

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

SAFE ROUTES TO SCHOOL

County: Bibb
P. I. Number: 0009445
Federal Route Number: N/A
State Route Number: N/A

City of Macon Elementary Schools and Appling Middle School SRTS

Submitted for approval: (Submit to "Concept Reports" in Outlook)

DATE 12/16/10

Sean Johnston, Kimley-Horn and Associates, Inc.
Design Consultant Name and Firm Name

DATE 12/21/2010

[Signature]
Project Manager

Approvals:

Concur: Katrina Dabul Date: 12-27-10
State Traffic Engineer

Approve: [Signature] Date: 1-5-10
Director of Permits and Operations



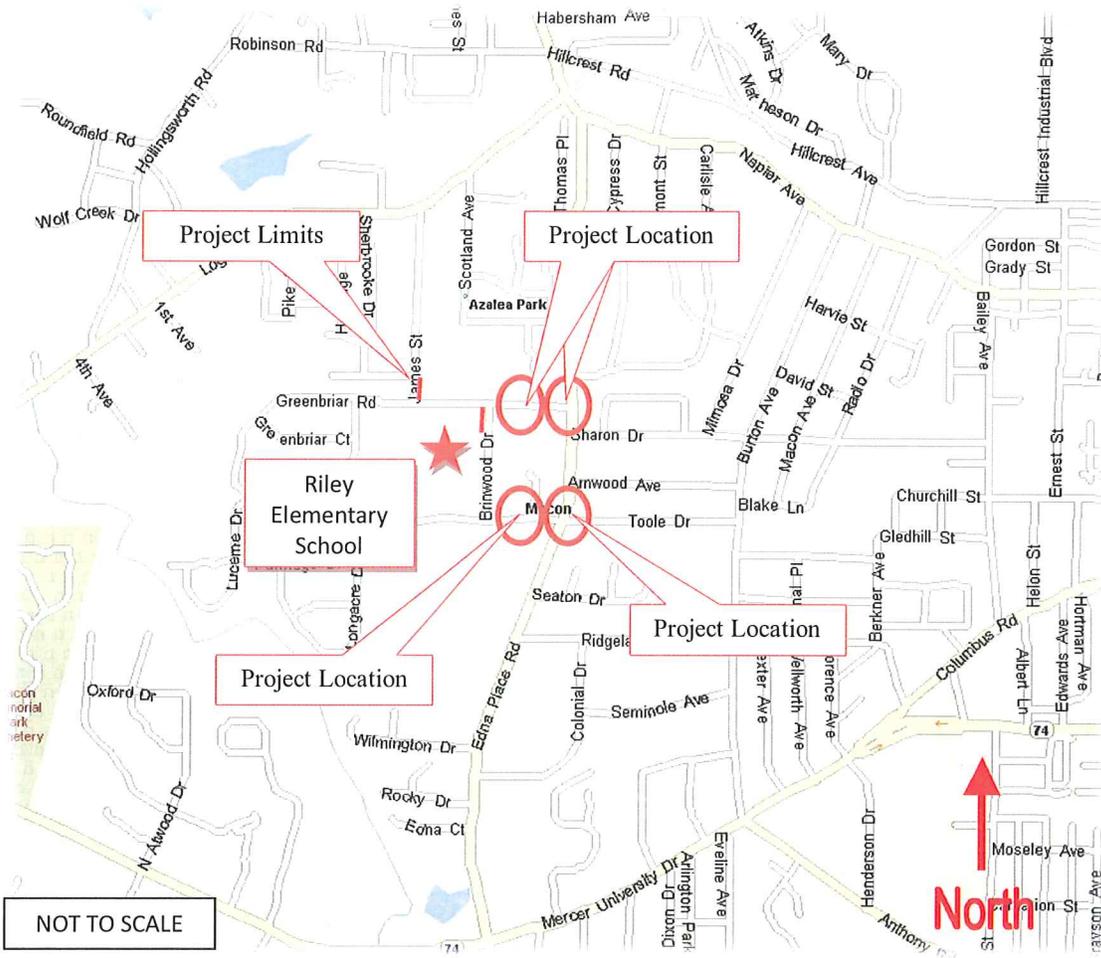
Legend:

-  School Location
-  Project Limits

Project Location Map

Project Number: N/A City of Macon Elementary Schools and Appling Middle School SRTS
 P.I. Number: 0009445 Barden Elementary School
 Bibb County, GA Burghard Elementary School

