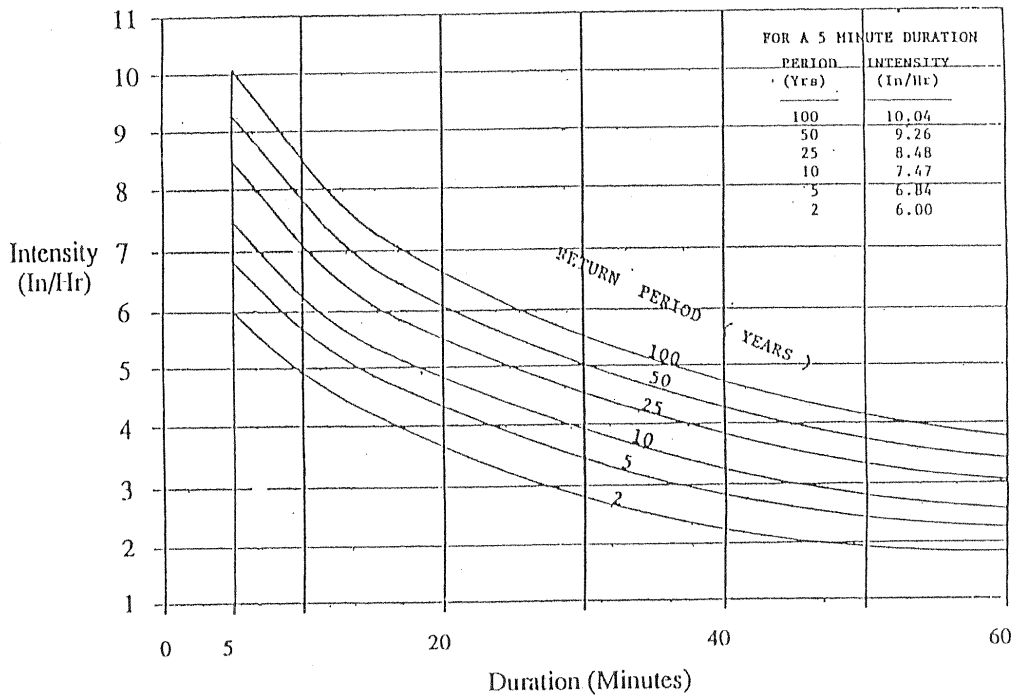
Intensity-Duration Curve For Huntsville.

From NWS Report Hydro-35



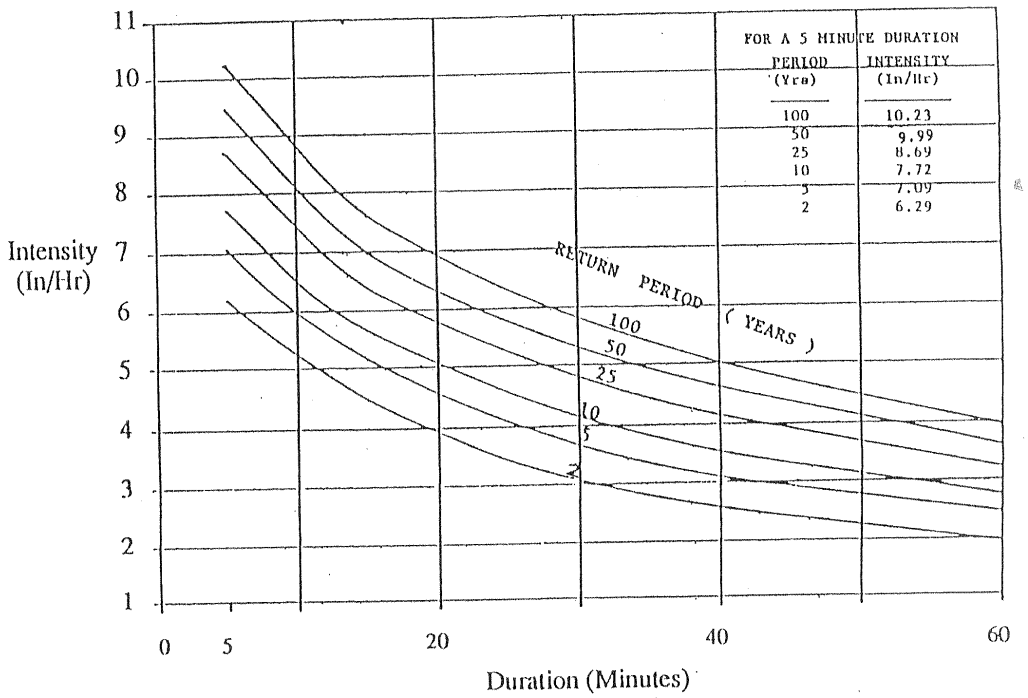
Intensity-Duration Curve For Birmingham.

From NWS Report Hydro-35



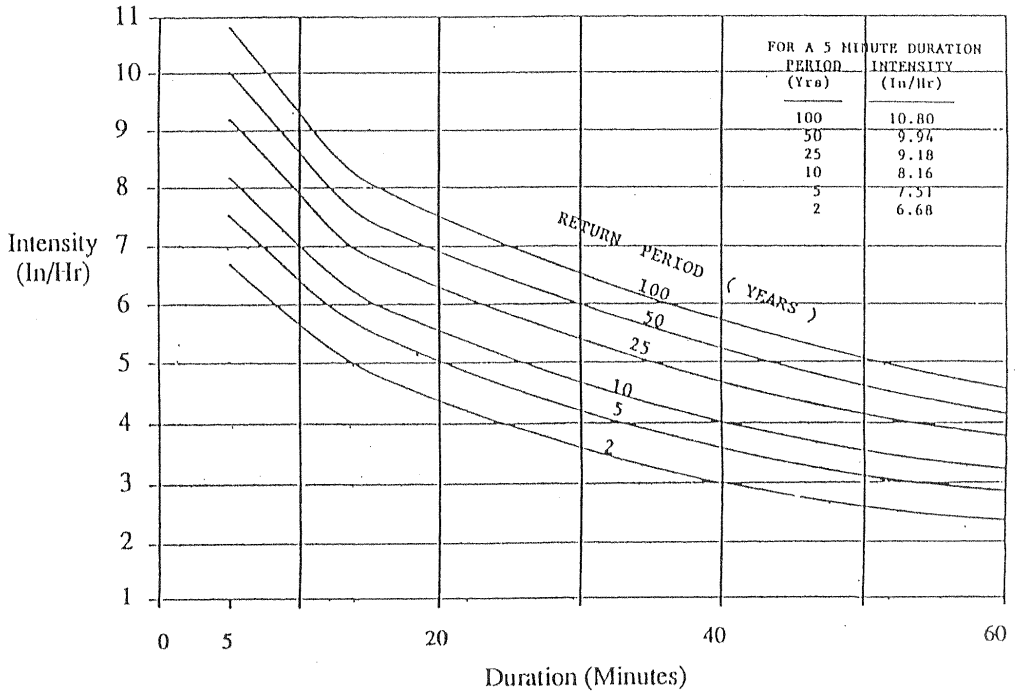
Intensity-Duration Curve For Montgomery.

From NWS Report Hydro-35



Intensity-Duration Curve For Mobile.

From NWS Report Hydro-35



Manning Equation Coefficients of Roughness

	Manning's n range
I. Closed Conduits:	
A. Concrete Pipe	0.011 - 0.013
B. Corrugated-metal pipe or pipe arch:	
1. 2-2/3 by 1/2 in corrugation (riveted pipe):	
a. Plain or fully coated	0.024
b. Paved invert (ranged values are for 25% and 50% of circumference paved):	
(1) Flow full depth	0.021 - 0.018
(2) Flow 08 depth	0.021 - 0.016
(3) Flow 06 depth	0.019 - 0.013
2. 6 by 2-in corrugation (field bolted)	0.030
C. Cast-iron pipe, uncoated	0.013
D. Steel pipe	0.009 - 0.011
E. Monolithic concrete:	
1. Wood forms, rough	0.015 - 0.017
2. Wood forms, smooth	0.012 - 0.014
3. Steel forms	0.012 - 0.025
F. Cemented rubble masonry walls:	
1. Concrete floor and top	0.017 - 0.022
2. Natural floor	0.019 - 0.025
II. Open Channels, Lined (straight alignment):	
A. Concrete with surfaces as indicated:	
1. Formed, no finish	0.013 - 0.017
2. Trowel finish	0.012 - 0.014
3. Float finish	0.013 - 0.015
4. Float finish, some gravel on bottom	0.015 - 0.017
5. Gunite, good section	0.016 - 0.019
6. Gunite, wavy section	0.018 - 0.022
B. Concrete, bottom float finished, sides as indicated:	
1. Dressed stone in mortar	0.015 - 0.017
2 Random stone in mortar	0.017 - 0.020
3. Cement rubble masonry	0.020 - 0.025
4. Cement rubble masonry, plastered	0.016 - 0.020
5. Dry rubble (riprab)	0.020 - 0.030

C. Gravel bottom, sides as indicated:

1. Formed concrete ..... 0.017 - 0.020
2. Random stone in mortar ..... 0.020 - 0.023
3. Dry rubble (riprap) ..... 0.023 - 0.033

D. Asphalt

1. Smooth 0.013
2. Rough 0.016

E. Concrete-lined excavated rock:

1. Good section ..... 0.017 - 0.020
2. Irregular section ..... 0.022 - 0.027

III. Open Channels, Excavated (straight alignment, natural lining):

A. Earth, uniform section:

1. Clean, recently completed ..... 0.016 - 0.018
2. Clean, after weathering ..... 0.018 - 0.020
3. With short grass, few weeds ..... 0.022 - 0.027
4. In gravelly soil, uniform section, clean ..... 0.022 - 0.025

B. Earth, fairly uniform section:

1. No vegetation ..... 0.022 - 0.025
2. Grass, some weeds ..... 0.025 - 0.030
3. Dense weeds or aquatic plants in deep channels ..... 0.030 - 0.035
4. Sides clean, gravel bottom ..... 0.025 - 0.030
5. Sides clean, cobble bottom ..... 0.030 - 0.040

C. Dragline excavated or dredged:

1. No vegetation ..... 0.028 - 0.033
2. Light brush on banks ..... 0.035 - 0.050

D. Rock:

1. Based on design section 0.035
2. Based on actual mean section:
    a. Smooth and uniform ..... 0.035 - 0.040
    b. Jagged and irregular ..... 0.040 - 0.045

E. Channels not maintained, weeds and brush uncut:

1. Dense weeks, high as flow depth ..... 0.080 - 0.120
2. Clean bottom, brush on sides ..... 0.050 - 0.080
3. Clean bottom, brush on sides, highest stage of flow ..... 0.070 - 0.110
4. Dense crush, high stage ..... 0.100 - 0.140

IV. Channels & Swales w/Maintained Vegetation (Values shown are for velocities of 2 & 6 f.p.s.):

A. Depth of flow up to 0.7 foot:

1. Bermudagrass, Kentucky bluegrass, buffalograss

a. Mowed to 2 inches ..... 0.045 - 0.070

b. Length 4-6 inches ..... 0.050 - 0.090

2. Good stand, any grass:

a. Length about 12 inches ..... 0.090 - 0.180

b. Length about 24 inches ..... 0.150 - 0.300

3. Fair stand, any grass:

a. Length about 12 inches ..... 0.0800 - 0.140

b. Length about 24 inches ..... 0.1300 - 0.250

B. Depth of flow 0.7 - 1.5 feet:

1. Bermudagrass, Kentucky bluegrass, buffalograss

a. Mowed to 2 inches ..... 0.030 - 0.050

b. Length 4-6 inches ..... 0.040 - 0.060

2. Good stand, any grass:

a. Length about 12 inches ..... 0.070 - 0.120

b. Length about 24 inches ..... 0.100 - 0.200

3. Fair stand, any grass:

a. Length about 12 inches ..... 0.060 - 0.100

b. Length about 24 inches ..... 0.090 - 0.170

V. Street and Expressway Gutters:

A. Concrete gutter, troweled finish 0.012

B. Asphalt pavement:

1. Smooth texture 0.013

2. Rough texture 0.016

C. Concrete gutter with asphalt pavement

1. Smooth 0.013

2. Rough 0.015

D. Concrete pavement:

1. Float finish 0.014

2. Broom finish 0.016

E. For gutters with small slope, where sediment may accumulate,

increase above values of x by 0.002

VI. Natural Stream Channels:

A. Minor streams (surface width at flood stage less than 100 feet):

1. Fairly regular section:

a. Some grass & weeds, little or no brush ..... 0.030 - 0.035

b. Dense growth of weeks, depth of flow materially greater than weed height ..... 0.035 - 0.050

c. Some weeks, light brush on banks ..... 0.035 - 0.050

d. Some weeks, heavy brush on banks ..... 0.050 - 0.070

e. Some weeks, dense willows on banks ..... 0.060 - 0.080

f. For trees within channel with branches submerged at high stage, increase all above values by ..... 0.010 - 0.020

2. Irregular sections, with pools, slight channel meander; increase values given in 1 a-e about ..... 0.010 - 0.020

3. Mountain streams, no vegetation in channel, banks usually steep, trees and brush along banks submerged at high stage:

a. Bottom of gravel, cobbles and few boulders ..... 0.040 - 0.050

b. Bottom of cobbles, with large boulders ..... 0.050 - 0.070

B. Flood plains (adjacent to natural streams):

1. Pasture, no brush:

a. Short grass ..... 0.030 - 0.035

b. High grass ..... 0.035 - 0.050

2. Cultivated areas:

a. No crop ..... 0.030 - 0.040

b. Mature row crops ..... 0.035 - 0.045

c. Mature field crops ..... 0.040 - 0.050

3. Heavy weeds, scattered brush ..... 0.050 - 0.070

4. Light brush and trees:

a. Winter ..... 0.050 - 0.060

b. Summer ..... 0.060 - 0.080

5. Medium to dense brush:

a. Winter ..... 0.070 - 0.110

b. Summer ..... 0.100 - 0.160

6. Dense willows, summer, not bent over by current ..... 0.150 - 0.200

7. Cleared land w/ tree stumps, 100-150 per acre:

a. No sprouts ..... 0.040 - 0.050

b. With heavy growth of sprouts ..... 0.060 - 0.080

8. Heavy stand of timber, a few down trees, little undergrowth:
    a. Flood depth below branches ..... 0.100 - 0.120
    b. Flood depth reaches branches ..... 0.120 - 0.160

C. Major streams (surface width at flood stage more than 100 ft.):
Roughness coefficient is usually less than for minor streams of similar description on account of less effective resistance offered by irregular banks or vegetation on banks. Values of n may be somewhat reduced. Follow recommendation in publication cited if possible. The value of n for larger streams of most regular section, with no boulders or brush, may be in the range of ..... 0.028 - 0.033

MANNING'S ROUGHNESS COEFFICIENTS FOR SHEET FLOW

SURFACE DESCRIPTION	n^1
Smooth Surfaces (concrete, asphalt, gravel, or bare soil)	0.011
Fallow (no residue)	0.05
Cultivated Soils:	
Residue cover 20%	0.06
Residue cover 20%	0.17
Grass:	
Short grass prairie	0.15
Dense grasses	0.24
Bermudagrass	0.41
Range (natural)	0.13
Woods:	
Light underbrush	0.40
Dense underbrush	0.80

Source: Chow, V.T., 1959, Open Channel Hydraulics, McGraw-Hill, New York, NY

LETTER OF INVOLVEMENT - EXAMPLE

(Date)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36130-3050

Dear Sir:

Re: Project No. _____
County No. _____
County _____

There is no involvement with lands from a public park, recreational area, wildlife refuge, historical or archeological site, navigable water, airport, or railroad on the above referenced project.

