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**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. #0006839 & 0007100 **OFFICE** Design Policy & Support
CSCMQ-0006-00(839) &
CSSTP-0007-00(100)
GDOT District 1 - Gainesville
Gwinnett County **DATE** 10/5/2011
SR 13/US 23 at SR 120 Enhancements

FROM  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:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
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BOARD MEMBER - 7th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Numbers: CSCMQ-0006-00(839) and CSSTP-0007-00(100)

County: GWINNETT

P. I. Numbers: 0006839 and 0007100

ARC Project Numbers: GW-AR-BP107 & GW-AR-BP108

City Project Numbers: SPLOST SP01-46-001 & SP05-46-002

Federal Route Number: US 23

State Route Number: SR 13 & SR 120

Project Description

SR 13/US 23/Buford Highway @ SR 120/Duluth Highway Gateway
SR 120/W Lawrenceville from Buford Hwy to Duluth Elem & Middle
SR 120/Duluth Highway Realignment

Submitted for approval:

DATE 6/9/11

DATE 6/13/11

DATE 6/20/11

DATE 6/20/11

DATE 6/20/11

Ligia C. Fleming
Design Consultant Name (Bron Cleveland Associates, Inc.)

W. M. Samore
Local Government (City of Duluth)

Robert W. McKeown (WME)
Design Phase Office Head (District Preconstruction Engineer)

John M. Smith
Office Head (Project Manager's Office, District Engineer)

Paul A. ...
Project Manager

Recommendation for approval:

DATE 7/11/2011

DATE 7/11/2011

DATE _____

DATE 6/29/2011

DATE 7/6/2011

DATE _____

* GENETHA RICE-SINGLETON
Program Control Administrator

* GLENN BOWMAN
State Environmental Administrator

State Traffic Engineer

* RON WISHOW
Project Review Engineer

* ALLEN FERGIUSON
State Utilities Engineer (DISTRICT)

State Transportation Financial Management Administrator

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

DATE 9/15/2011

* CYNTHIA L. VANDUYKE
State Transportation Planning Administrator

* RECOMMENDATION ON FILE 

Need and Purpose Statement
SR 13/US 23/Buford Highway @ SR 120 Gateway and
SR 120 from Buford Hwy to Duluth Elem & Middle
Project No. CSCMQ-0006-00(839) and CSSTP-0007-00(100) in Gwinnett County
P.I. No. 0006839 and 0007100

The City of Duluth lies within the greater metro-area of Gwinnett County. The City has recently completed facilities around the Downtown area which encourage and increase pedestrian activity, including the construction of a Town Green, festival center, and adjacent parks. Further, the City has promoted improvement and re-development of the retail and commercial properties in the Downtown area adjacent to these amenities to enhance and support the usage of the amenities. These facilities provide attractions for pedestrian traffic that did not previously exist.

Currently, there is a need to provide connectivity, improve pedestrian flow and to reduce the incidence of crashes including pedestrians between Hill Street and SR 13/US 23/Buford Highway. There is also an anticipated need to accommodate pedestrians once SPLOST projects SP01-46-001 & SP05-46-002 have been constructed. The purpose of the project [P.I. No. 0006839 and P.I. No. 0007100 combined] is to improve pedestrian operations along the SR 120 corridor within the Central Business District of Duluth between Hill Street and SR 13/US 23/Buford Highway.

The corridor is located within the Duluth downtown core, which is located adjacent to the Monarch School/Duluth High School complex and the densely-commercialized SR 13 (Buford Highway) corridor. Currently, pedestrian facilities exist only at the SR 120 and SR 13/US 23/Buford Highway intersection and a portion of SR 120 between this intersection and the Norfolk Southern Rail Road. Pedestrians traveling within the proposed project corridor have to navigate through the intersection of West Lawrenceville Street and SR 120 to circulate to and from commercial activities along area roadways, the Town Green, and adjacent destinations. Pedestrian flows that occur at the existing three-way stop intersection of SR 120 and West Lawrenceville Street are particularly confusing due to the lack of defined pedestrian paths and lack of conventionality. Additional pedestrian destinations in the area include the elementary school, Town Green and Duluth commercial and retail areas.

Crash data for the corridor was obtained from the Georgia Department of Transportation for the years 2006 through 2009. Review of the crash data indicates one (1) incident in which a pedestrian was struck and injured by a motor vehicle. This incident occurred near the intersection of SR 120 (W Lawrenceville St) and SR 120 (Main St) in the evening. Therefore, there is a need to reduce the incidence of crashes between vehicles and pedestrians within the project limits.

Project Linkage

Currently, there are two projects in the vicinity of this project, local SPLOST projects SP01-46-001 & SP05-46-002. These projects will provide roadway operational improvements along SR 120 from the intersection with the Norfolk Southern Rail Road, west on SR 120/W Lawrenceville Street, north on SR 120/Main Street, then west on SR 120/Abbott's Bridge Road to its intersection with Hill Street (SR120 changes street names from Duluth Highway to West Lawrenceville Street to Main Street to Abbotts Bridge Road at various locations in the local project). These operational improvements along SR 120 being proposed by the City of Duluth as part of their SPLOST work program would support and provide additional need for the pedestrian improvements. The operational improvements add and modify features of the roadway system that would require pedestrian movements be better defined. Pedestrian improvements would be required at the intersection of West Lawrenceville and SR 120 as part of the proposed new signal.

Logical Termini

The western-most (Hill Street) and eastern-most (SR13/US 23/Buford Highway) intersections of this portion of the SR 120 corridor have been identified as logical termini for the proposed study area. The western project terminus at Hill Street is justified in that this is a logical endpoint for pedestrian activity along SR 120. Hill Street is adjacent to the Monarch School and connects to Brock Road northeast of the SR120 and Hill Street intersection. Brock Road is the southern entry into the Duluth High School complex. Beyond Brock Road, Hill Street continues northeastward and connects to urban-scale, single-family and multi-family residential areas. Those residential areas and the school site generate pedestrian traffic along Hill Street which intersects with SR 120. The pedestrian traffic pattern then continues across SR 120 en route to destinations in the Downtown Duluth core (retail, restaurants, Town Green, and park). The area along SR 120 west of Hill Street is a suburban-scale single-family residential area and does not originate significant pedestrian traffic along SR 120. Hill Street marks the transition from the retail, commercial, and urban-scale residential land uses of the Downtown core (east of Hill Street) to a suburban/residential land use (west of Hill Street). Pedestrian improvements west of Hill Street are not considered to be logically included in the evaluation of this proposed project as this area is not the origin/destination of regular pedestrian traffic.

The eastern project terminus at SR 13/US 23/Buford Highway represents a logical endpoint for the pedestrian improvements along SR 120. SR 13/US 23/Buford Highway within the vicinity of SR 120 is a heavily-commercialized corridor that generates pedestrian traffic along its length. Pedestrian facilities currently exist along SR 13/US 23/Buford Highway and at its intersection with SR 120. Additionally, the recent completion of sidewalk improvements along Davenport

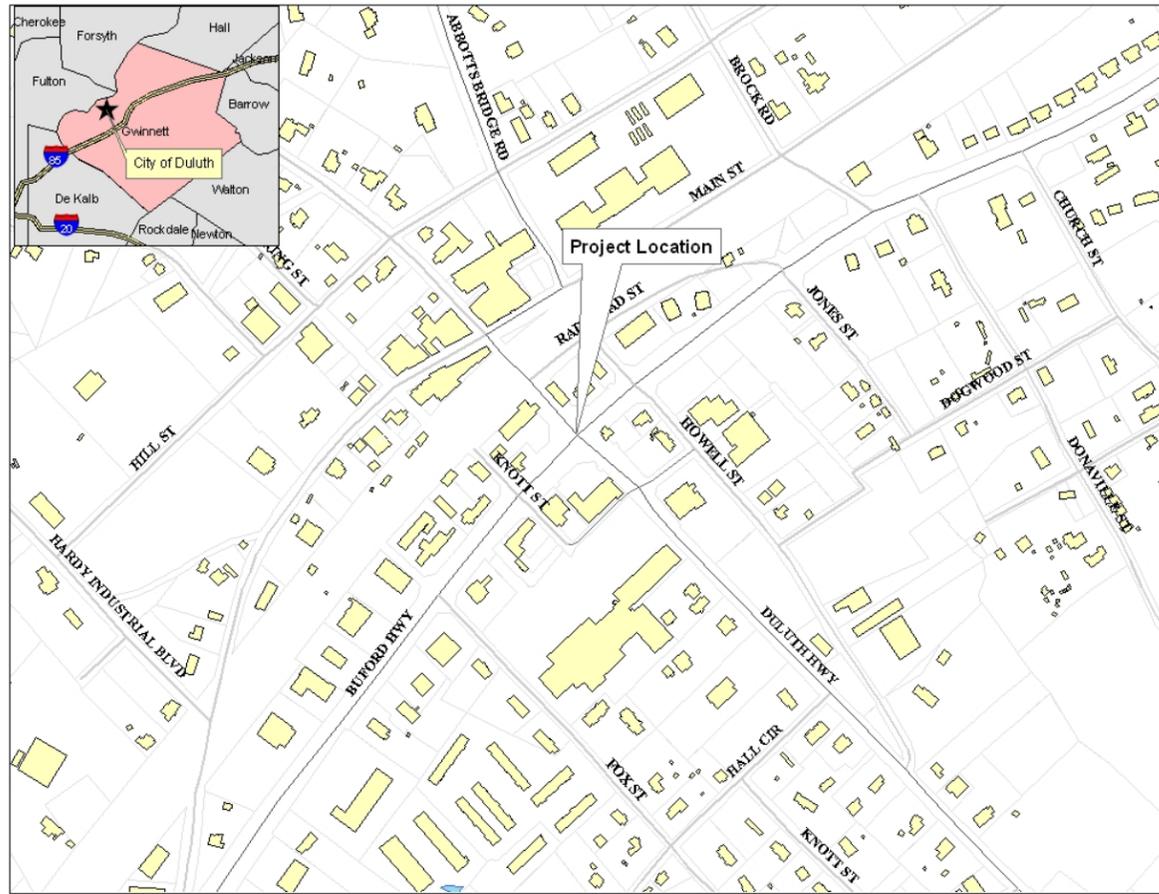
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Project Number: CSCMQ-0006-00(839) and CSSTP-0007-00(100)
P. I. Number: 0006839 and 0007100
County: Gwinnett

Road (PI 0008147 & 0007548) provides a pedestrian connection between the residential areas of Davenport Road and SR 13/US 23/Buford Highway – potentially increasing the pedestrian traffic demand along SR 13/US 23/Buford Highway. SR 120 currently represents the primary entry into the Duluth Downtown core from SR 13/US 23/Buford Highway.

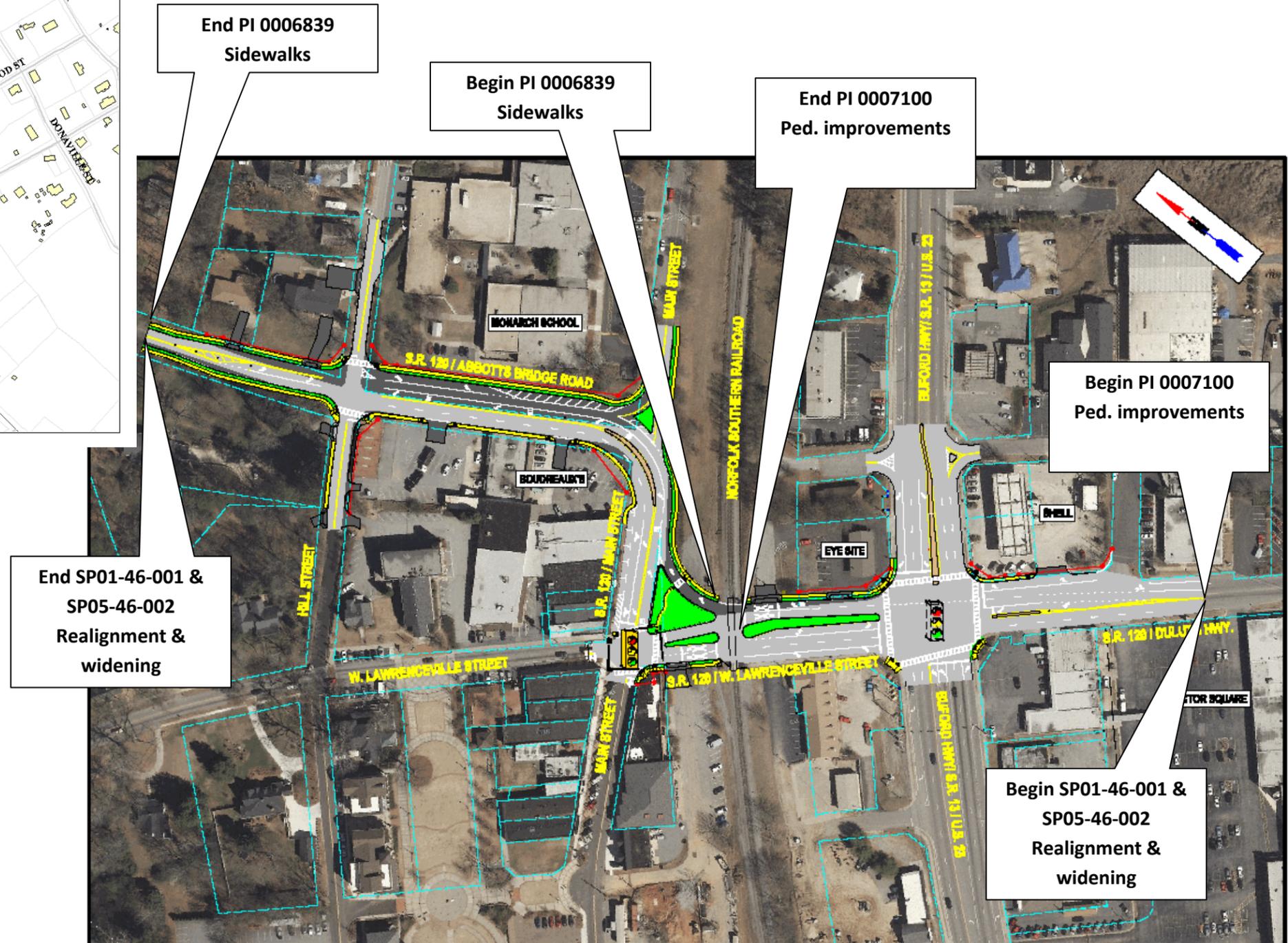
Description of the proposed project:

Project P.I. No. 0006839 would provide five (5) foot wide sidewalks along SR 120/Duluth Highway from its intersection with the Norfolk Southern Rail Road, west on SR 120/W Lawrenceville Street, north on SR 120/Main Street, then west on SR 120/Abbott’s Bridge Road to its intersection with Hill Street. Sidewalks would also be included on Hill Street between West Lawrenceville Street and SR120/Abbott’s Bridge Road. These sidewalks would improve pedestrian connectivity and ADA accessibility through the Downtown Duluth Commercial District to the existing Duluth Monarch School and High School. This pedestrian facility project would also construct enhanced crosswalks at all intersections within the project limits and medians for pedestrian refuge at intersections. This project includes construction of the pedestrian components of a warranted signal at the West Lawrenceville Street and Main Street intersection.