Source: Microsoft Streets & Trips 2006



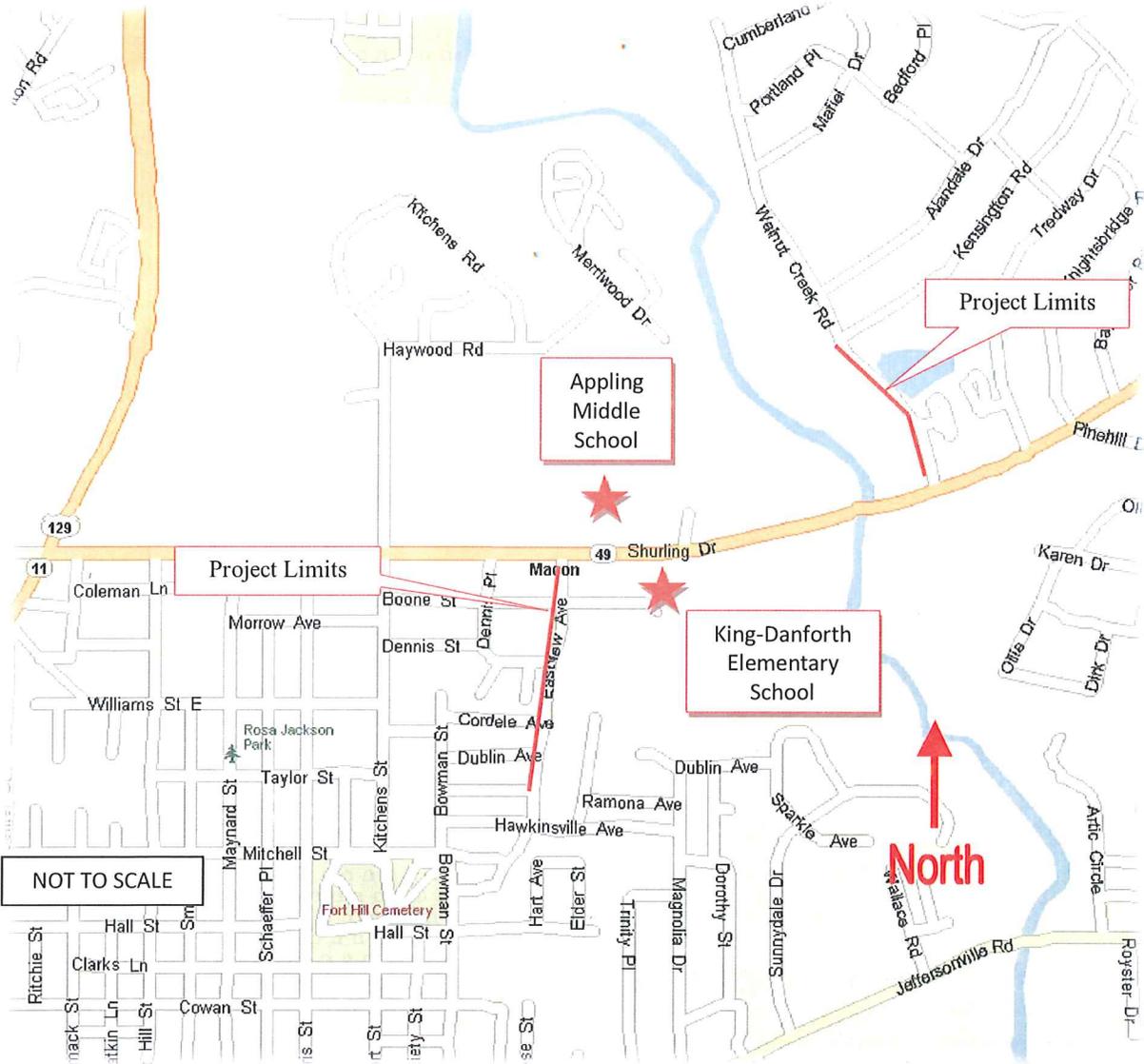
Legend:

-  School Location
-  Project Limits

Project Location Map

Project Number: N/A City of Macon Elementary Schools and Appling Middle School SRTS
 P.I. Number: 0009445 Riley Elementary School
 Bibb County, GA

Source: Microsoft Streets & Trips 2006



Legend:

-  School Location
-  Project Limits

Project Location Map

Project Number: N/A City of Macon Elementary Schools and Appling Middle School SRTS
 P.I. Number: 0009445 Appling Middle School
 Bibb County, GA King-Danforth Elementary School

Source: Microsoft Streets & Trips 2006

Need and Purpose:

This project is a Safe Routes to School (SRTS) infrastructure project that will improve pedestrian and bicycle accessibility for students within a 2-mile radius of Barden Elementary School, Riley Elementary School, King-Danforth Elementary School and Appling Middle School in the City of Macon. Barden Elementary School is located on Anderson Drive east of Bloomfield Road. Riley Elementary School is located on Brinwood Drive between Greenbriar Road East and Greenbriar Road. Both King-Danforth Elementary School and Appling Middle School are located on Shurling Drive near the intersection of Eastview Avenue.

The SRTS infrastructure program administered by the Federal Highway Administration is intended to promote walking and bicycling by students living within a two-mile radius of a school. The desired outcomes of the SRTS infrastructure program include increased health and fitness for students, as well as accessibility and environmental benefits for the community at large. The schools affected by this project all have a high percentage of students that live within a two mile radius of the school.

