

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0011738

OFFICE Design Policy & Support

Cobb County
GDOT District 7 - Metro Atlanta
SR 3/US 41 @ CS 1720 Windy Hill Road
Intersection Improvements

DATE 12/30/2013

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Jeff Fletcher, Statewide Location Bureau Chief
Rachel Brown, District Engineer
Scott Lee, District Preconstruction Engineer
Patrick Allen, District Utilities Engineer
Azimeye Abu, Project Manager
BOARD MEMBER - 11th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

Project Type: Reconstruction/ Rehabilitation P.I. Number: 0011738
 GDOT District: 7 County: Cobb
 Federal Route Number: 41 State Route Number: 3
 Project Numbers: _____

This project involves operational improvements and additional capacity to the SR 3/US 41/Cobb Parkway at Windy Hill Road/CR 1720 intersection.

Submitted for approval:

<u><i>Rouven Suleis</i></u> Consultant Designer & Firm or GDOT Concept/Design Phase Office Head & Office	<u>7/29/13</u> DATE
<u><i>Ray B...</i></u> Local Government	<u>7/29/13</u> DATE
<u><i>Benedict Rino Jr.</i></u> Office Head	<u>8/22/2013</u> DATE
<u><i>Kimberly Neuhoff</i></u> GDOT Project Manager	<u>8.20.13</u> DATE

Recommendation for approval:

<u>Program Control Administrator</u> <u>GLENN BOWMAN*/EKP</u>	<u>8/29/13</u> DATE
<u>State Environmental Administrator</u> <u>KATHY ZAHUL*/EKP</u>	<u>10/29/13</u> DATE
<u>State Traffic Engineer</u> <u>LISA MYERS*/EKP</u>	<u>8/29/13</u> DATE
<u>Project Review Engineer</u> <u>JUN BIRNKAMMER*/EKP</u>	<u>9/2/13</u> DATE
<u>State Utilities Engineer</u>	DATE
<u>District Engineer</u>	DATE
<u>State Transportation Financial Management Administrator</u>	DATE

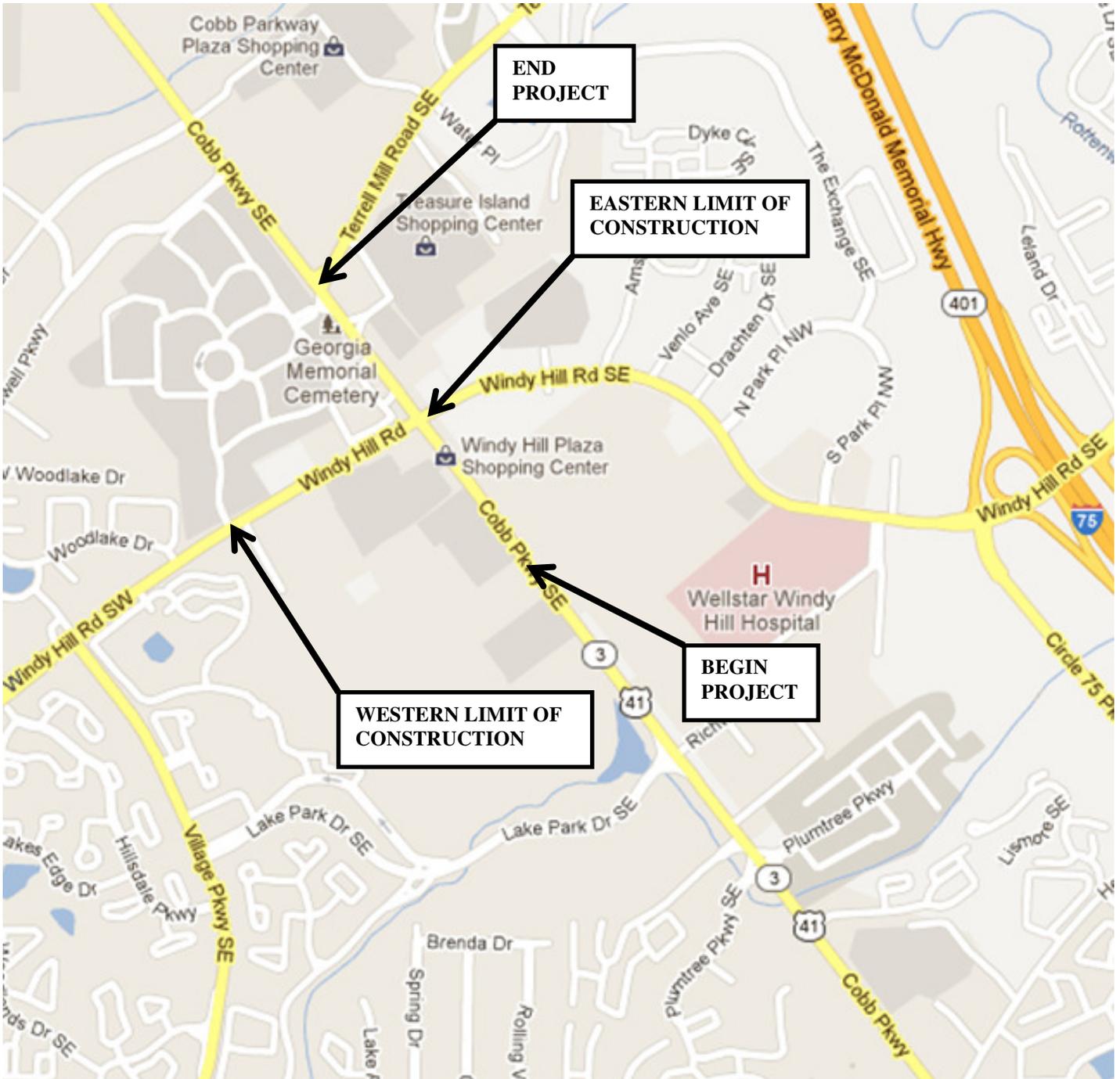
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

Matthew J...
State Transportation Planning Administrator 8/30/13
DATE

* Model Needs to be updated The sponsor will work with the MPO.

* - RECOMMENDATION ON FILE

PROJECT LOCATION



GDOT P.I. Number: 0011738

Description: SR 3/US 41/Cobb Pkwy and Windy Hill Rd/CR 1720 Intersection Improvements and Queue Jumper Lanes.

PLANNING & BACKGROUND DATA

Project Justification Statement:

This project is located in the Atlanta Regional Planning Commission's transportation management area (TMA) as an intersection improvement with queue jumper lanes and the installation of dual-left turn lanes to facilitate better traffic movements between US 41 and Windy Hill Rd. Cobb County Department of Transportation is the local project sponsor and will be letting this project to construction. This project is included in the 2011 Cobb County Transportation SPLOST program.

Based upon traffic data information approved by the Georgia Department of Transportation Office of Planning on April 18, 2013, the 2013 Average Annual Daily Traffic (AADT) along US 41 and Windy Hill Rd is 41,100 and 37,200, respectively. The existing level of service (LOS) for the intersection would be an "E" in the AM peak hour and an "F" for the PM peak period. Projected traffic volumes for 2037 show the same routes having AADT growth up to 52,600 and 47,600 respectively. This growth would result in the intersection LOS to be an "F" for both the AM and PM peak hours. Peak hour vehicle delays could increase by 57% for AM peak hours and 75% for PM peak hours. These LOS ratings are seen as unacceptable with regard to statewide LOS performance measures as referenced in the 2005-2035 Statewide Transportation Plan (SWTP).

The southern project limit is the point along US 41 that the required left/right turn lane transitions tie back into the existing roadway section. The northern project limit is the Terrell Mill Rd/US 41 intersection and is supported by drops in the traffic counts. The western project limit is the point at which the left turn lane into the QT gas station can be dropped and tied back into the 12-foot wide two way left turn lane along Windy Hill Rd. The eastern project limit is the point at which the project ties into the improvements of a separate project involving operational improvements between SR 3/US 41/Cobb Parkway and Interstate 75 (Project No. E4030).

The performance goals for the completed project include reducing congestion due to the installation of dual-lefts on US 41 northbound and southbound as well as dual-rights on US 41 southbound, increasing left turn storage on westbound Windy Hill Rd, and the addition of a westbound right turn lane on Windy Hill Rd. The addition of queue jumper lanes along US 41 would reduce delays of transit buses at the traffic signals. This project may also potentially reduce crash frequency and severity at this intersection by channelizing vehicles out of the conflict areas.

Description of the proposed project: This project involves the construction of intersection improvements at the SR 3/US 41/Cobb Parkway at Windy Hill Road/CR 1720 intersection, including the addition of dual-left turn lanes and queue jumper lanes on the north and south legs of SR 3/US 41/Cobb Parkway, lengthening the existing dual-lefts and adding a right turn lane on the west leg of Windy Hill Road/CR 1720, the addition of a third northbound lane on SR 3/US 41/Cobb Parkway that exits at Terrell Mill Rd and dual southbound right turn lanes on the north leg of SR 3/US 41/Cobb Parkway. This project

County: Cobb

will tie into another project involving operational improvements between SR 3/US 41/Cobb Parkway and Interstate 75 (Project No. E4030). Project length is approximately 0.42 miles along SR 3/US 41/Cobb Parkway and 0.30 miles along Windy Hill Road/CR 1720.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: Atlanta Regional Commission (ARC)

MPO Project ID N/A

Regional Commission: Atlanta Regional Commission

RC Project ID N/A

Congressional District(s): 11

Projected Traffic: AADT

SR 3/US 41/Cobb Parkway

Current Year (2013): 41100 Open Year (2017): 43100

Design Year (2037): 52600

Windy Hill Road/CR 1720

Current Year (2013): 37200 Open Year (2017): 39000

Design Year (2037): 47600

Traffic Projections Performed by: HNTB

Functional Classification (Mainline): Urban Minor Arterial (SR 3/US 41/Cobb Parkway and Windy Hill Road/CR 1720)

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project?

No

Yes

Is this project on a designated Bike Route, Pedestrian Plan, or Transit Network?

None

Bike Route

Pedestrian Plan

Transit Network

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: This project is located in a corridor that is surrounded on all sides by businesses, including strip malls, service stations, and car dealerships. There is a large cemetery—Georgia Memorial Park Cemetery—adjacent to the northwestern quadrant of the project. There is also an electrical substation located just off Windy Hill Road/CR 1720 on the western leg of the project.

Context Sensitive Solutions: The use of retaining walls with Ashlar Stone Finish and landscaping allowances to property owners are possible means of addressing the need for any potential context sensitive solutions.

