The McWright's Ferry Road Extension to Rice Mine Road Project

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Introduction:

The *McWright's Ferry Road Extension to Rice Mine Road Project* has been planned by the City of Tuscaloosa since the 1970's. This project addresses many issues affecting the immediate area and the entire city. These include safety issues, transportation growth issues and other immediate economic issues of the community. ***The project will provide a safer and more economical access to the fastest growing area in the City of Tuscaloosa.***

The project is a roadway improvement project and is located within both a residential and commercial area of the City of Tuscaloosa, Tuscaloosa County, Alabama. It connects New Watermelon Road to Rice Mine Road, at Northridge Road. The project is approximately 6 miles in length**.** ***A site map is provided as Attachment I and Attachment VII.***

This is in Congressional District AL-006. The established estimate for requested funding is **$50,015,000.00 (See Attachment IX)**. The project is currently nearing completion of the environmental study phase.

The projected schedule is as follows:

Activity	Anticipated Date
PE Authorized:	**April 1, 2008**
NEPA Approval:	**August 27, 2009**
ROW Authorized:	**November 1, 2009**
Construction Authorized:	**November 1, 2010**
Construction Completed:	**February 15, 2012**

Intersection of New Watermelon Road and McWright's Ferry Road

Project Description:

Brief Description: The project will begin on Rice Mine Road at Northridge Road and extend the existing 5-lane roadway to the east, paralleling the Black Warrior River and interchange with the new Eastern/Northern Bypass Bridge. A new 5-lane bridge over North River will be built as part of this project. The road will then continue east and north with a divided 4-lane highway from the east side of North River to New Watermelon Road, generally following the existing alignment of McWright's Ferry Road (see Attachments I and VII).

Brief Comments: Today, the only convenient access to the rapidly growing area on the east side of Lake Tuscaloosa is New Watermelon Road. Part of New Watermelon Road travels on top of the dam of Lake Tuscaloosa and also bridges the spillway of the lake. **Any problem with the dam or the spillway bridge will force traffic to travel on a circuitous detour route of 22 plus miles through north Tuscaloosa County to get to the City of Tuscaloosa**. An overturned truck on New Watermelon Road just north of the spillway caused a two hour traffic shutdown of New Watermelon Road in early 2007. For that period of shutdown, approximately 10,000 residents were isolated from access to the rest of the city. Major infrastructure damage could have resulted, which would have isolated the residents east of Lake Tuscaloosa for months. The proposed new route will give the residents on the rapidly growing east side of Lake Tuscaloosa another route to go to and from their work and home (see Attachment VI for Project Area Photographs).


New Watermelon Road crossing the dam at Lake Tuscaloosa

Because of the rapid growth of the city east of Lake Tuscaloosa, this proposed new route will also provide relief from traffic congestion to motorists that presently use the existing 2-lane Rice Mine Road and New Watermelon Road. Current projections show that the 2-lane New Watermelon Road can expect its Average Daily Traffic (ADT) to increase from 4277 (2005) to 16,665 (2035), in the event the alternate route is not constructed. The construction of this additional route will lower the projected 2035 ADT to 4500 for New Watermelon Road. **In addition, according to the West Alabama Regional Planning Commission, the area east of Lake Tuscaloosa is one of Tuscaloosa's most rapidly growing commercial and residential areas** and a new alternate route will provide a safe and efficient road system for the orderly development of the area east of Lake Tuscaloosa (By 2035 the population in this area is projected to triple).


Spillway and dam at Lake Tuscaloosa

There are numerous goals that will be achieved by construction of *The McWright's Ferry Road Extension to Rice Mine Road Project*. The following illustrates these goals and the methods that will be used to address them in this project.

Primary Considerations:

1. State of Good Repair: As previously stated, this is a roadway that is heavily-traveled within the city. Repair and future routine maintenance have been considered in the selection of this project. This project will incorporate design standards that meet and/or exceed current industry standards, in order to minimize future maintenance costs as well as eliminate the current issues associated with this roadway. Widening the roadway will enhance traffic flow and accessibility to this area of the city; therefore, pavement buildup designs will reflect this need.

One of the main issues currently associated with maintenance is the repair and/or routine maintenance associated with the spillway that New Watermelon Road crosses. Because there are currently no alternate routes, excluding the previously mentioned 22-mile detour, routine maintenance and road/lane closures can be very expensive. These closures can become hazardous to both maintenance employees and the driving public. The new alternate route will allow safe and effective maintenance to be performed on the Lake Tuscaloosa spillway without performing the maintenance under heavy traffic conditions.