In 2008, Riley Elementary School had an enrollment over 400 students. More than 160 of these students lived within a half-mile radius of the school; approximately 340 lived within one-mile of the school and over 380 within a two-mile radius of the school. At Barden Elementary School, the student enrollment was also more than 400 students. Over 180 students lived within a half-mile radius of the school, more than 375 lived within a mile of the school and approximately 380 lived within a two-mile radius of the school. Burghard Elementary School had 370 students enrolled in 2008. Of these 370 students, 200 lived within a half-mile radius of the school, more than 335 lived within a one-mile radius of the school, and 340 lived within a two-mile radius of Burghard Elementary School. King-Danforth Elementary School had a student population of 350 in 2008, with more than 115 of these students living within a half-mile of the school. Over 225 students lived within one-mile of the school and over 325 students lived within a two-mile radius of King-Danforth Elementary. Appling Middle School had an enrollment of approximately 650 students in 2008. More than 55 students lived within a half-mile of the school, more than 240 lived within a one-mile radius of the school and more than 445 lived within a two-mile radius of the school.

Pedestrian facilities near the schools and along surrounding streets are in need of improvement to increase accessibility for students walking and biking to school. **Existing conditions** at each school site are described below:

- Barden Elementary School and Burghard Elementary School: Along Anderson Drive and Bethesda Avenue adjacent to the school, some sections of the roadway have no sidewalks while other sections have gaps in existing sidewalks. Curb ramps along these streets currently do not meet Americans with Disabilities Act (ADA) guidelines. Bonnie Avenue and Virginia Avenue do not have existing sidewalks. There are currently no existing stop bars or marked crosswalks across side streets intersecting Nesbitt Drive.

- Burghard Elementary School: There are currently no existing stop bars or marked crosswalks across side streets intersecting Bloomfield Road south of Spur SR 74/Rocky Creek Road.
- Riley Elementary School: Greenbriar Road East and James Street do not have existing sidewalks along either side of the street. Greenbriar Road has existing sidewalks on the south side approaching the school; however there is a vertical drop in excess of five feet and 3:1 slope immediately behind the sidewalk at an existing culvert crossing. There is a gap in the existing sidewalk along Brinwood Drive just south of Greenbriar Road immediately adjacent to the school property.
- King-Danforth Elementary School and Appling Middle School: Eastview Avenue and Walnut Creek Road are major pedestrian routes to the schools from surrounding neighborhoods. There are no existing sidewalks along these streets, and an existing concrete flume at a culvert crossing along Walnut Creek Road presents challenges for pedestrians walking on the existing roadway shoulder. Students coming from the south currently cross at a low visibility crosswalk across Shurling Drive at the intersection of Eastview Avenue to access Appling Middle School.

This project will improve pedestrian and bicycle accessibility in the vicinity of these schools as described below. Note that Georgia code states that local jurisdictions such as the City of Macon may allow operation of bicycles on sidewalks by persons less than 12 years of age through local ordinance.

- Barden Elementary School and Burghard Elementary School: On Anderson Drive near the school entrance, the existing sidewalk will be connected to the school sidewalk near the bus drop off and sidewalk and ADA-compliant curb ramps will be installed along Bethesda Avenue adjacent to the school. Sidewalks will also be installed along Bonnie Avenue and Virginia Avenue between Nesbitt Drive and Bloomfield Road. Stop bars and marked crosswalks will be installed across side streets intersecting Bloomfield Road south of Spur SR 74/Rocky Creek Road. Stop bars will be installed on side streets intersecting Nesbitt Drive between Reynolds Drive and Roselyn Drive. Radar speed signs will be installed to accompany school zone signage along Bloomfield Road and Rocky Creek Road.
- Riley Elementary School: Sidewalk will be constructed along the south side of Greenbriar Road East from Edna Place Road to Brinwood Drive and along the east side of James Street from Tinsley Drive to Greenbriar Road. A handrail will be provided along the existing sidewalk on the south side of Greenbriar Road at the existing culvert crossing. Sidewalk will also be constructed in the gap in the existing sidewalk along Brinwood Drive immediately adjacent to the school property, completing the sidewalk along Brinwood Drive. Marked crosswalks with warning signage will also be installed across Edna Place Road at the intersections with Greenbriar Road and Greenbriar Road East.

- King-Danforth Elementary School and Appling Middle School: Sidewalks will be installed along Eastview Avenue from Shurling Drive to Hawkinsville Avenue and along Walnut Creek Road from Shurling Drive to Kensington Road. A high-visibility

crosswalk will be installed across Shurling Drive, on the west leg of the intersection with Eastview Avenue. At this crossing, a pedestrian refuge island will be installed in the center turn lane, along with rectangular rapid flashing beacons to alert motorists of the crossing. Radar speed signs will also be installed to accompany school zone signage along Shurling Drive.