DESIGN AND STRUCTURAL DATA

Mainline Design Features: US 41/SR 3/Cobb Pkwy

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	4	6
- Lane Width(s)	12'	12'	12'
- Median Width & Type	0' - 14' flush	14' flush	14'-24' flush
- Outside Shoulder or Border Area Width	10'	10'	14'
- Outside Shoulder Slope	2%	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	5'	5'	5'
- Auxiliary Lanes	LT/RT turns	LT/RT turns	Dual LT turns, Single and Double RT turns, US 41 SB Queue Jumper Lane
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45		45
Design Speed	45	45	45
Min Horizontal Curve Radius	N/A	711'	N/A
Superelevation Rate	Normal Crown	4%	Normal Crown
Grade	6%	6%	6%
Access Control	Partial	Partial	Partial
Right-of-Way Width	200'	200'	200'
Maximum Grade – Crossroad	1%	6%	1%
Design Vehicle	WB-67	WB-67	WB-67

*According to current GDOT design policy if applicable

Mainline Design Features: Windy Hill Rd/CR 1720

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	4	4
- Lane Width(s)	12'	12'	11'
- Median Width & Type	0' - 14' flush	14' flush	0' – 14.5' raised
- Outside Shoulder or Border Area Width	10'	10'	14'
- Outside Shoulder Slope	2%	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	5'	5'	5'
- Auxiliary Lanes	LT/RT turns	LT/RT turns	Dual LT/Single RT turns

- Bike Lanes	N/A	N/A	N/A
Posted Speed	35		35
Design Speed	35	35	35
Min Horizontal Curve Radius	N/A	371'	7500'
Superelevation Rate	N/A	4%	Normal Crown
Grade	1%	6%	1%
Access Control	Partial	Partial	Partial
Right-of-Way Width	100' - 106'	100'	100' - 130'
Maximum Grade – Crossroad	6%	6%	6%
Design Vehicle	WB-67	WB-67	WB-67

*According to current GDOT design policy if applicable

Major Structures: N/A

Major Interchanges/Intersections: US 41/Cobb Pkwy and Windy Hill Rd/CR 1720; and US 41/Cobb Pkwy and Terrell Mill Rd/CR 1138

Utility Involvements: Georgia Power Company - Distribution, Georgia Power Company – Transmission, Cobb EMC, Fiberlight LLC, AT&T, TW Telecom, XO Communications, MCI Fiber (Verizon), Georgia Department of Transportation, City of Smyrna (water and sewer), Cobb County Water System (water and sewer), Cobb Marietta Water Authority, City of Marietta (water and sewer), Comcast, Atlanta Gas Light, City of Marietta (fiber and photo enforced traffic cameras), Marietta Power, Tower Cloud, Cobb County Traffic Fiber

Public Interest Determination Policy and Procedure recommended (Utilities)? No Yes

SUE Required: No Yes

Railroad Involvement: None

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: None Bicycle Pedestrian Transit

Right-of-Way:

Required Right-of-Way anticipated: No Yes Undetermined
 Easements anticipated: None Temporary Permanent Utility Other

Anticipated number of impacted parcels:	19
Displacements anticipated:	Total: 0
	Businesses: 0
	Residences: 0
	Other: 0

Location and Design approval: Not Required Required
Off-site Detours Anticipated: No Undetermined Yes

Transportation Management Plan [TMP] Required: No Yes
 If Yes: Project classified as: Non-Significant Significant
 TMP Components Anticipated: TTC TO PI

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	No	Undeter- -mined	Yes	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter- -mined	Yes	Appvl Date (if applicable)
1. Access Control - Median Opening Spacing	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Median Usage & Width	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Bike, Pedestrian & Transit Accommodations	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Georgia Standard Drawings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. GDOT Bridge & Structural Manual	Bridge Design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Roundabout Illumination	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VE Study anticipated: No Yes Completed – Date:

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: **NEPA:** CE EA/FONSI EIS

Project Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes
 Is a Carbon Monoxide hotspot analysis required? No Yes

MS4 Compliance – Is the project located in an MS4 area? No Yes

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NOI is required
8. FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No impacts to adjacent Georgia Memorial Park Cemetery
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Other Commitments	<input type="checkbox"/>	<input type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input type="checkbox"/>	

Is a PAR required? No Yes Completed – Date:

NEPA/GEPA: NEPA Categorical Exclusion is anticipated.

Ecology: HNTB has received notification from the US Fish and Wildlife Service and Georgia Department of Natural Resources that there are no records of high priority species or habitats within the project area, nor records of federally-listed species within a 3-mile radius of the project.

History: There are no historic resources within the project limits.

Archeology: Georgia Memorial Park Cemetery is located on the northwest quadrant of the project. No impacts are expected to the cemetery property.

Air & Noise:

The 1990 Clean Air Act amendments and guidelines, issued by the Environmental Protection Agency (EPA), set forth guidelines to be followed by agencies responsible for attainment of the National Ambient Air Quality Standards (NAAQS). The Clean Air Act section 176(c) requires that federal transportation projects are consistent with state air quality goals, found in the State Implementation Plan (SIP). The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the NAAQS, worsen existing violations of the standards, or delay timely attainment of the relevant standard. In complying with these guidelines the Georgia Department of Transportation (GDOT) has completed an analysis on the effects of the proposed project on air quality.

A Noise Screening Assessment for Type III projects will be conducted to show this project does not meet the conditions set for Type I projects, therefore, the project requires no analysis for highway traffic noise impacts.

Public Involvement: There are two (2) PIOH meetings required—one with the public and one with Cumberland Community Improvement District; presentation of concept at one (1) Marietta City Council meeting

Major stakeholders: Major stakeholders include traveling public, adjacent business owners, adjacent utility facility owners, the City of Marietta, the City of Smyrna, transit riders, and nearby Wellstar Windy Hill Hospital and Georgia Memorial Park Cemetery.

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: Issues that may potentially affect constructability/construction schedule include high traffic volumes, utility relocation.

Early Completion Incentives recommended for consideration: No Yes

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	HNTB
Design	HNTB
Right-of-Way Acquisition	CCDOT
Utility Relocation	Utility Owners

County: Cobb

Letting to Contract	CCDOT
Construction Supervision	CCDOT, City of Marietta
Providing Material Pits	Contractor
Providing Detours	N/A
Environmental Studies, Documents, and Permits	HNTB
Environmental Mitigation	CCDOT
Construction Inspection & Materials Testing	CCDOT

Lighting required: No Yes

Initial Concept Meeting: N/A

Concept Meeting: See Attachment 10 for notes from both Concept Team Meetings with Cobb County DOT and Georgia DOT.

Other projects in the area:

- Project No. E4030, WINDY HILL ROAD IMPROVEMENTS FROM COBB PKWY/US 41/SR 3 TO INTERSTATE N PKWY
- Project No. STP00-0001-05(053), PI No. 721254, SR 3 FROM WINDY RIDGE PKWY N TO WINDY HILL RD
- MPO TIP No. CO-398, Project ID No. 0009532, MAINTENANCE PROJECT INVOLVING THE MILLING AND RESURFACING OF CR 1720/WINDY HILL RD FROM CR 1154/POWERS FERRY RD TO SR 3/US 41 FOR A TOTAL PROJECT LENGTH OF 1.57 MILES
- Project No. CSSTP-0006-00(047), Project ID No. 006047, SR 3 FROM WINDY RIDGE PKWY N TO WINDY HILL RD

Other coordination to date: None

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT/CCDOT	CCDOT	CCDOT	GDOT/CCDOT <i>#3,131,933 E&P</i>	N/A	<i>#5,729,971 E&P</i>
\$ Amount	\$534,638	\$1,098,900	\$960,000	\$3,143,433	N/A	\$5,736,971
Date of Estimate	2/25/2013	6/21/2013	6/28/2013	9/12/2013	N/A	

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: This project involves the construction of intersection improvements to the SR 3/US 41/Cobb Parkway at Windy Hill Road/CR 1720 intersection, including the addition of dual-left turn lanes

and third through-lanes on the north and south legs of the intersection, lengthening the existing dual-lefts and adding a right turn lane on the west leg, and the addition of a right-turn/queue jumper lane on southbound SR 3/US 41/Cobb Parkway. This project will tie into another project involving operational improvements between SR 3/US 41/Cobb Parkway and I-75. Project length is approximately 0.42 miles.

88
5,728,971

Estimated Property Impacts:	19 parcels	Estimated Total Cost:	\$5,736,971
Estimated ROW Cost:	\$1,098,900	Estimated CST Time:	12 months

Rationale: This Alternative was preferred because it accomplished the goal of reducing traffic time delays along the corridor, in addition to incorporating the queue-jumper lanes for transit buses as was part of the original concept. This alternative also provided the lowest construction and right-of-way cost, as well as the shortest construction schedule duration.

No-Build Alternative: Project not constructed

Estimated Property Impacts:	N/A	Estimated Total Cost:	N/A
Estimated ROW Cost:	N/A	Estimated CST Time:	N/A

Rationale: The No-Build Alternative was not selected because it does nothing to alleviate the traffic time delays along the corridor as stated in the Need and Purpose.

Alternative 1: Grade Separation with proposed bridge carrying SR 3/US 41/Cobb Parkway through-lanes over the intersections at both Terrell Mill Rd/CR 1138 and Windy Hill Road/CR 1720. Construction limits require extension by approximately 1600 feet on both the north and south legs of SR 3/US 41/Cobb Parkway in order to develop the lane transitions to shift traffic to the outside of the proposed bridges and to allow room for maintenance of traffic during retaining wall and bridge construction. Project length is approximately 0.60 miles.

Estimated Property Impacts:	15 parcels	Estimated Total Cost:	\$27,000,000
Estimated ROW Cost:	\$3,300,000	Estimated CST Time:	24 months

Rationale: Alternative 1 was not selected because of cost and duration of construction schedule. In addition, the disruption to traffic during construction would be significant due to the need to construct detours around bridge construction areas prior to traffic shift.

Alternative 2: Grade separation with proposed flyover bridge carrying Windy Hill Road/CR 1720 traffic over SR 3/US 41/Cobb Parkway. A series of on/off ramps will be used to convey traffic to and from Windy Hill Road/CR 1720 traffic and SR 3/US 41/Cobb Parkway.

Estimated Property Impacts:	23 parcels	Estimated Total Cost:	\$42,000,000
Estimated ROW Cost:	\$12,250,000	Estimated CST Time:	24 months

Rationale: Alternative 2 was not selected because of cost, property impacts, and duration of construction schedule. The Windy Hill flyover bridge construction alone was approximately \$20,000,000. That bridge cost negates any cost savings realized by the avoidance of construction along SR 3/US 41/Cobb Parkway. The alignment proposed for the Windy Hill flyover bridge would displace 3 significant commercial properties and take strips from several other commercial properties. Much of the right-of-way strip takes are the result of the need for temporary traffic shifts required for traffic conveyance during bridge construction.