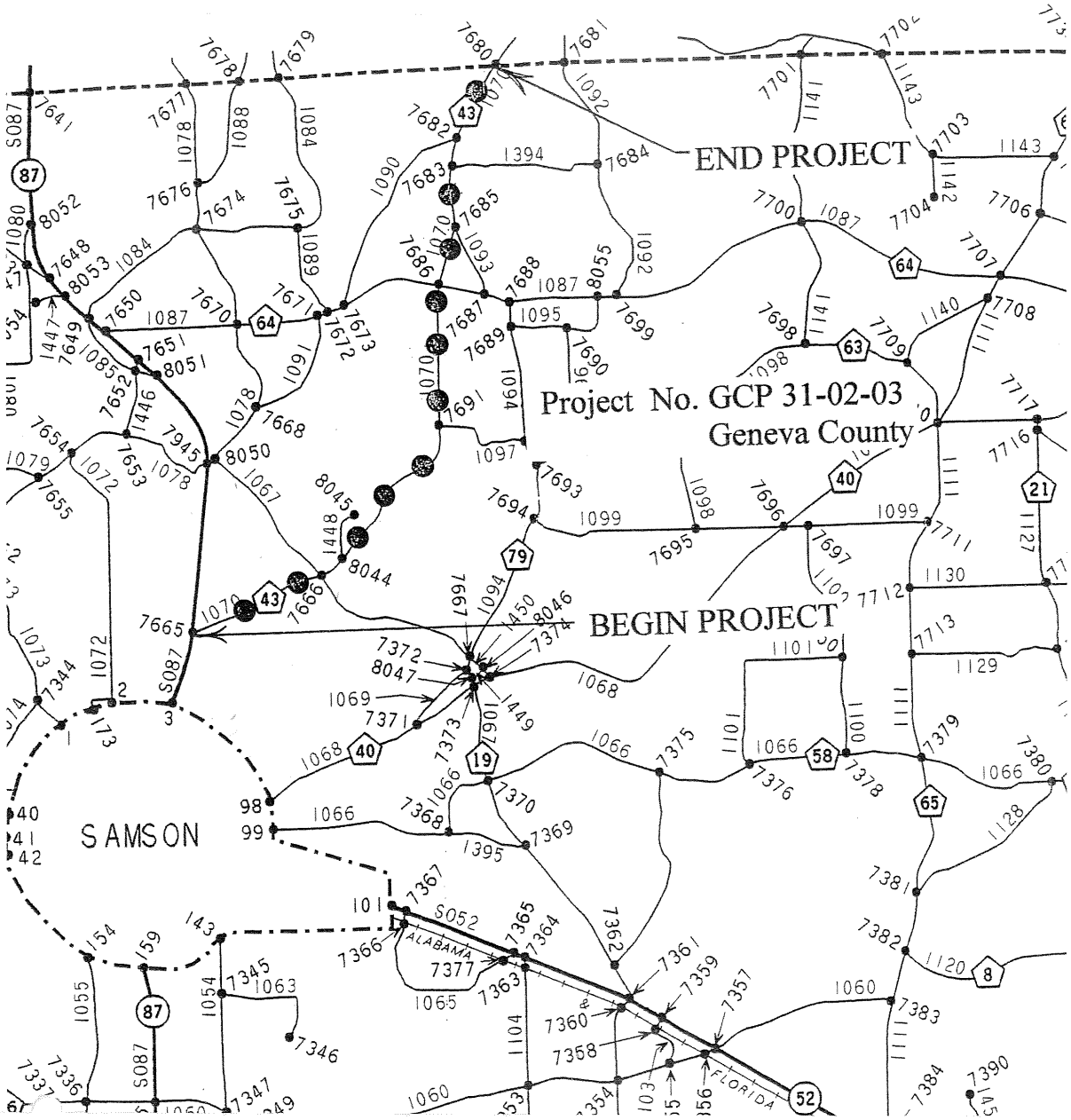
This is submitted in accordance with the 20__ Procedural Guidelines.

Sincerely,

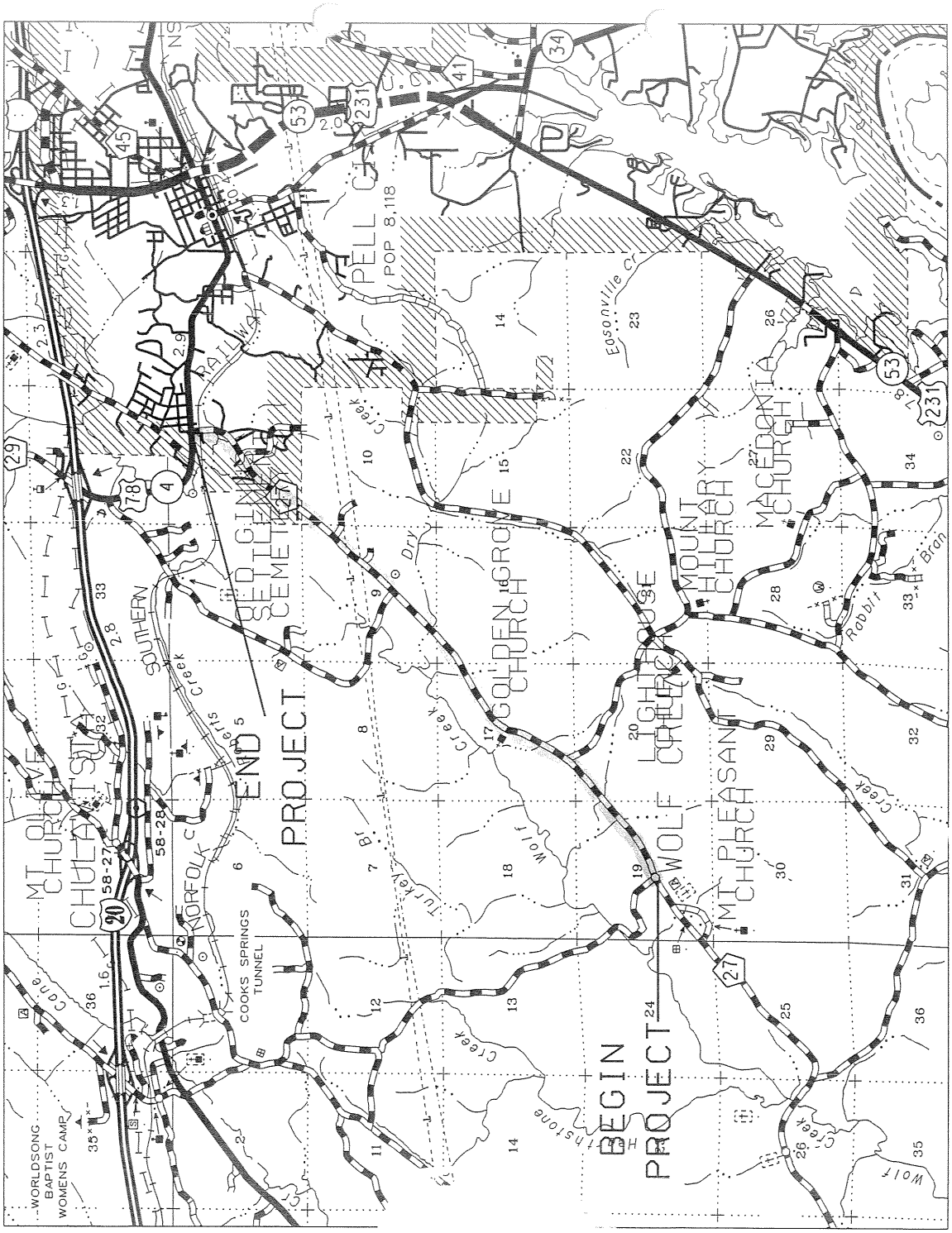
_____
County Engineer

LOCATION MAP ATTACHED

LINK NODE MAP - EXAMPLE



LOCATION MAP - EXAMPLE



MATERIALS REPORT - EXAMPLE

file

Alabama
Department of Transportation
Office of Region Engineer
North Region
1525 Perimeter Parkway, Suite 400
Huntsville, AL 35806
Telephone 256-505-4955
Fax: 256-213-7038

Robert Bentley
Governor

John R. Cooper
Transportation Director

January 5, 2016

Mr. Mark Dale, P.E.
Operations Engineer
Tuscumbia Area
Alabama Department of Transportation
P.O. Box 495
Tuscumbia, AL 35674

Dear Mr. Dale:

RE: **Materials Report**
Project No. FLAP-FLAP (002)
Lawrence County
CR 70 & CR 71, LCP 40-135-13

The attached ***Materials Report*** for the above referenced project has been approved by this office.

Sincerely yours,

Johnny L. Harris, P.E./P.L.S
Region Engineer

JLH/MFD/MED: med

Cc: Innovative Bureau Transportation (w attachment)
Construction Bureau (w attachment)
County/City (w attachment)
Mr. Jud Young, P.E.
Mr. Merle Dale, P.E.
File

COUNTY ENGINEER:
Ben Duncan

TELEPHONE:
(256) 974-2478

LAWRENCE COUNTY ROAD DEPARTMENT
LAWRENCE COUNTY
P.O. BOX 275
MOULTON, ALABAMA 35650

October 15, 2015

Mr. Merle Dale
Division Materials Engineer
Alabama Department of Transportation
P.O. Box 495
Tuscumbia, AL 35674

RE: Materials Report
Project No. FLAP-FLAP (002)
County Project No. LCP 40-135-13
Lawrence County

Dear Sir:

Lawrence County proposes to level, seal, and stripe 5.88 miles on County Road 70 & 71 from the Lawrence Winston County Line along County Road 71 0.84 miles to County Road 70 then 5.04 to the intersection of State Route 33. Therefore, I am submitting for your review and recommendation, a pavement analysis for this project.

GENERAL: The proposed project begins at County Road 71 at Sta. 0+00 at the Lawrence Winston County line and goes to Sta. 44+35 at the intersection of County Road 70 a distance of 0.84 miles. County Road 71 was constructed by county forces using a bituminous surface treatment. County Road 70 starts at Sta. 0+00 at the Lawrence Winston County line and goes to Sta. 310+46 at the intersection of Al. HWY 33 for a distance of 5.04 miles. County Road was constructed in 1994 under project number PFH 41-1 (1) and the current in place pavement is a Bituminous Concrete Pavement surface.

TRAFFIC ANALYSIS: This project has a 2015 ADT of 88. The projected ADT's for the years 2025 and 2035 are 107 and 131 respectively. The percent truck traffic is 18.4%. The information corresponds to ESAL Range A/B. Refer to the attached ESAL calculation sheet for more specific information.

DRAINAGE: All drainage structures appear to be in good condition. However, if necessary, the county will replace cross-drain pipes prior to the beginning of the project.

BASE/SUBGRADE: The subgrades consists of 6 to 8 inches of clay gravel and 6 inches of crushed aggregate base over the full width of the roadway.

PAVEMENT: The original pavement on County Road 71 was a bituminous surface treatment and is a bituminous surface treatment currently. On County Road 70 the original surface is still in place and is a hot bituminous pavement. There is minor pavement distortion in areas.

RECOMMENDATION: It is proposed to correct distortion using spot leveling this will be achieved by utilizing Item 424B-642 Superpave Bituminous Concrete Upper Binder Leveling, 1/2 " Maximum Aggregate Size Mix, ESAL Range A/B. The project will then be resurfaced using Item 409A-001 Triple Layer Bituminous Treatment. Item 430B-043 Aggregate Surfacing (1" Down Crusher Run) shall be placed on shoulders after the wearing surface.

If any further information is required, please contact this office.

Sincerely,

Ben Duncan, P.E.
Lawrence County Engineer

Lawrence County Road Department
Spreadsheet for Calculating 80 kilonewton ESALs/day (equivalent single axle loads per day)
Based on "GUIDELINES FOR OPERATION" and Special Provision No. 5200(2)

PROJECT DATA:

Project number: FLAP-FLAP (002)
Lawrence County Number: LCP 40-135-13
Location: Resurface CR 70, 71 (FS 245, 246, 254)

Input "% traffic increase per year" as a decimal =	0.02 **
Input "C" =	88
Input "P" =	131
Input "TADT" =	0.184
Input "FDD" =	0.5
Input "FLD" =	1
ESALs/design life =	7.28E+04
ESAL Range =	**A/B**

** NOTE: The 2% growth rate was established by the Alabama Department of Transportation, County Transportation for this project.

EQUATION USED:

ESALs/design life = (C+P)/2 (TADT) (0.99) (FDD) (FLD) (20 years) (365 days/year)

where,

C = current, or initial, average annual daily traffic (AADT) volume.
P = projected, or future, AADT volume in 20 years.
TADT = percent commercial vehicles expressed as a decimal fraction.
0.99 = truck weight distribution factor, or statewide average number of 80 kilonewton ESALs applied per truck with a terminal serviceability of 2.5 and a structural number of 5.
FDD = directional distribution factor. Use 0.50 unless specified otherwise by the Bureau of Transportation Planning.
FLD = lane distribution factor. Use values selected from the following:

Number of Lanes in 1 direction	FLD Rural	FLD Urban
1	1	1
2	0.95	0.85
>2	0.7	0.7

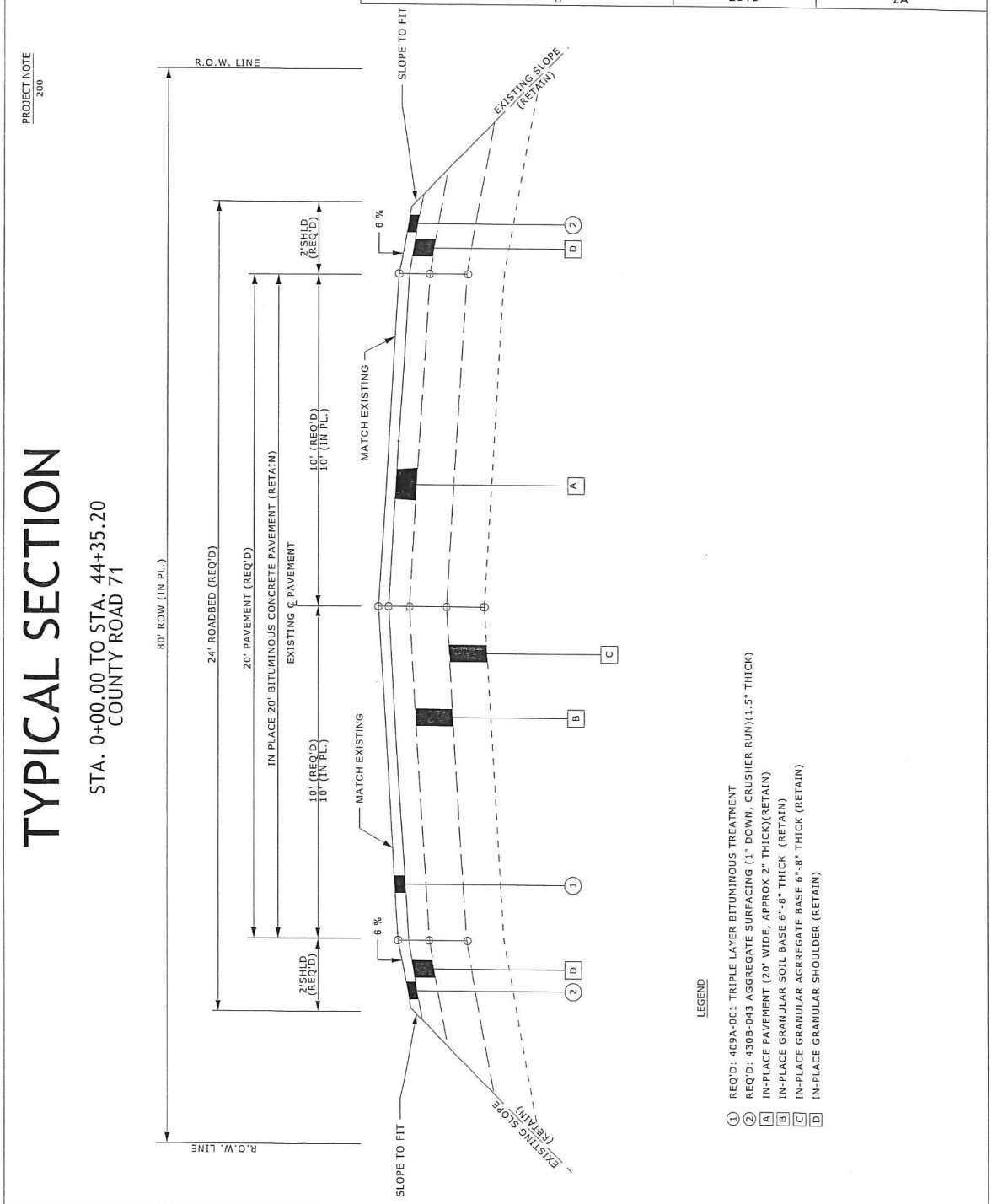
ESAL RANGES:

ESAL Range A/B	ESALs <	1.00E+06
ESAL Range C/D	1.00E+06 <= ESALs <	1.00E+07
ESAL Range E/F	1.00E+07 <= ESALs <	1.00E+08
ESAL Range G	1.00E+08 <= ESALs	

REFERENCE PROJECT NO.	FISCAL	SHEET NO.
STPNU-4014()	2015	2A

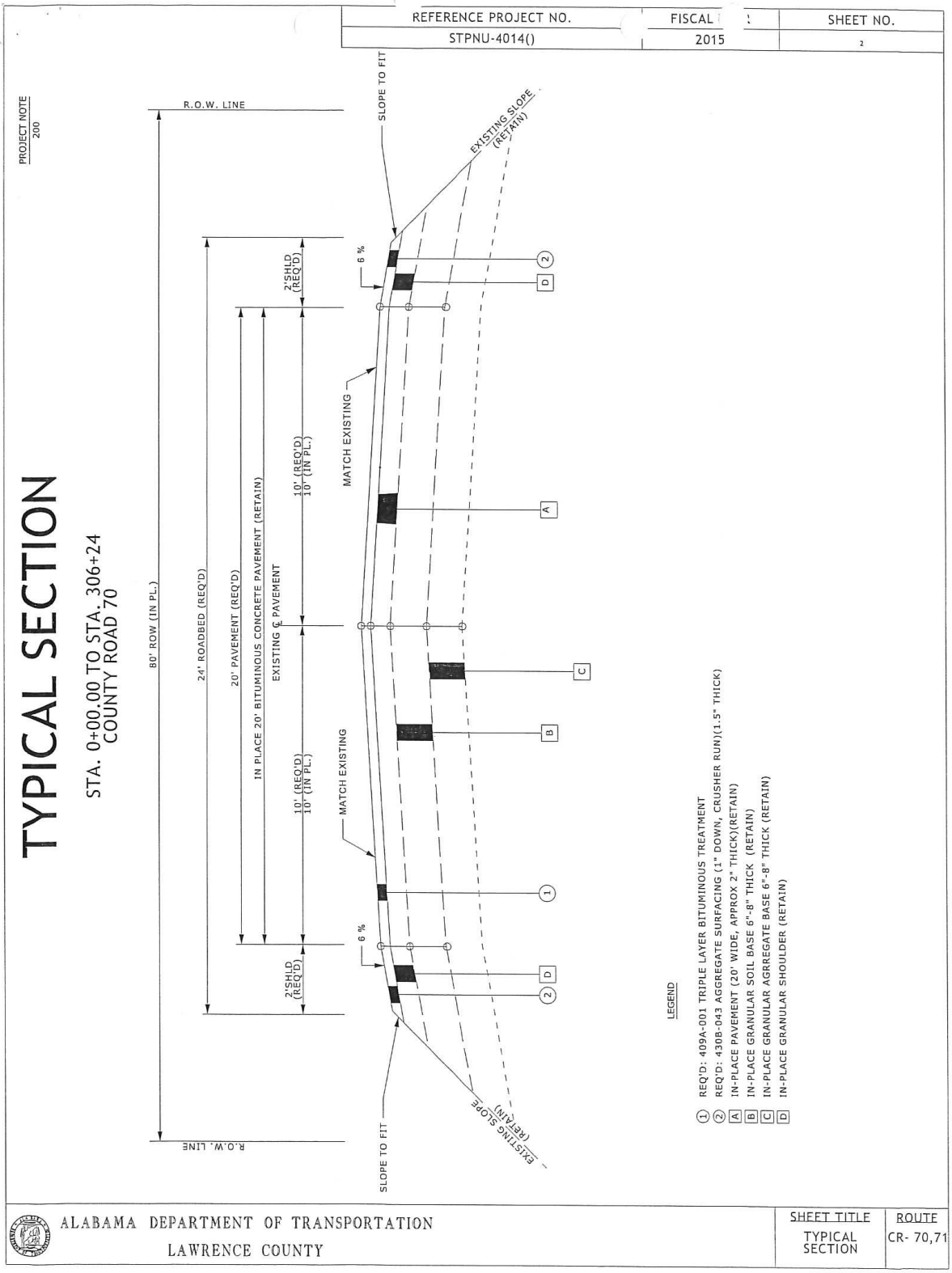
TYPICAL SECTION

STA. 0+00.00 TO STA. 44+35.20
COUNTY ROAD 71



ALABAMA DEPARTMENT OF TRANSPORTATION
LAWRENCE COUNTY

SHEET TITLE	ROUTE
TYPICAL SECTION	CR- 70,71


REFERENCE PROJECT NO.
STPNU-4014()
FISCAL
2015
SHEET NO.
2
PROJECT NOTE
200
TYPICAL SECTION
STA. 0+00.00 TO STA. 306+24
COUNTY ROAD 70
R.O.W. LINE
SLOPE TO FIT
EXISTING SLOPE (RETAIN)
2'SHLD (REQ'D)
6 %
MATCH EXISTING
24' ROADBED (REQ'D)
20' PAVEMENT (REQ'D)
IN PLACE 20' BITUMINOUS CONCRETE PAVEMENT (RETAIN)
EXISTING ℄ PAVEMENT
10' (REQ'D)
10' (IN PL.)
80' ROW (IN PL.)
LEGEND
① ② A B C D
REQ'D: 409A-001 TRIPLE LAYER BITUMINOUS TREATMENT
REQ'D: 430B-043 AGGREGATE SURFACING (1" DOWN, CRUSHER RUN)(1.5" THICK)
IN-PLACE PAVEMENT (20' WIDE, APPROX 2" THICK)(RETAIN)
IN-PLACE GRANULAR SOIL BASE 6"-8" THICK (RETAIN)
IN-PLACE GRANULAR AGRREGATE BASE 6"-8" THICK (RETAIN)
IN-PLACE GRANULAR SHOULDER (RETAIN)
ALABAMA DEPARTMENT OF TRANSPORTATION
LAWRENCE COUNTY
SHEET TITLE
TYPICAL SECTION
ROUTE
CR- 70,71

ALABAMA DEPARTMENT OF TRANSPORTATION

Bureau of County Transportation
1409 Coliseum Blvd., Montgomery, Alabama 36110-2060
Phone: (334) 242-6207 FAX: (334) 353-6530
Internet: http://www.dot.state.al.us

Robert Bentley
Governor

John R. Cooper
Transportation Director

DATE: 4/22/2013 ASL 5-10-13 ASL 2-29-16 6/15/15

TRAFFIC REQUEST

TO: CHARLES TURNEY

FROM: D. E. PHILLIPS, JR., P.E.
STATE COUNTY TRANSPORTATION ENGINEER

BY: LAWRENCE COUNTY

Please update to 2016 on attached sheet

PROJECT NUMBER: LCP 40-135-13

PLEASE COMPLETE OR VERIFY THE INFORMATION REQUESTED BELOW.

		YEAR
PRESENT TRAFFIC	85	2013
FUTURE TRAFFIC	103	2023
ESALS	126	2033

% TRUCK TRAFFIC 18.4%

REMARKS: Resurface CR 70, 71 (FS 245, 246, 254)

The traffic volumes provided by the County are in compliance with the standards as outlined on page 12.62 of the Procedural Guidelines for County Projects, 2007 Edition.

County Engineer

DEP:MVL
PC: Division Engineer
County Engineer
File

COUNTY LAURENCE

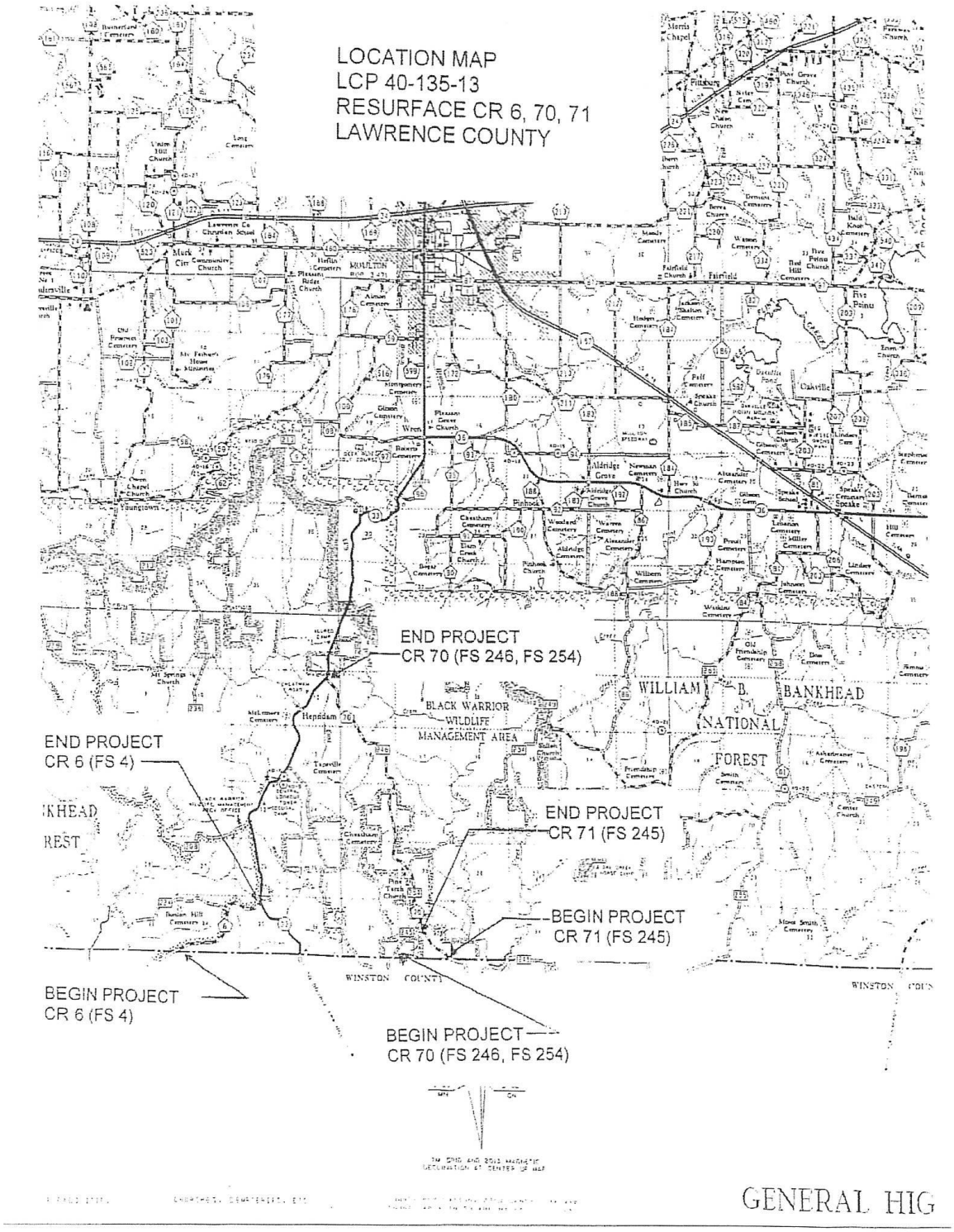
PROJECT NO. PFH-FH13 ; LCP 40-135-13

ROUTE C.R-70 & CR-71

LOCATION						
AADT 2015	88					
AADT 2025	107					
AADT 2035	131					
TADT (%)						

LOCATION						
AADT 2016	90					
AADT 2026	110					
AADT 2036	134					
TADT (%)	18.4%					

* WE DO NOT HAVE ANY COUNTS ON THIS C.R. 70.
IM ASSUMING THE COUNTY DID THIS COUNT.?.?


LOCATION MAP
LCP 40-135-13
RESURFACE CR 6, 70, 71
LAWRENCE COUNTY
END PROJECT
CR 70 (FS 246, FS 254)
END PROJECT
CR 6 (FS 4)
END PROJECT
CR 71 (FS 245)
BEGIN PROJECT
CR 71 (FS 245)
BEGIN PROJECT
CR 6 (FS 4)
BEGIN PROJECT
CR 70 (FS 246, FS 254)
BLACK WARRIOR
WILDLIFE
MANAGEMENT AREA
WILLIAM B. BANKHEAD
NATIONAL
FOREST
WINSTON COUNTY
GENERAL HIG

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT CERTIFICATION

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Dear Sir:

Re: Project No. _____
County No. _____
County _____

This is to advise you that:

( ) A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT will be required from the ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT covering stormwater run-off from construction, excavation, land clearing, or other land disturbance activities and associated areas for the above referenced project. The County, under authority of the County Commission, will be responsible for acquiring this permit prior to the project pre-construction meeting or initiation of any construction activities by county forces.

( ) There is no construction or other land disturbance activity being performed that will require a NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT covering stormwater run-off or any other State or Federal laws or regulations which will require a permit for the above referenced project. The total disturbance area, including equipment staging outside of the project limits, is less than 1 acre.

( ) This project **will require** a Corps of Engineers' Nationwide 404 permit. This project consists of a road crossing and involves a filled area of no more than 1/10 acres (0.04 hectares). There is no roadway fill in special aquatic sites, including wetlands. This project meets the conditions covered in the Department of Defense Regulation 33 CFR Part 330 – NATIONWIDE PERMITS and as approved in the Categorical Exclusion for the above referenced project.

( ) This project **will require** a Corps of Engineers' 404 permit to cover a road crossing fill consisting of more than 1/10 acres or the roadway fill occurs in special aquatic sites, including wetlands.

( ) This project **will not require** a Corps of Engineers' Nationwide 404 permit.

CERTIFIED BY:

_____	_____	_____	_____
County Engineer	Date	Chairman, County Commission	Date

CONCURRED

_____	_____
Region Engineer	Date

Rev 8/10/17

OVERTOPPING REQUEST - EXAMPLE

Date _____

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Re: Project _____
County No. _____
County _____

We are forwarding one set of prints of the plan & profile sheet and a partial set of bridge plans for the above referenced project. We are requesting that your office please furnish the overtopping data for this structure.

Sincerely,

_____
County Engineer

Copy: Region Engineer

CHECKLIST FOR TITLE SHEET-COUNTY TRANSPORTATION

COUNTY _____ **PROJECT NO.** _____
COUNTY PROJECT NO. _____

CHECKED BY: (Initials of person performing check)

_____ 1. Check plans to ensure all required special and standard drawings are referenced. Check drawings vs. pay items.

_____ 2. Check equations and exceptions - compare with plan sheets.

_____ 3. Check bridge length(s). Show bridge identification number(s) (BIN) on existing bridge(s) and bridge culvert(s) (Bridge Replacement Projects)

_____ 4. Check mileage box – 3 decimal places (do not round up). Feet should be shown to 2 decimal places and meters to 3 decimal places. Show no miles in "Total Stationing of Project" and "Equations and Exceptions" columns.