Drainage is always a maintenance concern for roadways. This project incorporates a center median that is flat enough to maintain grass and vegetation growth, therefore reducing erosion issues associated with runoff (See Attachment VIII). Open channels will be lined with permanent erosion control material. **The new roadway will also use a design that will enhance water quality through better natural filtration of storm water runoff**. The combination of these improvements will minimize future maintenance costs.

2. Economic Competitiveness: This project will directly impact both the long-term and short-term economy. The construction process will incorporate the services of numerous contractors and subcontractors, including the individual disciplines of earthwork, paving, traffic control and bridge construction. The bridge section of the project will be a significant undertaking and will employ the services of numerous contractors due to span lengths, pile locations and structure materials (both steel and concrete will be utilized). **It is estimated that up to five different construction companies will be employed in order to meet the diverse specialties required in this project and that team members working on this project could reach up to 100 different people.** Individuals working on this project will range greatly in skill level, including laborers, equipment operators, drill personnel, surveyors, engineers, foremen and superintendents. This project is not located in the central business district of Tuscaloosa. Therefore, during construction, these individuals will be spending money directly in the community where they are working. This includes, but is not limited to, supplies, fuel, food and possibly lodging. It is estimated that the project construction period will be 15.5 months. Assuming an

average monthly wage of $5250.00, this would equate to an overall total in wages of $8,137,500.00 over this period of time. In addition, assuming that the employees spend approximately 50% of their wages in the community and surrounding area, this project will generate an additional $4,068,750.00 for local businesses (See Attachment II for the Federal Wage Rate).

The long-term economic impact will be even greater. This roadway connects the fastest growing area of the community with the center of the city where most of these residents are currently employed. Easier and more efficient traffic flow will bring these two areas together, making economic growth a continued reality. In addition, this is an area that is presently experiencing commercial and business growth as a direct result of the tremendous residential growth that has occurred in the past twenty-five years. It is predicted that this trend will continue. Safe and viable access to this area will assist and promote the continued growth. The calculated **Benefit Cost Ratio** for this project is **1.54** (see Attachment XI). This B/C ratio does not take into account the short term wages generated during construction mentioned in the above paragraph.

As stated, this area is rapidly growing and is considered one of Tuscaloosa's most promising areas for economic development. In the past five years, there have been numerous subdivisions, apartment and condominium complexes, supermarkets, restaurants, office complexes, banks and other commercial developments constructed. Additionally, there are future commercial and residential developments already in the planning stages. Consistent growth in the housing market has been the catalyst for the commercial growth. Increasing mobility will make the housing market more desirable to potential owners and renters. ***This project will provide a second, more efficient route for motorists who currently rely strictly on a single two-lane roadway for access.***

City Finances: The financial stability of the City of Tuscaloosa is sound. The City of Tuscaloosa's bond rating is currently "Aa2" by Moody's Investors Service and "AA+" by Standard & Poor's. The city adopts annual budgets in both operating funds, the General Fund and the Water and Sewer Fund. Additionally, money is designated in both capital improvement funds.

The city is experienced in overseeing major construction projects including infrastructure projects (currently over $50 million under construction), municipal office buildings, water and sewer facilities, fire stations and a downtown parking deck. While organizing these complex projects, the city also maintains tight budget controls over all capital projects. The Mayor, the City's Public Project Committee, the Council Finance Committee and the city staff work to ensure compliance with the bid law and strive to minimize change orders on construction projects. Additionally, the staff is experienced in managing grant funds, warrant proceeds and internal reserves. See Attachment II for the Federal Wage Rates, Attachment III for NEPA Act Requirements, Attachment IV for a Statement Regarding Protection of Confidential Business Information and Attachment V for a Reporting Requirements Statement.

The City's Finance Department processes payment requests weekly and assures budget control over both operating and capital funds. All payment requests are approved by at least the city staff member overseeing the project, and at times on major construction projects, an outside engineer or architect.

3. Livability: Community livability will be greatly enhanced as a result of this project. One of the features of the project is the **inclusion of multi-use paths for bicycles and pedestrians.** There are a large number of pedestrians in this area, especially parents and children. The local cyclists enjoy the area as well. The current McWright's Ferry Road does not have sidewalks or bike paths. This project will incorporate additional 10' wide bike/pedestrian lanes along the roadway, making both pedestrian and bicycle traffic more accessible and safer. ***The goal of this project is to enhance all forms of travel – vehicles, pedestrians and bicycles.*** In addition, the multi-use paths along the roadway will interconnect individual neighborhoods, making them more accessible and allow citizens to intermingle with each other. The improvements proposed in the scope of this project will enhance day to day living for these residents.