Comments: None

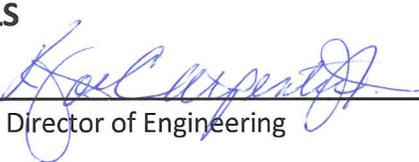
County: Cobb

Attachments:

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Construction Cost Estimate Report (CES)
 - c. Completed Fuel & Asphalt Price Adjustment forms
 - d. Right-of-Way
 - e. Utilities
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary
7. Hydrology Study for MS4 Permit
8. Pavement studies
9. Conforming plan's network schematics showing thru lanes.
10. Minutes of any meetings that shows support or objection to the concept
11. Lighting Agreement Letter

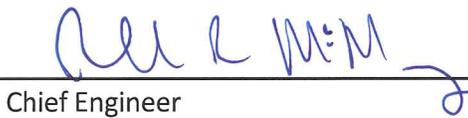
APPROVALS

Concur:

 12/12/2013

Director of Engineering

Approve:



Chief Engineer

12/19/13

Date

CONCEPT REPORT

ATTACHMENT 1

CONCEPT LAYOUT



CCDOT PROJECT NO. E4030
(TO BE CONSTRUCTED BY OTHERS)

WINDY HILL RD/CR 1720

SR 3705 41/COBB PKWY

ROADWAY LEGEND

- EXISTING R/W AND PROPERTY LINES
- PROPOSED RIGHT OF WAY
- ENVIRONMENTALLY SENSITIVE AREA
- PROPOSED EASEMENTS
- PROPOSED RETAINING WALL
- PROPOSED CONSTRUCTION LIMITS

HNTB

3715 NORTHSIDE PARKWAY, NW
200 NORTHCREEK, SUITE 800
ATLANTA, GEORGIA 30327

E3030 & E1000
PI No. 0011738
SR 3705 41/COBB
PKWY AND WINDY
HILL RD/CR 1720
INTERSECTION
IMPROVEMENTS AND
QUEUE JUMPER LANES

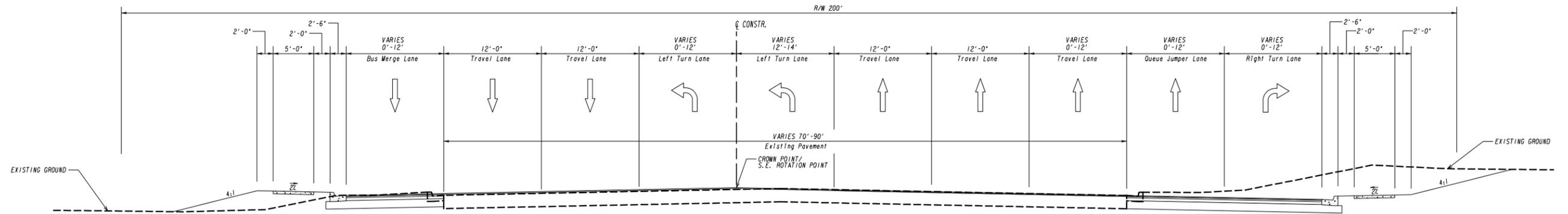
SCALE IN FEET



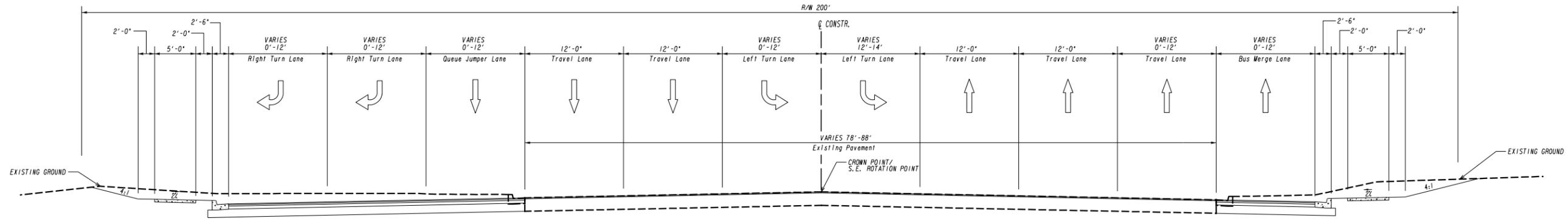
CONCEPT REPORT

ATTACHMENT 2

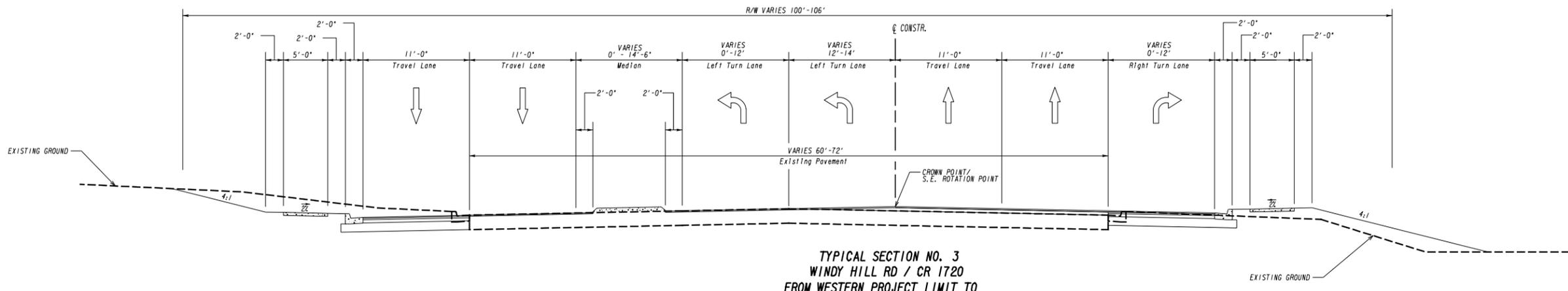
TYPICAL SECTIONS



TYPICAL SECTION NO. 1
US 41 / SR 3 / COBB PKWY
FROM BEGINNING OF PROJECT
TO WINDY HILL INTERSECTION



TYPICAL SECTION NO. 2
US 41 / SR 3 / COBB PKWY
FROM WINDY HILL INTERSECTION
TO END OF PROJECT



TYPICAL SECTION NO. 3
WINDY HILL RD / CR 1720
FROM WESTERN PROJECT LIMIT TO
TO COBB PKWY INTERSECTION



3715 NORTHSIDE PARKWAY, NW
 200 NORTHCREEK, SUITE 800
 ATLANTA, GEORGIA 30327

NO SCALE

REVISION DATES

COBB COUNTY
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

COBB PKWY AND WINDY HILL RD
 INTERSECTION IMPROVEMENTS

DRAWING No.
05-001

PROJECT NO. 111111
 PROJECT DATE 11/11/11
 PROJECT TITLE

PROJECT NO. 111111
 PROJECT DATE 11/11/11
 PROJECT TITLE

PROJECT NO. 111111
 PROJECT DATE 11/11/11
 PROJECT TITLE

CONCEPT REPORT

ATTACHMENT 3

DETAILED COST ESTIMATES

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. , **OFFICE**

DATE

P.I. No.

FROM

TO Lisa L. Myers, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MNGT LET DATE

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

* Costs contain % Engineering and Inspection

REASON FOR COST INCREASE

Quantities based on GDOT review were added to this cost estimate.

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ 2,802,723	(Base Estimate)
Engineering and Inspection:	\$ 83,148	(Base Estimate x 3 %)
Total Liquid AC Adjustment	\$ 244,628	(From attached worksheet)
Construction Total:	\$ 3,131,433	

REIMBURSABLE UTILITY COST

Utility Owner

Reimbursable Cost

Georgia Power (D) - Three Ph/ 25 kV	\$410,000
Georgia Power (T) - 230kV transmission	\$550,000

Attachments

STATE HIGHWAY AGENCY

DATE : 09/12/2013
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JOB ESTIMATE REPORT

JOB NUMBER : 0011738 SPEC YEAR: 01
DESCRIPTION: SR 3/US 41/COBB PKWY AND WINDY HILL RD/CR 1720 INTERSECTION
IMPROVEMENTS AND QUEUE JUMPER LANES

COST GROUPS FOR JOB 0011738

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
ASPH	ASPHALT (TN)				Y
BASE	BASE/AGGREGATE (TN)				Y
DRNGEA	DRAINAGE (EA)				Y
DRNGLF	DRAINAGE (LF)				Y
EROC	EROSION CONTROL (SY)				Y
ERTHCY	EARTHWORK (CY)				Y
ERTHLS	EARTHWORK (LS)				Y
GDRL	GUARDRAIL/BARRIER (LF)				Y
GENR	GENERAL/FIELD OFFICE/ETC (LS)				Y
MILL	MILLING (SY)				Y
MISC	MISCELLANEOUS (LS)				Y
PFPL	PREFORMED PLASTIC STRIPES				Y
PFPM	PREFORMED PLASTIC PAVEMENT MARKING/SYMBOLS				Y
PLSY	PLASTIC PAVEMENT MARKING BY SQUARE YARD				Y
RPMK	RAISED PAVEMENT MARKING				Y
SSGN	SMALL ROADSIDE SIGNS				Y
SSYM	SMALL SYMBOL PAVEMENT MARKING				Y
STRO	STRUCTURES, OTHER (SF)				Y
THSL	THERMO PLASTIC LINEAR PAVEMENT MARKING				Y
THSY	THERMO PLASTIC MARKING SQUARE YARDS				Y
TRFT	TRAFFIC CONTROL-TEMPORARY (LS)				Y
CURB	CURB & GUTTER (LF)				Y
ACTIVE COST GROUP TOTAL				0.00	
INFLATED COST GROUP TOTAL				0.00	

ITEMS FOR JOB 0011738

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0011738	1.000	150000.00	150000.00
0015	210-0100		LS	GRADING COMPLETE - 0011738	1.000	130000.00	130000.00
0020	210-0250		CY	UNDERCUT EXCAVATION	2500.000	5.75	14375.00
0025	310-5120		SY	GR AGGR BS CRS 12IN INCL MATL	7000.000	18.39	128730.00
0035	310-5140		SY	GR AGGR BS CRS, 14", INCL MATL	10000.000	20.00	200000.00
0039	402-1812		TN	RECYL AC LEVELING, INC BM&HL	500.000	86.55	43279.14
0045	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	2218.000	73.54	163113.34
0050	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	1331.000	88.22	117430.04
0055	402-4510		TN	RECYL AC 12.5 MM SP, GP2ONLY, INC P-MBM&HL	3368.000	87.35	294206.62
0060	413-1000		GL	BITUM TACK COAT	2600.000	3.06	7970.17
0065	432-5010		SY	MILL ASPH CONC PVMT, VARB DEPTH	30000.000	1.74	52203.90