Project P.I. No. 0007100 would provide pedestrian facility improvements at the intersection of SR 120 and SR 13/US 23/Buford Highway. This intersection does not currently have continuous sidewalk connections; the existing sidewalk is in disrepair and the crosswalk striping is faded. This project would improve pedestrian facilities including enhanced cross-walks and ADA accessibility at the intersection and connect to existing and proposed sidewalks.



Project Location Map
SPLOST Projects SP01-46-001 & SP05-46-002 (SR 120 Realignment);
Project CSCMQ-0006-00(839), PI No. 0006839 (SR 120 Sidewalks); &
Project CSSTP-0007-00(100); PI No. 0007100 (SR 13/SR 120 Sidewalks).
Gwinnett County



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 Air Impact Assessment prepared for this project analyzed the effects of CO generated by the intersection realignment of SR 120 at SR 13/US23/Buford Highway and SR 120 at Main Street. Based upon parameters that would create “worst case” scenarios, the SR 120 at SR 13/US23/Buford Highway intersection showed the highest one-hour CO concentration to be **6.0 ppm** for the PM predicted one-hour CO concentration values of the Design Year (2030). The SR 120 at Main Street intersection showed the highest one-hour CO concentration to be **3.9 ppm** for the PM predicted one-hour CO concentration values of the Design Year (2030). Therefore, CO concentrations do not pose an air quality impact with the intersection realignments of SR 120 at SR 13/US23/Buford Highway and SR 120 at Main Street.

Based upon the “worst case” modeling scenarios, it can be concluded that the construction of this project would not have an adverse impact on local air quality. All values for the intersection analysis are determined to be in compliance with State and Federal air quality standards.

PDP Classification: Major Minor

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

Functional Classification: SR 13/US 23/Buford Hwy: Urban Collector Street
SR 120/W L’ville/Main St/Abbotts Bridge: Urban Minor Arterial
Hill Street: Urban Local Street

U. S. Route Number(s): US 23 **State Route Number(s):** SR 13 & SR 120

Traffic (AADT):
Base Year (2013): 9,635 Design Year (2033): 14,320

Existing design features: (For SPLOST projects)

SR 120/West Lawrenceville Street from SR 13/US 23/Buford Highway to Main Street

- Typical Section: 2 – 12’ lane each direction
1 – Right turn lane EB at SR 13/Buford Highway
1 – Left turn lane EB at SR 13/US23/Buford Highway
- Posted speed 35 mph
- Minimum radius for curve: N/A
- Maximum super-elevation rate for curve: N/A
- Maximum grade: W Lawrenceville St 7.9% +/-
SR13/Buford Highway 3.0% +/-
- Width of right-of-way: 100 ft (typ from NSRR to SR13/US23/Buford Hwy)
50 ft (typ from NSRR to Main Street)

SR 120/Main Street from West Lawrenceville Street to SR 120/Abbotts Bridge Road

- Typical Section: 1 – 12’ through lane each direction
No turn lanes
Open shoulder (with header curb at on-street parking areas)
No sidewalks
- Posted speed: 35 mph (with 25 mph for school zone during certain hours)
- Minimum radius for curve: 154’
- Maximum super-elevation rate for curve: N/A
- Maximum grade: SR 120/Main St 3.0% +/-
- Width of right-of-way: Varies 55 ft - 60 ft

SR 120/Abbotts Bridge Road from Main Street to Hill Street

- Typical Section: 1 – 12’ through lane each direction
No turn lanes
Open shoulder
No sidewalks
- Posted speed: 35 mph (with 25 mph for school zone during certain hours)
- Minimum radius for curve: N/A
- Maximum super-elevation rate for curve: N/A
- Maximum grade: SR 120 7.5% +/-
Hill St 13.3% +/-
- Width of right-of-way: 40 ft (typ from Main St to Hill St)
60 ft (typ from Hill St to the west)

General:

- Major structures: N/A
- Major interchanges or intersections along the project:
SR120/W Lawrenceville Street at SR13/US 23/Buford Highway
SR120/W Lawrenceville Street at Main Street
- Existing length of roadway segment and the beginning mile logs for each county segment.
Approximately 2,100’
- If an expansion or add-on to an existing ITS system (such as NaviGator), identify physical limits of field device location and/or brief explanation of new features.
N/A

Proposed Design Features: (For SPLOST Projects)

(The following proposed design information is based on rolling terrain type conditions as identified in AASHTO and GDOT Design Guidelines)

SR 120/West Lawrenceville Street from SR 13/US 23/Buford Highway to Main Street

- Proposed Typical Section(s):
2 – 12’ lanes each direction
Type 7 raised conc median at varying locations
12’ urban shoulder (WB side)

- Type 2 header curb/curb and gutter as appropriate
- 5' sidewalk

- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline 7.9% (matches existing with mill and inlay)
- Maximum grade allowable 8.0% (urban arterial at 35 mph)
- Proposed Maximum grade Side Street SR13/Buford Hwy 3.0% (matches existing with mill and inlay)
- Maximum grade allowable SR13/Buford Hwy 8.0% (urban arterial at 35 mph)
- Proposed Maximum grade driveway 10%
- Proposed Maximum degree of curve N/A
- Maximum degree allowable N/A
- Proposed Maximum superelevation rate N/A

SR 120/Main Street from West Lawrenceville Street to SR120/Abbott's Bridge Road

- Proposed Typical Section(s):
2 – 12' through lane WB
1 – 12' through lane EB
1 – Left turn lane EB at West Lawrenceville St
Type 7 raised conc median at varying locations
12' urban shoulder (WB side)
 - Type 2 header curb/curb and gutter as appropriate
 - 5' sidewalk

- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline 1.0%
- Maximum grade allowable 8.0% (urban arterial at 35 mph)
- Proposed Maximum grade Side Street N/A
- Maximum grade allowable N/A
- Proposed Maximum grade driveway N/A
- Proposed Maximum degree of curve 45^50'12" (R = 125.00') (Curve KC5)
- Maximum degree allowable 15^26'37" (R = 371.00')
- Proposed Maximum superelevation rate 4% (Curve KC5)

SR 120/Abbotts Bridge Road from Main Street to Hill Street

- Proposed Typical Section(s):
2 – 12' through lane EB
1 – 12' through lane WB
1 – Left turn lane WB at Hill St
1 – Right turn lane WB at Hill St
Type 7 raised conc median at varying locations
12' urban shoulder (EB and WB sides)
 - Type 2 header curb/curb and gutter as appropriate

- 5' sidewalk

- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline 7.3%
- Maximum grade allowable 8.0% (urban arterial at 35 mph)
- Proposed Maximum grade Side Street Hill St 10.9%
- Maximum grade allowable Hill St 13% (urban local street at 20 mph)
- Proposed Maximum grade driveway 27.5%
- Proposed Maximum degree of curve 2^47'42" (R = 2,050.00') (Curve KC2)
- Maximum degree allowable 37^12'18" (R = 154.00')
- Proposed Maximum superelevation rate 2% (Curve KC2)
- Right-of-Way:
 - Width: Varies 40-118 ft
 - Easements: Temporary () Permanent () Utility () Other ().
 - Type of access control: Full () Partial () By Permit () Other ().
 - Number of parcels: 11 Number of displacements: 0
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges, include sufficiency rating: N/A
 - Retaining walls: Potential gravity or parapet-type
- Major intersections, interchanges, median openings and signal locations: Major intersections at:
 - SR 120/W Lawrenceville St at SR 13/US 23/Buford Hwy [existing signalized]
 - SR 120/W Lawrenceville Street at SR 120/Main Street [proposed signalized]
 - Signal Warrant Study attached for proposed signalization
- For ITS projects identify physical limits of field device location, location of any control centers and/or brief explanation of new features: N/A
- Transportation Management Plan Anticipated: Yes () No ()

	<u>YES</u>	<u>NO</u>	<u>UNDETERMINED</u>
HORIZONTAL ALIGNMENT:	(X)	()	()
LANE WIDTH:	()	(X)	()
SHOULDER WIDTH:	()	(X)	()
VERTICAL GRADES:	()	(X)	()
CROSS SLOPES:	()	(X)	()
STOPPING SIGHT DISTANCE:	()	(X)	()
SUPERELEVATION RATES:	(X)	()	()
VERTICAL ALIGNMENT:	()	(X)	()
SPEED DESIGN:	()	(X)	()
VERTICAL CLEARANCE:	()	(X)	()

BRIDGE WIDTH:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
LATERAL OFFSET TO OBSTRUCTION:	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

- Design Exceptions to controlling criteria anticipated:
 1. Design exception for curve radius less than allowable minimum for 35 mph (curve KC5).
 2. Design exception for S.E. rate less than required for 35 mph design speed (curve KC2).

Design Variances

1. Design variance for intersection skew between SR 120/Abbotts Bridge and Main St

Design Deviation

1. Design deviation for curve lengths less than 15V guideline (various locations).
- Environmental concerns - The project site is located within a National Register eligible historic district. Based on preliminary analysis it is anticipated that the project would have a No Adverse Effect to this and other historic resources in the project area including the railroad. There are no environmental permits anticipated for this project.
 - Anticipated Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes () No (X)
 - Categorical Exclusion anticipated (X).
 - Environmental Assessment/Finding of No Significant Impact anticipated (FONSI) ().
 - Environmental Impact Statement (EIS) ().
 - Utility involvements: Electricity -- Georgia Power, Water & Sewer -- Gwinnett County Utilities, Telephone -- Bellsouth, Storm Sewer -- City Of Duluth, Cable -- Charter Communications, Railroad -- Norfolk Southern
 - VE Study Anticipated: Yes () No (X)
 - Benefit/Cost Ratio: N/A

Project Cost Estimate and Funding Responsibilities:

P.I. No. 0006839	PE	ROW	UTILITY	CST	MITIGATION
By Whom	Duluth	Duluth	Duluth	Federal/Duluth	Duluth
\$ Amount	\$222,000	\$ 0 -	\$0 -	\$614,000 (\$491,000 / \$123,000)	\$ 0 -

P.I. No. 0007100	PE	ROW	UTILITY	CST	MITIGATION
By Whom	Duluth	Duluth	Duluth	Federal/Duluth	Duluth
\$ Amount	\$222,000	\$ 0 -	\$ 0 -	\$456,000 (\$365,000 / \$91,000)	\$0 -

SP01-46-001 SP05-46-002	PE	ROW	UTILITY	CST	MITIGATION
By Whom	Duluth	Duluth	Duluth	Duluth	Duluth
\$ Amount	\$222,000	\$750,011	\$650,000	\$1,434,000	\$ 0 -

Total Project	PE	ROW	UTILITY	CST	MITIGATION
\$ Amount	\$666,000	\$300,000	\$650,000	\$2,504,000 (\$856,000 / 1,648,000)	\$ 0 -

**CST Cost includes: Construction, Engineering and Inspection, Fuel Cost Adjustment, and Asphalt Cement Cost Adjustment*

Project Activities Responsibilities:

- Design: City of Duluth
- Right-of-Way Acquisition: City of Duluth (for SPLOST Projects)
- Right-of-Way funding (real property): City of Duluth (for SPLOST Projects)
- Relocation of Utilities: City of Duluth
- Letting to contract: City of Duluth
- Supervision of construction: City of Duluth
- Providing material pits: City of Duluth/Contractor
- Providing detours: City of Duluth/Contractor
- Environmental Studies/Documents/Permits: City of Duluth
- Environmental Mitigation: City of Duluth

Coordination

- Initial Concept Meeting date and brief summary. (Attach minutes, if required): None
- Concept meeting date and brief summary. (Attach minutes, if required): 11/19/2010
- P A R meetings, dates and results. (Attach minutes, if required): N/A

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Project Number: CSCMQ-0006-00(839) and CSSTP-0007-00(100)
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- FEMA, USCG, and/or TVA: N/A
- Public involvement: PIOH March 24, 2011
City of Duluth Festival Center
3142 Hill Street
Duluth, GA
- Local government comments: None
- Other projects in the area:

The following planned/programmed projects are within a mile of the proposed improvements:

- SPLOST Projects SP01-46-001 & SP05-46-002
- CSSTP-0009-00-(070) Buford Hwy Median
- STP-0006-00-(276) Hospital Connector
- CSSTP-0008-00-(147) Davenport Sidewalks
- CSSTP-0007-00-(548) Davenport Sidewalks
- CSCMQ-0006-00-(838) Residential Sidewalks Irvindale Road Loop
- Mill and inlay maintenance project from Fulton Co line to Atkinson Rd (letting in Spring 2011)

Additional Discussion – SPLOST Projects SP01-46-001 & SP05-46-002

Additional discussion of the SPLOST projects is warranted as they are proposed in conjunction with the Federal-aid projects to allow for evaluation of the cumulative benefits and impacts of these added projects.