This project has been through the city's planning process. It is currently listed in the Tuscaloosa Area 2035 Long-Range Transportation Plan. It has been determined that not only will traveler mobility be increased and made more efficient through the use of this improved roadway, but also the community will benefit economically (see Attachement XI for the **Benefit Cost Analysis**). Throughout the process, there have been public involvement meetings to promote community participation. ***The intent of this project is to provide a safe, efficient roadway that also incorporates the community's needs and desires***.

4. Sustainability: Energy efficiency will be a direct result from the construction of this project. As stated above, multi-use paths will be incorporated into the design, promoting the use of alternative transportation such as bicycles. In addition, the newly constructed four-lane divided roadway will make vehicular traffic more energy efficient by providing a more direct route and also by relocating traffic to a roadway that meets current vertical and horizontal design standards. Presently, motorists are utilizing a roadway with very steep hills and horizontal curves, thus decreasing energy efficiency. The new route will be a shorter route into the City, with no traffic signals planned at this time. The new route will save an estimated 3,423,750 gallons of gas over the next 25 years.

The new rights of way and medians will provide for vegetation and promote alternative landscaping ideas. The new roadway will be much **"greener" and more environmentally friendly** than the current route that motorists are required to follow. Utilizing these concepts will provide a positive impact and promote continuity and pride within the various communities along the roadway.

The combination of the above factors will both protect the natural environment and provide much-needed opportunities for citizens to become more energy efficient.

5. Safety: Several factors adversely affect the safety of our citizens. First, there are no sidewalks or bicycle paths available in an area that is both pedestrian and bicycle heavy. The project will address this immediate need by incorporating multi-use paths into the design. This will allow pedestrians and bicyclists to remain outside the travel way, thus providing a safe location for walking and riding.


Curve in New Watermelon Road

Secondly, there are currently sections of New Watermelon Road that do not meet horizontal or vertical standard design criteria. At times, cars maneuver outside of their designated travel lane to compensate for the inadequate design standards. This project will address these issues by providing an alternate route, ensuring that all current design criteria are met on the new road.

The most important safety issue that this project addresses is the fact that all traffic is currently required to use a two-lane roadway that crosses over the City of Tuscaloosa's spillway and dam for Lake Tuscaloosa. This lake provides all of the drinking water for the City of Tuscaloosa, as well as several surrounding cities and communities. ***An accident on the dam or spillway could cause damage to the structures. Hazardous material could also be spilled into Lake Tuscaloosa, thus endangering the city's water supply.***

The spillway and dam crossing also creates another major concern for the city. As previously stated, the current route is the only convenient route into an area with a very high density of residents. The only alternative route is a 22-mile detour around Lake Tuscaloosa. ***The ability to provide emergency services to these citizens would be severely hampered, if not eliminated, in the event the spillway or road leading to it, were ever temporarily closed.*** Possible causes of closure include vehicular accidents or spillway damage. The probability of this occurring increases every year as the area continues to grow. If the route is closed for one day, the cost of the amount of energy lost is $133,100.

The proposed roadway will allow for an alternate route to this area. If the existing roadway is ever closed for any reason, emergency vehicles will have a direct route to these residents. ***The construction of this roadway will greatly improve safety and emergency access to the citizens of Tuscaloosa who reside in northeast Tuscaloosa.***

Secondary Considerations:

Innovation: The *McWright's Ferry Road Extension to Rice Mine Road Project* is innovative in the respect that it is going to improve the lives of not only the residents of the City of Tuscaloosa but also citizens residing in other communities. Residents living in Tuscaloosa County and various other communities, located to the north of the proposed roadway, will directly benefit from this project. They

are required to travel the same two-lane roadway to cross Lake Tuscaloosa. The new roadway will provide these citizens with a direct, efficient route to meet their daily needs, such as employment, shopping, healthcare, and public services. The current design of the new roadway uses the latest innovative **"green" design techniques** that enhance water quality while promoting ground water infiltration.

This project will serve to protect both the travelling public and the source of drinking water for the Tuscaloosa area. In addition, the Lake Tuscaloosa area serves as a highly-used recreational area for the entire county. This project will provide alternate access to the northern section of the Lake. Access will be safer and more efficient than the current route.