STATE HIGHWAY AGENCY

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JOB ESTIMATE REPORT

0070	441-0104	SY	CONC SIDEWALK, 4 IN	4400.000	23.19	102066.01
0075	441-0740	SY	CONC MEDIAN, 4 IN	1100.000	18.85	20735.97
0079	441-5002	LF	CONC HEADER CURB, 6", TP 2	600.000	11.85	7115.47
0080	441-6216	LF	CONC CURB & GUTTER/ 8"X24"TP2	2600.000	15.36	39936.00
0085	441-6222	LF	CONC CURB & GUTTER/ 8"X30"TP2	3500.000	17.72	62054.93
0090	441-6740	LF	CONC CURB & GUTTER/ 8"X30" TP7	2400.000	10.88	26125.37
0095	446-1100	LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	6100.000	3.15	19224.39
0099	515-2020	LF	GALV STEEL PIPE HDRAIL,2",ROUD	860.000	32.82	28225.20
0100	573-2006	LF	UNDDR PIPE INCL DRAIN AGGR 6"	1200.000	15.60	18730.04
0105	600-0001	CY	FLOWABLE FILL	10.000	203.44	2034.47
0110	632-0003	EA	CHANGEABLE MESS SIGN,PORT,TP 3	4.000	7120.92	28483.71
0115	634-1200	EA	RIGHT OF WAY MARKERS	15.000	111.15	1667.26
0120	641-1100	LF	GUARDRAIL, TP T	50.000	70.21	3510.53
0125	641-1200	LF	GUARDRAIL, TP W	300.000	23.45	7036.77
0130	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	2.000	675.64	1351.29
0140	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	2.000	1865.37	3730.74
0145	643-8200	LF	BARRIER FENCE (ORANGE), 4 FT	700.000	2.02	1416.07
0150	500-3110	LF	CLASS A CONCRETE, TYPE P1, RETAINING WAL	285.000	404.59	115308.15
0155	500-3110	LF	CLASS A CONCRETE, TYPE P1, RETAINING WAL	90.000	404.59	36413.10
0160	500-3201	CY	CL B CONC, RET WALL	12.000	507.80	6093.60
0165	500-3201	CY	CL B CONC, RET WALL	27.000	507.80	13710.60
0170	163-0232	AC	TEMPORARY GRASSING	2.000	58.91	117.83
0175	163-0240	TN	MULCH	125.000	206.65	25831.91
0180	163-0300	EA	CONSTRUCTION EXIT	2.000	1180.72	2361.45
0185	163-0528	LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	300.000	3.97	1192.64
0190	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	2.000	437.37	874.75
0195	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	60.000	104.42	6265.39
0200	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	3500.000	0.64	2251.59
0205	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	720.000	1.16	840.74
0215	165-0101	EA	MAINT OF CONST EXIT	6.000	484.33	2906.00
0220	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	180.000	32.53	5856.25
0225	165-0110	EA	MAINT OF ROCK FILTER DAM	6.000		
0230	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	3.000	96.60	289.81
0235	167-1500	MO	WATER QUALITY INSPECTIONS	9.000	408.06	3672.58
0240	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	7000.000	1.85	12962.74
0245	700-6910	AC	PERMANENT GRASSING	3.000	388.33	1165.01
0250	700-7000	TN	AGRICULTURAL LIME	8.000	74.10	592.84
0255	700-8000	TN	FERTILIZER MIXED GRADE	3.000	408.51	1225.56
0260	700-8100	LB	FERTILIZER NITROGEN CONTENT	140.000	1.82	255.21
0265	716-2000	SY	EROSION CONTROL MATS, SLOPES	500.000	1.02	514.59
0270	550-1180	LF	STM DR PIPE 18",H 1-10	3610.000	29.57	106760.15
0275	550-1240	LF	STM DR PIPE 24",H 1-10	500.000	36.70	18353.85
0280	603-2182	SY	STN DUMPED RIP RAP, TP 3, 24"	100.000	31.54	3154.00
0285	603-7000	SY	PLASTIC FILTER FABRIC	100.000	2.89	290.00
0290	668-1100	EA	CATCH BASIN, GP 1	25.000	2084.66	52116.54
0294	668-2100	EA	DROP INLET, GP 1	10.000	1588.78	15887.85
0295	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	60.000	14.32	859.53
0299	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	60.000	15.06	904.14
0300	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	60.000	20.00	1200.00

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JOB ESTIMATE REPORT

0304	636-2070	LF	GALV STEEL POSTS, TP 7	160.000	6.00	961.02
0305	636-2080	LF	GALV STEEL POSTS, TP 8	160.000	9.44	1511.35
0310	639-4003	EA	STRAIN POLE, TP III	6.000	8000.00	48000.00
0315	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1, COBB PKWY @ TERRELL MILL RD	1.000	50000.00	50000.00
0320	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2, COBB PKWY @ WINDY HILL RD	1.000	250000.00	250000.00
0325	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	30.000	72.19	2165.89
0330	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	3200.000	0.76	2461.89
0335	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	3900.000	0.79	3108.38
0340	653-1704	LF	THERM SOLID TRAF STRIPE, 24", WH	250.000	5.90	1475.85
0345	653-1804	LF	THERM SOLID TRAF STRIPE, 8", WH	2400.000	1.73	4163.23
0350	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	7400.000	0.39	2936.84
0355	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	200.000	0.21	43.39
0360	653-6004	SY	THERM TRAF STRIPING, WHITE	1000.000	2.96	2966.22
0365	653-6006	SY	THERM TRAF STRIPING, YELLOW	2000.000	3.16	6337.52
0370	654-1001	EA	RAISED PVMT MARKERS TP 1	100.000	3.22	322.83
0375	654-1003	EA	RAISED PVMT MARKERS TP 3	250.000	2.86	716.99
0380	682-9030	LS	LIGHTING SYSTEM	1.000	50000.00	50000.00

ITEM TOTAL

2542152.18

INFLATED ITEM TOTAL

2802722.78

TOTALS FOR JOB 0011738

ESTIMATED COST:

2802722.83

CONTINGENCY PERCENT (0.0):

0.00

ESTIMATED TOTAL:

2802722.83

PROJ. NO.	E3030 & E10D0
P.I. NO.	11738
DATE	9/12/2013

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Sep-13	\$ 3.523
DIESEL		\$ 3.903
LIQUID AC		\$ 571.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=(((APM-APL)/APL)-0.05)xTMTxAPL

Asphalt

Price Adjustment (PA)				\$	236,976.42		\$	236,976.42
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	125%		\$	1,284.75			
Monthly Asphalt Cement Price month project let (APL)				\$	571.00			
Total Monthly Tonnage of asphalt cement (TMT)					345.85			

ASPHALT	Tons	%AC	AC ton
Leveling	0	5.0%	0
12.5 SMA	0	5.0%	0
12.5 PEM	0	5.0%	0
12.5 mm SP	3368	5.0%	168.4
25 mm SP	2218	5.0%	110.9
19 mm SP	1331	5.0%	66.55
	6917		345.85

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	7,651.81		\$	7,651.81
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	125%		\$	1,284.75			
Monthly Asphalt Cement Price month project let (APL)				\$	571.00			
Total Monthly Tonnage of asphalt cement (TMT)					11.1672624			

Bitum Tack

Gals	gals/ton	tons
2600	232.8234	11.1672624

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				\$	-		\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	125%		\$	1,284.75			
Monthly Asphalt Cement Price month project let (APL)				\$	571.00			
Total Monthly Tonnage of asphalt cement (TMT)					0			

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT \$ **244,628.23**

COBB COUNTY DOT			
R/W COST			
COMMERCIAL	Square Feet	\$/SF	TOTAL
No. Parcels			19
Required R/W (sf)	11600.00	\$ 40.00	\$ 464,000
Perm. Esmt. (sf)	5100.00	\$ 20.00	\$ 102,000
Temp. Esmt. (sf)	10000.00	\$ 10.00	\$ 100,000
Displacement Costs			
Subtotal	(Includes ROW Acq. Cost - 65% of Total)		\$ 1,098,900
Notes:			
RESIDENTIAL	Square Feet	\$/SF	TOTAL
No. Parcels			
Required R/W (sf)		\$ 7.00	\$ -
Required R/W Vacant - (sf)		\$ 5.00	\$ -
Perm. Esmt. (sf)		\$ 3.50	\$ -
Temp. Esmt. (sf)		\$ 2.10	\$ -
Displacement Costs			-
Subtotal	(Includes ROW Acq. Cost - 65% of Total)		\$ -
Notes:			
		TOTAL	\$ 1,098,900



DEPARTMENT OF TRANSPORTATION

1890 County Services Parkway
Marietta, Georgia 30008-4014
Phone: (770) 528-1600 Fax: (770) 528-1601

Conceptual Utility Cost Estimate

June 28, 2013

RE: PI0011738/ E3030 Cobb Parkway @ Windy Hill Road, Cobb County

<u>Owner/ Facilities</u>	<u>Non-Reimbursable</u>	<u>Reimbursable</u>
Atlanta Gas Light – 8”HP/12”HP/ 2&4”MP	\$145,000.00	
AT&T (D) & (T) – UG/ OH copper, fiber	\$275,000.00	
Cobb County Water System – 2/8”CI,10/20”DI, S.S.	\$180,000.00	
Cobb Marietta Water Authority 20” PC	\$ 90,000.00	
Comcast/ Charter - UG/ OH fiber	\$ 55,000.00	
Georgia Power (D) – Three Ph/ 25 kV		\$410,000.00 *
Georgia Power (T) - 230kV transmission		\$550,000.00 *
Marietta Water & Sewer – Dist. W.M/ S.S.	\$ 75,000.00	
Marietta Power – Three Ph. distribution	\$ 50,000.00	
Zayo/ Fiberlight/ Verizon - UG fiber	\$ 85,000.00	
Tower Cloud/ T/W & X/O – UG fiber	\$ 40,000.00	
Total	\$995,000.00	\$960,000.00
Total Combined Utility Relocation Cost		\$1,955,000.00

Note: Estimate based on concept plan only, signal & ATMS cost not included

Utility Investigation performed at Quality Level “D”

*Prior Rights research required to determine eligibility for reimbursement claims.