Projects SP01-46-001 & SP05-46-002 are two locally funded projects that widen and make operational improvements along SR 120 from the intersection with the Norfolk Southern Rail Road, west on SR 120/W Lawrenceville Street, north on SR 120/Main Street, then west on SR 120/Abbott's Bridge Road to its intersection with Hill Street (SR120 changes street names from Duluth Highway to West Lawrenceville Street to Main Street to Abbotts Bridge Road at various locations in the local project). These additional projects include proposed signalization of the intersection at SR 120 and West Lawrenceville Street, which complements the pedestrian improvements described previously for the Federal-Aid project. For economy of scale and congruence in design, these two (2) local projects are being designed and administered concurrently with the federally funded projects P.I. No. 0006839 and P.I. No. 0007100. A project location map is provided on page 5.

Following is a discussion of the accident history and transportation analyses of improvements associated with these two SPLOST projects. The SPLOST projects are intended to be designed and constructed in conjunction with the two Federal-Aid projects to provide for a coordinated system of roadway operational improvements that compliment and support the Federal-Aid pedestrian improvements.

Existing Travel Conditions

The existing travel conditions along this section of SR 120 are not ideal given the high number of conflicts that prevent the free flow of traffic in each direction. Bottlenecks form in this section of road during the peak hours of traffic. Westbound traffic has to yield at the intersection of SR 120 /Lawrenceville Street and Main Street before proceeding northbound along SR 120/Main Street and then turn sharply to the left to continue westbound along SR 120/Abbott's Bridge Road. Similarly, the eastbound traffic has to stop at the intersection of SR 120/Abbott's Bridge Road and SR 120/Main Street before proceeding southbound along SR 120/Main Street, stop again at the intersection of Main Street with West Lawrenceville Street, and make a left-turn before continuing eastbound towards the intersection SR 120 and SR 13/US 23/Buford Highway.

The existing roadway conditions are as follows:

- SR 13/US 23/Buford Highway: Consists of two 12-ft lanes in each direction with curb and gutter and turning lanes.
- SR 120: Up to the intersection with Main Street, consists of two 12-ft lanes in each direction with curb and gutter, and turning lanes.

The existing traffic controls within the corridor cause inefficiency and delay. For example, currently, eastbound SR 120 traffic is stop-controlled at the SR 120/Abbott's Bridge Road and Main Street intersection. Traffic studies show that at this location, nearly 90% of the peak-hour movements and total ADT is continuing eastbound on SR 120. The proposed project improves this condition by reconstructing this intersection to allow continuous operation along SR 120 and right-in/right-out operation only for Main Street. As noted in Table 4, the LOS is improved from LOS F (no-build) to LOS B (build) in the AM peak period at this intersection. Similarly, as shown in Table 5, the LOS is improved from LOS D (no-build) to LOS B (build) in the PM peak period.

Existing and Projected Traffic Conditions

The transportation interaction and proximity between the SR 120 and Hill Street intersection and the SR 120 and West Lawrenceville Street intersection necessitates a comprehensive analysis of the corridor for transportation operations. Consideration of improvements at Hill Street is also necessitated by the proposed improvements at the SR 120 and Main Street intersection, in order to maintain access and circulation around the existing school site.

Table 1 summarizes ADT recorded along US 23/SR 13/Buford Highway and SR 120 by the Georgia Department of Transportation (GDOT) at four (4) count stations.

Table 1				
GDOT AADT for Buford Highway (US 23/SR 13) and SR 120				
Roadway	Buford Hwy	Buford Hwy	SR 120	SR 120
Location	South of SR 120	North of SR 120	East of Buford Hwy	West of Hill Street
Count Station	#0081	#0082	#0161	#0158
Year 2003	24,618	23,848	20,681	15,511
Year 2004	25,848	24,678	24,288	15,789
Year 2005	24,160	23,510	21,620	11,220
Year 2006	24,800	25,050	21,690	13,110
Year 2007	25,200	22,730	20,330	13,420
Year 2008	23,720	24,510	23,960	12,630

Table 2 summarizes projected ADT along US 23/SR 13/Buford Highway and SR 120 based on current turning movement counts, current 24-hour tube counts, projected growth rates, and consideration of opening of other transportation improvement projects in the surrounding area.

Table 2				
Projected ADT for Buford Highway (US 23/SR 13) and SR 120				
Roadway	Buford Hwy	Buford Hwy	SR 120	SR 120
Location	South of SR 120	North of SR 120	East of Buford Hwy	West of Hill Street
Base Yr 2013	34,565	31,770	24,260	9,975
Design Yr 2033	51,365	47,210	36,055	14,820

Table 3 summarizes the existing peak hour truck percentages along SR 120, north of West Lawrenceville Street and south of Main Street (north). This bi-directional automatic classification tube count resulted in a heavy vehicle percentage of approximately 7.9% for the daily traffic, 7.6% for the AM peak period, and 4.0% for the PM peak period.

Table 3			
Truck Percentages for SR 120			
	<i>AM</i>	<i>PM</i>	<i>24-Hour Total</i>
Single Unit (SU)	4.8%	1.8%	5.5%
Multi Unit (MU)	2.8%	2.2%	2.4%
Total	7.6%	4.0%	7.9%

Intersection Capacity Analysis

Level of service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists perceptions with a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F the worst. Intersection analyses were performed using *Synchro Professional, Version 7.0* (signalization optimization and analysis program).

Levels of service for signalized intersections are reported for individual movements as well as for the intersection as a whole. One or more movements at an intersection may experience a low level of service, while the intersection as a whole may operate acceptably. Levels of service for unsignalized intersections, with stop control on the minor street only, are reported for the side street approaches. Low levels of service for side street approaches are not uncommon, as vehicles may experience delay in turning onto a major roadway.

Table 4 summarizes the levels of service and delay in seconds (per vehicle) for the four (4) study intersections for the four (4) scenarios during the AM peak hour. **Table 5** summarizes the same information for the PM peak hour.

Signal = Traffic Signal
 AWSC = All Way Stop Control
 RIRO = Right-In / Right-Out
 TWSC = Two Way Stop Control (i.e. side-street stop control)

Table 4				
Level of Service Summary				
AM Peak Hour				
Intersection	Overall LOS (Delay in Seconds)			
	Existing 2010	No-Build 2033	Base 2013	Design 2033
SR 120 at Buford Highway (US 23/SR 13)	D (37.6) (Signal)	F (136.2) (Signal)	D (41.1) (Signal)	F (133.7) (Signal)
SR 120 at West Lawrenceville Street/Main Street	D (32.5) (AWSC)	F (223.6) (AWSC)	B (17.9) (Signal)	C (26.4) (Signal)
SR 120 at Main Street (north)	D (31.7) (TWSC)	F (420.4) (TWSC)	B (10.6) (RIRO)	B (12.9) (RIRO)
SR 120 at Hill Street	NB – E (44.8) (TWSC)	NB – F (194.1) (TWSC)	NB – D (26.4) SB – F (71.5) (TWSC)	NB – F (153.0) SB – F (TWSC)
SR 120 at Hill Street * with <u>left turn lanes</u> along Hill Street				NB – F (78.1) SB – F (TWSC)
SR 120 at Hill Street * with <u>right turn lanes</u> along Hill Street				NB – F (137.0) SB – F (TWSC)

* - Analyzed for comparative purposes only – these improvements are not recommended

Table 5 Level of Service Summary PM Peak Hour				
Intersection	Overall LOS (Delay in Seconds)			
	Existing 2010	No-Build 2033	Base 2013	Design 2033
SR 120 at Buford Highway (US 23/SR 13)	D (38.3) (Signal)	F (135.6) (Signal)	D (39.9) (Signal)	F (134.0) (Signal)
SR 120 at West Lawrenceville Street/Main Street	D (26.2) (AWSC)	F (236.0) (AWSC)	B (18.6) (Signal)	C (26.3) (Signal)
SR 120 at Main Street (north)	C (15.1) (TWSC)	D (30.9) (TWSC)	A (9.6) (RIRO)	B (10.5) (RIRO)
SR 120 at Hill Street	NB – C (24.6) (TWSC)	NB – F (76.4) (TWSC)	NB – D (25.8) SB – C (22.9) (TWSC)	NB – F (115.3) SB – F (111.3) (TWSC)
SR 120 at Hill Street * with <u>left turn lanes</u> along Hill Street				NB – F (58.8) SB – F (74.0) (TWSC)
SR 120 at Hill Street * with <u>right turn lanes</u> along Hill Street				NB – F (104.6) SB – F (90.1) (TWSC)

* - Analyzed for comparative purposes only – these improvements are not recommended

As illustrated in the previous tables, the SR 120 intersection at US 23/SR 13/Buford Highway does not demonstrate improvement. It should be noted that the project does not include vehicular-traffic improvements at this intersection. The only improvements proposed at this intersection are pedestrian-oriented. Improvements required to improve the build analysis for vehicular traffic would include additional left-turn lanes, requiring significantly greater right-of-way. These improvements are out-of-scope for the P.I. No. 0007100 component of the project, which is focused on pedestrian improvements. Thus, no improvement is shown between build and no-build analyses.

The previous tables also illustrate deterioration in intersection delay between the no-build and build analyses for SR 120/Abbotts Bridge Road at Hill Street. Hill Street currently exists as a one-way (northbound) street on the north side of SR 120/Abbotts Bridge Road. Hill Street at this location pairs with Main Street just north of SR 120/Abbotts Bridge Road to essentially function as a local circulator around the Monarch School site. As part of the proposed improvements for operational efficiency, the Main Street intersection at SR 120 will be converted to a RIRO configuration. Thus, Hill Street is proposed to be converted to two-way operation to provide left-turn access from the school site onto eastbound SR 120. Thus, the comparison between build and no-build is for

completely different intersection configurations. It is noted that the overall intersection delay at SR 120/Abbotts Bridge Road and Hill Street is only worsened in the PM peak hour. The impacts incurred by widening Hill Street to accommodate turn-lanes are not justified, considering the minor improvement in delay noted in the previous tables with the comparative analysis. Furthermore, the worsening of delay at Hill Street during the PM peak hour is more than offset by the dramatic improvement in delay at the SR 120 and Main Street intersection during both peaks in the build condition. Therefore, no improvements are recommended at this location.

Land Use

The proposed project layout is restricted by the existing land uses due to the project's proximity to Downtown Duluth. The project area is within the Central Business District and is well developed with commercial buildings consisting of retail and business office complexes. Future redevelopment of these parcels is expected to be concurrent with the existing land uses and bring new commercial, retail, and office spaces to the area. Furthermore, land use adjacent to the proposed improvements consists of Duluth's City Hall, Town Green, and various commercial stores.

Crash Data

Accident data for the four (4) study intersections was obtained from the Georgia Department of Transportation for the years 2006, 2007, and 2008. **Table 6** summarizes the number of accidents, injuries, fatalities, approximate daily entering traffic volumes, and intersection crash rates for each of the four (4) study intersections.

Table 6: GDOT Crash History SR 120 at the Study Intersections					
Year	Number of Accidents	Number of Injuries	Number of Fatalities	Approximate Daily Entering Vehicles	Accident Rate (per million entering vehicles)
SR 120 at Buford Highway					
2006	22	3	0	46490	1.30
2007	14	5	0	45530	0.84
2008	14	8	0	48470	0.79
Total	50	16	0		
SR 120 at West Lawrenceville Street/Main Street (south)					
2006	0	0	0	19490	0.00
2007	0	0	0	19090	0.00
2008	0	0	0	20320	0.00
Total	0	0	0		
SR 120 at Main Street (north)					
2006	7	2	0	10680	1.80
2007	5	0	0	10460	1.31
2008	5	2	0	11130	1.23
Total	17	4	0		
SR 120 at Hill Street					
2006	6	2	0	11170	1.47
2007	5	3	0	10940	1.25
2008	5	4	0	11650	1.18
Total	16	6	0		

NOTE: Intersection crash rates are number of accidents per 1 million entering vehicles

The three-year accident data for this intersection indicates 140 total accidents with 46 total injuries and zero (0) fatalities. Further analysis of the accident data reveals that during this 3-year period, 41% of accidents were rear-end, 37% of accidents were angle, 9% of accidents were sideswipe, 12% of accidents were not a collision with a motor vehicle, and 1% of accidents were head-on. SR 120 is classified by GDOT to be an Urban Minor Arterial. **Table 7** summarizes the number of

accidents, injuries, fatalities, study corridor rates, and Georgia statewide average rates.