_____ 5. Check signature boxes for signatures and check the year for standard specifications and special drawings in notes on title sheet.

_____ 6. Check traffic data box (counts and updated year). (All in traffic count letter including functional classification).

_____ 7. Show north arrow, preliminary project number, code number, and county financed project note.*

_____ 8. Show type of work (ex. - grade, drain, resurface, pavement preservation, etc.), project limits (so it can be located on a map), and county. State Personnel – Check to see that the project description on plans agrees with description in CPMS.

_____ 9. Check that all sheets listed in the index are included in plan assembly. Several "omit" sheets should be shown in the index. However, no "omit" should be shown as the last sheet in the plan assembly. Last sheet should not end with an alpha numeric designation. (Example - sheet 17A.)

_____ 10. Read files for design criteria, etc. (Scope of Work Letter, Project Engineering Report, PS&E Report, Site Report).

_____ 11. Complete project number and check fiscal year (Center of sheet and upper right-hand corner of sheet - all sheets). (Local Transportation Bureau personnel will complete project number on projects for Construction Bureau review. Leave sufficient space between parentheses for 3 digits.

_____ 12. Show begin/end work, begin/end project. Stationing of project shall proceed from south to north or west to east unless you are using an existing survey which varies from this convention.

_____ 13. Check for any railroad located on right-of-way. (See section 8 of the *Procedural Guidelines for County Projects)*. Include applicable RR notes on note sheet.

_____ 14. Check for legibility of plans, lettering size, and that all final plans are submitted on Mylar.

_____ 15. Check for an airport within 2 miles (See page 12.1 of the *Procedural Guidelines for County Projects)*.

_____ 16. Check for current population of cities (latest census count). Note the census year.

_____ 17. Check for townships and ranges on location map.

*** SEE SPECIAL NOTE SHEET**

CHECKLIST FOR TYPICAL AND NOTE SHEET - COUNTY TRANSPORTATION

CHECKED BY: (Initials of person performing check)

_____ 1. Show in-place buildup with dashed lines and required or proposed buildup with solid lines. Designate in-place items in "Legend" using letters and required items using numbers.

_____ 2. Show note requiring 6 feet minimum rounding at top of cut slope. (Projects requiring backslope work only).

_____ 3. Show profile grade if profile sheets are included in the plan assembly.

_____ 4. Label centerline (Existing pavement, survey, project, etc.).

_____ 5. Show slopes for all required layers. Pavement slopes may be shown as "Match Existing" for resurfacing and minor widening projects, if the existing pavement cross slopes are in good condition and the county does not intend to reestablish pavement cross slopes and superelevation in curves.

_____ 6. Show all GN-2 notes that apply only to typical sections. (Projects with no plan/profile sheets, show all applicable GN-2 notes on this sheet.) (Do not list GN-2 notes as project notes).

_____ 7. Show a cut and fill section, if grading is required, and detail requirements for a cut ditch, if applicable. Show typical section or detail for "special ditch(s), if applicable.

_____ 8. Check typical against materials report (not required on 2¢ projects). Do not show patching, spot leveling and tack coat on the typical.

_____ 9. Show station to station limits.

_____ 10. Compare typical stations with plan/profile sheet(s).

_____ 11. Check required widths (travelway and shoulder) in categorical exclusion.

_____ 12. First typical sheet no. 2, all others 2A, 2B, etc.

_____ 13. Show roadbed processing, if required.

_____ 14. Show base layer widths and note front slope used in calculating the width.

_____ 15. Show Bituminous Treatment "A" 1 foot wider than overlying layer, if a separate item.

_____ 16. Check project notes. Remember the four (3) notes for widening.* Reference note numbers for all project notes pertaining to the typical section(s).

_____ 17. Show sketch for tying required pavement into existing pavement at the beginning and ending of the project and at bridge ends and railroad crossings, if applicable.

_____ 18. Provide a sketch or project note that defines the paving limits for intersecting roads and turnouts.

_____ 19. Provide the Los Angeles (LA) Abrasion value for any projects with planing or milling (See section 6-13 of the *ALDOT's Guidelines for Operations*.) If the abrasion factor is not known or unavailable, the following project note should be added to the plans: **The LA Abrasion Value Is Not Available For This Project**.

_____ 20. Show utility owners, addresses, and phone numbers as a project note unless plan and profile sheets are included in the plans.

*** SEE SPECIAL NOTE SHEET**

CHECKLIST FOR SUMMARY SHEETS - COUNTY TRANSPORTATION

CHECKED BY: (Initials of person performing check)

_____ 1. Check item numbers and descriptions to ensure they are **exactly** as shown in the ALDOT Pay Item Description list.

_____ 2. Check all quantities - no add-ons, except items that must be used at turnouts and intersections. Furnish quantity calculation sheets for major items of work (Pavement quantities, borrow/topsoil or crushed aggregate for shoulders, rip-rap, construction signs, culvert quantities, etc.).

_____ 3. Make sure all box quantities are transferred to main summary sheets and that summary boxes reference all applicable special and standard drawings or project detail sheet numbers.

_____ 4. Show all roadway pipes as concrete or comply with page 3-22 of the ALDOT's *Guidelines for Operation*.

_____ 5. Check class or thickness of required pipe.

_____ 6. Separate all Federal participating and non-Federal participating items. Separate all "Bridge" and "Roadway" items.

_____ 7. Make sure all typical section items are listed in summaries.

_____ 8. Show case number or flare type on all required guardrail. For existing culverts requiring guardrail show the following for each side of roadway centerline.

A. Length of parapet wall, station to station.
B. Final shoulder width (same as existing if shoulder not being widened).
C. Distance from outside edge of final shoulder to first edge at parapet wall.
D. Approximate slope from outside edge of final shoulder to first edge of parapet wall.

NOTE: Face of guardrail should be a minimum of 4 feet from e.o.p., or at the shoulder, whichever is greater. Also, 10:1 U.S.) maximum slope in front of guardrail.

_____ 9. First summary sheet no. 3, all others 3A, 3B, etc.

_____ 10. Review County cost estimate. Check unique item numbers and unit bid prices. Discuss any major differences with County. If County wants reduced E & I, submit letter by County Engineer requesting same. (Region and Bureau Personnel).

_____ 11. Force Account Projects: County shall submit cost justification for force account projects.

_____ 12. Compare estimate with Sheet 3. (Region and Bureau Personnel). (State Personnel-check header on estimate for accuracy and completeness).

_____ 13. Show mobilization on all contract jobs.

_____ 14. Combined projects.

A. Use same unit prices based on total quantity.
B. Compare unique numbers, especially those that are numbered in sequence.
C. Use a percent of total for mobilization and engineering controls for each project.
D. Add "Combined Project" note to Title Sheet. *

_____ 15. Add precast culvert note if precast alternate is allowed.*

_____ 16. Check need for tack coat. [Calculate at 0.03gal/sq.yd]

*** SEE SPECIAL NOTE SHEET**

CHECKED BY: (Initials of person performing check)

_____ 17. Add required erosion sediment control items (silt fence, hay bales, wattles, etc.) to all projects, if applicable, or note that county will be responsible for all erosion sediment control items.

_____ 18. Check for "Vegetation Establishment" items, if applicable (Seeding, Mulching, Mowing, etc.).

_____ 19. Reference the note no. on the summary sheet and show the note on the project note sheet about the sheet pile alternate when the 5 feet toewall is used.*

_____ 20. Check for extra steel reinforcement in skewed box culverts. (See pages 10.19 and 10.20, *Procedural Guidelines for County Projects*)

_____ 21. Indicate if the following items should be included in the plans:

A. Traffic Control Markings and/or Legends _____ (yes/no)
B. Temporary Traffic Control Markings and/or Legends _____ (yes/no)

*** SEE SPECIAL NOTE SHEET**

CHECKLIST FOR PLAN SHEETS, ETC. - COUNTY TRANSPORTATION

CHECKED BY: (Initials of person performing check)

_____ 1. Check all rates of grades. (As plotted on plan/profile sheet). Label grades as plus (+) or minus (-).

_____ 2. Check vertical curve lengths (To see if they meet the design speed as shown on title sheet).

_____ 3. Show all drainage structures in plan and profile. Show centerline flowline elevation in the profile view. Also show hydraulic data including overtopping note.
(Overtopping note to be completed by Local Transportation Bureau personnel).

_____ 4. Show north arrow and graphic or bar scale.

_____ 5. Show begin/end work and begin/end project in plan **and** profile.

_____ 6. Show begin/end bridge stations in plan **and** profile.

_____ 7. Show direction of flow on all drainage structures. Show the drainage structure skew. The skew angle is determined by the outlet flow direction in relation to the project stationing.

_____ 8. Label all items as required or in-place (Show in-place to be retained or removed).

_____ 9. First plan sheet no. 4.

_____ 10. Show utility owners, addresses, and phone numbers on sheet no. 4, unless plans include separate utility sheets.

_____ 11. Show GN-2 notes applicable only to plan sheets on sheet no. 4.

_____ 12. Any railroad work required should be detailed. (See Section 8 of the *Procedural Guidelines for County Projects*).

_____ 13. Show reference points (bench marks). List horizontal alignment data.
Include the following horizontal curve data:

Degree of Curve (or radius)	D	=
Deflection Angle (left or right)	Δ	=
Tangent Length	T	=
Curve length	LC	=
P.I. Station	P.I.	=
Superelevation Rate (se).	se	=

_____ 14. List vertical alignment data, including P.V.I. STA's and elev's., P.V.C. and P.V.T. STA's, and "K" values.

_____ 15. Show construction limits on all projects that are grade and drain to ensure that construction limits are within the right-of-way. **Construction limits are defined as tie point for front slopes (fill section) or back slopes (cut ditch section).**

_____ 16. Check traffic control plan.

_____ 17. Check drainage sections for design and compare with site inspection report.

_____ 18. Plot drainage section on grid or cross-section paper. **All drainage sections must be drawn to scale**. Show sufficient length of stream profile at each end of culvert. Label elevations. Show headwalls and wingwalls. Show right-of-way limits. For culvert or pipe extensions, show in-place structures using dashed lines and proposed structures using solid lines. Drainage sections should be plotted along the skew angle of the structure.

*** SEE SPECIAL NOTE SHEET**

CHECKED BY: (Initials of person performing check)

_____ 19. Check drainage structure length, including wings and end treatments, to see if it will fit inside right-of-way.

_____ 20. Check cross-sections for compliance with typical section and for shoulders being widened 3 feet if guardrail is required.

_____ 21. The County has the current Special and Standard Drawing Book and/or applicable standard/special drawings for this project.

_____ 22. **Estimated cost of project $ _____**

_____ 23. **Estimated number of working days _____**

_____ 24. Check One: ( ) Let to Contract by State Services.
Requested Letting Date _____.

( ) Let to Contract by County.

_____ 26. Project Location (Latitude & Longitude / Degrees – Minutes – Seconds (DDMMSS)
Latitude _____
Longitude _____

1. Single work site – Approximate midpoint between the beginning and ending stations of work.
2. Multiple sites on the same route – Approximate midpoint between the beginning station of the first site of work and the ending station of the last site of work.
3. Multiple sites on different routes – Approximate midpoint best representing all sites of work.
4. Countywide work sites – Approximate latitude and longitude of the midpoint of the county.

SPECIAL NOTE SHEET

1. **COUNTY FINANCED PROJECT NOTE:** The Bidder's attention is directed to Subarticle 102.08(b), contained in Special Provision 12-0198 concerning combination bids (County Financed Projects).

2. **THREE WIDENING NOTES:**

   a. Widening operations shall be limited to one side of the road at a time.

   Ø b. Roadbed processing is waived in widening areas and at unpaved intersecting roads and turnouts. Subgrade to be compacted to the satisfaction of the Engineer. Asphalt used for these turnouts shall be compacted to the satisfaction of the Engineer. Cost to be a subsidiary obligation of item _____.

   c. Contractor shall schedule his work where cutting out of the shoulders does not exceed the amount of widening completed each day.

3. **SHEET PILE TOEWALL ALTERNATE NOTE**: If the sheet pile alternate is chosen by the contractor for construction of the 5 foot toewall, payment will be made as cubic yards of culvert concrete and pounds of reinforcing steel based on theoretical quantities for these items required for the concrete toewall alternate.

4. **PRECAST CULVERT NOTE:** If the contractor elects to use the precast alternate, he will be required to furnish details and design calculations for the Engineer's approval. See Item 524.03(e) 2 of the 20__ Standard Specifications. Note: Applicable special provisions may supersede standard specifications. Modify note as required.

Ø 5. **ROADBED PROCESSING AT UNPAVED INTERSECTING ROADS AND TURNOUTS**: Roadbed processing is waived for paved turnouts at unpaved intersecting roads and driveways. Subgrade is to be bladed, shaped, and compacted to the satisfaction of the Engineer. Asphalt used for these turnouts shall be compacted to the satisfaction of the Engineer.Cost to be a subsidiary obligation of item _____.

Ø **NOTE: Resurfacing projects with unpaved intersecting roads or turnouts should use note 5 above. If widening is involved in the project, use note 2b. Do not use both notes in the same plan assembly.**

6. **COMBINED PROJECT NOTE: To be shown on each Title Sheet**

(For proposals with more than two projects)
Projects _____, _____, and _____ are included in the proposal covering this project.

(For proposal with two projects)
Project _____ is included in the proposal covering this project.

7. **LOS ANGELES (LA) ABRASION NOTE:**
The LA Abrasion Value Is Not Available For This Project.

8. **RAILROAD NOTES**

ALL PERSONS WORKING ON OR OVER ___ TRACKS MUST COMPLY WITH ___ SAFETY RULES.

THE CONTRACTOR SHALL NOTIFY ___ IN WRITING, A MINIMUM OF 10 DAYS BEFORE WORK IS TO BE STARTED ON THE RAILROAD'S RIGHT OF WAY.

THE RAILROAD SHALL FURNISH AND INSTALL ALL MATERIALS FOR 2-30' CANTILEVER SIGNALS, 2-35' GATES, BELLS, THE 81' OF CROSSING SURFACE AND MOTION DETECTORS AND INVOICE THE STATE FOR THE ACTUAL COST THEREOF.

ALL NECESSARY TRAFFIC CONTROL DEVICES (SIGNS, CONES, FLAGGERS, ETC.) WHICH ARE REQUIRED WHEN WORK IS BEING PERFORMED BY THE RAILROAD SHALL BE FURNISHED BY THE CONTRACTOR AND PAID FOR UNDER THE APPROPRIATE ITEMS OF WORK.

THE CONTRACTOR NEEDS TO CONTACT THE CSX TRANSPORTATION INC. FOR INFORMATION ABOUT OBTAINING A COPY OF THEIR SAFETY VIDEO. (APPLICABLE FOR CSX RAILROAD ONLY).

ALL WORK ON, OVER, UNDER OR ADJACENT TO NORFOLK SOUTHERN RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK SOUTHERN “SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS (NS SPECIAL PROVISIONS)” (APPLICABLE FOR NORFOLK SOUTHERN RAILROAD ONLY).

THE RAILROAD COMPANY SHALL NOTIFY THE STATE IN WRITING A MINIMUM OF 10 DAYS BEFORE WORK IS TO BE STARTED ON THIS PROJECT (APPLICABLE AS NEEDED WHERE WORK IS BEING PERFORMED BY RAILROAD).