Prepared by: Andy Rikard, Cobb County DOT/ Arcadis

CONCEPT REPORT

ATTACHMENT 4

CRASH SUMMARIES

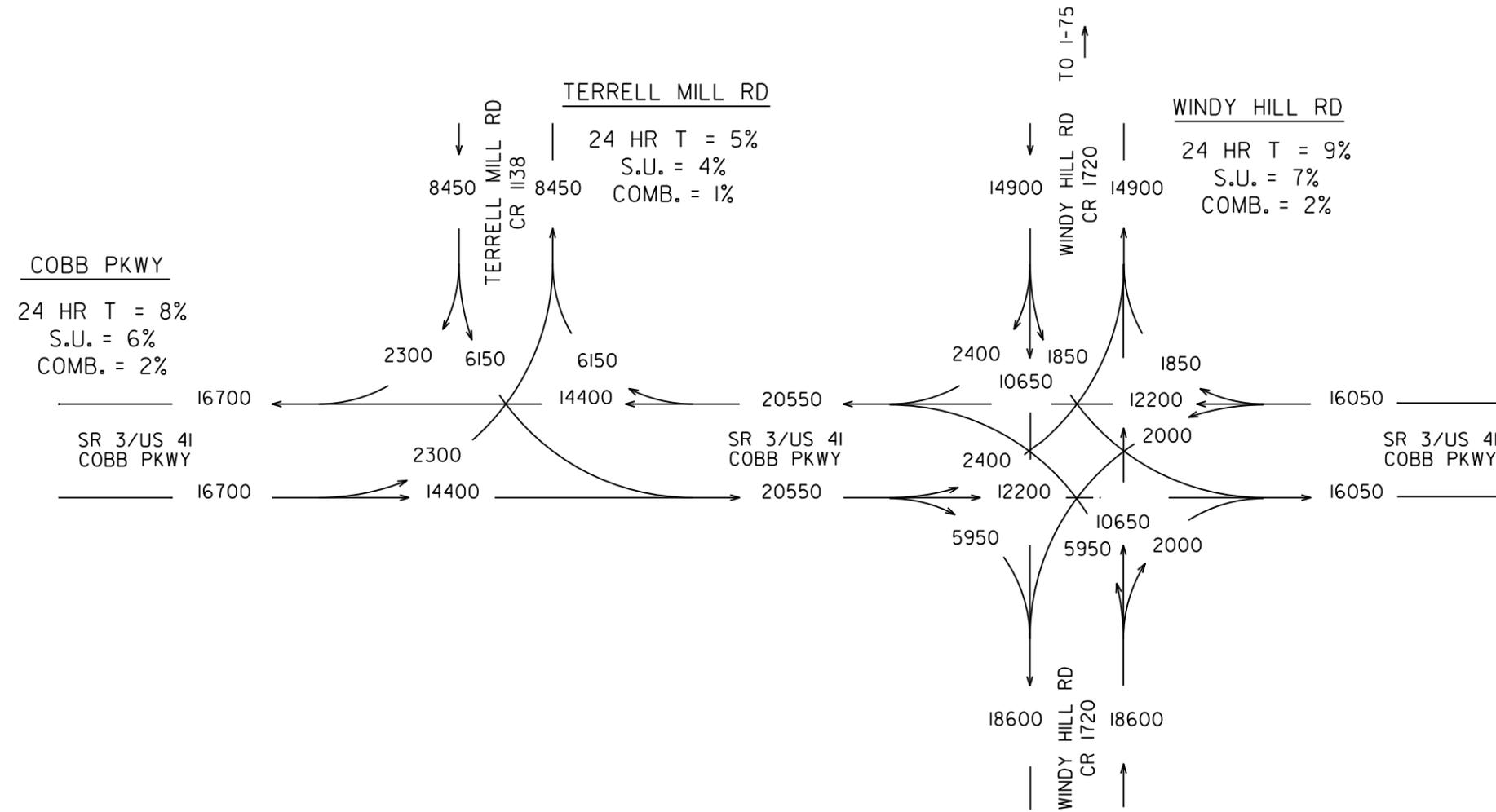
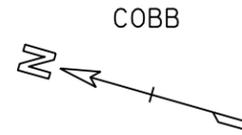
Crash Data

COBB PKWY AND WINDY HILL RD				
MANNER OF COLLISION	2009	2010	2011	TOTAL
ANGLE	28	41	46	115
HEAD ON	0	1	3	4
REAR END	68	80	77	225
SIDESWIPE SAME DIRECTION	10	15	21	46
SIDESWIPE OPPOSITE DIRECTION	0	0	0	0
NOT A COLLISION WITH A MOTOR VEHICLE	2	1	3	6
TOTAL	108	138	150	396

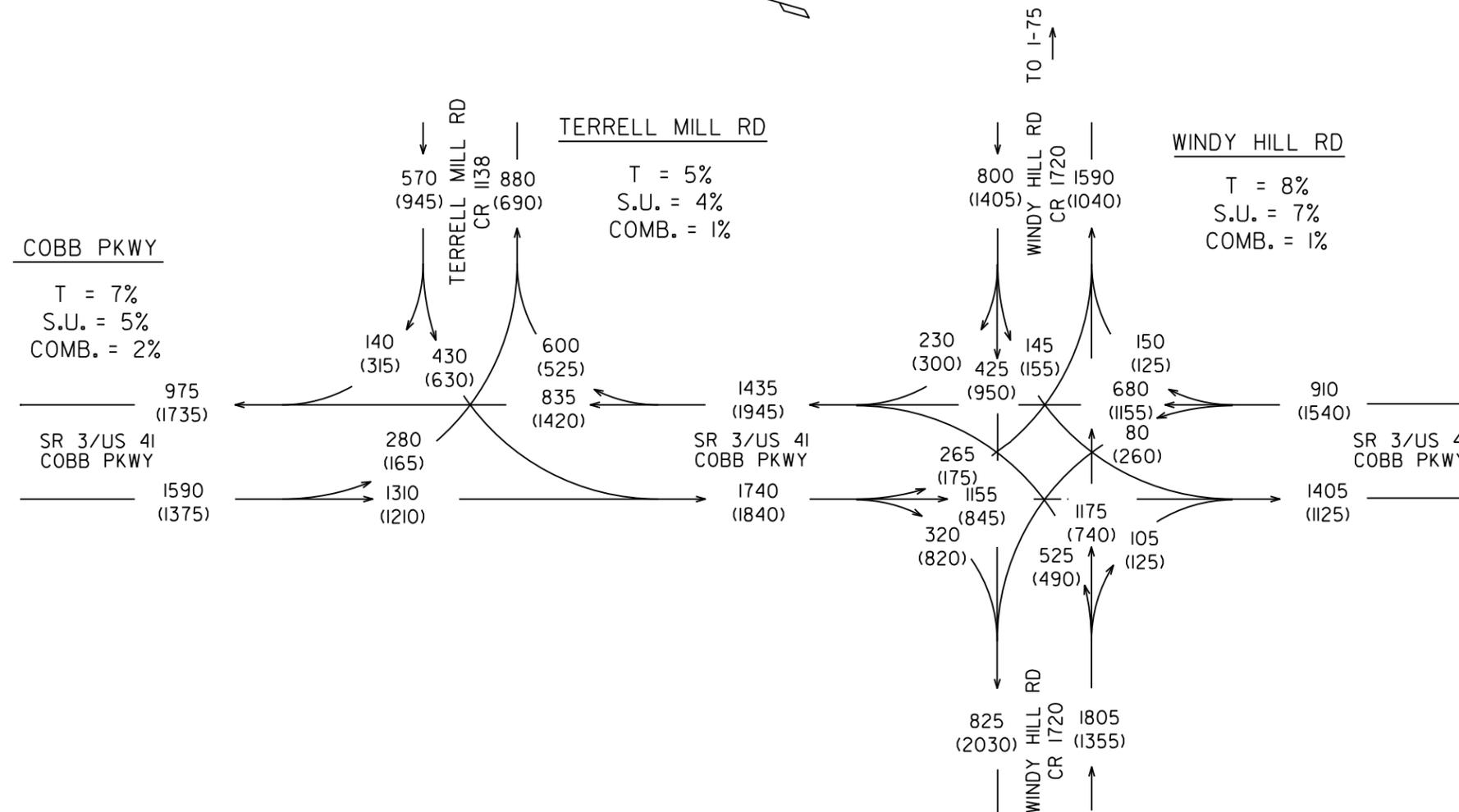
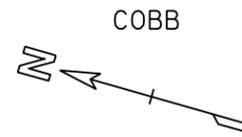
CONCEPT REPORT

ATTACHMENT 5

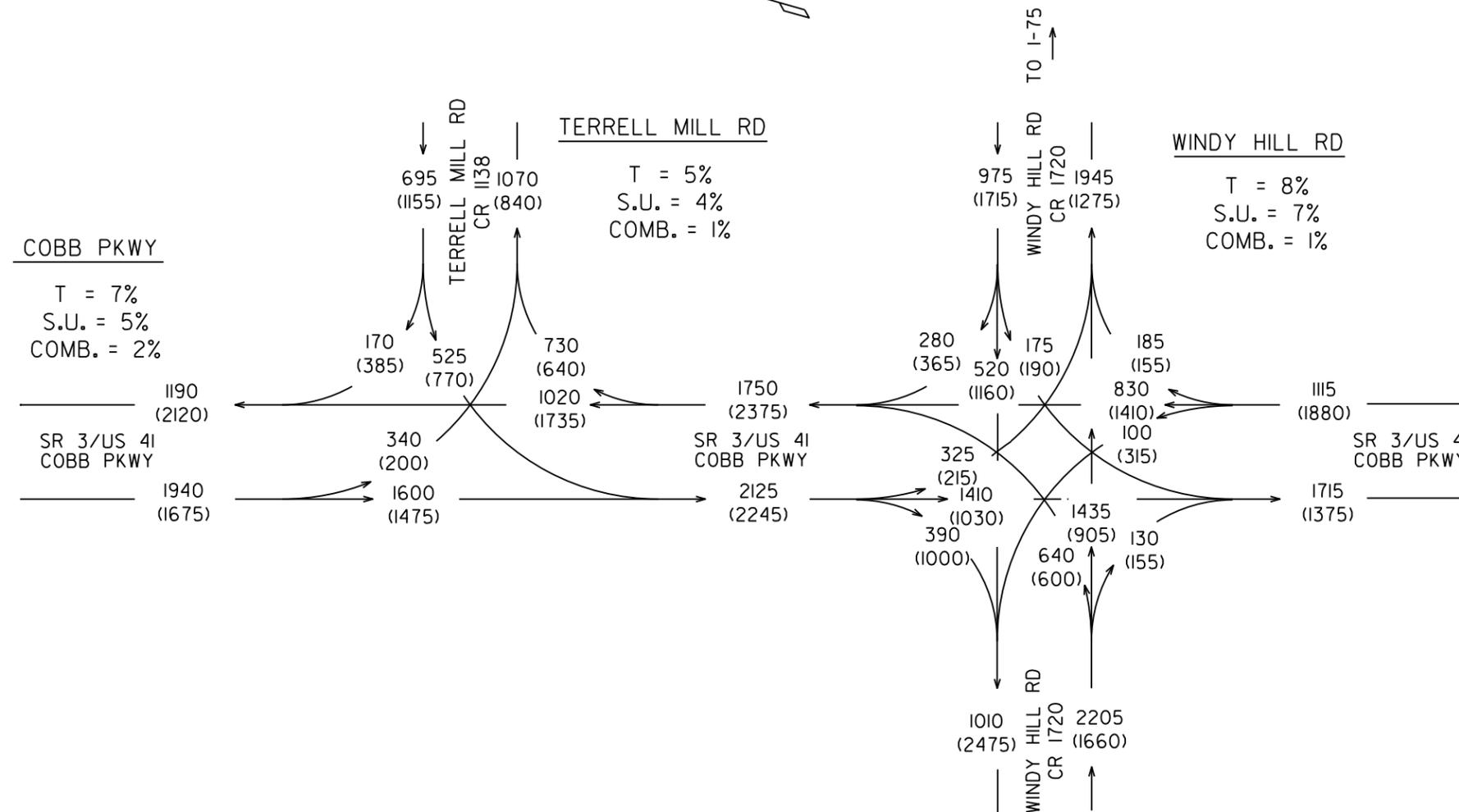
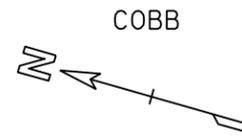
TRAFFIC DIAGRAMS