Table 7: GDOT Accident History SR 120 from Buford Highway (US 23/SR13) to Hill Street									
Year	Study Corridor Quantity			Study Corridor Rates			Georgia Statewide Average Rates		
	Accidents	Injuries	Fatalities	Accidents	Injuries	Fatalities	Accidents	Injuries	Fatalities
2006	38	7	0	2301	424	0	548	208	1.55
2007	30	9	0	1873	562	0	513	190	1.48
2008	29	11	0	1646	624	0	469	176	1.47
Total	97	27	0						

NOTE: Segment crash rates are number of accidents per 100 million vehicle miles

Crash rates along the corridor and at the study intersections are significantly higher than average statewide rates for similar facilities. There is a particularly high concentration of rear-end and angle collisions, typical of intersection locations.

The proposed improvements are anticipated to reduce the crash rates, considering the following:

- The existing three-way stop condition at SR 120 and West Lawrenceville Street intersection is confusing and inefficient. The proposed replacement of that intersection with a conventional signalized intersection is more efficient and more consistent with driver expectancy.
- Improvements along SR 120 to provide left-turn and right-turn lanes at the Hill Street intersection will provide for appropriate deceleration and refuge for turning vehicles. It is anticipated that this would lead to a direct, significant reduction in rear-end collisions.
- Improved turning radius and a receiving lane for free-flow right-turn movements at SR 120 and West Lawrenceville Street intersection will reduce traffic back-ups and lane-change conflicts.

- Railroads: Norfolk-Southern RR
- Other coordination to date: Previous coordination with GDOT District 1 Traffic Operations for review of traffic operations studies, including operation of RR pre-emption with proposed new signalized intersection at W. Lawrenceville St and Main St.
Field review coordination with NSRR on January 27, 2011 for review of facilities and coordination of access points to remain for maintenance of their facilities.

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: Begin Jul 2010 End: Aug 2011
- Time to complete preliminary construction plans: Begin Jul 2010 End: Mar 2012
- Time to complete right-of-way plans: Begin Nov 2011 End: May 2012
- Time to complete final construction plans: Begin Oct 2011 End: Feb 2013
- Time to coordinate with RR: Begin Jan 2011 End: Oct 2011
- Time to complete to purchase right-of-way: Begin Apr 2012 End: Mar 2013

Other alternates considered:

Consideration was given to an alignment that would shift to the north of SR 120 beginning east of the Buford Hwy intersection, go through the existing gas station, and continue across the rail road lines to connect more directly with Duluth Highway/SR 120. The impact to existing development and R/W costs were prohibitive for further consideration of this alternate.

Additional consideration was given to a “one-way pair” concept that would split SR 120 traffic into a one-way couple between the Hill Street and Main Street intersections. Westbound SR 120 traffic would be required to turn right at Main Street and continue north on Main Street and then turn left to continue west on Abbotts Bridge Rd. Eastbound SR 120 traffic would be required to turn right at Hill Street and continue over to West Lawrenceville Street in order to turn left and continue eastbound through Main Street. This alternative was eliminated from further consideration for the following reasons:

1. All EB SR 120 traffic is required to pass thru West Lawrenceville St which is in proximity to the Town Green and other “calmed” areas of downtown.
2. The concept considered would require at least one significantly wider RR crossing/gates and possibly would require two separate crossings.
3. Advance signing would be required to warn of the inability to continue westbound on West Lawrenceville Street past Main Street. This advance signing would be required near the SR 120/Buford Highway intersection, or potentially even east of that intersection. Given the congestion, signals, and other signing already required at the intersection, adding advance signing in this area is likely to be impractical.

A third alternate considered included a series of alternatives that would construct alignment change on SR 120 beginning at the SR 120 and Buford Highway intersection, crossing the RR at a skew, and curving into the Duluth Highway alignment to continue westbound. Minor differences in this alternative were evaluated for different intersection treatments at Main Street. The primary concern with this was the ability to permit a skewed RR crossing with NSRR and the significant impacts to existing property. Not only is the property adjacent to SR 120 impacted, but the existing properties along Main St are also affected by the alternative alignments and intersection treatments at SR 120.

A fourth alternate considered incorporating roundabout designs into the project for operational improvement at the intersections. In accordance with current GDOT policy, a roundabout analysis

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Project Number: CSCMQ-0006-00(839) and CSSTP-0007-00(100)
P. I. Number: 0006839 and 0007100
County: Gwinnett

was performed for the four (4) intersections within the project limits. Per roundabout analysis guidelines in place during March 2010, ADT thresholds and ADT% along the major road were analyzed for the existing and design year conditions. As documented in the traffic study provided and approved by GDOT, none of the candidate intersections satisfied the various screening requirements and further study of roundabout alternatives was terminated.

No-Build: The "no-build" alternate was considered and evaluated as part of the traffic capacity analysis and assessment of accident data. However, as demonstrated by the capacity analyses, the no-build alternative will not satisfy the purpose of the project, which is to improve the efficiency of vehicular and pedestrian operations along the SR 120 corridor. A "no-build" alternative would not address the operational improvements of the additional lanes between the SR 120/Hill St and Main St/W Lawrenceville Street intersections. A "no-build" alternative would also not provide the significant vehicular and pedestrian operation improvement realized by constructing a signal at the Main St/W Lawrenceville St intersection. Further, the "no-build" alternative would not create a continuous, efficient network of pedestrian facilities (updated pedestrian signalization and sidewalks) between Buford Highway and Hill Street.

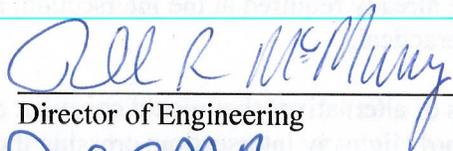
Comments: N/A

Attachments:

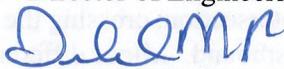
1. Layout Sheet
2. Detailed Cost Estimates:
 - a. Construction including Contingencies, Engineering and Inspection.
 - b. Right-of-Way
 - c. Utilities
3. Typical sections.
4. Traffic diagrams.
5. Signal Warrant Studies.
6. Minutes of Concept meetings.
7. PIOH Synopsis
8. PFA.
9. Completed Fuel/Asphalt price adjustment form.

Exempt projects

Concur:

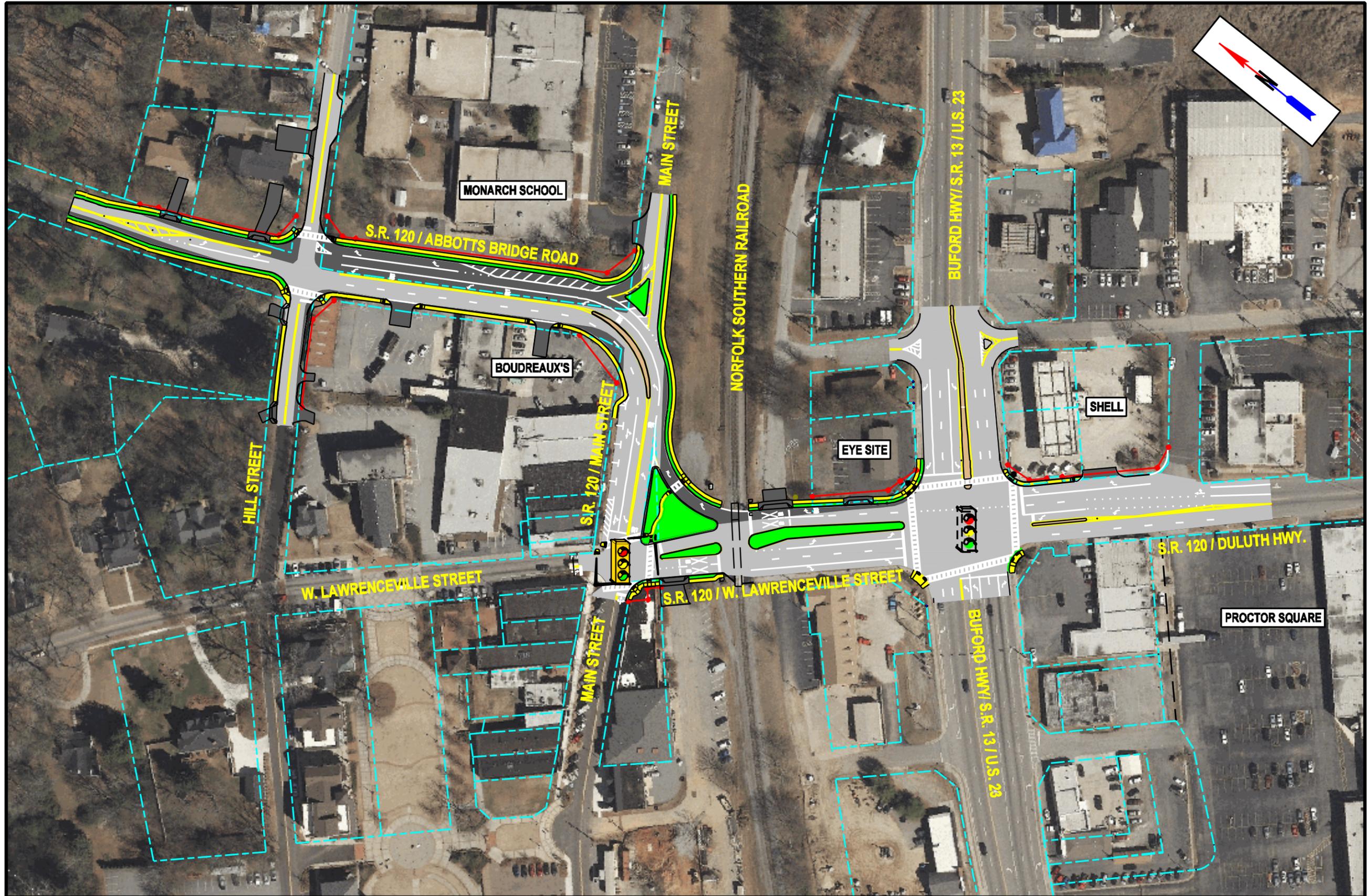

Director of Engineering

Approve:


Chief Engineer

Date: 9/30/2011

Attachment 1



STATE HIGHWAY AGENCY

DATE : 08/24/2011

PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0007100

SPEC YEAR: 01

DESCRIPTION: SR 120

ITEMS FOR JOB 0007100

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0002	109-0100		*\$*	PRICE ADJ - UNLEADED FUEL	1.000	0.00	0.00
0003	109-0200		*\$*	PRICE ADJ - DIESEL FUEL	1.000	0.00	0.00
0004	109-0300		*\$*	PRICE ADJ - ASPHALT CEMENT	1.000	0.00	0.00
0005	150-1000		LS	TRAFFIC CONTROL - 0007100	1.000	70000.00	70000.00
0010	210-0100		LS	GRADING COMPLETE - 0007100	1.000	100000.00	100000.00
0020	310-1101		TN	GR AGGR BASE CRS, INCL MATL	0.000		
0025	402-1812		TN	RECYL AC LEVELING, INC BM&HL	0.000		
0030	402-3113		TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	0.000		
0035	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	0.000		
0040	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	0.000		
0045	413-1000		GL	BITUM TACK COAT	0.000		
0048	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	0.000		
0050	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	50.000	37.11	1855.71
0055	441-0104		SY	CONC SIDEWALK, 4 IN	209.000	32.44	6781.96
0060	441-0740		SY	CONC MEDIAN, 4 IN	391.000	27.56	10778.91
0065	441-4020		SY	CONC VALLEY GUTTER, 6 IN	91.000	34.43	3133.36
0070	441-5002		LF	CONC HEADER CURB, 6", TP 2	459.000	13.26	6087.85
0075	441-5008		LF	CONC HEADER CURB, 6 IN, TP 7	0.000		
0080	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	0.000		
0085	444-1000		LF	SAWED JTS IN EXIST PVMTS - PCC	165.000	4.11	678.57
0090	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	430.000	7.07	3042.97
0095	634-1200		EA	RIGHT OF WAY MARKERS	0.000		
0100	163-0232		AC	TEMPORARY GRASSING	1.000	181.46	181.47
0105	163-0240		TN	MULCH	10.000	305.41	3054.17
0110	163-0300		EA	CONSTRUCTION EXIT	1.000	1291.22	1291.23
0115	163-0528		LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	0.000		
0120	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	6.000	155.20	931.20
0125	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	20.000	1.25	25.15
0130	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	0.000		
0135	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	0.000		
0140	165-0101		EA	MAINT OF CONST EXIT	1.000	492.40	492.41
0145	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	6.000	44.95	269.75
0150	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	0.000		

0155	167-1500	MO	WATER QUALITY INSPECTIONS	0.000		
0160	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	40.000	3.63	145.51
0165	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	0.000		
0170	550-1150	LF	STM DR PIPE 15",H 1-10	160.000	23.21	3714.68
0175	550-1180	LF	STM DR PIPE 18",H 1-10	160.000	31.01	4963.10
0180	550-1240	LF	STM DR PIPE 24",H 1-10	0.000		
0185	550-1600	LF	STM DR PIPE 60",H 1-10	0.000		
0190	550-2180	LF	SIDE DR PIPE 18",H 1-10	0.000		
0195	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	0.000		