LOCAL TRANSPORTATION BUREAU

DATA REQUIRED FEDERAL AID PROJECTS

DATA SUBMITTED: COUNTY TO REGION/REGION TO COUNTY TRANSPORTATION

(TO BE SUBMITTED WITH FINAL PLANS OR PRIOR TO FINAL PLAN SUBMITTAL)

1. **Categorical Exclusion _____ /_____**
2. **Scope of Work (Not required on bridge or culvert replacement with minor or no approach work) Co. NA /_____**
3. **County Cost Estimate _____ /_____**
3. **PES Estimate (Two for negotiated projects) Co. NA /_____**
4. **R.O.W. Encroachment Certification _____ /_____**
5. **R.O.W. Recording Data Letter _____ /_____**
6. **R.O.W. Certificate _____ /_____**
7. **P S & E Report Co. NA /_____**
8. **Utility Certificate _____ /_____**
9. **Utility Agreements, if applicable _____ /_____**
10. **Earthwork Summary Submittal Sheet, if applicable _____ /_____**
11. **Engineering Personnel and Equipment Certification _____ /_____**
12. **Construction Personnel and Equipment Certification (For negotiated projects) _____ /_____**
13. **Hydraulic Data Sheet(s), if applicable _____ /_____**
14. **Materials Report _____ /(Region to County Transportation) _____**
15. **NPDES Certification _____ /_____**
16. **Engineering and Inspection Reduction Letter (If reduction being requested) _____ /_____**
17. **BI-1 Form (BIN Assignment Card) for Proposed Structure, if applicable _____ /_____**

LOCAL TRANSPORTATION BUREAU

DATA REQUIRED 2¢, ST & IA PROJECTS

DATE SUBMITTED: COUNTY TO REGION / REGION TO COUNTY TRANSPORTATION

(TO BE SUBMITTED WITH FINAL PLANS OR PRIOR TO FINAL PLAN ASSEMBLY)

1. **Scope of Work (Not required on bridge or culvert replacement projects with minor or no approach work and not required for 2¢ and IA projects unless let to contract through State services) Co. NA /_____**

2. **P S & E Report (Not required for 2¢ and IA projects unless let to contract through State services) Co. NA/_____**

3. **County Cost Estimate _____ /_____**

4. **PES Estimate(s) (Not required on 2¢ projects) Co. NA/_____**

5. **Right-of-Way Recording Data Letter _____ /_____**

6. **Utility Certificate _____ /_____**

7. **Utility Agreements, if applicable _____ /_____**

8. **Materials Report (Not required on 2¢ project unless let to contract through State services) _____ / Region to County Transportation _____**

9. **High Density Criteria Letter (2¢ project only) _____ / _____**

10. **NPDES Certification (Not required on 2¢ project unless let to contract through State services) _____ / _____**

11. **Earthwork Summary Submittal Sheet, if applicable _____ / _____**

12. **Engineering and Inspection Reduction Letter (If reduction being requested; not required on 2¢ or IA projects unless let through State services) _____ /_____**

13. **Hydraulic Data Sheet(s), if applicable _____ /_____**

14. **BI-1 Form (BIN Assignment Card) for Proposed Structure, if applicable _____ /_____**

PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E) REVIEW – EXAMPLE

MEMORANDUM

DATE: January 16, 2016

TO: Mr. John F. Courson
State Local Transportation Engineer

FROM: Jim Parson
Region Engineer

BY: Bill Palmer
Region County Transportation Engineer

RE: BR-7001( )
Polk County
Choctaw River Bridge and Relief Structure on County Road 96
Grade, Drain, Base, Pave, and Bridges

The PS&E Review on the above-referenced project was held on December 15, 2015. Those attending were as follows:

Polk County – Roy Marshall,
South Region – Bill Palmer
County Transportation Bureau – Scott Miller

GENERAL COMMENTS

1. Proposed Improvements: This project includes removing the existing main bridge and relief structure at station 14+00.00 and station 18+22.44 and constructing two precast bridges and approaches. Each bridge will have 3 – 34 ft. spans. Also included is the installation of Type 13 and Type 10 series end anchors on the approaches.

2. Existing Bridges and Roadway: The existing bridges to be removed consist of concrete decks with timber stringers and substructures. The existing roadway consists of a 28 ft. roadbed with a 22 ft. pavement.

3. Minor Drainage: None involved on this project.

4. Right-of-Way: The existing right-of-way is 80 feet. No additional right-of-way is required.

5. Airports and Railroads: None involved on this project.

6. Best Management Practices: This project will have less than 1 acre of disturbed area; therefore, no stormwater permit is required. This project requires a nationwide permit for a minor road crossing fill. Hay bales and silt fence will be utilized on the project for sedimentation control.

TITLE SHEET

1. Change the fiscal year to 2004 throughout the plans.

2. Update the ADT years to 2004 and 2024, respectively.

3. Indicate the in-place bridge stations, lengths, and bridge inventory numbers. Flag the in-place bridges on the vicinity map.

INDEX TO SHEETS

Complete the index numbers for the Summary of Quantities and bridge sheets.

TYPICAL SECTION SHEETS

1. Show the in-place pavement on both typical sections and provide a legend in the pavement schedule box.

2. Show and label the pavement transition stations on the top typical.

3. Provide the 11 ft. lane width on the left side of both typicals.

PROJECT NOTE SHEET

Correct spelling of "increased" in project note 204.

SUMMARY OF QUANTITIES SHEET

1. Show all item units and descriptions exactly as indicated on the ALDOT Bid Tabulation Item Description List.

2. Add the aggregate surfacing item required for the field roads.

BOX SHEET

1. Show units for each item throughout this sheet.

2. The totals for each box should be whole numbers, not decimals.

3. Add an "Old Bridge Removal" box indicating stations, length, width, substructure, superstructure, and deck type, and the number of spans.

PLAN/PROFILE SHEETS

1. Show "in-place" on all existing items.

2. Indicate in the plan view: "Required riprap, class 2 and filter blanket (typical at each end.)."

3. Add the hydraulic data for each required bridge.

SEDIMENTATION CONTROL SHEETS

Show silt fence item in legend.

UTILITY SHEETS

1. The comments for the plan/profile sheets apply to these sheets also.

2. Show the required utility relocation.

3. Delete project notes 402 and 403.

DRAINAGE SECTIONS SHEET

1. Add the scale.

2. Label the dashed line in the side drain pipe section.

CROSS-SECTION SHEETS

1. Add the scale.

2. Label the required riprap, class 2, and filter blanket at stations 9+60, 10+80, and 17+00. Show the required thickness

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PROJECT REVIEW CONSULTATION

PROJECT NO. _____ COUNTY PROJECT NO. _____

APPLICANT _____ PROJECT COUNTY _____

ADDRESS_____

CITY _____ STATE_____ ZIP CODE _____

CONTACT PERSON _____ TELEPHONE (_____) _____

E-MAIL _____

ADDRESS_____
(IF DIFFERENT FROM APPLICANT)

CITY _____ STATE_____ ZIP CODE _____

FEDERAL PROGRAM_____ TYPE OF ASSISTANCE _____

SIGNATURE _____ DATE _____

I. GENERAL INFORMATION

1. Project Description _____
   _____
   _____
   _____

2. Has this project been previously submitted for review? Yes/No _____
   If yes, enclose a copy of the State Historic preservation Officer's comments.

3. Give the project's Township, Range, and Section description.
   Township _____ Range _____ Section _____

4. How many acres are in the project area? _____

5. Attach a clearly labeled copy of a USGS topographic map indicating the precise project location. (Include the name of the quad sheet(s) where the project is located.)

II. STANDING STRUCTURE INFORMATION

1. Will the project involve the rehabilitation, relocation, or demolition of any structure over 50 years old? Yes/No _____

2. If yes, what was the date of construction? _____

3. Attach photographs of the front and rear elevations.

4. Have plans and specifications for the rehabilitation, relocation, or demolition been completed? Yes/No _____ (If yes, enclose a copy of the plans.)

5. Are there any structures over 50 years old that are adjacent to or within sight of the boundaries of the proposed project? Yes/No _____

6. If yes, what was the date of construction? _____

7. If applicable, enclose a brief contextual overview of information relating to the historic background of any structure, site, or districts within the project area or pertaining to any adjacent structures, sites, or districts. (i.e. its relationship to any historic events, persons, industries, or commerce.)

8. Attach photographs of any structures over 50 years old adjacent to the project area.

9. Is the rehabilitation, relocation, or demolition located within or near a nationally designated historic district, site, or structure? Yes/No _____
If yes, give the name of the district, site, or structure. Name _____

III. SITE INFORMATION

1. To your knowledge, has a cultural resource assessment been conducted in the proposed project area? Yes/No _____ If yes, enclose a copy of the archaeologist's report.

2. Has the ground at the project location been disturbed other than by agriculture? Yes/No _____ If yes, please describe the ground disturbance.
Disturbance: _____
_____

3. Describe the present use and condition of the property. _____
_____
_____
_____

IV. ADDITIONAL INFORMATION

Please elaborate on the above questions and/or include any additional information you feel may be helpful in the review process of your project.

ALABAMA DEPARTMENT OF TRANSPORTATION
COUNTY TRANSPORTATION
REQUEST FOR BRIDGE HYDRAULIC DESIGN

LOCATION

1. Project No. _____ County Project No. _____
   County: _____

2. Stream Name: _____

3. Section: _____ Township: _____ Range: _____
   County Road No. and/or Name: _____
   Sta. Existing Structure: _____ Sta. Proposed Structure: _____

GENERAL DATA

4. Drainage Area: _____

5. Extreme high-water date of occurrence: _____
   Information obtained from: _____
   Location of high-water: _____
   Elevation of high-water: _____

6. List buildings in flood plain: _____
   Location: _____ Floor Elevation: _____

7. Is there excessive local scour? Yes ( ) No ( ) Explain: _____
   _____

8. Is stream deepening or filling? Yes ( ) No ( )

9. Is stream widening? Yes ( ) No ( ) (Show direction) _____

10. Does stream carry an appreciable amount of large driftwood? Yes ( ) No ( )

11. Are there any flood studies (Flood Insurance Studies, etc.)? Yes ( ) No ( )
    Type of study: _____

12. Does governing community have any policies or guidelines? Yes ( ) No ( )
    Comments: _____
    _____
    _____

13. Water surface elevation at date of survey: Elevation: _____ Date: _____

14. Is there any evidence of rock outcrops or general knowledge of subsurface conditions that would prohibit the use of driven piles? Yes ( ) No ( )

PRESENT OR OLD STRUCTURE(S)

BRIDGE

15. Overall Floor Length: _____ Bridge Width: _____

16. Number and Length of Spans: _____

17. Superstructure: Type _____ Type of Floor: _____

18. Substructure: Type _____ Skew Angle: _____

19. Date Built: _____ BIN _____

20. Condition of Bridge: _____
_____
_____

BRIDGE CULVERT

21. Span: _____ Rise: _____ Number of Barrels: _____

22. Barrel Shape: _____ Length: _____ Skew Angle: _____

23. Culvert Material: _____

24. Culvert Invert Elevation: Inlet _____ Outlet _____

25. Inlet Type (see HDS5 or HY-8): _____

26. Date Built: _____ BIN: _____

27. Condition of Culvert: _____
_____
_____

By: _____ Date:_____
County Engineer

RESOLUTION (3R) – EXAMPLE

RESOLUTION

COUNTY OF _____

Project No. _____

STATE OF ALABAMA

WHEREAS, the _____ of _____ County, Alabama, is desirous of constructing or improving, by force account, by contract, or both, a section of road included in the _____ County Road System and described as follows:

WHEREAS, the county agrees to all of the provisions of the County-wide agreement executed between the State and the County covering preliminary engineering by State forces and equipment on the project, and

WHEREAS, the county intends to apply for Federal Aid funds for the construction of the above referenced project, and

WHEREAS, the County agrees to all of the provisions of any agreement which has been executed or will be executed covering the construction of the project.

Done at the_____ session of the _____

of _____ County, this day of _____, 20_____.

_____	_____
Governing Body	Member
_____	_____
Chairman	Member
_____	_____
Member	Member
_____	_____
Member	Member

RESOLUTION (BRIDGE REPLACEMENT) – EXAMPLE

RESOLUTION

COUNTY OF _____

Project No. _____

STATE OF ALABAMA

WHEREAS, the _____ of _____ County, Alabama, is desirous of constructing or improving, by force account, by contract, or both, a section of road included in the _____ County Road System and described as follows:

Replacement of _____ ft. bridge over _____ on County Road No. _____ at_____.
Structure No._____.
Sufficiency Rating - _____ Status - _____
BIN No. _____ Location Map Attached

WHEREAS, the county agrees to all of the provisions of the County-wide agreement executed between the State and the County covering preliminary engineering by State forces and equipment on the project, and

WHEREAS, the county intends to apply for Federal Aid funds for the construction of the above referenced project, and

WHEREAS, the County agrees to all of the provisions of any agreement which has been executed or will be executed covering the construction of the project.

Done at the_____ session of the _____

of _____ County, this day of _____, 20_____.

_____	_____
Governing Body	Member
_____	_____
Chairman	Member
_____	_____
Member	Member
_____	_____
Member	Member

RIGHT-OF-WAY ENCROACHMENT CERTIFICATION

(Date)

Mr._____
State Local Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Boulevard
Montgomery, AL 36110-2060

Dear Sir:

RE: Project No. _____
County No. _____
County _____

This is to certify that any rights-of-way encroachments, as defined within the County Road Design Policy, have been removed.

Sincerely,

_____ _____
COUNTY ENGINEER DATE

Cc: Region Engineer

ENCROACHMENT REMOVAL NOTIFICATION

_____COUNTY

COUNTY ENGINEERING DEPARTMENT

_____, ALABAMA

(DATE)

Property Owner's Name & Address
_____
_____
_____

Dear Sir or Madam:

A project has been scheduled for County Road ____, which will utilize Federal funding. During a review of the project, an encroachment was noted adjacent to your property on the County's right-of-way.

This encroachment does not conform to the County Road Design Policy for one or more of the following reasons: serves no benefit to the public or transportation related purpose, impairs or interferes with the free and safe flow of traffic, and/ or is inside the applicable clear zone. Therefore, this encroachment must be removed from the County's right-of-way.

Please contact this office at the number above to discuss this notice. Thank you for your cooperation.

Sincerely,

County Engineer

ENCROACHMENT DESCRIPTION:_____
_____
_____

ADDITIONAL NOTES:_____
_____
_____

RIGHT-OF-WAY WIDTH: _____

NOTICE OF FENCE ON COUNTY RIGHT OF WAY

(DATE)

Property Owner's Name & Address
_____
_____
_____

Dear Sir or Madam:

A project has been scheduled for County Road ____, which will utilize Federal funding. During a review of the project, a fence was noted in front of your property on the County's right-of-way.

At this time, the County is not requiring removal of the fence, but this letter serves as notice to you, the owner of the item, that the following provisions apply:

1. The owner of the fence may be assuming liability if the item remains on the County's right of way.

2. In the event that the fence needs to be replaced, upgraded, refurbished for any reason, including an act of God, it must be relocated and installed outside of the right of way.

3. The fence may be required to be removed or relocated off the right of way, in the future, if in the opinion of the County Engineer it interferes with or restricts the operation, maintenance, or improvement of the subject right of way.

It is the County's intent to record this notice in the _____ County Probate Office as an encumbrance to your property to ensure that if your property is sold, potential buyers are made aware of these provisions.

Please contact this office at the number above to discuss this notice. Thank you for your cooperation.