Finally, the *McWright's Ferry Road Extension to Rice Mine Road Project* has been planned and is **being designed** in coordination with multiple other transportation improvement projects sponsored by both the Alabama Department of Transportation (ALDOT) and the City of Tuscaloosa. This is not a "stand alone" project but actually complements other transportation improvements in the metropolitan area. By constructing this project, the city will be improving the entire transportation network not just a single travel way. Attachment X displays the traffic projections for the entire area and how this project is being integrated into the entire planning process.

Partnership: The city has been working cooperatively with several agencies through this process. A project of this size and magnitude will include environmental agencies, historical agencies, the Alabama Department of Transportation and the Federal Highway Administration.

In addition, this project is integrating transportation with other public efforts both the city and State of Alabama are currently implementing. The City of Tuscaloosa recently completed an improvement project on a section of Rice Mine Road as well as the newly constructed Ol' Colony Road.

ALDOT is in the environmental design stages for the Tuscaloosa Eastern Bypass (TEB) Project, a $250,000,000 transportation project. The first phase of the bypass was a $42,000,000 bridge over the Black Warrior River that is **already open to traffic**. The McWrights Ferry road project, as part of the larger TEB project, will enhance the operation of the TEB, providing access through an interchange with the TEB. The City of Tuscaloosa and ALDOT have worked together on both of these projects to ensure that they address the community's transportation needs.

Conclusion:

The City of Tuscaloosa has begun engineering and environmental design on this project and is moving ahead with the goal of completing construction by December 2, 2013. Staff members have condensed the design schedule with the goal of allowing the project to be let for construction as quickly as possible. In addition, the bridge section of the project will be designed so that it can be let for construction as a separate project, if necessary. This would allow construction to begin early in the

process, thus employing people as quickly as possible. There are numerous local roadway and bridge contractors who are ready to bid a project of this nature and magnitude.

The proposed roadway will affect the fewest residents possible and provide optimal benefit to the public. This is being determined throughout the NEPA process. This project will deliver tremendous long-term positive impacts with minimal temporary negative impacts during the construction period.

The *McWright's Ferry Road Extension to Rice Mine Road Project* will positively impact the community in every aspect possible. This project will protect citizens' well-being by addressing both vehicular and pedestrian safety issues. Due to its location and connectivity to other major arterials, it will have a direct impact on increasing economic development in a community that is currently experiencing the highest growth in the city. This continued growth will provide employment for Tuscaloosa's residents in the coming years. It will provide another artery through the city that will remove a high volume of traffic from existing roadways, therefore increasing the life of these existing streets. Finally, the completed project will maintain the integrity and history that the City of Tuscaloosa has come to enjoy concerning Lake Tuscaloosa while also protecting the city's health and providing for its safety.

Attachments:

I. Map of Project Area

II. Federal Wage Rate Requirement

III. National Environmental Policy Act Requirement

IV. Statement Regarding Protection of Confidential Business Information

V. Reporting Requirements Statement

VI. Project Photographs

VII. Aerial Displaying Project Limits

VIII. Typical Roadway Sections

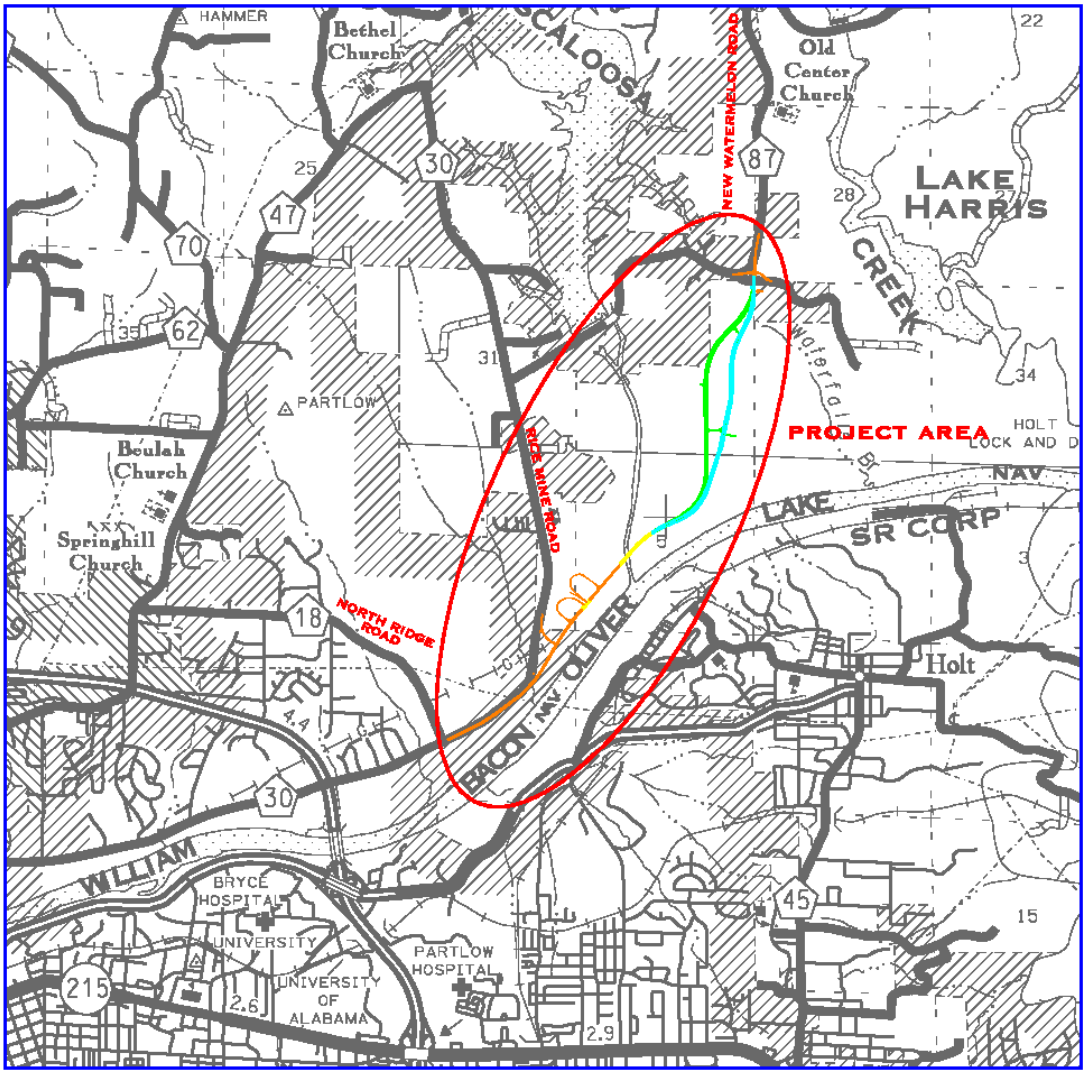
IX. Budget Breakdown

X. Additional Traffic Projection Data

XI. Benefit Cost Analysis

MCWRIGHT'S FERRY ROAD CONNECTOR

FROM RICE MINE ROAD TO NEW WATERMELON ROAD



ATTACHMENT 1

BURK-KLEINPETER, INC.
ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

Attachment II: Federal Wage Rate Requirement

GENERAL DECISION: AL20080002 02/08/2008 AL2

Date: February 8, 2008
General Decision Number: AL20080002 02/08/2008

Superseded General Decision Number: AL20070024

State: Alabama

Construction Type: Highway

Counties: Blount, Calhoun, Etowah, Shelby, St Clair and
Tuscaloosa Counties in Alabama.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, bulding structures in rest areas projecs, and railroad construction; bascule, suspension & spandrel arch bridges desgned for commercial navigation; bridges involving marine construction; other major bridges)

Modification Number	Publication Date
0	02/08/2008

* SUAL2002-002 05/31/2002

	Rates	Fringes
Carpenter	$ 10.72	
Concrete Finisher	$ 11.29	
Electrician	$ 15.40	
Ironworker		
Reinforcing	$ 11.27	
Structural	$ 11.00	
Laborers:		
Asphalt Rakers	$ 8.91	
Concrete Laborers	$ 8.39	
Grade Checker	$ 8.82	
Pipelayers	$ 9.60	
Powderman/Blaster	$ 8.11	