STATE HIGHWAY AGENCY

DATE : 08/24/2011
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JOB ESTIMATE REPORT

0200	550-4224	EA	FLARED END SECT 24 IN, ST DR	0.000		
0205	668-1100	EA	CATCH BASIN, GP 1	5.000	2174.10	10870.54
0210	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	0.000		
0215	668-2100	EA	DROP INLET, GP 1	0.000		
0220	668-4300	EA	STORM SEW MANHOLE, TP 1	2.000	1776.56	3553.14
0225	668-4311	LF	ST SEW MANHOLE,TP 1,A DEP,CL 1	1.000	197.94	197.94
0230	668-4400	EA	STORM SEW MANHOLE, TP 2	0.000		
0235	668-4411	LF	ST SEW MANHOLE,TP 2,A DEP,CL 1	0.000		
0240	009-3500	LS	MISC LANDSCAPE ITEMS	1.000	50000.00	50000.00
0245	700-9300	SY	SOD	180.000	4.78	861.42
0250	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	0.000		
0255	603-7000	SY	PLASTIC FILTER FABRIC	0.000		
0260	700-6910	AC	PERMANENT GRASSING	1.000	523.79	523.79
0265	700-7000	TN	AGRICULTURAL LIME	2.000	53.87	107.74
0270	700-7010	GL	LIQUID LIME	3.000	21.41	64.26
0275	700-8000	TN	FERTILIZER MIXED GRADE	1.000	422.04	422.05
0280	700-8100	LB	FERTILIZER NITROGEN CONTENT	50.000	2.32	116.15
0285	716-1000	SY	EROSION CONTROL MATS,WATERWAYS	0.000		
0290	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	0.000		
0295	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	0.000		
0300	636-2070	LF	GALV STEEL POSTS, TP 7	0.000		
0305	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 0007100	1.000	150000.00	150000.00
0315	653-0100	EA	THERM PVMT MARK, RR/HWY X SYM	0.000		
0320	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	0.000		
0325	653-0130	EA	THERM PVMT MARK, ARROW, TP 3	0.000		
0330	653-0210	EA	THERM PVMT MARK, WORD, TP 1	0.000		
0335	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	0.000		
0340	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	0.000		
0345	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	0.000		
0350	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	0.000		
0355	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	0.000		
0360	653-6004	SY	THERM TRAF STRIPING, WHITE	0.000		
0365	653-6006	SY	THERM TRAF STRIPING, YELLOW	0.000		

0370	654-1001	EA	RAISED PVMT MARKERS TP 1	0.000
0375	654-1003	EA	RAISED PVMT MARKERS TP 3	0.000

ITEM TOTAL	434145.01
INFLATED ITEM TOTAL	434145.03

TOTALS FOR JOB 0007100

ESTIMATED COST:	434145.03
CONTINGENCY PERCENT (5.0):	21707.25
ESTIMATED TOTAL:	455852.28

STATE HIGHWAY AGENCY

DATE : 06/07/2011

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JOB ESTIMATE REPORT

JOB NUMBER : 0006839

SPEC YEAR: 01

DESCRIPTION: SR 120

ITEMS FOR JOB 0006839

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0002	109-0100		*\$*	PRICE ADJ - UNLEADED FUEL	1.000	0.00	0.00
0003	109-0200		*\$*	PRICE ADJ - DIESEL FUEL	1.000	0.00	0.00
0004	109-0300		*\$*	PRICE ADJ - ASPHALT CEMENT	1.000	0.00	0.00
0005	150-1000		LS	TRAFFIC CONTROL - 0006839	1.000	50000.00	50000.00
0010	210-0100		LS	GRADING COMPLETE - 0006839	1.000	200000.00	200000.00
0020	310-1101		TN	GR AGGR BASE CRS, INCL MATL	0.000		
0025	402-1812		TN	RECYL AC LEVELING, INC BM&HL	0.000		
0030	402-3113		TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	0.000		
0035	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	0.000		
0040	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	0.000		
0045	413-1000		GL	BITUM TACK COAT	0.000		
0048	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	0.000		
0050	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	0.000		
0055	441-0104		SY	CONC SIDEWALK, 4 IN	1239.000	30.00	37170.00
0060	441-0740		SY	CONC MEDIAN, 4 IN	824.000	26.46	21803.13
0065	441-4020		SY	CONC VALLEY GUTTER, 6 IN	0.000		
0070	441-5002		LF	CONC HEADER CURB, 6", TP 2	0.000		
0075	441-5008		LF	CONC HEADER CURB, 6 IN, TP 7	0.000		
0080	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	0.000		
0085	444-1000		LF	SAWED JTS IN EXIST PVMTS - PCC	0.000		
0090	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	0.000		
0095	634-1200		EA	RIGHT OF WAY MARKERS	0.000		
0100	163-0232		AC	TEMPORARY GRASSING	2.000	166.69	333.40
0105	163-0240		TN	MULCH	47.000	235.06	11047.95
0110	163-0300		EA	CONSTRUCTION EXIT	0.000		
0115	163-0528		LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	21.000	4.31	90.63
0120	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	0.000		
0125	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	165.000	0.92	153.00
0130	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	208.000	1.04	217.27
0135	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	21.000	2.23	46.84
0140	165-0101		EA	MAINT OF CONST EXIT	0.000		
0145	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	0.000		
0150	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2.000	525.82	1051.64

Attachment 2 (Cont.)

0155	167-1500	MO	WATER QUALITY INSPECTIONS	12.000	430.01	5160.16
0160	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	330.000	2.77	915.16
0165	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	415.000	3.42	1421.63
0170	550-1150	LF	STM DR PIPE 15",H 1-10	0.000		
0175	550-1180	LF	STM DR PIPE 18",H 1-10	0.000		
0180	550-1240	LF	STM DR PIPE 24",H 1-10	0.000		
0185	550-1600	LF	STM DR PIPE 60",H 1-10	0.000		
0190	550-2180	LF	SIDE DR PIPE 18",H 1-10	0.000		
0195	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	0.000		

STATE HIGHWAY AGENCY

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JOB ESTIMATE REPORT

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0200	550-4224	EA	FLARED END SECT 24 IN, ST DR	0.000		
0205	668-1100	EA	CATCH BASIN, GP 1	0.000		
0210	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	0.000		
0215	668-2100	EA	DROP INLET, GP 1	0.000		
0220	668-4300	EA	STORM SEW MANHOLE, TP 1	0.000		
0225	668-4311	LF	ST SEW MANHOLE,TP 1,A DEP,CL 1	0.000		
0230	668-4400	EA	STORM SEW MANHOLE, TP 2	0.000		
0235	668-4411	LF	ST SEW MANHOLE,TP 2,A DEP,CL 1	0.000		
0240	009-3500	LS	MISC LANDSCAPE ITEMS	1.000	100000.00	100000.00
0245	700-9300	SY	SOD	554.000	4.38	2430.26
0250	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	0.000		
0255	603-7000	SY	PLASTIC FILTER FABRIC	0.000		
0260	700-6910	AC	PERMANENT GRASSING	3.000	488.24	1464.75
0265	700-7000	TN	AGRICULTURAL LIME	6.000	51.50	309.04
0270	700-7010	GL	LIQUID LIME	7.000	20.68	144.79
0275	700-8000	TN	FERTILIZER MIXED GRADE	1.000	422.04	422.05
0280	700-8100	LB	FERTILIZER NITROGEN CONTENT	137.000	2.13	292.56
0285	716-1000	SY	EROSION CONTROL MATS,WATERWAYS	0.000		
0290	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	0.000		
0295	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	0.000		
0300	636-2070	LF	GALV STEEL POSTS, TP 7	0.000		
0310	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 0006839	1.000	150000.00	150000.00
0315	653-0100	EA	THERM PVMT MARK, RR/HWY X SYM	0.000		
0320	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	0.000		
0325	653-0130	EA	THERM PVMT MARK, ARROW, TP 3	0.000		
0330	653-0210	EA	THERM PVMT MARK, WORD , TP 1	0.000		
0335	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	0.000		
0340	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	0.000		
0345	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	0.000		
0350	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	0.000		
0355	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	0.000		
0360	653-6004	SY	THERM TRAF STRIPING, WHITE	0.000		
0365	653-6006	SY	THERM TRAF STRIPING, YELLOW	0.000		

Attachment 2 (Cont.)

0370	654-1001	EA	RAISED PVMT MARKERS TP 1	0.000
0375	654-1003	EA	RAISED PVMT MARKERS TP 3	0.000

ITEM TOTAL	584474.24
INFLATED ITEM TOTAL	584474.26

TOTALS FOR JOB 0006839

ESTIMATED COST:	584474.26
CONTINGENCY PERCENT (5.0):	29223.71
ESTIMATED TOTAL:	613697.97

STATE HIGHWAY AGENCY

DATE : 08/24/2011
PAGE : 1

JOB ESTIMATE REPORT

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JOB NUMBER : SPLOST_LOCAL SPEC YEAR: 01
DESCRIPTION: SR 120

ITEMS FOR JOB SPLOST_LOCAL

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0002	109-0100		*\$*	PRICE ADJ - UNLEADED FUEL	1.000	9357.00	9357.00
0003	109-0200		*\$*	PRICE ADJ - DIESEL FUEL	1.000	34168.00	34168.00
0004	109-0300		*\$*	PRICE ADJ - ASPHALT CEMENT	1.000	79616.00	79616.00
0005	150-1000		LS	TRAFFIC CONTROL - SPLOST LOCAL	1.000	50000.00	50000.00
0010	210-0100		LS	GRADING COMPLETE - SPLOST LOCAL	1.000	75000.00	75000.00
0015	232-0001		LS	RAILROAD CONSTRUCTION	1.000	500000.00	500000.00
0020	310-1101		TN	GR AGGR BASE CRS, INCL MATL	2875.000	17.02	48944.72
0025	402-1812		TN	RECYL AC LEVELING, INC BM&HL	85.000	76.44	6497.60
0030	402-3113		TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	1490.000	69.33	103314.44
0035	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	857.000	64.20	55019.50
0040	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	429.000	70.83	30387.50
0045	413-1000		GL	BITUM TACK COAT	776.000	2.70	2098.13
0048	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	14162.000	2.27	32250.41
0050	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	486.000	32.70	15894.65
0055	441-0104		SY	CONC SIDEWALK, 4 IN	0.000		
0060	441-0740		SY	CONC MEDIAN, 4 IN	352.000	27.72	9760.02
0065	441-4020		SY	CONC VALLEY GUTTER, 6 IN	179.000	33.45	5987.66
0070	441-5002		LF	CONC HEADER CURB, 6", TP 2	2755.000	10.84	29888.86
0075	441-5008		LF	CONC HEADER CURB, 6 IN, TP 7	0.000		
0080	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	620.000	13.73	8517.44
0085	444-1000		LF	SAWED JTS IN EXIST PVMTS - PCC	225.000	3.93	885.23
0090	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	1400.000	5.14	7209.80
0095	634-1200		EA	RIGHT OF WAY MARKERS	28.000	92.92	2601.80
0100	163-0232		AC	TEMPORARY GRASSING	0.000		
0105	163-0240		TN	MULCH	0.000		
0110	163-0300		EA	CONSTRUCTION EXIT	3.000	1003.46	3010.40
0115	163-0528		LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	0.000		
0120	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	30.000	147.59	4427.98
0125	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	0.000		
0130	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	0.000		
0135	165-0041		LF	MAINT OF CHECK DAMS - ALL TYPES	0.000		
0140	165-0101		EA	MAINT OF CONST EXIT	3.000	464.24	1392.75
0145	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	30.000	44.95	1348.76
0150	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	0.000		
0155	167-1500		MO	WATER QUALITY INSPECTIONS	0.000		

0160	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	0.000		
0165	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	0.000		
0170	550-1150	LF	STM DR PIPE 15",H 1-10	0.000		
0175	550-1180	LF	STM DR PIPE 18",H 1-10	840.000	28.92	24298.30
0180	550-1240	LF	STM DR PIPE 24",H 1-10	660.000	36.47	24070.29
0185	550-1600	LF	STM DR PIPE 60",H 1-10	172.000	107.15	18431.31
0190	550-2180	LF	SIDE DR PIPE 18",H 1-10	66.000	29.21	1928.37