Sincerely,

County Engineer

ENCROACHMENT DESCRIPTION: FENCE-
_____

RIGHT-OF-WAY WIDTH: _____

NON-CONTRACT ITEMS OF WORK CERTIFICATION

(DATE)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Boulevard
Montgomery, AL 36110-2060

Dear Sir:

RE: Project No. _____
County No. _____
County _____

This is to certify that all non-contract items identified in the Project Engineering Record (PER) to be completed prior to project letting and listed below, have been completed by county forces.

_____

_____

_____

Sincerely,

_____
County Engineer

Cc: Region Engineer

SCOPE OF WORK REVIEW – PAVEMENT PRESERVATION

FEDERAL AID PROJECT NO.: _____
COUNTY PROJECT NO.: _____
COUNTY: _____

The above referenced project is covered by the Statewide Categorical Exclusions concurred by FHWA on March 19, 1981, and additional guidelines as noted in Section 2 of the *Procedural Guidelines for County Projects.* Since this project is in the pavement preservation category of work, all required items of work will be performed within the existing right-of-way. **No additional right-of-way will be required**.

Functional Classification of Proposed Project (Check all that apply)
Rural/Major Collector ☐ Rural/Minor Collector ☐ Other ☐
If "Other", Specify Classification
_____

Project Description: _____
_____
_____
_____
_____

On-Site Project Review Date: _____
Persons Attending and Agency/Organization:
_____
_____
_____
_____

Begin Project / Station: _____End Project / Station: _____

Equations and Exceptions: _____

Project Length: Feet _____ Miles _____

Design Speed of Project: _____

Estimated Cost of Improvements: _____

Design Policy:

1. TRB Special Report 214 ☐
2. ALDOT *County Road Design Policy* (ALDOT *Procedural Guidelines for County Projects* ☐

Traffic:

Present Traffic Count/ Year: _____
Design Traffic Count/ Year (10 Year): _____
Percentage of Trucks: _____
Existing Pavement Width: _____

Specify Type and Thickness of Existing Pavement: _____
_____

Specify Proposed Pavement Buildup and/or Surface Treatments (Item No., Description, Thickness)
_____
_____
_____
_____

Will planing be required?: Yes ☐ No ☐
If yes, specify depth of planing and location: _____
_____
_____

Existing Shoulder Width: _____

Existing Right-Of-Way Width: _____

Bridges:

Are there any bridges located within the project limits? Yes ☐ No ☐
If yes, provide the following information:
① BIN, ② Begin and end bridge station, ③ Bridge length, ④ Overall bridge width (curb to curb), ⑤ Is bridge posted?, ⑥ Are posting signs in place?, ⑦ Does bridge meet required bridge width?,⑧ Adequate guardrail system and end anchors in place?

BIN	Begin Station	End Station	Bridge Length	Bridge Width	Is Structure Posted (Yes/No)	Posted Signs In Place (Yes/No)	Does Bridge Meet Required Width (Yes/No)	◆ Guardrail In Place (Yes/No)

◆ For bridges requiring guardrail work, use the comment section to provide a brief description of the in place guardrail system and the proposed guardrail work. Indicate what type rail barrier/rail is across the bridge structure (e.g. Class A or Class B steel beam guardrail, concrete rail, etc.), post spacing, blockout configuration, etc. Any in place anchors or rail to be removed? Will shoulder widening be required for installation?

Comments: _____
_____
_____
_____
_____
_____
_____

Bridge Culverts:
Are there any bridge culverts located within the project limits? Yes ☐ No ☐
If yes, provide the following information:
① BIN, ② Begin and end culvert station, ③ Skew angle, ④ Overall bridge culvert width (Note – Width measured from inside edge of parapet wall, at 90º to centerline)

BRIDGE CULVERTS						
BIN	Begin Station	End Station	Skew Angle	Culvert Width	Guardrail In Place (Yes/No)	■ Guardrail Installation Required (Yes/No)

■ For culverts requiring guardrail work, use the comment section to provide a brief description of the in place guardrail system (if any) and the proposed guardrail work. Indicate which type "Case" installation is proposed (For specific "Case" details, refer to Special Drawing GR-630-CL, or the Local Transportation Bureau's "Special Project Detail" sheets for "Guardrail Installation at Culverts"). Any in place anchors or rail to be removed? Will shoulder widening be required for installation? Additional culvert detail information should be provided on the "Plans Checklist" (See example on page 12.42).

Comments: _____
_____
_____
_____
_____
_____
_____

Railroad Involvement:

Is there a railroad crossing within the project limits or adjacent to the project?
Yes ☐ No ☐

If yes, refer to Section 8 of the current edition of the ALDOT's "*Procedural Guidelines for County Projects" (PGCP)*, for railroad involvement procedures. If a crossing is identified, a "Railroad Crossing Warning Device Checklist" form is required to be completed during the scope of work review in order to evaluate and determine if active devices are warranted (see pages 8.11 – 8.12).

Americans with Disabilities Act:

Are there any existing sidewalks, pedestrian or school crossings, or other features within the project limits? Yes ☐ No ☐
If yes, identify type of feature and specify location(s). _____
_____
_____

Will any of these require upgrading in order to be in compliance with the Americans with Disabilities Act? Yes ☐ No ☐
If yes, specify general description of required upgrades. _____
_____
_____

Bicycle/Pedestrian Evaluation:

Is there any evidence of any bicycle/pedestrian activities, or any facilities in the surrounding area of the project, that would require the accommodation for bicycles and/or pedestrians? Yes ☐ No ☐
If yes, specify items of work: _____
_____
_____

Non-contract Items of Work

Will any non-contract items of work be performed by county? Yes ☐ No ☐

If yes, specify the item of work: _____
_____
_____

Additional Comments: _____
_____
_____

SUBMITTED FOR APPROVAL: _____ Date: _____
Location Map Attached County Engineer

CONCURRENCE: _____ Date: _____
Region Engineer

APPROVED: _____ Date: _____
State Local Transportation Engineer

SCOPE OF WORK REVIEW – 3R PROJECTS

MEMORANDUM

DATE: _____

TO: Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Boulevard
Montgomery, AL 36110-2060

FROM: _____
Region Engineer

_____
Region County Transportation Engineer

RE: Scope of Work

Project No. _____
County No. _____
County _____

Widening and Resurfacing County Road 26 from County Road 42 to State Road 149, 3.8 Miles

On March 25, 2016, a scope of work review was conducted for the above referenced project. The following personnel were in attendance: Mr. _____, County Engineer, Mr. _____, Region County Transportation Engineer, and Mr. _____, County Transportation Bureau. The County Engineer requested a tentative letting date of _____.

The existing roadway consists of an 18 ft. wide bituminous treatment KG pavement on a full width compacted granular soil base course 6 in. thick. The roadway will need to be leveled at several locations prior to resurfacing. Patching will not be required. The roadbed is 24 ft. wide having a minimum shoulder width of 3 ft. The right-of-way (ROW) is 80 ft. No additional ROW is required.

There is one bridge located within the project limits (BIN 026942) from station 5+00 to station 6+10. This bridge has a substandard guardrail system which must be removed; no end anchors are present. The existing rail is a "Class A" steel beam guardrail with post spacing of 6 ft.-3 in. on center. The clear width (i.e., curb to curb width) is 22 ft. and the bridge is 110 ft. long. This structure is not posted and will carry legal loads. It has a sufficiency rating of 68.

Three crossdrains will need to be extended to allow for the proposed improvements. All other crossdrain structures are satisfactory.

The estimated current traffic volume is 720 ADT and the 2026 projected volume is 877 ADT, with 5% trucks. The design speed is 45 mph. All horizontal and vertical curves will meet this design speed.

An analysis of the accident history indicates there were five multi-vehicle accidents within the project limits. No contributing road defects or large number of concentrated accidents were indicated. No intersections are within the project limits.

A Bellsouth telephone box at station 9+22 right is in conflict and must be relocated. The appropriate utility agreement and relocation details will be provided by the County.

Two isolated 3 ft. diameter trees at station 10+42, right, must be removed.

The following items of work are to be performed by the contractor:

1. Widen the roadway to 22 ft. using improved bituminous concrete pavement and then resurface the roadway with a bituminous treatment G.
2. Provide new guardrail and end anchors at the existing bridge. "Type Special" and "Type 20" end anchors will be used.
3. Place new centerline and edge striping.
4. Place stop lines at the beginning and end of the project and provide pavement markers throughout the project limits

County forces, at no cost to the project, will perform the following non contract items of work:

1. Extend three existing drainage structures and widen grassed shoulders as necessary to provide a minimum width of 4 ft.
2. Relocate in-place mailboxes as required and replace any non-yielding supports.
3. Remove two trees at station 10+42 right.
4. Install permanent traffic signs as required by the MUTCD.

This information is submitted for your review and approval.

SLOPE WAIVER REQUEST

(Date)

Mr. _____
State Local Transportation Engineer
Alabama Department of Transportation
Montgomery, AL 36110-2060

Re: Project No.

_____

County No.

_____

County

_____

Dear Sir:

We request an addendum to the Project Engineering Record approved on August 6, 2015. Unanticipated drainage issues and right-of-way restrictions at Station 10+00 to station 13+00 on the right side prevent the use of 3:1 front slopes in this area. We request a waiver for a 2:1 slope, not to exceed a 1:1 ½ slope through this area. Guardrail will be installed in this area, erosion control netting and other erosion and sediment measures will be utilized on these slopes.

Sincerely,

_____
County Engineer

CONCURRENCES:

_____ _____
State Local Transportation Engineer Date

_____ _____
Chief Engineer's Office Date

STANDARDS FOR TRAFFIC VOLUME AND CLASSIFICATION COUNTS

All traffic volume counts on county roads in the State of Alabama shall be in compliance with the following monitoring standards. The Alabama Department of Transportation will only accept traffic volume and classification data that are in compliance with these standards.

1. The device used to count traffic will accurately represent existing volumes. The counters will be installed according to the manufacturer specifications. Traffic recording devices will be utilized which have direct connections to a computer. This will eliminate data transcription.

2. Counts will be taken during periods that are normal for each roadway segment. Counts will not be taken on major holidays, during county fairs, on school holidays near schools or any other events that affect traffic volumes on the road. Counts will not be taken close to intersections, driveways or other locations where travel is not at a right angle to the sensor.

3. Traffic volume counts will be taken such as to represent the entire length of the project. Counts will be taken to represent each unique segment of the roadway section under study. A unique segment is defined as having the traffic summary statistic vary by 30 percent or more with adjacent road segments. Counts taken will be for all lanes, and if the road has more than two lanes, both directions will be counted individually.

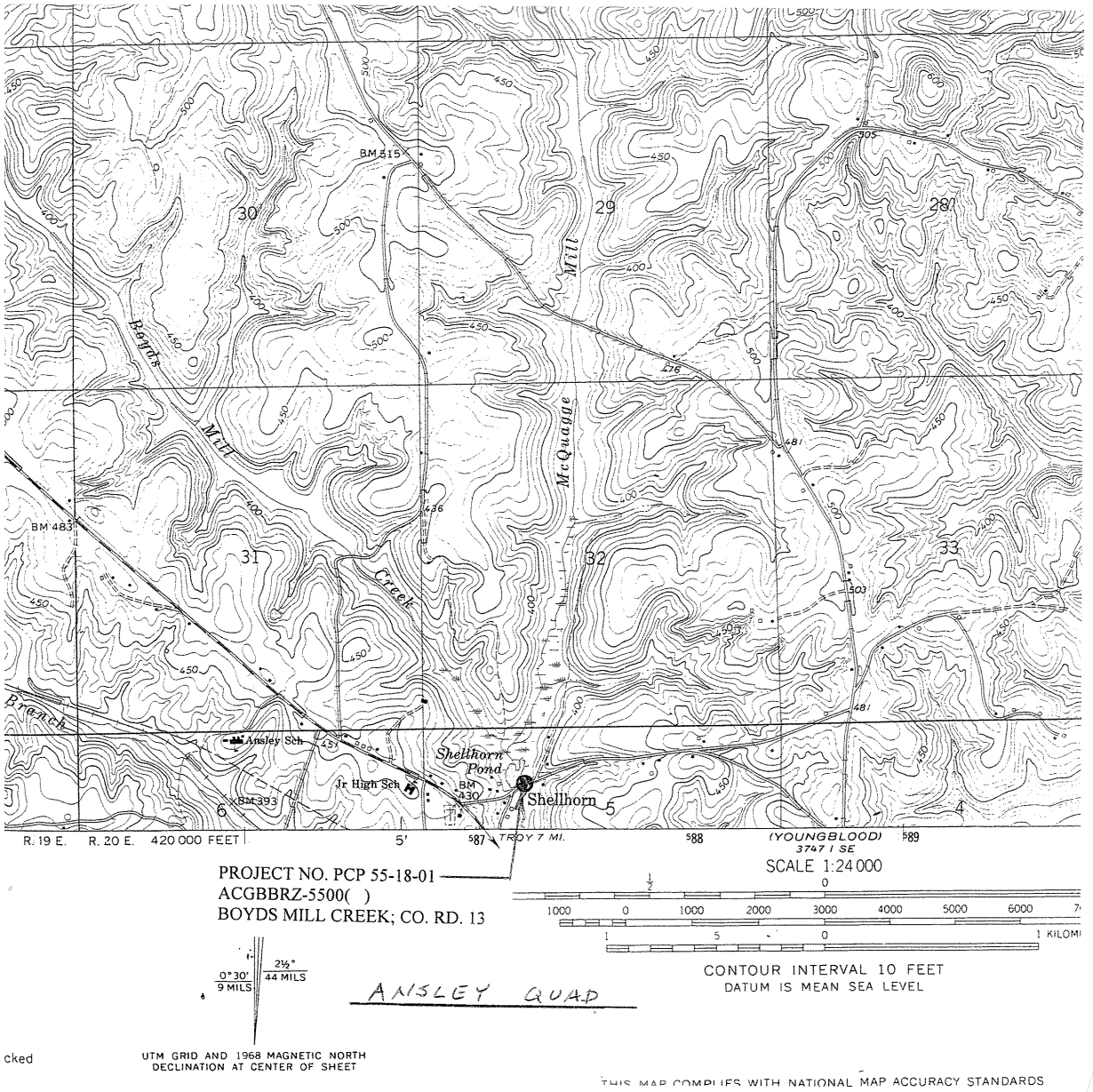
4. Classification counts will be taken by lane, with each lane identified as to direction and lane number. With lane 1 being the outside lane and lanes 2 through 9 being the next lanes in order toward the median for each direction.

5. The counting units must be checked for accuracy to insure they are counting properly. This involves manually counting vehicles crossing the sensors for a period of four hours once each year or if the data appears questionable for several counts and comparing this total with what the machine counted at the same time.

6. The data will be collected and reported in one-hour intervals. There will be a minimum of 48 consecutive hours of data reported from each count site. The total reported will represent a 24-hour average from the data collected. If the site has more than two lanes, directional counts will be taken and reported. Any correction factors applied to the data, such as axle correction, will be documented as to how they were developed and applied. The reported data will include a map identifying the location(s) counted, the specific machine used to collect each count, the day, date and hour data collection began and ended, the individual hourly volumes and the total reported. The personnel installing the counters will also be identified for each count location. Classification count data will be reported by hour by lane.

7. Missing or inaccurate data may not be completed, filled-in or replaced for any type of traffic count, at any location.

USGS MAP (EXAMPLE)



PROJECT NO. PCP 55-18-01
ACGBBRZ-5500( )
BOYDS MILL CREEK; CO. RD. 13

ANSLEY QUAD

cked

COUNTY FORM NO. 1

NON-REIMBURSABLE AGREEMENT

FOR RELOCATION OF UTILITY FACILITIES ON PUBLIC RIGHT-OF-WAY

PROJECT NUMBER _____

COUNTY NUMBER _____

COUNTY _____

THIS AGREEMENT is entered into by and between the County of _____, acting by and through its COUNTY COMMISSION, hereinafter referred to as the COUNTY, and _____, hereinafter referred to as the UTILITY.