Side Rail/Form Setters.....$ 8.16
Unskilled.....$ 8.11

Painter.....$ 10.00

Piledriverman.....$ 10.91

Power equipment operators:
Aggregate Spreader.....$ 10.11
Asphalt Distributor.....$ 13.61
Asphalt Drier.....$ 9.36
Asphalt Paver.....$ 9.56
Asphalt Spreader.....$ 11.20
Backhoe, Clamshell,
Dragline, Sand Shovel.....$ 14.06
Boom Truck.....$ 10.00
Boring Machine.....$ 9.00
Broom Operator (Sweeper)....$ 10.50
Bulldozers.....$ 11.60
Concrete Laborers.....$ 13.61
Concrete Paving Machine.....$ 12.00
Concrete Saw.....$ 9.25
Cranes and Derricks.....$ 13.78
Drilling Machine.....$ 11.84
Front End Loader.....$ 8.90
Mechanic.....$ 12.23
Milling Machine.....$ 10.10
Motor Patrol and Motor
Grader.....$ 12.08
Oiler/Greaseman.....$ 10.52
Pavement Breaker.....$ 9.00
Roller (self propelled).....$ 9.25
Scraper.....$ 8.76
Striping Machine.....$ 11.00
Track-Hoe.....$ 9.77
Tractor & Loaders (all
other work).....$ 9.60
Tractor and Loaders (farm
rubber-tired.....$ 9.40
Traffic Control Specialist..$ 8.11

Truck Driver
Multi-Rear Axle.....$ 9.86
Over 35 Tons.....$ 12.12
Single Rear Axle.....$ 8.32
Under 1-1/2 Tons.....$ 8.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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Attachment III: National Environmental Policy Act Requirement

This project is currently following the NEPA process. It is not anticipated that it will have an impact on the natural or social environment. As stated in the application, it is anticipated that there will be a positive impact on both the economic and social environments.

The NEPA process is being completely followed. At this time, there are no known refuges, wetlands, floodplains, historic sites or endangered species that cannot be avoided or addressed during the design process, following appropriate NEPA guidelines. It has been the intent of this project to make sure that all resources are identified and protected.

Current Status:

Archaeological and historic studies are underway.

Preliminary layouts have been developed.

Public Involvement Meetings (2): Have been held.

Anticipated Document Completion: August 27, 2009

Attachment IV: Statement Regarding Protection of Confidential Business Information

All information submitted as a part of this application uses publicly available data that can be made public and all methodologies are accepted by industry practice and standards, to the extent possible.

Attachment V: Reporting Requirements Statement

The City of Tuscaloosa has reviewed and is committed to following the reporting requirements, as required, in Section 1201 (c), Section 1512 and Section 1609. The city will follow all requirements and guidelines as required.

The City of Tuscaloosa has a long history of receiving various federal and state grants and is used to following and adapting to different guidelines, as related to grants. The city has a professional staff, including engineers, planners, grant administrators, and technical managers, equipped to ensure that all guidelines and reporting requirements are met.