STATE HIGHWAY AGENCY

DATE : 08/24/2011
PAGE : 2

JOB ESTIMATE REPORT

0195	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	4.000	408.23	1632.95
0200	550-4224	EA	FLARED END SECT 24 IN, ST DR	1.000	553.92	553.93
0205	668-1100	EA	CATCH BASIN, GP 1	22.000	2000.26	44005.93
0210	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	6.000	179.76	1078.59
0215	668-2100	EA	DROP INLET, GP 1	3.000	1687.95	5063.85
0220	668-4300	EA	STORM SEW MANHOLE, TP 1	4.000	1720.88	6883.54
0225	668-4311	LF	ST SEW MANHOLE,TP 1,A DEP,CL 1	1.000	197.94	197.94
0230	668-4400	EA	STORM SEW MANHOLE, TP 2	2.000	2704.71	5409.43
0235	668-4411	LF	ST SEW MANHOLE,TP 2,A DEP,CL 1	15.000	229.15	3437.27
0240	009-3500	LS	MISC LANDSCAPE ITEMS	1.000	75000.00	75000.00
0245	700-9300	SY	SOD	744.000	4.28	3190.08
0250	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	50.000	35.91	1795.82
0255	603-7000	SY	PLASTIC FILTER FABRIC	50.000	3.35	167.87
0260	700-6910	AC	PERMANENT GRASSING	0.000		
0265	700-7000	TN	AGRICULTURAL LIME	0.000		
0270	700-7010	GL	LIQUID LIME	0.000		
0275	700-8000	TN	FERTILIZER MIXED GRADE	0.000		
0280	700-8100	LB	FERTILIZER NITROGEN CONTENT	0.000		
0285	716-1000	SY	EROSION CONTROL MATS,WATERWAYS	50.000	2.15	107.99
0290	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	170.000	13.55	2304.57
0295	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	345.000	18.82	6494.46
0300	636-2070	LF	GALV STEEL POSTS, TP 7	800.000	7.18	5744.16
0305	647-1000	LS	TRAF SIGNAL INSTALLATION NO - SPLOST LOCAL	1.000	0.00	0.00
0310	647-1000	LS	TRAF SIGNAL INSTALLATION NO - SPLOST LOCAL	1.000	0.00	0.00
0315	653-0100	EA	THERM PVMT MARK, RR/HWY X SYM	4.000	383.18	1532.75
0320	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	27.000	69.41	1874.27
0325	653-0130	EA	THERM PVMT MARK, ARROW, TP 3	4.000	80.49	321.99
0330	653-0210	EA	THERM PVMT MARK, WORD , TP 1	5.000	104.41	522.06
0335	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	5950.000	0.38	2280.99
0340	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	4650.000	0.35	1634.34
0345	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	390.000	3.78	1474.54
0350	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	2250.000	1.74	3922.65
0355	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	2700.000	0.20	559.79
0360	653-6004	SY	THERM TRAF STRIPING, WHITE	400.000	2.93	1173.46
0365	653-6006	SY	THERM TRAF STRIPING, YELLOW	220.000	2.99	657.85
0370	654-1001	EA	RAISED PVMT MARKERS TP 1	40.000	4.54	181.70
0375	654-1003	EA	RAISED PVMT MARKERS TP 3	90.000	3.80	342.34

ITEM TOTAL 1365854.03
INFLATED ITEM TOTAL 1365854.03

TOTALS FOR JOB SPLOST_LOCAL

ESTIMATED COST: 1365854.03
CONTINGENCY PERCENT (5.0): 68292.70

Attachment 2 (Cont.)

Preliminary Right of Way Cost Estimate

Date: April 7, 2011

Project: SR 120 Realignment, Gateways and Sidewalks

P.I. Number: 0006839 & 0007100

Required R/W / Permanent & Temporary Easements: 25,422 s.f. // 34,762 s.f. No. Parcels: 11

Project Termini: Intersection of SR13/US 23 Buford Highway and SR120 Duluth Highway then heading west along SR120 Duluth Highway to its intersection with Hill Street.

Project Description: Widening and operational improvements of SR120 Duluth Highway, pedestrian facility improvements and sidewalks.

Land:Commercial 21,924 s.f. @ \$ 8.00 /s.f. = \$ 175,392

Industrial 0 s.f. @ \$ 8.00 /s.f. = \$ 0

Residential 3,498 s.f. @ \$ 8.00 /s.f. = \$ 27,984

Agricultural 0 s.f. @ \$ 8.00 /s.f. = \$ 0

Easements:12,845 s.f. @ \$ 8.00 /s.f. x 50% = \$ 51,380

0 s.f. @ \$ 8.00 /s.f. x 50% = \$ 0

11,917 s.f. @ \$ 8.00 /s.f. x 50% = \$ 47,668

0 s.f. @ \$ 8.00 /s.f. x 50% = \$ 0

TOTALS \$203,376\$99,048**GRAND TOTAL \$302,424****Improvements: NA****Relocation:**

Commercial @ \$25,000/parcel = \$25,000

Residential @ \$40,000/parcel = \$0

TOTAL\$25,000**Damages: Proximity** \$0

Consequential \$0

Cost to Cure \$0

TOTAL

\$0

SUB-TOTAL:\$ 0

Net Cost		\$302,424
Scheduling Contingency	55 %	\$166,333
Adm/Court Cost	60 %	\$281,254
TOTAL		\$750,011

Total Cost**\$750,011**

Prepared By:



Reviewed / Approved:

Howard P. Copeland

R/W Administrator

Note: Accuracy of estimate is the sole responsibility of the Preparer.

Note: The Market Appreciation (40%) is not included in this Preliminary Cost Estimate.

REVISED: 2-8-08



FILE CSCMQ-0006-00(839) & CSSTP-0007-00(100)
P.I. No.: 0006830 & 0007100
Description: SR 120 Gateways and Sidewalks

OFFICE GDOT District One, Gainesville

DATE September 9, 2011

FROM City of Duluth

TO Neil Kantner, P. E.
Project Manager

SUBJECT CONCEPT UTILITY COST (ESTIMATE)

As required by PDP process, we are furnishing you with a Concept-Level Utility Cost estimate for known utilities with facilities potentially located within the project limits.

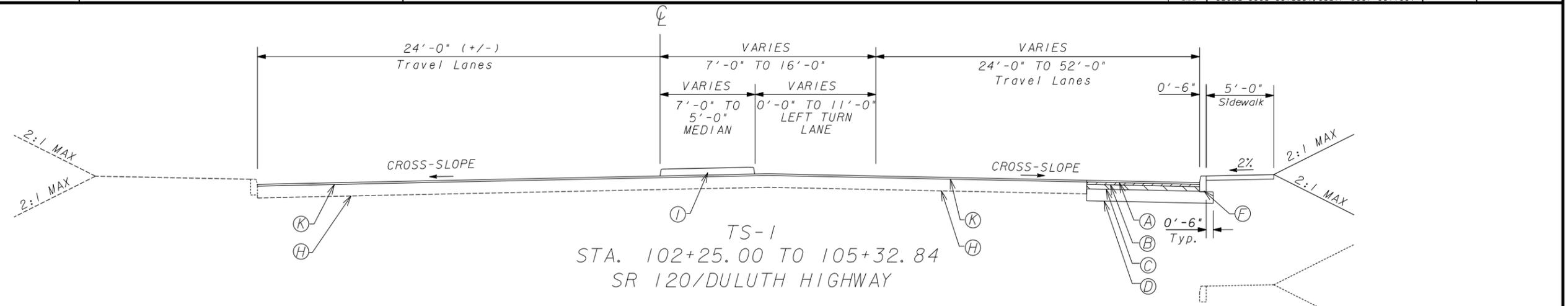
FACILITY OWNER	NON-REIMB	REIMB
Electricity -- Georgia Power	\$250,000.00	\$0
Water & Sewer -- Gwinnett County DWR	\$150,000.00	\$0
Telephone -- Bellsouth	\$125,000.00	\$0
Cable -- Charter Communications	\$125,000.00	\$0
TOTAL	\$650,000.00	\$0

If you have any questions, please contact Melissa Muscato at 678-957-7284.

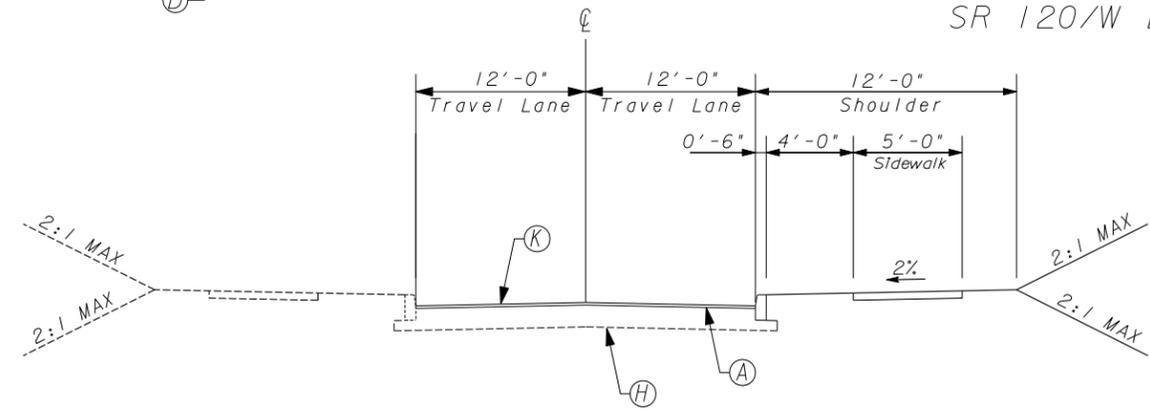
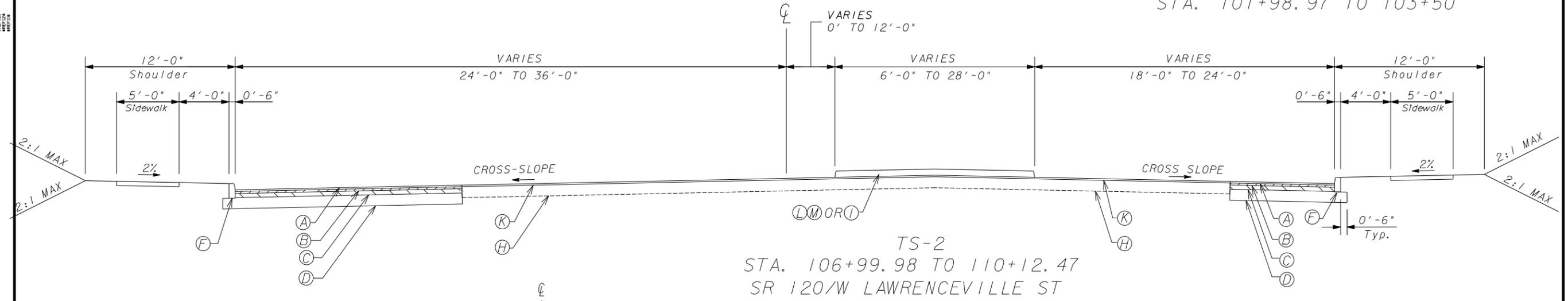
Approvals,

Concur: _____
State Utilities Engineer

DATE*** \$USER\$	TIME\$\$\$ \$PRF\$	\$DGN\$	STATE GA	PROJECT NUMBER CSCM0-0006-00(839), CSSTP-0007-00(100)	SHEET NO.	TOTAL SHEETS
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STA. 101+98.97 TO 103+50



- REQUIRED PAVEMENT
- (A) RECYCLED ASPHALTIC CONCRETE 12.5 mm SUPERPAVE (165 LB/SY)
 - (B) RECYCLED ASPHALTIC CONCRETE 19 mm SUPERPAVE (220 LB/SY)
 - (C) RECYCLED ASPHALTIC CONCRETE 25 mm SUPERPAVE (440 LB/SY)
 - (D) GRADED AGGREGATE BASE, 12"
 - (E) CONCRETE HEADER CURB, 6 IN., TYPE 2 (GA STD 9032B)
 - (G) ASPHALTIC CONC. LEVELING
 - (H) EXISTING PAVEMENT (TO BE RETAINED)
 - (I) CONCRETE MEDIAN
 - (K) MILL AND INLAY
 - (L) CONCRETE HEADER CURB, 6 IN., TYPE 7 (GA STD 9032B)
 - (M) LANDSCAPING/SODDING

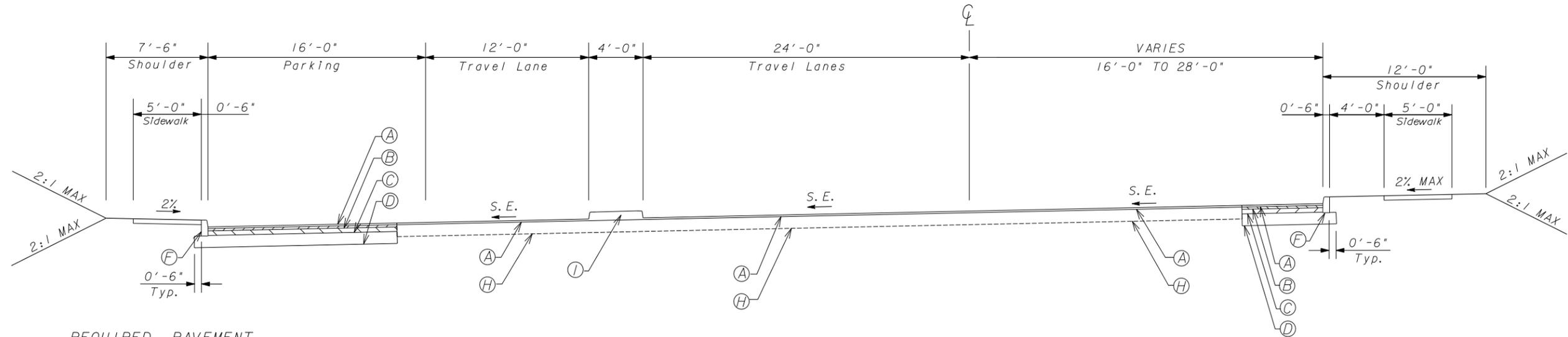
Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
Suite 600, 3169 Holcomb Bridge Road
Norcross, Georgia 30071