Other Projects in the Area:

- Milling and Resurfacing of SR 11/MLK Jr. Blvd. from SR 86 to South of CS 537/Stewart Ave (CSSTP-M003-00(172), PI# M003172)
- Bridge Replacement over Walnut Creek along CR 727/Jeffersonville Rd (BRMLB-32223-00(006), PI# 351095)
- Road widening and reconstruction of CR 727/Jeffersonville Rd from Emery Hwy to Walnut Creek (STP00-3223-00(004), PI# 351090)
- Resurfacing along SR 19/87 from SR 87 Connector to SR 247/Pierce Ave (STP00-M0002-00(234), PI# M002234)
- Intersection improvements at Jeffersonville Road and Millerfield Road (STP00-3223-00(002), PI# 342080)

Description of the proposed project:

This project includes construction of pedestrian and bicycle improvements in the vicinity of several elementary schools and one middle school in Macon, Georgia. These improvements include new sidewalks, improved school zone signage, and intersection treatments such as ADA-compliant curb ramps and high-visibility crosswalks. The project will improve pedestrian and bicycle accessibility in the vicinity of school sites as follows:

- Barden Elementary School and Burghard Elementary School: Along Anderson Drive near the Barden Elementary School entrance, the existing sidewalk will be connected to the school sidewalk near the bus drop off. Sidewalk and ADA-compliant curb ramps will be installed along Bethesda Avenue adjacent to the school. Sidewalk will also be installed along Bonnie Avenue and Virginia Avenue. Stop bars and marked crosswalks will be installed across side streets intersecting Nesbitt Drive and Bloomfield Road south of Spur SR 74/Rocky Creek Road. In order to alert motorists who exceed the posted speed limit, radar speed signs will be installed to accompany school zone signage along Bloomfield Road and Rocky Creek Road.
- Riley Elementary School: Sidewalk will be constructed along the south side of Greenbriar Road East from Edna Place Road to Brinwood Drive and along the east side of James Street from Tinsley Drive to Greenbriar Road. A handrail will be provided along sidewalk on the south side of Greenbriar Road at the existing culvert crossing.

Sidewalk will be constructed to complete the gap in the existing sidewalk along Brinwood Drive immediately adjacent to the school property. High visibility crosswalks with warning signage will be installed across Edna Place at the intersections of both Greenbriar Road and Greenbriar Road East.

- King-Danforth Elementary School and Appling Middle School: Sidewalk will be constructed along Eastview Avenue from Shurling Drive to Hawkinsville Avenue and along Walnut Creek Road from Shurling Drive to Kensington Road. A high-visibility crosswalk will be installed across Shurling Drive at the intersection of Eastview Avenue.

At this crossing, a pedestrian refuge island will be installed in the center turn lane, along with rectangular rapid flashing beacons. In order to alert motorists who exceed the posted speed limit, radar speed signs will also be installed to accompany school zone signage along Shurling Drive.

Along with the sidewalk and ADA improvements, the project will also include installation of eight solar-powered radar speed signs in the vicinity of the schools listed above.

See attached concept sketches for further details.

Is the project located in a PM 2.5 Non-attainment area? Yes No

Is this project located in an Ozone Non-attainment area? Yes No

The project is intended to improve bicycle and pedestrian mobility and will not affect roadway capacity. The project is not required to be included in the conforming plan's model.

PDP Classification: Major (), Minor ()

Federal Oversight: Full Oversight (), Exempt() , State Funded (), or Other ()

Functional Classification: All streets involved with the project are considered Urban Local Streets with the exception of Bloomfield Road (Urban Minor Arterial), Edna Pl (Urban Collector), and Shurling Dr (Urban Principal Arterial).

U. S. Route Number(s): N/A

State Route Number(s): N/A

Traffic (ADT):

Bloomfield Road:

Base Year (2010): 11,500

Design Year (2015): 11,800

Edna Place:

Base Year (2010): 7,100

Design Year (2015): 7,300

Shurling Drive

Base Year (2010): 25,200

Design Year (2015): 25,900

Existing design features:

- Existing Typical Section
 - Virginia Drive: One 10' travel lane in each direction, graded shoulders with ditches
 - Bonnie Avenue, Bethesda Avenue, Greenbriar Road East, and Eastview Avenue: One 10-14' travel lane in each direction with header curb.
 - Greenbriar Road: One 10' travel lane in each direction with header curb and 5' sidewalk along the south side.
 - James Street, Walnut Creek Road: One 10' travel lane in each direction with curb and gutter.
- Posted Speed: The posted speed along all streets is 25 mph.
- Width of Right-of-Way
In order to be eligible for Safe Routes to School funding, the local government has demonstrated that adequate existing right-of-way is available to construct the proposed project.
 - Varies along existing streets 40 to 50 feet
- Major Structures: None
- Major Interchanges or Intersections along the Project: None

Proposed Design Features:

- Proposed Design Speed (Along all streets): 25 mph
- Proposed sidewalks will be constructed behind existing curb or in the existing graded shoulder if no curb and gutter exists.
- Proposed Maximum Sidewalk Cross Slope: 2%
- Proposed Sidewalk Width: 5' typical, 4' minimum
- Proposed Grass Strip Width: 2' typical, 0' minimum

Right of way

- Easements: Temporary (), Permanent (), Utility (), Other ().
- Type of access control: N/A
- Number of parcels: 0
- Number of displacements:
 - Business: None
 - Residences: None
 - Mobile homes: None
 - Other: None
- Structures: N/A
- Major Interchanges or Intersections along the Project: None
- Traffic control during construction: No lane closures are anticipated along any of the roads involved in this project.
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
ROADWAY WIDTH:	()	()	(X)

SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LATERAL OFFSET TO OBSTRUCTION:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Design Variances: None Anticipated
- Environmental concerns: None Anticipated
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (X), No (),
 - Categorical exclusion: Anticipated
 - Environmental Assessment/Finding of No Significant Impact(FONSI): ()
 - Environmental Impact Statement (EIS) ().
- Utility involvements:
 - Utility facilities located within the project limits include:
 - Gas (Atlanta Gas Light)
 - Power (Georgia Power)
 - Water (City of Macon)
 - Telecommunications (AT&T, Comcast, Verizon)

VE Study Required: Yes () No (X)

Benefit/Cost Ratio: N/A

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	CST*	MITIGATION
By Whom	GDOT	N/A	N/A	GDOT	N/A
\$ Amount	\$55,000.00	N/A	N/A	\$438,360.43	N/A

*CST Cost includes: Construction, Engineering and Inspection.

Project Activities Responsibilities:

- Design: Consultant/GDOT
- Right-of-Way Acquisition: N/A
- Right-of-Way funding (real property): N/A
- Relocation of Utilities: GDOT/Affected Utility Owners
- Letting to contract: GDOT
- Supervision of construction: GDOT
- Providing material pits: Contractor
- Providing detours: N/A
- Environmental Studies/Documents/Permits: Consultant/GDOT
- Environmental Mitigation: GDOT

Coordination

- Concept Meeting date and brief summary: 05/03/2010 - Minutes Attached
- P. A. R. meetings, dates and results: None Required
- FEMA, USCG, and/or TVA: N/A
- Public involvement: N/A
- Local government comments: N/A
- Other projects in the area:
 - Milling and Resurfacing of SR 11/MLK Jr. Blvd. from SR 86 to South of CS 537/Stewart Ave (CSSTP-M003-00(172))
 - Bridge Replacement over Walnut Creek along CR 727/Jeffersonville Rd (BRMLB-32223-00(006))
 - Resurfacing along SR 19/87 from SR 87 Connector to SR 247/Pierce Ave (STP00-M0002-00(234))
- Other coordination to date: N/A

Scheduling – Responsible Parties’ Estimate

Anticipated Time Frame

- | | | |
|---|--------------|-----------|
| • Time to complete the environmental process: | Begin: 4/10 | End: 3/11 |
| • Time to complete preliminary construction plans: | Begin: 10/10 | End: 5/11 |
| • Time to complete right-of-way plans: | Begin: n/a | End: n/a |
| • Time to complete the Section 404 Permit: | Begin: n/a | End: n/a |
| • Time to complete final construction plans: | Begin: 5/11 | End: 8/11 |
| • Time to complete the purchase of right-of-way: | Begin: n/a | End: n/a |
| • List other major items that will affect the project schedule: | Begin: n/a | End: n/a |

Alternates considered:

(1) Construct new sidewalks, school zone signage, and intersection treatments including ADA-compliant curb ramps and high-visibility crosswalks to improve pedestrian and bicycle accessibility in the vicinity of Riley Elementary School, Barden Elementary School, Burghard Elementary School, Appling Middle School and King-Danforth Elementary School; construct sidewalks along Greenbriar Road, Greenbriar Road East, Brinwood Drive, James Street, Bonnie Avenue, Virginia Avenue, Bethesda Avenue, Eastview Avenue and Walnut Creek Road; install marked crosswalks, pedestrian refuge island and rectangular rapid flashing beacons with ADA-compliant curb ramps across Shurling Drive at the intersection of Eastview Avenue; install marked crosswalks with ADA-compliant curb ramps and stop bars across Edna Place at the intersection of Greenbriar Road and Greenbriar Road East; install marked crosswalks with ADA-compliant curb ramps and stop bars across side streets intersecting Bloomfield Road south of Spur SR 74/Rocky Creek Road; mark stop bars at side street intersections along Nesbitt Drive.

(2) Construct improvements as described in Alternate 1. In addition, construct install marked crosswalks with curb ramps across side streets intersecting Nesbitt Drive; install a mid-block crosswalk across Bloomfield Road at the entrance to Burghard Elementary School; construct a multi-use path across an existing pond dam connecting Magnolia Drive to the King Danforth Elementary School property; near Riley Elementary School, extend the culvert pipe under

Greenbriar Road and backfill with a maximum 2:1 slope in order to widen the shoulder adjacent to the existing sidewalk.

(3) No Build.

Comments:

Comparison Summary of Alternates 1-3

Alternate (1) is recommended for this concept.

Alternate (2) is not recommended for this concept because of the cost of additional storm drainage improvements along Nesbit Drive associated with installation of curb ramps at side street intersections, as well as the cost of signalization or other treatments needed to provide a mid-block crossing across Bloomfield Road at the school site. Near Riley Elementary School, extending the culvert under Greenbriar Road and associated backfill would likely extend the limits of the project out of the existing right-of-way. In order to be eligible for Safe Routes to School funding, the project must be able to be constructed entirely in the existing right-of-way. The proposed trail from the King-Danforth Elementary School property to Magnolia Drive would have an alignment that would run along the top of an existing pond dam in an existing narrow strip of right-of-way. Based on field observations, water overtops this dam during significant rain events. Additional drainage structures would be necessary to keep water from overtopping the trail, which would likely increase the construction cost beyond the available Safe Routes to School funding. The additional drainage treatments and associated erosion control features would likely extend outside of the existing right-of-way.