PI# 0011738
 COBB COUNTY
 SR 3/US 41/COBB PKWY
 @ WINDY HILL RD
 INTERSECTION
 IMPROVEMENTS
 E3030 & E1000
 2013 EXISTING ADT



PI# 0011738
COBB COUNTY
SR 3/US 41/COBB PKWY
@ WINDY HILL RD
INTERSECTION
IMPROVEMENTS
E3030 & E1000
2017 AM DHV = 000
2017 PM DHV = (000)



PI# 0011738
COBB COUNTY
SR 3/US 41/COBB PKWY
@ WINDY HILL RD
INTERSECTION
IMPROVEMENTS
E3030 & E1000
2037 AM DHV = 000
2037 PM DHV = (000)

CONCEPT REPORT

ATTACHMENT 6

CAPACITY ANALYSIS SUMMARY

Level of Service and Delay Tables

2013 Existing Intersection LOS and Delay

Intersection	2013 Existing		
	PERIOD	LOS	DELAY (sec/veh)
Cobb Pkwy @ Windy Hill Rd	AM	E	70.8
	PM	F	127.3
Cobb Pkwy @ Terrell Mill Rd	AM	B	11.9
	PM	B	18.6

2017 No Build Intersection LOS and Delay

Intersection	2017 No Build		
	PERIOD	LOS	DELAY (sec/veh)
Cobb Pkwy @ Windy Hill Rd	AM	E	75.7
	PM	F	127.6
Cobb Pkwy @ Terrell Mill Rd	AM	B	13.8
	PM	C	20.6

2037 No Build Intersection LOS and Delay

Intersection	2037 No Build		
	PERIOD	LOS	DELAY (sec/veh)
Cobb Pkwy @ Windy Hill Rd	AM	F	124.4
	PM	F	200.3
Cobb Pkwy @ Terrell Mill Rd	AM	C	24.0
	PM	D	36.8

2017 Build Intersection LOS and Delay

Intersection	2017 Build		
	PERIOD	LOS	DELAY (sec/veh)
Cobb Pkwy @ Windy Hill Rd	AM	E	59.0
	PM	E	72.7
Cobb Pkwy @ Terrell Mill Rd	AM	B	14.2
	PM	C	20.9

2037 Build Intersection LOS and Delay

Intersection	2037 Build		
	PERIOD	LOS	DELAY (sec/veh)
Cobb Pkwy @ Windy Hill Rd	AM	F	90.1
	PM	F	91.9
Cobb Pkwy @ Terrell Mill Rd	AM	C	27.0
	PM	C	23.0

CONCEPT REPORT

ATTACHMENT 7

HYDROLOGY STUDY FOR MS4 PERMIT

Composite C Calculation

Type of Cover	C	Pre- Development (SF)					Post- Development (SF)				
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 1	Area 2	Area 3	Area 4	Area 5
Pavement and Roofs	0.95	147897.33	740236.24	57473.02	111300.19	39724.36	165315.05	759274.14	69755.29	111300.19	40239.15
Meadows/ Side Slopes	0.30	334087.73		75365.59	53529.15	49033.90	316670.01		63083.32	53529.15	48519.11
Grass Shoulders	0.25		81110.70					62072.80			
Residential	0.15					50394.98					50394.98
Woodlands	0.15	79908.07				122101.94	79908.07				122101.94
Commercial	0.85	702658.50	1098122.41			83995.23	702658.50	1098122.41			83995.23
		0.00									
Total Area (Acre)		29.03	44.06	3.05	3.78	7.93	29.03	44.06	3.05	3.78	7.93
Weighted C		0.67	0.86	0.58	0.74	0.43	0.68	0.87	0.64	0.74	0.43
Disturbed Acreage (Acre)							0.40	0.44	0.28	0.00	0.01

Area 1

Overland Flow Time of Concentration

iteration	High Elev	Low Elev	Length	Slope	n	Time of Conc.	N	Intensity	Time of Conc.
						T-assumed		calculated	T-calculated
1	1052.30	1050.00	196.97	0.012	0.01	10	6.23	6.99	2.86
2	1052.30	1050.00	196.97	0.012	0.01	2.86	6.23	9.22	2.56
3	1052.30	1050.00	196.97	0.012	0.01	2.56	6.23	9.35	2.55
4	1052.30	1050.00	196.97	0.012	0.01	2.55	6.23	9.36	2.55
5	1052.30	1050.00	196.97	0.012	0.01	2.55	6.23	9.36	2.55
5	1052.30	1050.00	196.97	0.012	0.01	2.55	6.23	9.36	2.55

Shallow Concentrated Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	Type	Velocity
1050.00	1046.48	130.48	0.027	Paved	2.65
T-Concentration		0.82			

Concentrated Flow Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	n	Diameter	Radius	Area	Velocity
1038.38	966.83	1450.16	0.049	0.012	2	0.5	3.14	6.88
T-Concentration		0.59						

Storm	25 Year
n	0.7475
a	72.79
b	13
return	25
Tc	3.96

User Notes from GDOT Drainage Manual:
Manning's 'n' - Table 4.5
Equation 4.3, assume 10 min for initial TOC
n,a,b - Table 4.6 for Atlanta, GA for the 50 & 100 year
Equation 4.7, Intensity

Area 2

Overland Flow Time of Concentration

iteration	High Elev	Low Elev	Length	Slope	n	Time of Conc. T-assumed	N	Intensity calculated	Time of Conc. T-calculated
1	1050.50	1048.00	166.78	0.015	0.01	10	5.23	6.99	2.41
2	1050.50	1048.00	166.78	0.015	0.01	2.41	5.23	9.43	2.13
3	1050.50	1048.00	166.78	0.015	0.01	2.13	5.23	9.55	2.12
4	1050.50	1048.00	166.78	0.015	0.01	2.12	5.23	9.56	2.12
5	1050.50	1048.00	166.78	0.015	0.01	2.12	5.23	9.56	2.12
5	1050.50	1048.00	166.78	0.015	0.01	2.12	5.23	9.56	2.12

Shallow Concentrated Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	Type	Velocity
1048.00	1046.68	120.8	0.011	Paved	1.69
T-Concentration		1.19			

Concentrated Flow Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	n	Diameter	Radius	Area	Velocity
1046.68	962.65	1587.12	0.053	0.012	2	0.5	3.14	7.13
T-Concentration		0.59						

Storm	25 Year
n	0.7475
a	72.79
b	13
return	25
Tc	3.91

User Notes from GDOT Drainage Manual:
Manning's 'n' - Table 4.5
Equation 4.3, assume 10 min for initial TOC
n,a,b - Table 4.6 for Atlanta, GA for the 50 & 100 year
Equation 4.7, Intensity

Area 3

Overland Flow Time of Concentration

iteration	High Elev	Low Elev	Length	Slope	n	Time of Conc. T-assumed	N	Intensity calculated	Time of Conc. T-calculated
1	1053.10	1052.00	84.15	0.013	0.01	10	3.62	6.99	1.66
2	1053.10	1052.00	84.15	0.013	0.01	1.66	3.62	9.78	1.45
3	1053.10	1052.00	84.15	0.013	0.01	1.45	3.62	9.89	1.45
4	1053.10	1052.00	84.15	0.013	0.01	1.45	3.62	9.89	1.45
5	1053.10	1052.00	84.15	0.013	0.01	1.45	3.62	9.89	1.45
5	1053.10	1052.00	84.15	0.013	0.01	1.45	3.62	9.89	1.45

Shallow Concentrated Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	Type	Velocity
1052.00	1047.34	77.11	0.060	Paved	3.97
T-Concentration		0.32			

Concentrated Flow Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	n	Diameter	Radius	Area	Velocity
1047.34	1026.62	583.97	0.035	0.012	2	0.5	3.14	5.83
T-Concentration		0.59						

Storm	25 Year
n	0.7475
a	72.79
b	13
return	25
Tc	2.36

User Notes from GDOT Drainage Manual:
Manning's 'n' - Table 4.5
Equation 4.3, assume 10 min for initial TOC
n,a,b - Table 4.6 for Atlanta, GA for the 50 & 100 year
Equation 4.7, Intensity

Area 4

Overland Flow Time of Concentration

iteration	High Elev	Low Elev	Length	Slope	n	Time of Conc. T-assumed	N	Intensity calculated	Time of Conc. T-calculated
1	1051.30	1037.59	337.16	0.041	0.01	10	5.92	6.99	2.72
2	1051.30	1037.59	337.16	0.041	0.01	2.72	5.92	9.28	2.43
3	1051.30	1037.59	337.16	0.041	0.01	2.43	5.92	9.42	2.41
4	1051.30	1037.59	337.16	0.041	0.01	2.41	5.92	9.42	2.41
5	1051.30	1037.59	337.16	0.041	0.01	2.41	5.92	9.42	2.41
5	1051.30	1037.59	337.16	0.041	0.01	2.41	5.92	9.42	2.41

Shallow Concentrated Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	Type	Velocity
1037.59	1033.82	305.86	0.012	Paved	1.79
T-Concentration		2.85			

Concentrated Flow Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	n	Diameter	Radius	Area	Velocity
1028.79	1017.81	434.85	0.025	0.012	2	0.5	3.14	4.92
T-Concentration		0.59						

Storm	25 Year
n	0.7475
a	72.79
b	13
return	25
Tc	5.85

User Notes from GDOT Drainage Manual:
Manning's 'n' - Table 4.5
Equation 4.3, assume 10 min for initial TOC
 n,a,b - Table 4.6 for Atlanta, GA for the 50 & 100 year
 Equation 4.7, Intensity

Area 5

Overland Flow Time of Concentration

iteration	High Elev	Low Elev	Length	Slope	n	Time of Conc. T-assumed	N	Intensity calculated	Time of Conc. T-calculated
1	1052.30	1049.24	229	0.013	0.01	10	6.55	6.99	3.01
2	1052.30	1049.24	229	0.013	0.01	3.01	6.55	9.16	2.70
3	1052.30	1049.24	229	0.013	0.01	2.70	6.55	9.29	2.69
4	1052.30	1049.24	229	0.013	0.01	2.69	6.55	9.30	2.69
5	1052.30	1049.24	229	0.013	0.01	2.69	6.55	9.30	2.69
5	1052.30	1049.24	229	0.013	0.01	2.69	6.55	9.30	2.69

Shallow Concentrated Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	Type	Velocity
1049.24	1048.73	33.25	0.015	Paved	2.00
T-Concentration		0.28			