Attachment VI: Project Photographs

New Watermelon Road crossing
City of Tuscaloosa dam and spillway

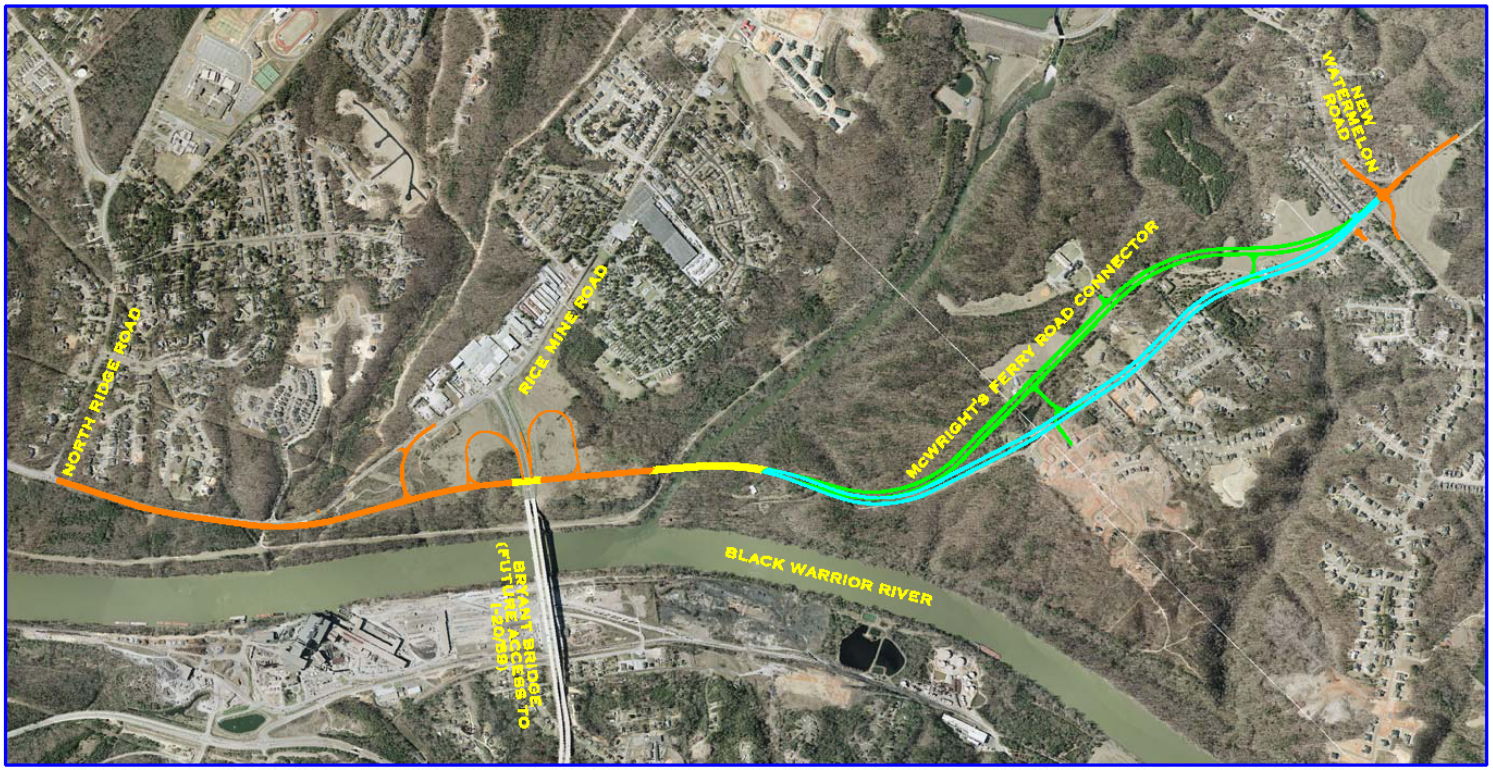
Existing Intersection of New Watermelon Road and
McWright's Ferry Road

McWright's Ferry Road to be widened or relocated

McWright's Ferry Road to be widened or relocated

MCWRIGHT'S FERRY ROAD CONNECTOR

FROM RICE MINE ROAD TO NEW WATERMELON ROAD



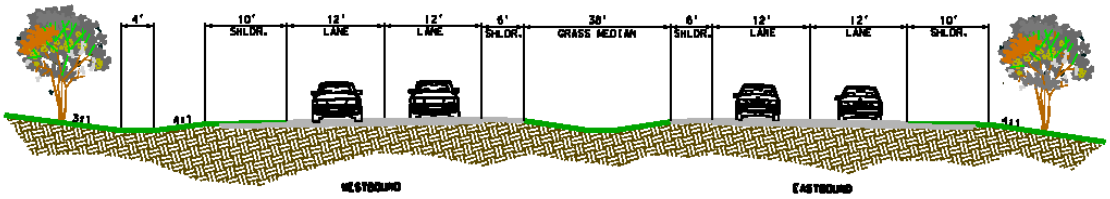
ATTACHMENT VII

CITY OF TUSCALOOSA ALABAMA

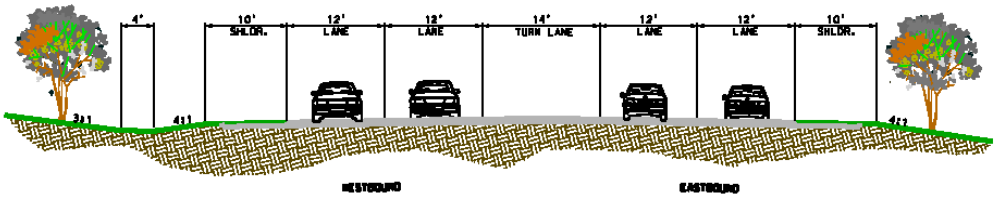
BURK-KLEINPETER, INC.
ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

McWRIGHT'S FERRY ROAD CONNECTOR

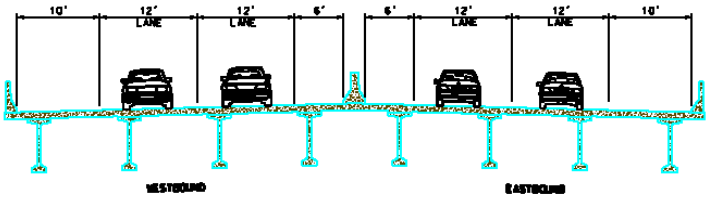
FROM RICE MINE ROAD TO NEW WATERMELON ROAD