Alternate (3) is not recommended for this concept. The no-build alternate would not promote walking and bicycling for children attending Riley Elementary School, Barden Elementary School, Burghard Elementary School, Appling Middle School and King-Danforth Elementary School, as stated in the project need and purpose.

Attachments:

1. Construction Cost Estimate
2. Concept Team Meeting Minutes (05/03/2010)
3. Concept Layouts
4. Typical Sections

STATE HIGHWAY AGENCY

DATE : 11/16/2010
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0009445

SPEC YEAR: 01

DESCRIPTION: CITY OF MACON ELEMENTARY SCHOOLS AND APPLING MIDDLE SRIS

ITEMS FOR JOB 0009445

LINE ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0004		*\$*	CONSTRUCTION ENGR INSPECTION 5%	1.000	20874.30	20874.31
0005	LS		TRAFFIC CONTROL - 0009445	1.000	10000.00	10000.00
0010	AC		TEMPORARY GRASSING	1.000	800.00	800.00
0015	LF		MAINT OF TEMP SILT FENCE, TP C	3770.000	2.00	7540.00
0020	LF		TEMPORARY SILT FENCE, TYPE C	7535.000	4.00	30140.00
0025	LS		GRADING COMPLETE - 0009445	1.000	20000.00	20000.00
0030	SY		CONC SIDEWALK, 4 IN	5028.000	45.00	226260.00
0035	SY		CONC MEDIAN, 6 IN	75.000	40.35	3026.58
0040	LF		CONC CURB & GUTTER/ 8"X30"TP2	0.000		
0044	CY		CLASS A CONCRETE	10.000	353.03	3530.31
0045	LF		GALV STEEL PIPE HDRAIL, 2", ROUD	420.000	47.83	20092.23
0050	LF		STM DR PIPE 18", H 1-10	300.000	43.00	12900.00
0055	EA		ADJUST MINOR STRUCT TO GRADE	20.000	500.00	10000.00
0060	LF		THERM SOLID TRAF STRIPE, 24", WH	300.000	5.00	1500.00
0065	LF		THERM SOLID TRAF STRIPE, 8", WH	3081.000	2.00	6162.00
0070	EA		CATCH BASIN, GP 1	3.000	2900.00	8700.00
0075	AC		PERMANENT GRASSING	1.000	1235.00	1235.00
0080	LS		TRAF SIGNAL INSTALLATION NO - 1 (2 SETS OF RRFB'S)	1.000	20000.00	20000.00
0085	LS		TRAF SIGNAL INSTALLATION NO - 2 (8 RADAR SIGNS)	1.000	35600.00	35600.00

ITEM TOTAL 438360.42
INFLATED ITEM TOTAL 438360.42

TOTALS FOR JOB 0009445

ESTIMATED COST: 438360.43
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 438360.43

MEETING MINUTES

Date: May 3, 2010
Project: Safe Routes to School Infrastructure Projects
GDOT Project No.: PI 0009445
County: Bibb
Subject: Concept Team Meeting

Attendees:

Derrick Cameron	Georgia Department of Transportation (GDOT)
Emmanuella Myrthil	GDOT
Bill Causey	City of Macon
Jim Johnson	City of Macon
David Gowan	Bibb County Board of Education
Sandie Parker	GDOT Safe Routes to School Resource Center
Stuart Day	Kimley-Horn and Associates (KHA)
Sean Johnston	KHA
John Cock	Alta Planning + Design (Alta)

This Safe Routes to School concept team meeting was held on Monday, May 3, 2010 at the GDOT area office and in the vicinity of the schools in Macon, Georgia to discuss the sponsor's application and concepts for proposed infrastructure improvements in the vicinity of the school. The proposed project consists of sidewalk and intersection modifications to improve conditions for children walking and bicycling to school.

The meeting began with a group discussion at the GDOT area office, which included the following key items:

- KHA gave an overview of plan development process milestones, which include concept development (i.e. 30% design), environmental documentation, construction drawing preparation (including a Final Field Plan Review at 90% design), and letting to construction. It is GDOT and KHA's goal to complete this process within two years, with six to nine months expected for construction. This is an expedited timeframe for a process that could normally take three to six years.
- KHA gave an overview of the design teams' understanding of the project. The scope is broken up into three areas that encompass five schools. The first area is for Appling Middle School/King-Danforth Elementary School. This area includes adding sidewalks along Eastview Ave, Sulpher Springs Rd, and Walnut Creek Rd and upgrading curb ramps and stop bars where appropriate. It also includes constructing a trail from Magnolia Ave to King-Danforth Elementary School across an existing pond dam. The second area is in the vicinity of Riley Elementary School. This area includes sidewalks along portions of Greenbriar Rd, Brinwood Rd, and James St as well as upgrading curb ramps and stop bars where appropriate. This project will also include a solution for pedestrian safety near the existing cross drain on Greenbriar Rd. The third area is Barden Elementary School/Burghard Elementary School. This area includes sidewalks and ramps along Bonnie Ave, Virginia Dr, and Bethesda Ave. This area also includes a multi-use path along an existing driveway

from Anderson Drive to the rear drop-off area of Barden Elementary. All of the areas have requested radar speed detection signs for streets surrounding the schools.