Concentrated Flow Time of Concentration

Highest Elevation	Lowest Elevation	Flow Length	Slope	n	Diameter	Radius	Area	Velocity
1043.64	1039.83	238.27	0.016	0.012	2.5	0.625	4.91	4.54
T-Concentration		0.59						

Storm	25 Year
n	0.7475
a	72.79
b	13
return	25
Tc	3.56

User Notes from GDOT Drainage Manual:
Manning's 'n' - Table 4.5
Equation 4.3, assume 10 min for initial TOC
n,a,b - Table 4.6 for Atlanta, GA for the 50 & 100 year
Equation 4.7, Intensity

MS4 Concept Evaluation
Windy Hill Road @ Cobb Parkway

Area	Pre-Development					Post-Development					Volume Increase (cfs)	Disturbed Acreage (ac)	WQv (ft ³)	Enhanced Dry Swale					Cost
	Tc (sec)	i	C	A (Acre)	Q (cfs)	Tc (sec)	i	C	A (Acre)	Q (cfs)				Quantity	Length(ft)	Width (ft)	Depth (ft)	Vol (ft ³)	
1	3.96	8.77	0.67	29.03	171.14	3.96	8.77	0.68	29.03	173.42	2.28	0.40	1654.68	2	75	4	2	2400	21700
2	1.19	10.02	0.86	44.06	381.14	1.19	10.02	0.87	44.06	384.20	3.07	0.44	1808.60	2	75	4	2	2400	21700
3	2.36	9.44	0.58	3.05	16.74	2.36	9.44	0.64	3.05	18.47	1.73	0.28	1166.82	1	75	4	2	1200	10850
4	5.85	8.10	0.74	3.78	22.66	5.85	8.10	0.74	3.78	22.66	0.00	0.00	0.00	0	0	0	0	0	0
5	3.56	8.93	0.43	7.93	30.70	3.56	8.93	0.43	7.93	30.77	0.07	0.01	48.91	0	0	0	0	0	0
Total											7.14	1.13	4679.00	5.00				6000.00	54250.00

Drainage Basin	Additional R/W Cost	Construction Cost	Total Project Cost	Cost>10% Project Cost?	Project Delay	Loss of Habitat	Cultural Resource	Community Resource	Displacement	Law Violation	Shallow Bedrock	High Groundwater	Limited Infiltration	Limited Area	Adverse Slopes	Extreme Flood Protection	Overbank Flood Protection	Channel Protection	WQ Treatment Volume
1	\$0.00	\$21,700.00	\$2,700,000.00	No	No	No	No	No	No	No	No	No	No	Yes	No	N/A	N/A	Yes	Yes
2	\$0.00	\$21,700.00	\$2,700,000.00	No	No	No	No	No	No	No	No	No	No	Yes	No	N/A	N/A	Yes	Yes
3	\$0.00	\$10,850.00	\$2,700,000.00	No	No	No	No	No	No	No	No	No	No	Yes	No	N/A	N/A	Yes	Yes
4	\$0.00	\$0.00	\$2,700,000.00	No	No	No	No	No	No	No	No	No	No	Yes	No	N/A	N/A	Yes	No
5	\$0.00	\$0.00	\$2,700,000.00	No	No	No	No	No	No	No	No	No	No	Yes	No	N/A	N/A	Yes	No

CONCEPT REPORT

ATTACHMENT 8

PAVEMENT STUDIES

Flexible Pavement Design Analysis

PI Number	0011738	County(s)	Cobb
Project Number	E3030 & E10D0	Design Name	PI 0011738, SR 3 @ CS 1720/WINDY HILL RD
Project Description	SR 3/US 41/Cobb Pkwy and Windy Hill Rd/CR 1720 Intersection Improvements		

Traffic Data (AADTs are one-way)					Miscellaneous Data		
Initial Design Year	2017	Initial AADT, VPD	21,550	24 Hour Truck %	8.00	Lanes in one direction	3
Final Design Year	2037	Final AADT, VPD	26,300	SU Truck %	6.00	Curb & Gutter/Barrier	Yes
		Mean AADT, VPD	23,925	MU Truck %	2.00		

Design Data					
Lane Distribution Factor (%)	60.00	Soil Support Value	2.50	Single Unit ESAL	0.40
Terminal Serviceability Index	2.50	Regional Factor	2.20	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.84	Calculated 18-KIP ESAL	0.68
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
23,925	60.00	Single Unit Truck	6.00	0.40	345
		Multi Unit Truck	2.00	1.50	431
Total Daily ESALs					776
Total Design Period ESALs					5,664,800

Proposed Flexible Full Depth Pavement Structure				
Course	Material	Thickness (inches)	Structural Coefficient	Structural Value
Course 1	12.5 mm Superpave, Polymer Modified	1.50	0.4400	0.66
Course 2	19 mm Superpave	3.00	0.4400	1.32
Course 3	25 mm Superpave	5.00	0.3000	1.50
Course 4	Graded Aggregate Base	14.00	0.1600	2.24
Required SN	6.04	Proposed pavement is 5.35% Underdesigned		Proposed SN
				5.72

Design Remarks	
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Prepared By _____ Date 4/22/2013 9:52 AM

HNTB

Recommended By _____ Date _____

Office Head

Approved By _____ Date _____

State Pavement Engineer

CONCEPT REPORT

ATTACHMENT 9

CONFORMING PLAN'S NETWORK SCHEMATICS SHOWING THRU
LANES

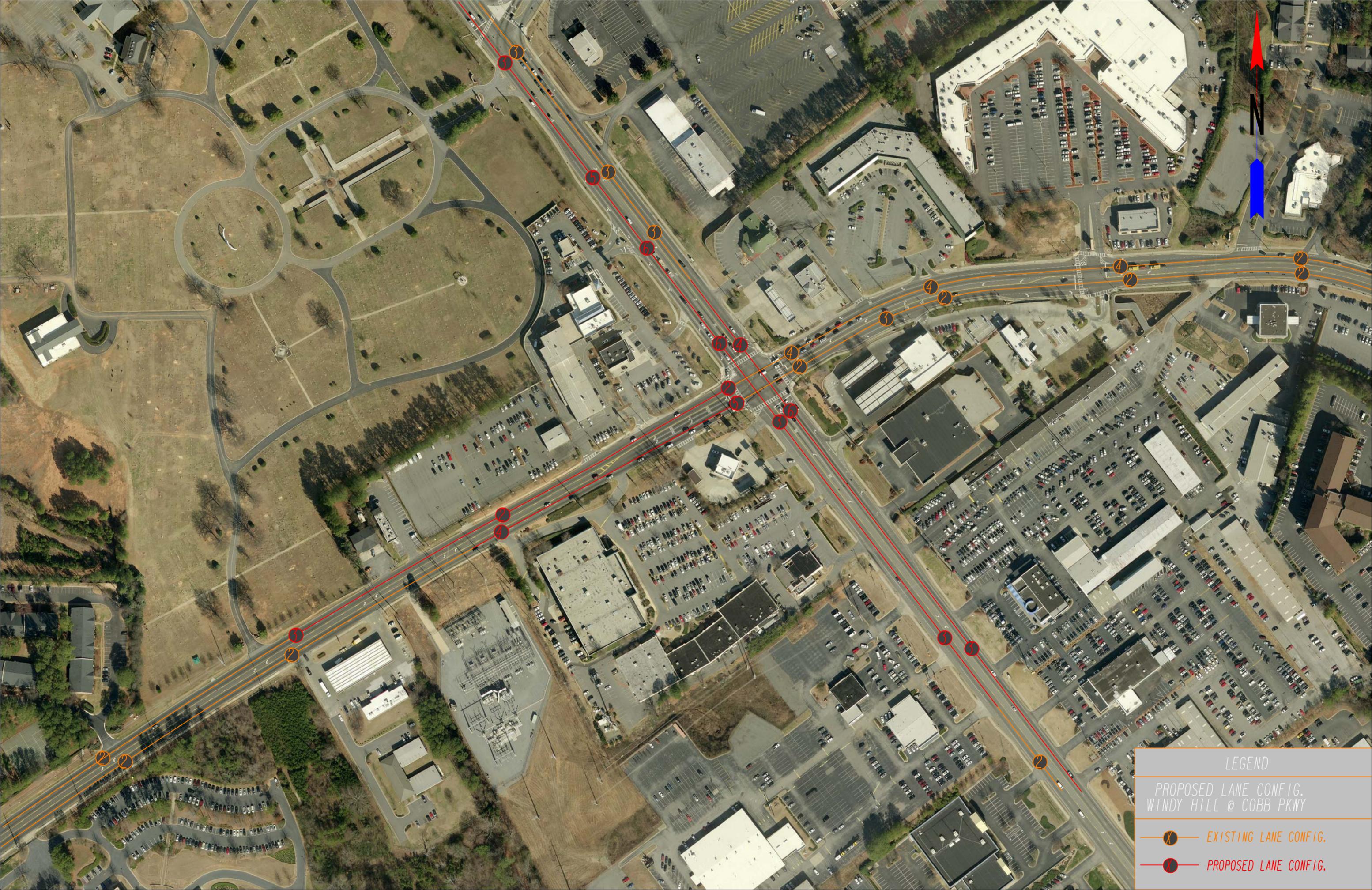


LEGEND

EXISTING LANE CONFIG.
WINDY HILL @ COBB PKWY

—X— EXISTING LANE CONFIG.

—X— EXISTING LANE CONFIG.
(TO BE MODIFIED)



LEGEND

PROPOSED LANE CONFIG.
WINDY HILL @ COBB PKWY

EXISTING LANE CONFIG.

PROPOSED LANE CONFIG.