WITNESSETH:

WHEREAS, the COUNTY proposes a project of certain highway improvements in _____ County, Alabama, said project being designated as Project No. _____ and consisting approximately of the following: _____

_____

_____; and

WHEREAS, the UTILITY is the owner of certain facilities located on public right-of-way at places where they will interfere with the construction of said project unless said facilities are relocated; and

WHEREAS, the COUNTY has determined that the relocation of the facilities referred to is necessitated by the construction of said project and has ordered the UTILITY to relocate same; and

WHEREAS, under the laws of Alabama, the UTILITY is required to relocate said facilities at its own expense;

NOW, THEREFORE, the parties hereto agree as follows:

1. The UTILITY will relocate its facilities presently located within the right-of-way limits of the above referenced project in accordance with the UTILITY'S plans as approved by the COUNTY, so as to occasion the least possible interference with the progress of the project. The UTILITY'S plans are transmitted herewith and made a part hereof by reference. The UTILITY will furnish the COUNTY a copy of its "as built" plans at the completion of the relocation.

2. The UTILITY will conform to the provisions of the latest edition of the State of Alabama Department of Transportation Utility Manual, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such Utility Manual is of record within the Alabama Department of Transportation at the execution of this Agreement and is hereby made a part hereof by reference.

3. The UTILITY will conform to the provisions of the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), latest edition, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such manual is of record within the Alabama Department of Transportation at the execution of this Agreement and is hereby made a part hereof by reference.

4. Code of Federal Regulations 23 CFR 645 is hereby made a part hereof by reference and will be conformed to by the UTILITY as the provisions thereof are applicable hereto.

5. The UTILITY will observe and comply with the provisions of all Federal, State and Municipal laws and regulations as the provisions thereof are applicable hereto in the performance of work hereunder, including the Clean Water Act of 1987, the Alabama Nonpoint Source Management Program of 1989, and the regulations of the Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM). The UTILITY will procure and pay for all licenses and permits that are necessary for its performance of the work.

6. Reimbursement for future relocation of the UTILITY'S facilities will be in accordance with State law in effect at the time such relocation is made.

7. The UTILITY will be obligated for the payment of damages occasioned to private property, public utilities or the general public, caused by the legal liability (in accordance with Alabama and/or Federal law) of the UTILITY, its agents, servants, employees or facilities.

8. The UTILITY will have a copy of this Agreement on the project site at all times while work is being performed under this Agreement.

9. The COUNTY will furnish the STATE, in writing, six (6) weeks prior to the State's project letting date, a “Utility Certification” letter with a time frame for beginning and ending the required relocation work.

10. Nothing contained in this Agreement, or in its execution, shall be construed to alter or affect the title of the COUNTY to the public right-of-way nor to increase, decrease or modify in any way the rights of the UTILITY provided by law with respect to the construction, operation or maintenance of its facilities on the public right-of-way.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers, officials or persons thereunto duly authorized on this _____ _ day of _____, 20_____.

WITNESS:

_____

(Legal Name of Utility)

_____ BY: _____

(Signature)

_____

(Type or Printed Name)

_____

(Type or Printed Title)

_____

(Address)

_____

(Address)

RECOMMENDED FOR APPROVAL:

_____

(Telephone)

BY: _____
COUNTY ENGINEER

BY: _____
REGION ENGINEER

COUNTY OF _____

BY: _____
CHAIRMAN, COUNTY COMMISSION

APPROVED:

BY: _____
STATE LOCAL TRANSPORTATION ENGINEER

DATE: _____

REIMBURSABLE AGREEMENT
FOR RELOCATION OF UTILITY FACILITIES
ON PRIVATE OR PUBLIC RIGHT-OF-WAY

PROJECT NUMBER _____
_____ Private Right-of-Way COUNTY NUMBER _____
_____ Public Right-of-Way COUNTY _____

THIS AGREEMENT is entered into by and between the County of _____ acting by and through its County Commission, hereinafter referred to as the **COUNTY**, and _____, hereinafter referred to as the **UTILITY**.

WITNESSETH:

WHEREAS, the **COUNTY** proposes a project of certain highway improvements in _____ County, Alabama, said project being designated as Project No. _____ and consisting approximately of the following: _____

_____; and

WHEREAS, the **UTILITY** is the owner of certain facilities located on private or public right-of-way, as applicable, at places where they will interfere with the construction of said project unless said facilities are relocated; and

WHEREAS, the **COUNTY** has determined that the relocation of the facilities hereinafter referred to is necessitated by the construction of said project and has requested or ordered, as applicable, the **UTILITY** to relocate same; and

WHEREAS, the Alabama Department Of Transportation will use Federal funds allocated to the County, if available, that are provided to it by the Federal Highway Administration pursuant to 23 CFR 645 to reimburse the County's expenses incurred in adjusting the utilities facilities;

NOW, THEREFORE, the parties hereto agree as follows:

1. The **UTILITY** will relocate its facilities presently located within the right-of-way limits of the above referenced project in accordance with the **UTILITY'S** plans and specifications as approved by the **COUNTY**, so as to occasion the least possible interference with the progress of the project. The **UTILITY'S** plans, specifications and estimate of relocation cost are transmitted herewith and made a part hereof by reference.

2. The **UTILITY** will conform to the provisions of the latest edition of the State of Alabama Department of Transportation Utility Manual, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such Utility Manual is of record within the Alabama Department of Transportation at the execution of this Agreement and is hereby made a part hereof by reference.

3. The **UTILITY** will conform to the provisions of the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), latest edition, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such manual is of record within the Alabama Department of Transportation at the execution of this Agreement and is hereby made a part hereof by reference.

4. Code of Federal Regulations 23 CFR 645 is hereby made a part hereof by reference and will be conformed to by the **UTILITY** as the provisions thereof are applicable hereto.

5. The **UTILITY** will observe and comply with the provisions of all Federal, State and Municipal laws and regulations as the provisions thereof are applicable hereto in the performance of work hereunder, including the Clean Water Act of 1987, the Alabama Nonpoint Source Management Program of 1989, and the regulations of the Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM). The **UTILITY** will procure and pay for all licenses and permits that are necessary for its performance of the work.

6. The **UTILITY** will perform the work of relocation:
   (a) _____ by **UTILITY'S** own forces
   (b) _____ by contract let by the **UTILITY**
   (c) _____ by an existing written continuing contract where the work is regularly performed for the **UTILITY**
   (d) _____ by combination of the preceding (as shown in detail on the estimate).

7. The detailed relocation cost estimate will be itemized and attached to this agreement. With respect to facilities located on the **UTILITY'S** private right-of-way, the **COUNTY** will reimburse the **UTILITY** for the actual cost of relocation, as may be adjusted below. With respect to facilities located on public right-of-way, the **COUNTY** will reimburse the **UTILITY** for all or part of the actual cost of relocation as required by the laws of Alabama, as may be adjusted below.

a. The **STATE'S** share of the engineering charges shall be limited to the "in-kind" work only.

b. The total actual cost of relocation, including Engineering, whether the facilities are on private or public right-of-way, shall be adjusted for betterment, if any, as defined and provided for in 23 CFR 645 above noted. Excluding betterment costs, the total estimated cost of relocation, including Engineering, is $_____. The total estimated cost including betterment is $_____.

c. If an adjustment for betterment is applicable, the **COUNTY** will reimburse the **UTILITY** for _____ percent of the actual cost of relocation and the remaining _____ percent thereof shall be for the account of the **UTILITY** for betterment. If there are changes during construction and/or the actual construction cost percentage becomes substantially different from the construction estimate, the **COUNTY** reserves the right to recalculate the percentages at any time.

8. The **UTILITY** will keep accurate and true records of all expenditures made by it in the process of such relocation. Records will be kept in accordance with 23 CFR 645 above noted, or in accordance with Part 30 and 31, Federal Acquisition Regulations, or in accordance with accounting practices acceptable to the **STATE**.

9. The **UTILITY** will, during the progress of the work and for three years from the date final payment is made, make its records available during normal working hours for examination and audit by representatives of the **STATE** and of the Federal Highway Administration to verify amounts and items covered in the reimbursement for relocation of facilities covered herein. Said records will be available for examination at

_____

_____

_____

_____.

10. The **UTILITY** will, within six (6) months following completion of the relocation, furnish the **COUNTY** such papers, records, supporting documents and invoices as may be required by the State showing the cost of said relocation. The **UTILITY** will furnish the **COUNTY** a copy of its "as built" plans for the **STATE'S** records.

11. Upon receipt of such documents and accounts as may be required by the preceding paragraph and upon completion and acceptance of such verification as the **COUNTY** may deem necessary, the **COUNTY** will reimburse the **UTILITY** for the actual cost of such relocation as verified by the **COUNTY**. In the event the actual verified cost, as accepted, exceeds the estimated cost, the **COUNTY** may require a Supplemental Agreement to be executed between the parties prior to reimbursement of any amount in excess of the estimated cost.

12. Paragraphs numbered 13 through 17 set forth below are applicable to this Agreement only if some or all of the **UTILITY** facilities to be relocated hereunder are located on private right-of-way of the **UTILITY**; otherwise, such paragraphs are considered inapplicable to this Agreement and null and void.

13. Where the **UTILITY** has a compensable property interest in its existing location (herein referred to as private right-of-way) by reason of holding the fee, an easement or other property interest, evidence of such compensable property interest will be submitted to the **COUNTY** by the **UTILITY** for review and approval.

14. If the **UTILITY** is required to move all of its facilities from a portion of its private right-of-way, upon completion of the relocation provided for herein, the **UTILITY** will convey to the **COUNTY** by Quitclaim Deed the portion of its private right-of-way located within the right-of-way limits of the above referenced project.

15. In the event the **UTILITY** is not required to relocate any of its facilities which are located on its private right-of-way, the following provisions shall apply:

a. To the extent the **UTILITY** has the right to so agree the **COUNTY** will have the right to construct, operate and maintain a highway over and along the portion of the **UTILITY'S** private right-of-way located within the right-of-way limits of the above referenced project.

b. The subordination of the **UTILITY'S** private right-of-way to the right of the **COUNTY** to construct, operate, and maintain said highway will be effective and operative only to such air, surface and sub-surface rights as may reasonably be required and are necessary for the construction, operation, and maintenance of said highway, and to enable the **COUNTY** to control access to the highway where such control is established; otherwise this subordination agreement will in no wise affect and impair the rights of the **UTILITY**, its successors and assigns, in or to its private right-of-way, including but not limited to the right to install additional facilities over, under and across the highway; provided, however, that any installation of additional facilities will be subject to the **STATE'S** responsibility and right to make prior determination that any such additional facilities are located so as not to impair the highway or any planned highway improvement and so as not to interfere with the free and safe flow of traffic thereon.

c. It is mutually understood that the terms of this Agreement do not subordinate, affect or impair the rights of the **UTILITY** for reimbursement of the cost of such future relocation as may be required and necessitated by highway construction at some future date, as fully as if no subordination existed; however, such relocation will be in accordance with an additional agreement to be entered into at that time between the **UTILITY** and the **COUNTY**.

16. If the **UTILITY** is required to relocate any of its facilities which are located on its private right-of-way to a new location on the same private right-of-way, the following provisions shall apply:

a. To the extent the **UTILITY** has the right to so agree, upon completion of the relocation provided for herein, the **COUNTY** will have the right to construct, operate and maintain a highway over and along the portion of the **UTILITY'S** private right-of-way located within the right-of-way limits of the above referenced project.

b. The subordination of the **UTILITY'S** private right-of-way to the right of the **COUNTY** to construct, operate and maintain said highway will be effective and operative only to such air, surface and sub-surface rights as may reasonably be required and are necessary for the construction, operation and maintenance of said highway, and to enable the **COUNTY** to control access to the highway where such control is established; otherwise this subordination agreement will in no wise affect and impair the rights of the **UTILITY**, its successors and assigns, in or to its private right-of-way, including but not limited to the right to install additional facilities over, under and across the highway; provided, however, that any installation of additional facilities will be subject to the **COUNTY'S** responsibility and right to make prior determination that any such additional facilities are located so as not to impair the highway or any planned highway improvement and so as not to interfere with the free and safe flow of traffic thereon.

c. It is mutually understood that the terms of this Agreement do not subordinate, affect or impair the rights of the **UTILITY** for reimbursement of the cost of such future relocation as may be required and necessitated by highway construction at some future date, as fully as if no subordination existed; however, such relocation will be in accordance with an additional agreement to be entered into at that time between the **UTILITY** and the **COUNTY**.

17. If the **UTILITY** is required to relocate any of its facilities which are located on its private right-of-way to a new location on public right-of-way or if any such facilities are to be retained in place within the public right-of-way due to this project, the following provisions will apply:

a. The cost of relocation will include reimbursement for acquisition of right-of-way by the **UTILITY** to place necessary guy wires and anchors on private lands adjacent to the highway right-of-way and the rights to cut, trim and remove, initially and from time to time as necessary, trees on private lands adjacent to the highway right-of-way which might then or thereafter endanger the facilities of the **UTILITY**.

b. Reimbursement for future relocation of the **UTILITY'S** facilities will be in accordance with State laws in effect at the time such relocation is made; provided, however, the **UTILITY** will be reimbursed for the cost of any future relocation of the facilities, including the cost of acquisition of equivalent private right-of-way if such future relocation is outside the highway right-of-way and such relocation is required by the **COUNTY**, and provided that the prior relocation from private right-of-way to public right-of-way was without compensation to the **UTILITY** for its compensable property interest in its private right-of-way.

18. The **UTILITY** will be obligated for the payment of damages occasioned to private property, public utilities or the general public, caused by the legal liability (in accordance with Alabama and/or Federal law) of the **UTILITY**, its agents, servants, employees or facilities.

19. The **UTILITY** will have a copy of this Agreement on the project site at all times while work is being performed under this Agreement.

20. Nothing contained in this Agreement, or in its execution, shall be construed to alter or affect the title of the **COUNTY** to the public right-of-way nor to increase, decrease or modify in any way the rights of the **UTILITY** provided by law with respect to the construction, operation or maintenance of its facilities on the public right-of-way.

21. Paragraph 22 set forth below is applicable to this Agreement only if Federal appropriated funds are available or will be available in the project by which the relocation required by this Agreement is necessitated.

22. In the event any Federal Funds are utilized for this work, the following certification is made:

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instruction

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers, officials or persons thereunto duly authorized, and this agreement is deemed to be dated and to be effective on the date hereinafter stated as the date of its approval by the Local Transportation Engineer.

The County requests that (_____100% County funds; _____Federal participation) be used for utility work in this agreement.

WITNESS:

_____
(Legal Name of Utility)

_____ BY: _____
(Signature)

_____
(Type or Printed Name)

_____
(Type or Printed Title)

_____
(Address)

_____
(Address)

RECOMMENDED FOR APPROVAL:

_____
(Telephone)

BY: _____
COUNTY ENGINEER

BY: _____
REGION ENGINEER

COUNTY OF _____

BY: _____
CHAIRMAN, COUNTY COMMISSION

APPROVED:

BY: _____
STATE LOCAL TRANSPORTATION ENGINEER

DATE: _____

REIMBURSABLE AGREEMENT
FOR RELOCATION OF UTILITY FACILITIES
ON PRIVATE OF PUBLIC RIGHT-OF-WAY
WORK TO BE DONE BY STATE CONTRACTOR

_____ Private Right-of-Way COUNTY NUMBER _____
_____ Public Right-of-Way COUNTY _____

THIS AGREEMENT is entered into by and between the County of _____ acting by and through its County Commission, hereinafter referred to as the **COUNTY**, and _____, hereinafter referred to as the **UTILITY**.