The group then drove to each project site to observe existing condition within the proposed project limits. Multiple options for improvements within the project limits were discussed. This discussion resulted in the following recommendations:

- King-Danforth Elementary/Appling Middle Area:
 - The sidewalks that are proposed for Eastview Ave/Sulphur Springs Rd will need to be on the side of the road with the most available right-of-way. This may require sidewalks to alternate which side of the road it is constructed.
 - The multi-use trail will actually begin at the intersection of Dublin Ave and Magnolia Dr. The trail alignment may be problematic due to the crossing of the existing pond dam.
 - Sidewalks will need to be constructed on the west side of Walnut Creek Rd due to the crossing of a small tributary of Walnut Creek. This crossing will be addressed by re-grading the shoulder and modifying the existing flume that currently drains into the creek. There is also a second crossing of a small tributary that will need to be addressed, likely with a minor retaining wall and pipe extension. The sidewalk may have to alternate from one side of the road to the other in order to avoid right-of-way impacts.
- Barden/Burghard Elementary Area:
 - The sidewalk along Bethesda Ave appears to have adequate right-of-way and favorable existing shoulder grades.
 - The proposed path from Anderson Dr to the school's rear entrance would follow an existing turn-around driveway. It is desired that the path avoid direct impacts to existing trees on the school property.
 - The sidewalk along Bonnie Ave will most likely need to be on the north side of the street.
 - Along Virginia Dr, there is no existing curb and gutter. There are existing ditches that will have to be worked around to avoid piping significant amounts of run-off.
 - At the intersections along Nisbet Dr, new stop bars will be striped; however, ramps and crosswalks will not be installed due to lack of existing sidewalks and difficulty of reconstruction existing side drain pipes.
 - It was suggested in the field to provide a concrete driveway apron for unpaved Roselyn Drive at Nisbet Drive.
- Riley Elementary Area:
 - Along Greenbriar Rd East, between Edna Place Rd and Brinwood Rd, there is a significant drop-off in the vicinity of an existing creek crossing. It is proposed to install sidewalk with a handrail to improve safety along the south side of Greenbriar Rd East.
 - On Greenbriar Rd at the existing crossdrain, consider a retaining wall and a handrail. Extending the existing pipe may create right-of-way issues due to the steep grade of the existing slope.
 - Along James St, the sidewalk will likely be placed along the east side of the street.

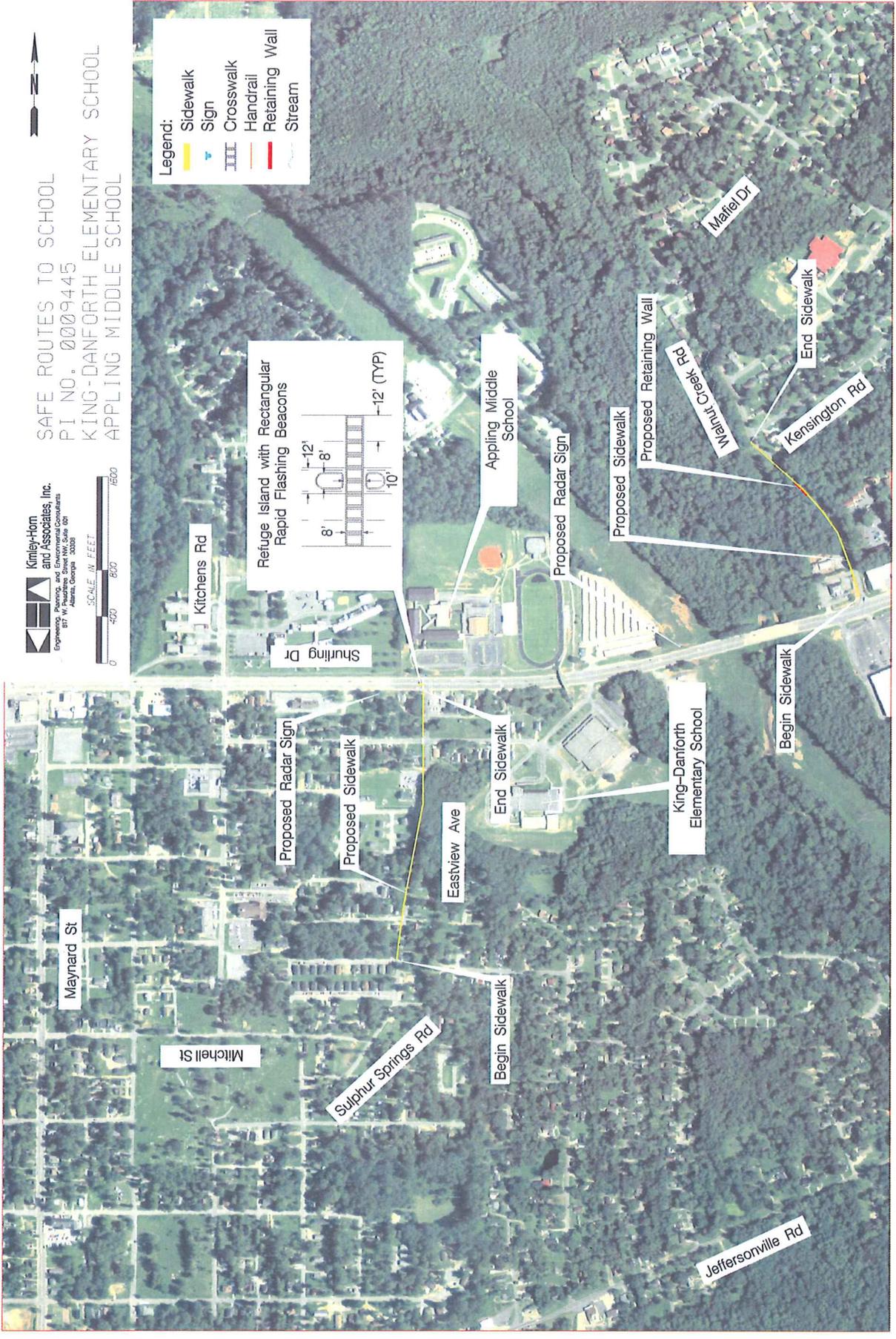
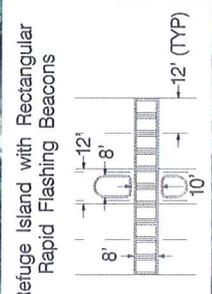
These minutes contain the understanding of KHA and Alta representatives regarding discussions, decisions, action items, etc. at the meeting.