REVISION DATES		

CITY OF DULUTH
TYPICAL SECTIONS
SR 120 REALIGNMENT

DRAWING No.
5-01

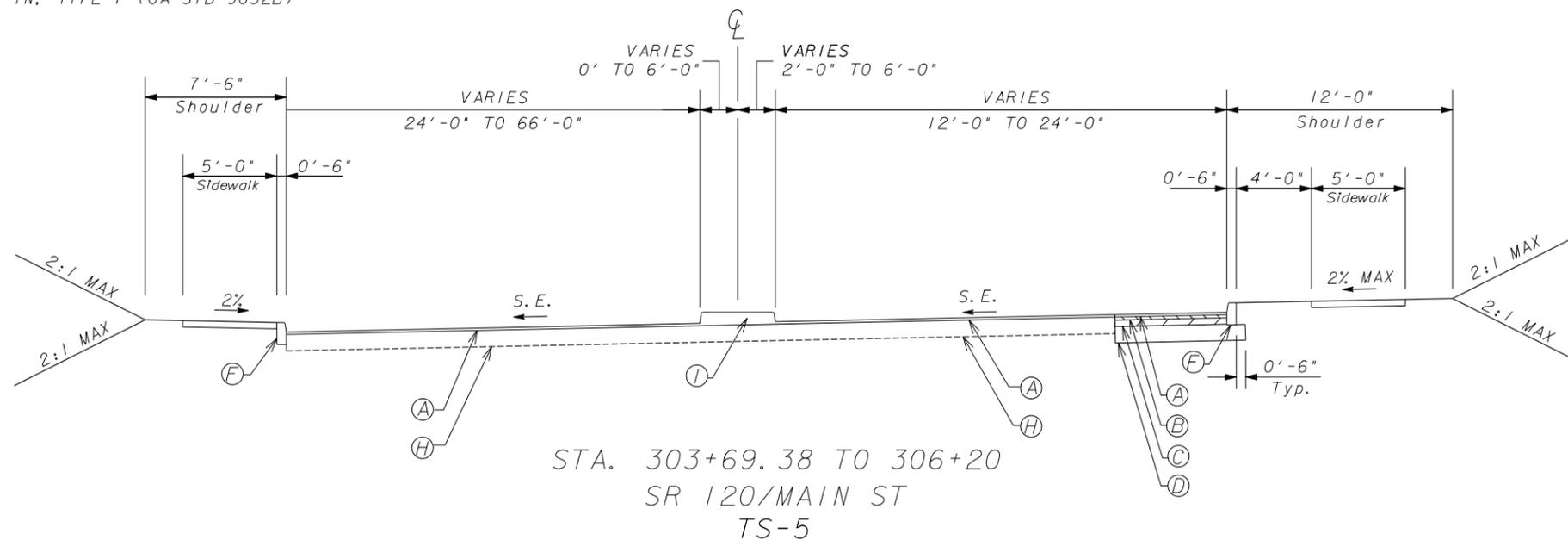
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REQUIRED PAVEMENT

- (A) RECYCLED ASPHALTIC CONCRETE 12.5 mm SUPERPAVE (165 LB/SY)
- (B) RECYCLED ASPHALTIC CONCRETE 19 mm SUPERPAVE (220 LB/SY)
- (C) RECYCLED ASPHALTIC CONCRETE 25 mm SUPERPAVE (440 LB/SY)
- (D) GRADED AGGREGATE BASE, 12"
- (F) CONCRETE HEADER CURB, 6 IN. TYPE 2 (GA STD 9032B)
- (G) ASPHALTIC CONC. LEVELING
- (H) EXISTING PAVEMENT (TO BE RETAINED)
- (I) CONCRETE MEDIAN
- (K) MILL AND INLAY
- (L) CONCRETE HEADER CURB, 6 IN. TYPE 7 (GA STD 9032B)
- (M) LANDSCAPING/SODDING

STA. 301+23.47 TO 303+69.36
SR 120/MAIN ST
TS-4



STA. 303+69.38 TO 306+20
SR 120/MAIN ST
TS-5

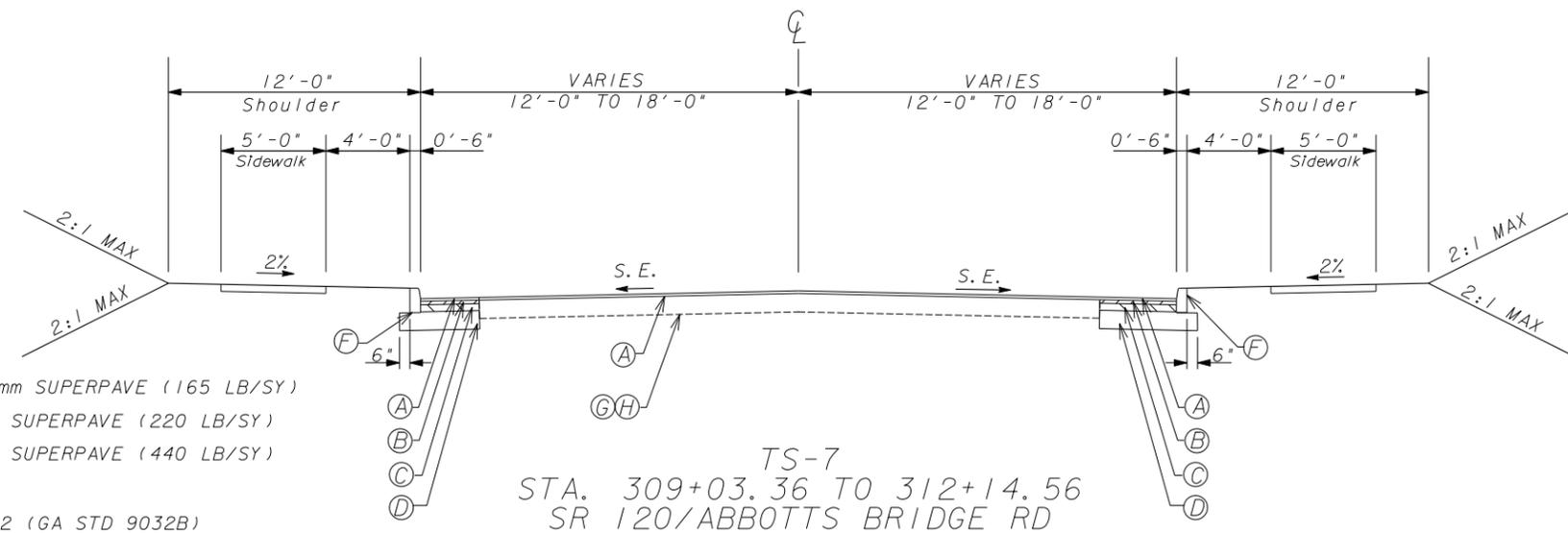
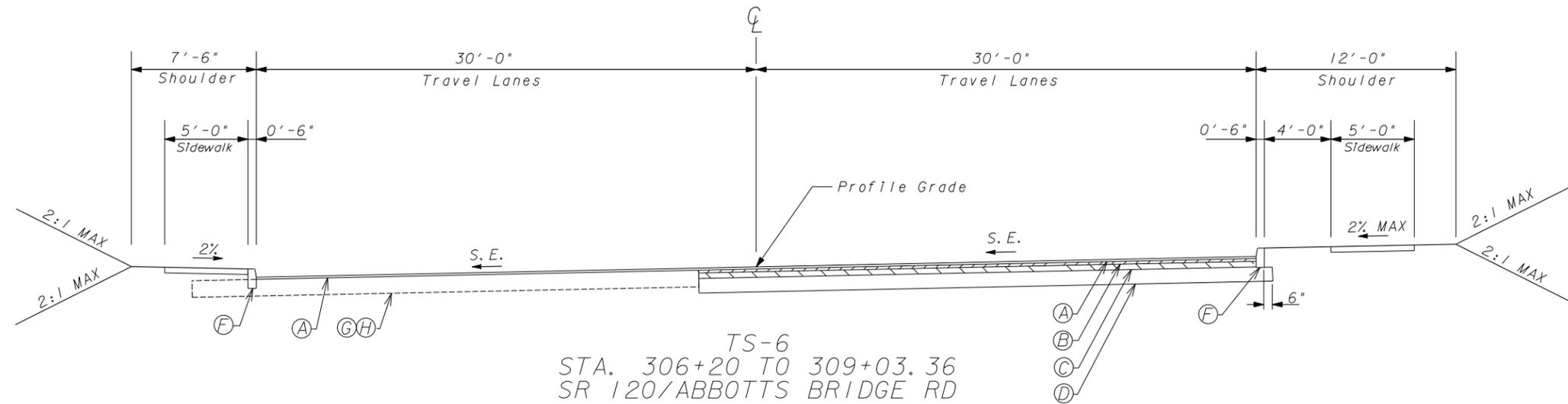
**Kimley-Horn
and Associates, Inc.**
Engineering, Planning, and Environmental Consultants
Suite 600, 3169 Holcomb Bridge Road
Norcross, Georgia 30071

REVISION DATES

CITY OF DULUTH
TYPICAL SECTIONS
SR 120 REALIGNMENT

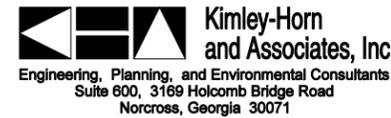
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5-02

DATE*** \$USER\$	TIME*** \$PRF\$	\$PENTABLE**	\$DGN\$	STATE GA	PROJECT NUMBER CSCMQ-0006-00(839), CSSTP-0007-00(100)	SHEET NO.	TOTAL SHEETS
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REQUIRED PAVEMENT

- (A) RECYCLED ASPHALTIC CONCRETE 12.5 mm SUPERPAVE (165 LB/SY)
- (B) RECYCLED ASPHALTIC CONCRETE 19 mm SUPERPAVE (220 LB/SY)
- (C) RECYCLED ASPHALTIC CONCRETE 25 mm SUPERPAVE (440 LB/SY)
- (D) GRADED AGGREGATE BASE, 12"
- (E) CONCRETE HEADER CURB, 6 IN, TYPE 2 (GA STD 9032B)
- (G) ASPHALTIC CONC. LEVELING
- (H) EXISTING PAVEMENT (TO BE RETAINED)
- (I) CONCRETE MEDIAN
- (K) MILL AND INLAY
- (L) CONCRETE HEADER CURB, 6 IN, TYPE 7 (GA STD 9032B)
- (M) LANDSCAPING/SODDING



REVISION DATES

CITY OF DULUTH
TYPICAL SECTIONS
SR 120 REALIGNMENT

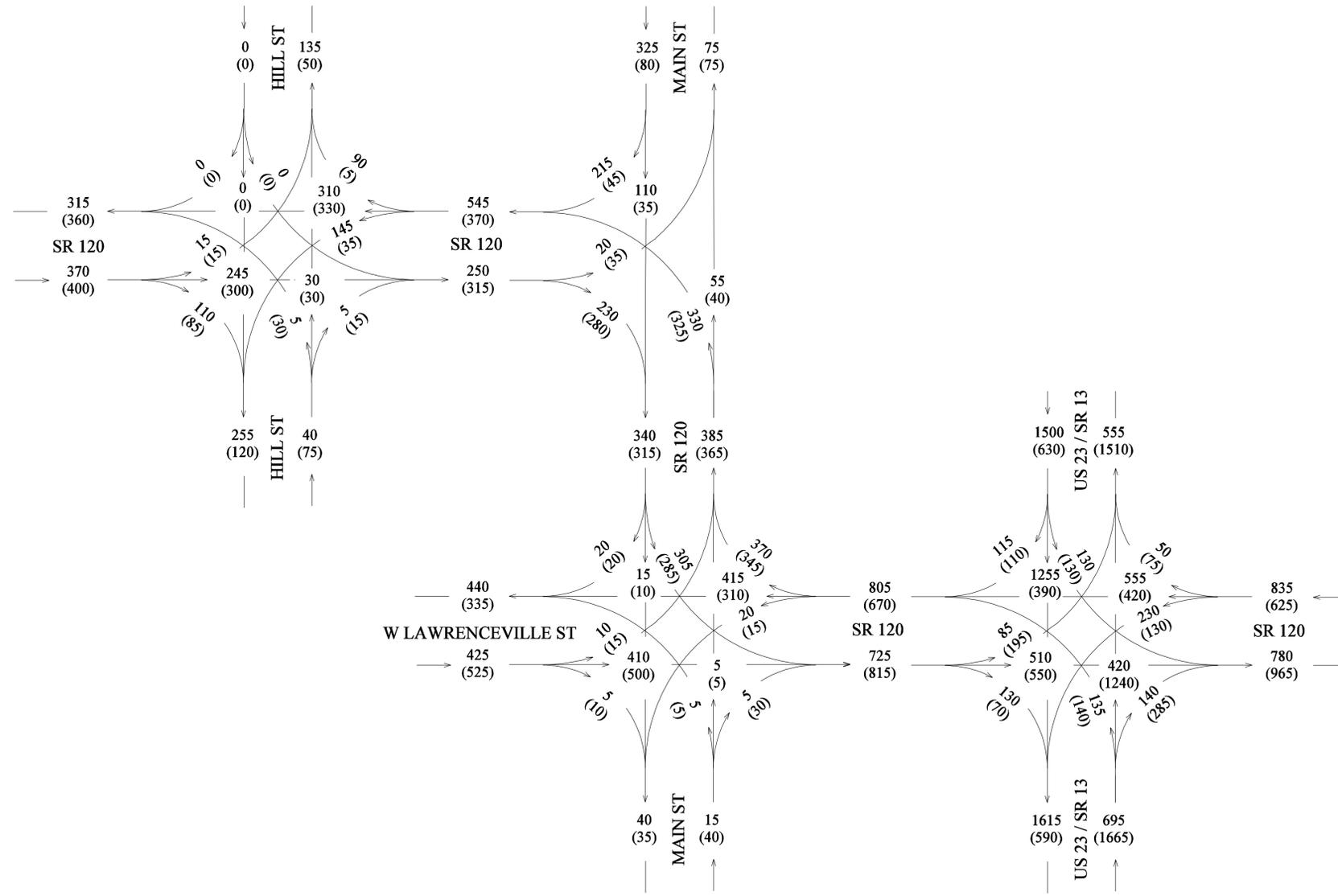
DRAWING No.
5-03

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		

DHV TRAFFIC VOLUMES
 EXISTING YEAR 2010
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)