WITNESSETH:

WHEREAS, the **COUNTY** proposes a project of certain highway improvements in _____ County, Alabama, said project being designated as Project No. _____ and consisting approximately of the following: _____

_____; and

WHEREAS, the **UTILITY** is the owner of certain facilities located on private or public right-of-way, as applicable, at places where they will interfere with the construction of said project unless said facilities are relocated; and

WHEREAS, the **COUNTY** has determined that the relocation of the facilities hereinafter referred to is necessitated by the construction of said project and has requested or ordered, as applicable, the **UTILITY** to relocate same; and

WHEREAS, the Alabama Department Of Transportation will use Federal funds allocated to the County, if available, that are provided to it by the Federal Highway Administration pursuant to 23 CFR 645 to reimburse the County's expenses incurred in adjusting the utilities facilities;

NOW, THEREFORE, the parties hereto agree as follows:

1. The **UTILITY**, not being staffed or equipped to perform the relocation, requests that the relocation work be included in the Alabama Department of Transportation's Highway Construction Contract. The relocation of the facilities will be accomplished in accordance with and as shown by the **UTILITY'S** reproducible mylar plans, specifications, and estimate transmitted herewith and made a part hereof by reference. The estimated cost of the "In-Kind" relocation including engineering is $_____.

a. The actual cost of relocation will not be reimbursed to the **UTILITY** but will be paid directly to the **STATE'S** contractor by the **STATE** as a part of its contract. A detailed itemized cost estimate will be transmitted herewith and made a part hereof by reference.

b. The total actual cost of relocation, including Engineering, whether the facilities are on private or public right-of-way, shall be adjusted for betterment, if any, as defined and provided for in 23 CFR 645 above noted. Excluding betterment costs, the total estimated cost of relocation, including Engineering, is $_____. The total estimated cost including betterment is $_____.

If an adjustment for betterment is applicable, the **COUNTY** shall reimburse the **UTILITY** based On the percentage ratio of "inkind" cost and "betterment" cost and being _____ percent of the total actual cost of relocation, as "inkind" and the remaining _____percent thereof shall be for the account of the **UTILITY** for betterment. If there are changes during construction and/or the actual construction cost percentage becomes substantially different from the construction estimate, the **COUNTY** reserves the right to recalculate the percentages at any time.

2. The **UTILITY** will confirm to the provisions of the latest edition of the State of Alabama Department of Transportation Utility Manual, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such Utility Manual is of record within the Alabama Department of Transportation at the execution of this of this Agreement and is hereby made a part hereof by reference.

3. The **UTILITY** will conform to the provisions of the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), latest edition, as the provisions thereof are applicable hereto, for both installation and maintenance of such facilities. Such manual is of record within the Alabama Department of Transportation at the execution of this Agreement and is hereby made a part hereof by reference.

4. The **UTILITY** will be notified by the **COUNTY** Project Engineer, twenty-four (24) hours in advance of the commencement of the facility adjustment by the **STATE** Contractor. The **COUNTY** Project Engineer shall have final authority in all matters affecting the work of the **STATE'S** Contractor. In the event the **UTILITY** has an Inspector on the project, such Inspector will not issue any instructions to the **STATE'S** Contractor. All instructions to the **STATE'S** Contractor with regard to the work provided for under this agreement will be issued by the **COUNTY** Project Engineer, after consultation with the **UTILITY** Inspector or Representative if found necessary by the **COUNTY** Project Engineer.

5. Code of Federal Regulations 23 CFR 645 is hereby made a part hereof by reference and will be conformed to by the **UTILITY** as the provisions thereof are applicable hereto.

6. The **UTILITY** will observe and comply with the provisions of all Federal, State and Municipal laws and regulations as the provisions thereof are applicable hereto in the performance of work hereunder, including the Clean Water Act of 1987, the Alabama Nonpoint Source Management Program of 1989, and the regulations of the Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM). The **UTILITY** will procure and pay for all licenses and permits that are necessary for its performance of the work.

7. Where the **UTILITY** has a compensable property interest in its existing location (herein referred to as private right-of-way) by reason of holding the fee, an easement or other property interest, evidence of such compensable property interest shall be attached hereto and made a part of this Agreement.

8. If the **UTILITY** is required to move all of its facilities from a portion of its private right-of-way, upon completion of the relocation provided for herein, the **UTILITY** will convey to the **COUNTY** by Quitclaim Deed the portion of its private right-of-way located within the right-of-way limits of the above referenced project.

9. In the event the **UTILITY** is required to relocate any of its facilities which are located on its private right-of-way to a new location on public right-of-way or if any such facilities are to be retained in place within the public right-of-way due to this project, the following provisions will apply:

a. The cost of relocation will include reimbursement for acquisition of right-of-way by the **UTILITY** to place necessary guy wires and anchors on private lands adjacent to the highway right-of-way and the rights to cut, trim and remove, initially and from time to time as necessary, trees on private lands adjacent to the highway right-of-way which might then or thereafter endanger the facilities of the **UTILITY**.

b. Reimbursement for future relocation of the **UTILITY'S** facilities will be in accordance With State law in effect at the time such relocation is made; provided, however, the **UTILITY** will be reimbursed for the cost of any future relocation of the facilities, including the cost of acquisition of equivalent private right-of-way if
such future relocation is outside the highway right-of-way and such relocation is required by the **COUNTY**, and provided that the prior relocation from private right-of-way to public right-of-way was without compensation to the UTILITY for its compensable property interest in its private right-of-way.

10. The **UTILITY** will be obligated for the payment of damages occasioned to private property, public utilities or the general public, caused by the legal liability (in accordance with Alabama and/or Federal law) of the **UTILITY**, its agents, servants, employees or facilities.

11. Nothing contained in this Agreement, or in its execution, shall be construed to alter or affect the title of the **COUNTY** to the public right-of-way nor to increase, decrease or modify in any way the rights of the **UTILITY** provided by law with respect to the construction, operation or maintenance of its facilities on the public right-of-way.

12. Paragraph 13 set forth below is applicable to this Agreement only if Federal appropriated funds are available or will be available in the project by which the relocation required by this Agreement is necessitated.

13. In the event any Federal Funds are utilized for this work, the following certification is made: The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers, officials or persons thereunto duly authorized, and this agreement is deemed to be dated and to be effective on the date hereinafter stated as the date of its approval by the Local Transportation Engineer.

WITNESS:

_____

_____ BY: _____

(Signature)

_____

(Type or Printed Name)

_____

(Type or Printed Title)

_____

(Address)

_____

(Address)

_____

(Telephone)

RECOMMENDED FOR APPROVAL:

BY: _____
COUNTY ENGINEER

BY: _____
REGION ENGINEER

COUNTY OF _____

BY: _____
CHAIRMAN, COUNTY COMMISSION

APPROVED:

BY: _____
STATE LOCAL TRANSPORTATION ENGINEER

DATE: _____

SUPPLEMENTAL AGREEMENT FOR UTILITY RELOCATION COST

PROJECT NUMBER _____

COUNTY NUMBER _____

COUNTY _____

THIS SUPPLEMENTAL AGREEMENT is entered into by and between the County of _____ acting by and through its County Commission, hereinafter referred to as the **COUNTY,** and _____, hereinafter referred to as the **UTILITY**.

WITNESSETH:

WHEREAS, the parties did enter into an Agreement effective the _____ day of _____, 20____ for the relocation of a specific portion of the **UTILITY'S** facilities in conflict with the construction of the above referenced project; and

WHEREAS, certain conditions encountered necessary to the construction of the project have caused an increase in the original estimated cost of relocation, the parties desire to enter into this Supplemental Agreement to cover an increase in estimated cost in the amount of $ _____ as described in detail in Supplemental Estimate No. _____ transmitted herewith and made a part hereof by reference;

NOW, THEREFORE, the parties do hereby agree that the original Agreement be and the same is hereby amended by this Supplemental Agreement consisting of the above mentioned items and prices, and they do agree that the estimated cost contained in the original Agreement be increased in the amount of the increased estimated cost above set forth, and that this Supplemental Agreement be and is hereby made a part of the original Agreement to be performed under the terms and conditions thereof, and that said original Agreement is in full force and effect except insofar as it might be modified by this Supplemental Agreement.

The paragraphs set forth below are applicable to this Agreement only if Federal appropriated funds are available or will be available in the project by which the relocation required by this Agreement is necessitated.

In the event any Federal Funds are utilized for this work the following certification is made:

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers, officials and persons thereunto duly authorized, and the agreement is deemed to be dated and to be effective on the date hereinafter stated as the date of its approval by the Local Transportation Engineer.

WITNESS:

_____

_____
(Legal Name of Utility)

BY: _____
(Signature)

_____
(Type or Printed Name)

_____
(Type or Printed Title)

RECOMMENDED FOR APPROVAL:

BY: _____
County Engineer

_____
(Address)

BY: _____
Region Engineer

_____
(Address)

_____
(Telephone Number)

APPROVED

BY: _____
State Local Transportation Engineer

County of _____

BY: _____
Chairman, County Commission

DATE: _____

UTILITY CERTIFICATE – EXAMPLE 1

Date _____

Mr. _____
State Local Transportation Engineer
1409 Coliseum Boulveard
Montgomery, AL 36130-3050

Dear Sir:

RE: Project No. _____
County No. _____
County _____

The status of the utilities for the above referenced project is as follows:

The utilities on this project are not in conflict and will be retained in their existing location.

_____
County Engineer

UTILITY CERTIFICATE – EXAMPLE 2

Date _____

Mr. _____
State Local Transportation Engineer
1409 Coliseum Boulveard
Montgomery, AL 36130-3050

Dear Sir:

RE: Project No. _____
County No. _____
County _____

The status of the utilities for the above referenced project is as follows:

CONCO WATER AUTHORITY

A reimbursable agreement was submitted by this office for approval on September 20, 2003. The utility work will be performed by company forces. They plan to begin work within seven (7) days from the notice to proceed and complete the work within ten (10) calendar days. This work is scheduled for completion prior to the issuance of the project work order.

BELL SOUTH

A non-reimbursable agreement was submitted by this office for approval on September 20, 2003. The utility work will be performed by company forces. They plan to begin work within five (5) days from the notice to proceed and complete the work within five (5) calendar days. This work is scheduled for completion prior to the issuance of the project work order.

The other utilities on this project are not in conflict and will be retained in their existing location.

_____
County Engineer

Road & Bridge Department
Telephone: 334-792-4149
Fax: 334-677-1153
Toll Free: 800-782-4149

Sanitation Department
Telephone: 334-793-5442
Fax: 334-677-1153

HOUSTON COUNTY ENGINEER'S OFFICE

September 26, 1999

Mr. John F. Courson
County Transportation Engineer
Alabama Department of Transportation
1409 Coliseum Blvd., Room V-201
Montgomery, AL 36130

RE: HCP 35-119-99
Houston County

Dear Mr. Courson:

The Houston County Commission wishes to advise you that they intend to improve the above referenced project using Federal Aid Funds. The project under consideration is the replacement of a roadway bridge. The location of this project is on a County Road known as East Cook approximately 0.50 miles North of County Road No. 42.

The Houston County Commission is interested in the views of Public Officials and Agencies regarding the construction of this project. Any questions, comments or replies concerning this project will be appreciated. A portion of a Houston County map (1: 120 000 scale) is enclosed indicating the location of the proposed project.

Yours truly,

Mark Culver
Chairman
Houston County Commission

MC:jfj

Attachment
pc: Map and All Review Agencies

2400 Columbia Highway • Dothan, Alabama 36303

REVIEW AGENCIES

U S ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL ASSESSMENT NEPA
STAFF
100 ALABAMA STREET
ATLANTA GA 30303-3104

DIRECTOR
OFFICE OF ENVIRONMENTAL PLANNING & COMPLIANCE
U S DEPARTMENT OF INTERIOR
1849 C STREET N W MS-2340
WASHINGTON D C 20240

CONSERVATION CHAIRMAN
ALABAMA CHAPTER SIERRA CLUB
P O BOX 395
DOUBLE SPRINGS AL 35553

DIVISION CHIEF
LAW ENFORCEMENT & TRAFFIC SAFETY
ADECA
401 ADAMS AVENUE
MONTGOMERY AL 36130

CORPORATE REAL ESTATE
ALABAMA POWER COMPANY
P O BOX 2641
BIRMINGHAM AL 35291

SUPERVISOR
U S FOREST SERVICE
USDA
2946 CHESTNUT STREET
MONTGOMERY AL 36107

DIRECTOR
ALABAMA DEPARTMENT OF LABOR
649 MONROE STREET
MONTGOMERY AL 36130

PROJECT MANAGER
FAA/AIRPORTS DISTRICT OFFICE
100 WEST CROSS STREET SUITE B
JACKSON MS 39208-2307

RECREATION PROGRAM
PLANNING & ECONOMIC DIVISION REVIEW
DECA
401 ADAMS AVENUE
MONTGOMERY AL 36130

WATER RESOURCES DIVISION
USGS
U S DEPARTMENT OF INTERIOR
75 TECHNACENTER DRIVE
MONTGOMERY AL 36117

SUPERINTENDENT
ALABAMA DEPARTMENT OF EDUCATION
50 NORTH RIPLEY STREET
MONTGOMERY AL 36130-2101

DIRECTOR
SOIL CONSERVATION SERVICE
USDA
P O BOX 311
AUBURN AL 36830

ASSISTANT TO THE DIRECTOR
THE ALABAMA STATE COUNCIL ON THE ARTS
201 MONROE STREET SUITE 110
MONTGOMERY AL 36130

DIRECTOR
GEOLOGICAL SURVEY OF ALABAMA
ALABAMA OIL & GAS BOARD
P O BOX 869999
TUSCALOOSA AL 35486-6999

DIRECTOR
ALABAMA DEPARTMENT OF TOURISM & TRAVEL
401 ADAMS AVENUE SUITE 126
MONTGOMERY AL 36104

ALABAMA FORESTRYCOMMISSION
513 MADISON AVENUE
MONTGOMERY AL 36130

REVIEW AGENCIES - CONTINUED

MR. GREG CANFIELD, DIRECTOR
ALABAMA DEPARTMENT OF COMMERCE
P O BOX 304106
MONTGOMERY AL 36130-4106

DIRECTOR
ALABAMA EMERGENCY MANAGEMENT
P O BOX 2160
CLANTON AL 35046

CAHABA RIVER SOCIETY
2717 7TH AVENUE SOUTH SUITE 205
BIRMINGHAM AL 35233

ADEM WATER DIVISION
P O BOX 301463
MONTGOMERY AL 36130-1463

U S DEPARTMENT HUD
950 22nd STREET N SUITE 900
BIRMINGHAM AL 35203-5302

ATTORNEY GENERAL OF ALABAMA
11 SOUTH UNION STREET
MONTGOMERY AL 36130

EXECUTIVE VICE PRESIDENT
ALABAMA CATTLEMEN'S ASSOCIATION
P O BOX 2499
MONTGOMERY AL 36102-3702

COMMISSIONER
ALABAMA DEPARTMENT OF AGRICULTURE & INDUSTRY
1445 FEDERAL DRIVE
MONTGOMERY AL 31107

SOIL & WATER CONSERVATION
100 NORTH UNION STREET SUITE 334
MONTGOMERY AL 36104-3702

DIRECTOR EASTERN STATES OFFICE
BUREAU OF LAND MANAGEMENT
U S DEPARTMENT OF INTERIOR
411 BRIARWOOD DRIVE #404
JACKSON MS 39206