CONCEPT REPORT

ATTACHMENT 10

MINUTES OF ANY MEETING THAT SHOWS SUPPORT OR
OBJECTION TO THE CONCEPT

DESIGN TEAM MEETING NOTES



1. WINDY HILL/COBB PKWY INTERSECTION IMPROVEMENTS

Cobb County Project Nos. E3030 & E10D0
HNTB No. 59175

Date: June 12, 2013
Location/Time: CCDOT Conference Room X / 9:00 AM
Attendees:

Bryan Ricks	CCDOT	770-528-4361	bryan.ricks@cobbcounty.org
Scott Jordan	CCDOT	770-528-3685	scott.jordan@cobbcounty.org
Mike Cates	CCDOT	770-420-6659	Mike.Cates@cobbcounty.org
Jim Wilgus	City of Marietta	770-794-5648	jwilgus@mariettaga.gov
Tim Cox	City of Marietta	770-794-5676	tc Cox@mariettaga.gov
Kelly Patrick	CCDOT	770-528-1636	kelly.patrick@cobbcounty.org
James Hudgins	CCDOT	404-420-6658	james.hudgins@cobbcounty.org
Ken Janney	CCMWA	770-514-5214	kjanney@ccmwa.org
Dom Saulino	HNTB	404-946-5745	dsaulino@hntb.com
Xuewen Le	HNTB	404-946-5741	xle@hntb.com
Chris Seckinger	HNTB	404-946-5733	cseckinger@hntb.com

Purpose: Concept Team Meeting

The following items were discussed:

1. Scott Jordan began the meeting with introductions and the team began going through the concept report page by page and making a list of changes. See list of Action Items below for that list of changes.
2. Jim Wilgus mentioned that this concept will need to be brought before and approved by the Marietta City Council.
3. Tim Cox discussed the existing vendor owned and operated photo enforced traffic camera at the intersection. These will have to be completely reconstructed. It is not feasible to simply move them to a new location.
4. James Hudgins asked about the lack of a reimbursable utilities estimate. Andy Rikard will develop a reimbursable cost estimate for the project.
5. The group discussed the presence of CCT bus stops and shelters. There are three shelters that will have to be replaced, one on Windy Hill and two on Cobb Pkwy. HNTB and CCDOT to coordinate with Cobb Community Transit on the relocation requirements.
6. Xuewen Le discussed the recent GPTQ committee rule change that allowed mast arms to exceed 65' span as long as the local government agreed to be responsible for all maintenance and liabilities on the structure with a letter to GDOT. HNTB to produce layout of intersection with pedestrian movements, mast arm lengths and locations and send to CCDOT and Marietta for City Council approval.
7. Ken Janney of CCMWA discussed a current design for a replacement water main along Cobb Pkwy. It involved tunnel boring a 72" diameter tunnel beneath the road at varying depths, and inserting either a 36" or 54" water main. Construction is expected to begin January 2014 at the earliest, and

January 2015 at the latest. HNTB to make SUE contractor aware of these plans. HNTB to get CCMWA design plans from CCDOT.

8. Jim Wilgus discussed the need to maintain or possibly enhance existing lighting on the intersection. Since there is road widening, the pedestrians have a tendency to walk outside the shine of streetlights. The concept report will be updated to reflect the need for lighting. HNTB to also evaluate the need for a supplemental signal to use for the dual right turn lanes. This, along with a proposed island, would provide a potential pedestrian refuge.
9. The old Volvo dealership on the northwest corner of the intersection is being renovated into a Lexus dealership. HNTB to get contact info from Jim Wilgus to coordinate construction plans.
10. James Hudgins encouraged HNTB to reduce the width of the median and maximize the length of the left turn storage on both Windy Hill Rd and Cobb Pkwy. HNTB to lengthen all left turn lanes as much as possible.
11. Scott Jordan questioned the accuracy of the cost per square foot of the commercial properties on the R/W estimate. HNTB to follow up with Janis Killian to verify the costs are valid.
12. Mike Cates asked about whether there was a check list for GDOT's complete street policy. HNTB will verify.
13. HNTB to verify whether GDOT and CCDOT have utilities within the project area and revise the list of agencies under the Utility Involvements section accordingly.

ACTION ITEMS

1. **HNTB to make the following changes to the body of the concept report:**
 - **Mention in the need and purpose that this project is included in the Cobb County 2011 Transportation SPLOST.**
 - **Remove any mention of CCID project numbers adjoining this project, but instead include only CCDOT Project ID #E4030 for Windy Hill Improvements from Cobb Pkwy to I-75 SB.**
 - **Refer to the cemetery adjacent to the project as Georgia Memorial Park Cemetery.**
 - **Refer to City of Marietta photo-enforced traffic cameras instead of red light cameras.**
 - **Add City of Marietta fiber and Marietta Power to list of utility involvements.**
 - **Under Public Involvement, add attending a council meeting with Marietta City Council.**
 - **Under Major Stakeholders, add City of Marietta and City of Smyrna.**
 - **Under project responsibilities, add City of Marietta to Construction Supervision.**
 - **Under lighting required section, toggle box to yes.**
 - **Under Other projects in the area, add CCDOT project E4030.**
2. **The following changes are to be made to the concept report attachments:**
 - **On the concept layout, maximize the left turn storage lengths on both Windy Hill Rd and Cobb Pkwy.**
 - **On the concept layout and typical sections, change the beauty strips from 5' to 2'.**
 - **On Typical Section #3, determine the proper slope for the right shoulder.**

- **On Typical Section #3, reduce maximum raised median width as much as possible.**
 - **On the cost estimate, increase the Traffic Control lump sum item to \$150,000.**
 - **On the AC Adjustment spreadsheet, change the PROJ. NO. to the proper project number.**
 - **On the R/W costs, send to Janis Killian to verify the correct cost per square foot of the adjacent commercial properties.**
 - **On the crash data table, delete the last row titled 'Not Indicated'.**
3. **Scott Jordan to coordinate with Andy Rikard to obtain a concept reimbursable utilities cost estimate to include in concept report.**
 4. **HNTB to get Microstation plans for E4030 from Moreland and include on the next iteration of concept layout.**
 5. **HNTB to send layout of intersection, complete with pedestrian movements and approximate mast arm lengths and locations, to CCDOT and City of Marietta. This concept will be presented to the Marietta City Council for approval.**
 6. **HNTB to mention in concept report that this project lies along the Cobb Pkwy RTOP corridor.**
 7. **The old Volvo dealership is being renovated to become a Lexus dealership. HNTB to get contact info of developer in order to coordinate changes.**
 8. **HNTB to coordinate with CCT on bus stop/bus shelter locations.**
 9. **HNTB to extend northbound queue-jumper north to the bus stop adjacent to the 'Folks' restaurant to include the existing bus shelter.**
 10. **HNTB to maximize left turn movement into QT gas station without sacrificing eastbound left turn storage on Windy Hill Rd.**
 11. **HNTB to make SUE contractor aware of CCMWA plans to construct 72" tunnel with water main beneath Cobb Pkwy.**
 12. **HNTB to get CCMWA design plans from CCDOT.**

This is our understanding of items discussed and decisions reached. Please contact us if there are changes or additions.

HNTB CORPORATION

Chris Seckinger, P.E.

cc: Attendees

DESIGN TEAM MEETING NOTES



2. WINDY HILL/COBB PKWY INTERSECTION IMPROVEMENTS

Cobb County Project Nos. E3030 & E10D0
HNTB No. 59175

Date: July 22, 2013
Location/Time: GDOT District 7 Office / 10:00 AM

Attendees:

Kimberly Nesbitt	GDOT	404-657-1575	knesbitt@dot.ga.gov
Scott Jordan	CCDOT	770-528-3685	scott.jordan@cobbcounty.org
Phillip Jackson	GDOT	770-986-1775	pjackson@dot.ga.gov
Austin Wang	GDOT		awang@dot.ga.gov
Clyde Cunningham	GDOT	770-986-1117	ccunningham@dot.ga.gov
Patrick Allen	GDOT	770-986-1117	paallen@dot.ga.gov
Iris Hernandez	GDOT	404-631-1190	ihernandez@dot.ga.gov
Shun Pringle	GDOT	770-986-1414	springle@dot.ga.gov
Dom Saulino	HNTB	404-946-5745	dsaulino@hntb.com
Xuewen Le	HNTB	404-946-5741	xle@hntb.com
Chris Seckinger	HNTB	404-946-5733	cseckinger@hntb.com

Purpose: Concept Team Meeting

The following items were discussed:

1. Kimberly Nesbitt began the meeting with introductions.
2. Chris Seckinger gave a brief project description with the concept layout, and flipped through the draft concept report with the group.
3. Kimberly Nesbitt suggested that if landscape allowances are provided to property owners on this project, to coordinate with Davie Biagi to apply for a variance in order to receive those funds. This will require the furnishing of landscape plans or details.
4. GDOT expressed concern with the use of WB-67 as the design vehicle. HNTB to verify if that is the correct design vehicle for this project and if so, to check the turning templates using AutoTurn.
5. On the concept report, GDOT recommends to toggle on the box for 'Utility' under the section Right of Way Easements Anticipated.
6. Kimberly Nesbitt questioned the need for a Transportation Management Plan. HNTB had received a comment on the original draft concept report to include a TMP on this project. Kimberly said to disregard the comment and remove the TMP from the concept report.
7. Kimberly Nesbitt remarked that Keith Golden would likely not sign off on signal mast arms being present on the concrete island. Xuewen Le responded that the mast arm pole was measured to be outside the clear zone for both Cobb Pkwy and Windy Hill Rd. HNTB to provide a detail showing the island and a table with distances from edge of travel for Windy Hill and Cobb Pkwy.
8. A tandem mast arm at the northwest intersection quadrant will be designed to hold mast arms for dual right turn lanes and for westbound through-lanes on Windy Hill Road. HNTB to develop a design variance for a mast arm span length greater than 65' for submission to GDOT.

9. GDOT Utilities suggested using the 1st Utilities Submission to request early relocation since this project is so utility-intensive. The 2nd Utility Submission would then serve only as verification of those relocations.
10. Kimberly Nesbitt said that GDOT generally takes from 12 to 18 months to certify right-of-way plans. Scott Jordan followed that Cobb DOT usually takes about 6 months on average from approved right-of-way plans by GDOT to local NTP to start acquisition and added that there will be a property owner meeting as part of the Cobb DOT process.
11. GDOT Utilities outlined the process by which they accept utility relocation information from local governments—Andy Rikard from Cobb DOT to gather all communications/correspondence/plans from utility owners, then forward all this information as one package to GDOT District 7 Utilities so they can forward as a package to the State Utilities Office.
12. Kimberly Nesbitt reviewed the project schedule. The current schedule has the concept approval in September, 2013, and letting in June, 2015. So far the project is on schedule.

ACTION ITEMS

- 1. HNTB to coordinate with Davie Biagi at GDOT if any landscape allowances are to be paid to property owners on this project.**
- 2. HNTB to verify if WB-67 is the correct design vehicle for this project and if so, to check the turning templates using AutoTurn.**
- 3. On the concept report, GDOT recommends to toggle on the box for ‘Utility’ under the section Right of Way Easements Anticipated.**
- 4. HNTB to remove the need for a Transportation Management Plan from the concept report.**
- 5. HNTB to provide a detail showing the island and a table with distances from edge of travel for Windy Hill and Cobb Pkwy.**
- 6. HNTB to develop a design variance for a mast arm span length greater than 65’ for submission to GDOT.**

This is our understanding of items discussed and decisions reached. Please contact us if there are changes or additions.

HNTB CORPORATION

Chris Seckinger, P.E.

cc: Attendees



December 3, 2013

Kimberly W. Nesbitt
Project Manager
Georgia Department of Transportation
Office of Program Delivery, 25th Floor
600 West Peachtree Street
Atlanta, Georgia 30308

Ms. Nesbitt,

In reference to the intersection improvement project at the Windy Hill Rd and US 41/Cobb Parkway (PI# 0011738), Marietta Board of Lights and Water (Marietta Power) will be responsible for the electric service and maintenance of roadway lighting related to the project.

If you have any questions, please feel free to contact me.

Thank You,

Clay Hopkins
Supervisor of System Design
Marietta Power
675 North Marietta Pkwy
Marietta, GA 30060