SAFE ROUTES TO SCHOOL
 PI NO. 0009445
 KING-DANFORTH ELEMENTARY SCHOOL
 APPLING MIDDLE SCHOOL

Kimley-Horn
 and Associates, Inc.
 Engineering, Planning, and Environmental Consultants
 817 W. Piedmont Street, Suite 101
 Atlanta, Georgia 30333



- Legend:
- Sidewalk
 - Sign
 - Crosswalk
 - Handrail
 - Retaining Wall
 - Stream



Maynard St

Mitchell St

Sulfur Springs Rd

Eastview Ave

Kitchens Rd

Shurling Dr

End Sidewalk

Begin Sidewalk

King-Danforth Elementary School

Appling Middle School

Proposed Radar Sign

Proposed Sidewalk

Proposed Retaining Wall

Walt Creek Rd

Malfiel Dr

Begin Sidewalk

Kensington Rd

End Sidewalk

Jeffersville Rd



- Legend:
- Sidewalk
 - Sign
 - Crosswalk
 - Handrail
 - Retaining Wall
 - Stream

SAFE ROUTES TO SCHOOL
 PI NO. 0009445
 BARDEN ELEMENTARY SCHOOL

Kimley-Horn
 and Associates, Inc.
 Engineering, Planning, and Environmental Consultants
 871 W. Wood Street, Suite 101
 Raleigh, NC 27601



Install Stopbars along Nesbitt (Typ)

Proposed Sidewalk

End Sidewalk

Virginia Dr

End Sidewalk

Bonnie Ave

Proposed Sidewalk

Install Stopbars and Crosswalk along Bloomfield (Typ)

Proposed Radar Sign

Barden Elementary School

Begin Sidewalk

Begin Sidewalk

Proposed Radar Sign

Proposed Radar Sign

Bloomfield Rd

Bloomfield Rd

Locksley Dr

Wallace Dr

End Sidewalk

Proposed Sidewalk

Begin Sidewalk

Anderson Dr

Begin Sidewalk

Bethesda Ave

End Sidewalk

Proposed Sidewalk

Rocky Creek Rd

Proposed Radar Sign



- Legend:
- Sidewalk
 - Sign
 - Crosswalk
 - Handrail
 - Retaining Wall
 - Stream



SAFE ROUTES TO SCHOOL
 P.I. NO. 0009445
 BURGHARD ELEMENTARY SCHOOL

Kimley-Horn
 and Associates, Inc.
 Engineering, Planning, and Environmental Consulting
 877 W. Peachtree Street, Suite 601
 Atlanta, Georgia 30309



Install Stopbars and Crosswalk
 along Bloomfield (Typ)

Bloomfield Rd

Leone Dr

Medford Pl

Burghard Elementary
 School

I-475

SAFE ROUTES TO SCHOOL
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 RILEY ELEMENTARY SCHOOL

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 ENGINEERS, ARCHITECTS, PLANNERS
 877 W. Peachtree Street, Suite 101
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Legend:

- Sidewalk
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