4 LANE DIVIDED SECTION



5 LANE SECTION



BRIDGE SECTION

ATTACHMENT VIII

BURK-KLEINPETER, INC.
ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

ATTACHMENT IX

Construction Cost Estimate for McWright's Ferry Road Extension to Rice Mine Road
(based on ALDOT preliminary cost estimate chart dated March 2007)
(Revised for inflation to year 2012)

5000 ft new road (4-lane divided)
4600 ft new road (5-lane)
7700 ft widen and upgrade (4-lane divided)
2100 ft service from Rice Mine to new road (2-lane)
1200 ft long bridge at North River

New Road (3-lane)		$7.3 million per mile	$6,920,000
New Road (5-lane)		$7.3 million per mile	$6,330,000
Widened Road (3-lane)		$5.5 million per mile	$8,030,000
Service Road (2-lane)		$4.0 million per mile	$1,600,000
Bridge (48 ft pavement, 10 ft outside, 6 ft inside shldrs, 3 ft median barrier)	83 ft wide	$150.0 per square foot	$14,940,000
Signing (5 intersections)			$150,000
Traffic Handling			$45,000
Estimated Construction Cost			**$38,015,000**
Utilities ($1 mil/mile)			**$4,000,000**
Right-Of-Way ($2 mil/mile)			**$8,000,000**
		Total Estimated Cost	**$50,015,000**

Attachment X - McWright's Ferry Road (MFR) Extension

	Road Segment	2005 Base Year with 2-Lane MFR	2005 Base Year with 4-Lane MFR	2035 Existing Plus Committed Network with 2-Lane MFR	2035 Existing Plus Committed Network with 4-Lane MFR	2035 With 2030 Plan Projects with 2-Lane MFR	2035 With 2030 Plan Projects with 4-Lane MFR
A	Rice Mine Road North of Bryant Bridge	8,800	8,800	25,000	25,300	10,600	10,700
B	New Watermelon Road at Lake Tuscaloosa	1,000	1,000	4,700	4,400	4,500	4,100
C	New Watermelon Road west of McWrights Ferry Rd	1,000	1,000	4,700	4,400	4,500	4,100
D	New Watermelon Road north of McWrights Ferry Rd	8,400	8,400	14,100	14,000	13,200	13,200
E	Bryant Bridge east of Rice Mine Road	4,400	4,500	19,500	19,600	25,476	24,600
F	McWrights Ferry Rd southwest of Rice Mine Rd	15,100	15,400	22,000	24,900	22,500	26,200
G	McWrights Ferry Rd at Bryant Bridge overpass	9,700	9,700	14,500	15,700	11,800	12,200
H	McWrights Ferry Rd at North River	8,900	8,900	12,700	12,900	12,200	12,500
I	Bryant Bridge on ramp	5,200	5,500	10,300	9,500	5,500	6,000
J	Bryant Bridge off ramp	4,800	5,000	9,900	10,700	5,300	5,600

The existing-plus-committed network contains only the projects that should be completed within a few years. The 2030 plan network includes all of the projects on the 2030 plan.

Attachment XI – Benefit Cost Analysis

General Assumptions

25 year analysis time frame to year 2035

An average 11,000 ADT

In one year there will be 2,739,000 trips (249 work days, no weekends used in calculation)

Mileage cost at $0.55 (Current rate)

New road is 1 mile shorter than existing road with higher design speed and capacity

Average hourly salary of $48/hr during the 25 year period

Benefit

Savings in Driver Costs (due to shorter road) over the 25 year period		$37,661,250
Savings (Driver Costs) if existing road is closed twice for one month each in the period		$ 5,856,400
Savings in Time in dollars (due to shorter road) over the 25 year period		$21,912,000
Savings in Time in dollars if existing road is closed two months in 25 years		$23,232,000
	TOTAL BENEFIT	$88,659,650

Cost

Construction Cost		$51,000,000
Resurface twice during 25 year period		$ 4,000,000
Miscellaneous Cost (stripping, signs etc)		$ 2,500,000
	TOTAL COST	$57,500,000

Benefit/Cost Ratio = 1.54

The above figure does not take into account the cost of cleaning up City of Tuscaloosa water supply or any other environmental accident if it occurred on the existing road. Also as mentioned earlier, the 1.54 ratio does not take into account the short term effect of the wages of the employees (over $12,000,000) while working on the project.