PEAK HOUR
 TRUCKS = 7.6%

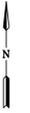


GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

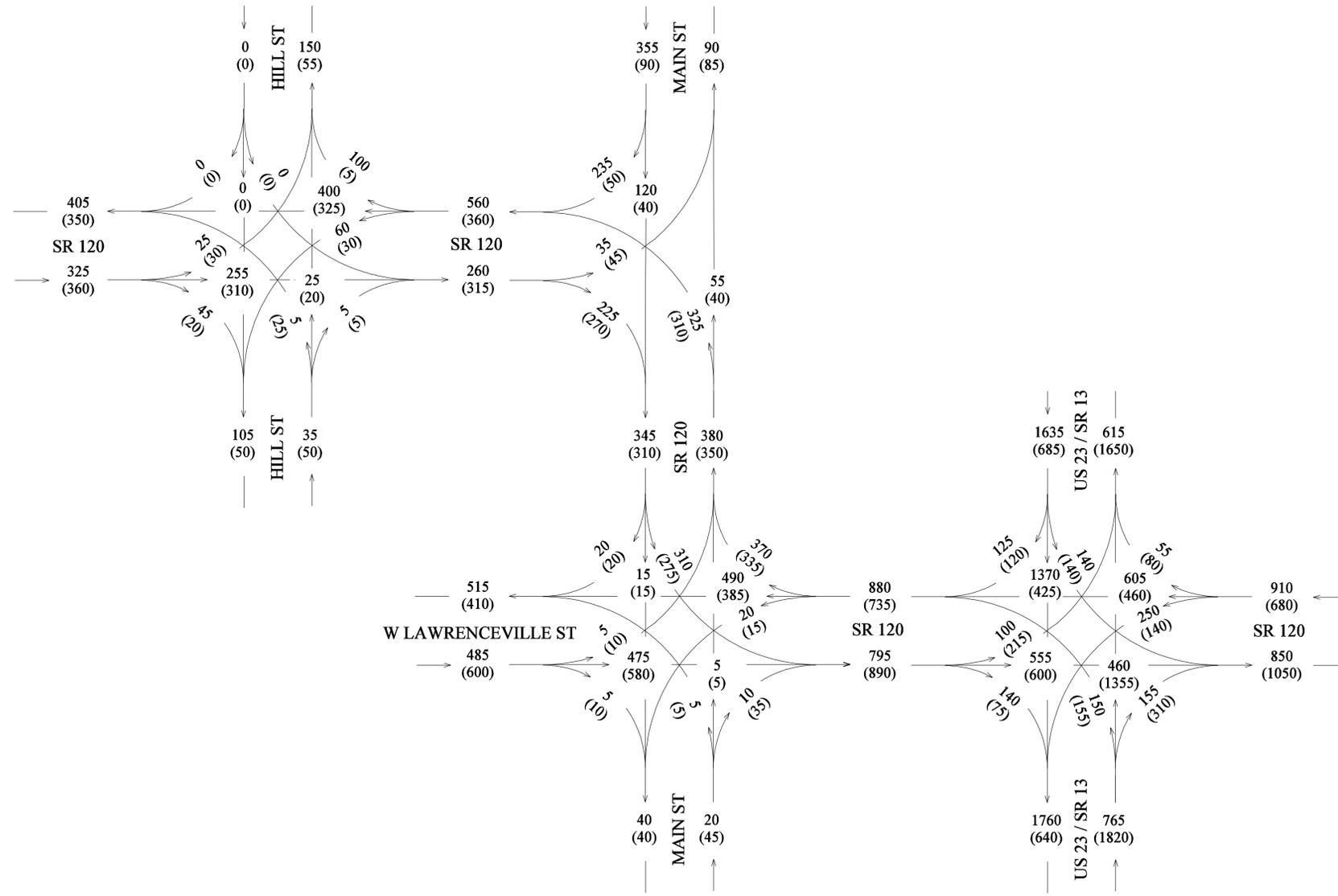
REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
09/15/09		OFFICE: URBAN DESIGN	
		SR 120	
		DRAWING No. 4	

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		

DHV TRAFFIC VOLUMES
 NO-BUILD BASE YEAR 2013
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)



PEAK HOUR
 TRUCKS = 7.6%



GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

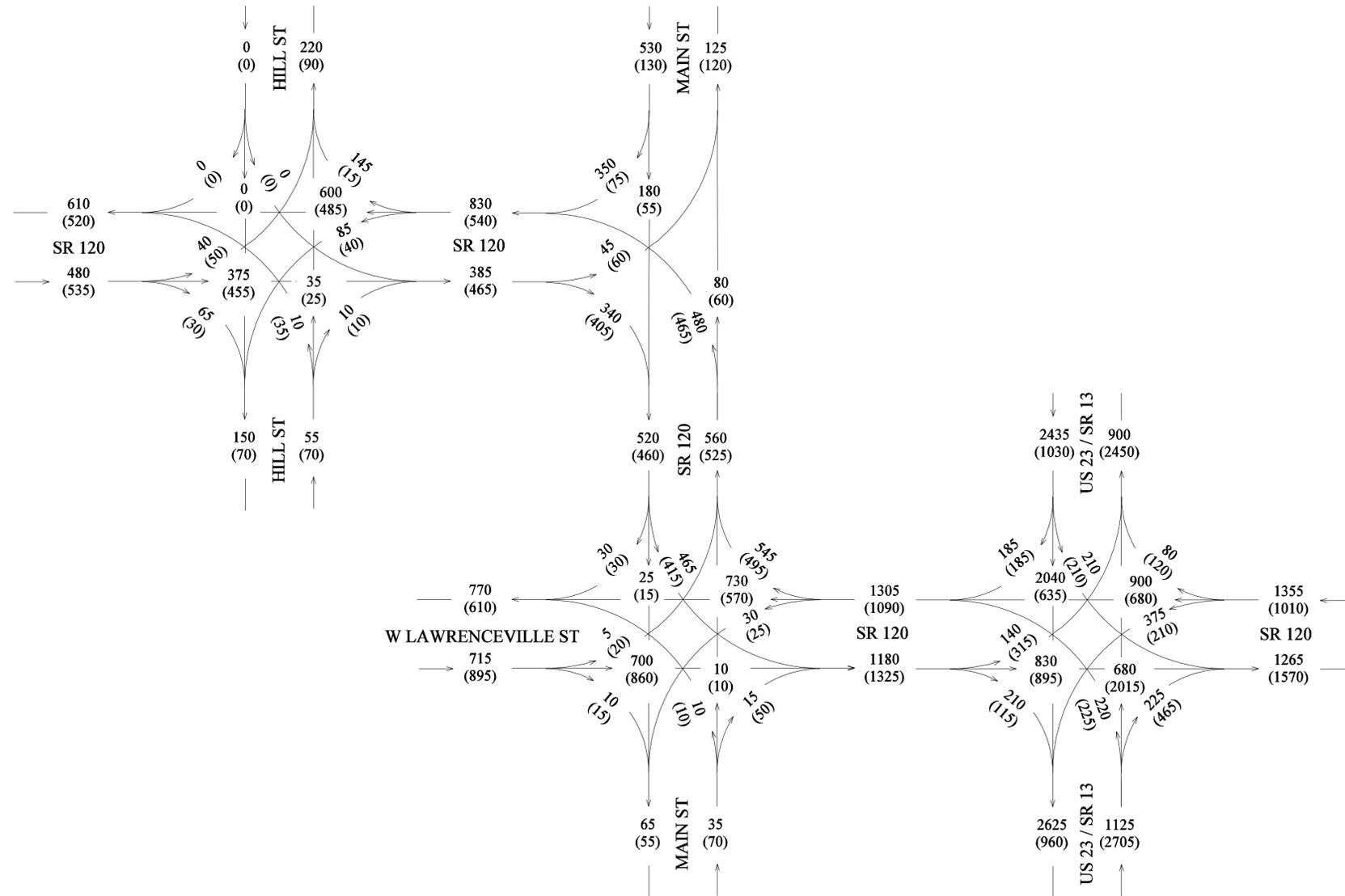
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09/15/09		OFFICE: URBAN DESIGN	
		SR 120	
		DRAWING No. 5	

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		

DHV TRAFFIC VOLUMES
 NO-BUILD DESIGN YEAR 2033
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)



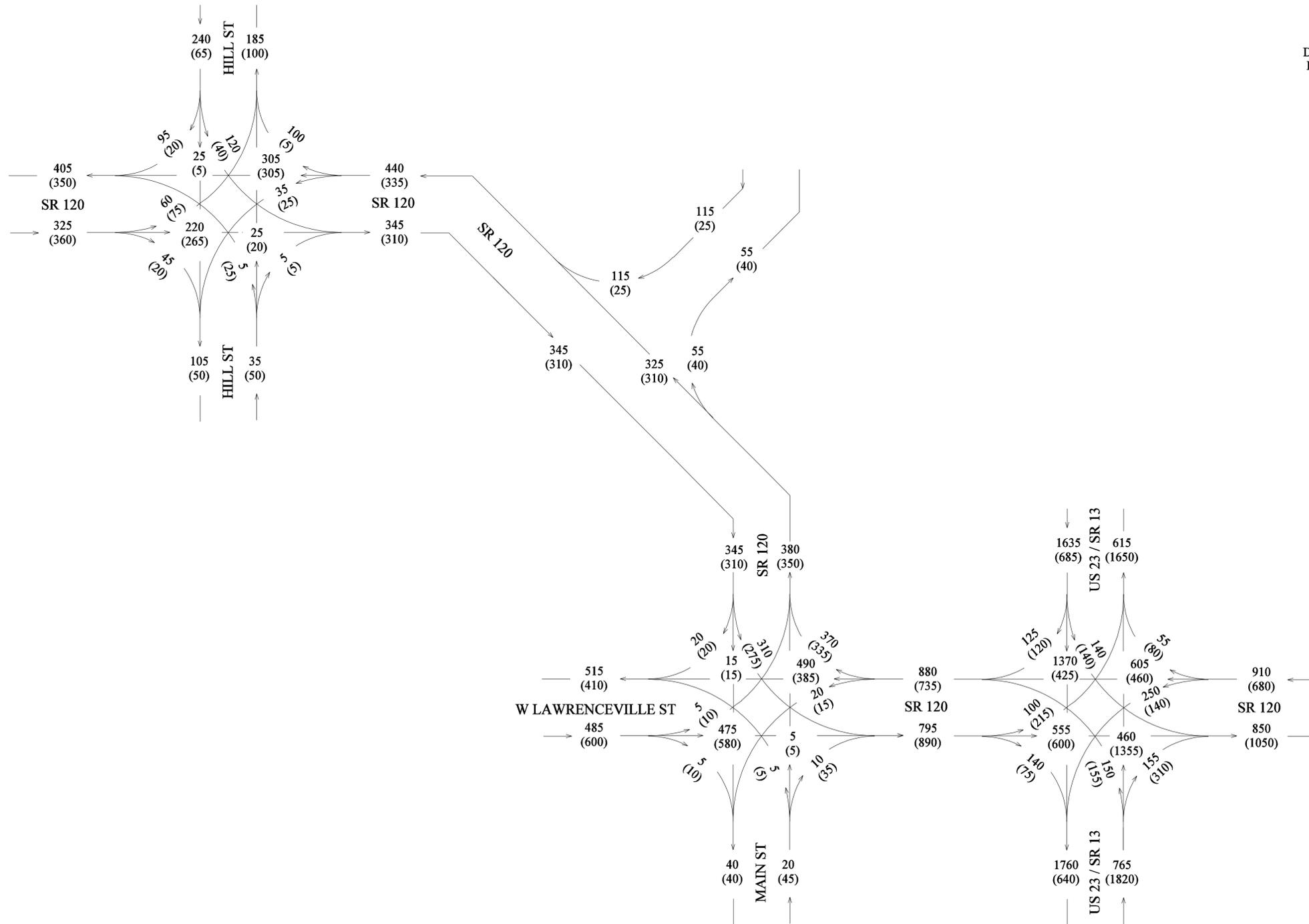
PEAK HOUR
 TRUCKS = 7.6%



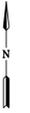
GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
09/15/09		OFFICE: URBAN DESIGN	
		SR 120	
		DRAWING No. 6	

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		



DHV TRAFFIC VOLUMES
 BUILD BASE YEAR 2013
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)



PEAK HOUR
 TRUCKS = 7.6%

GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

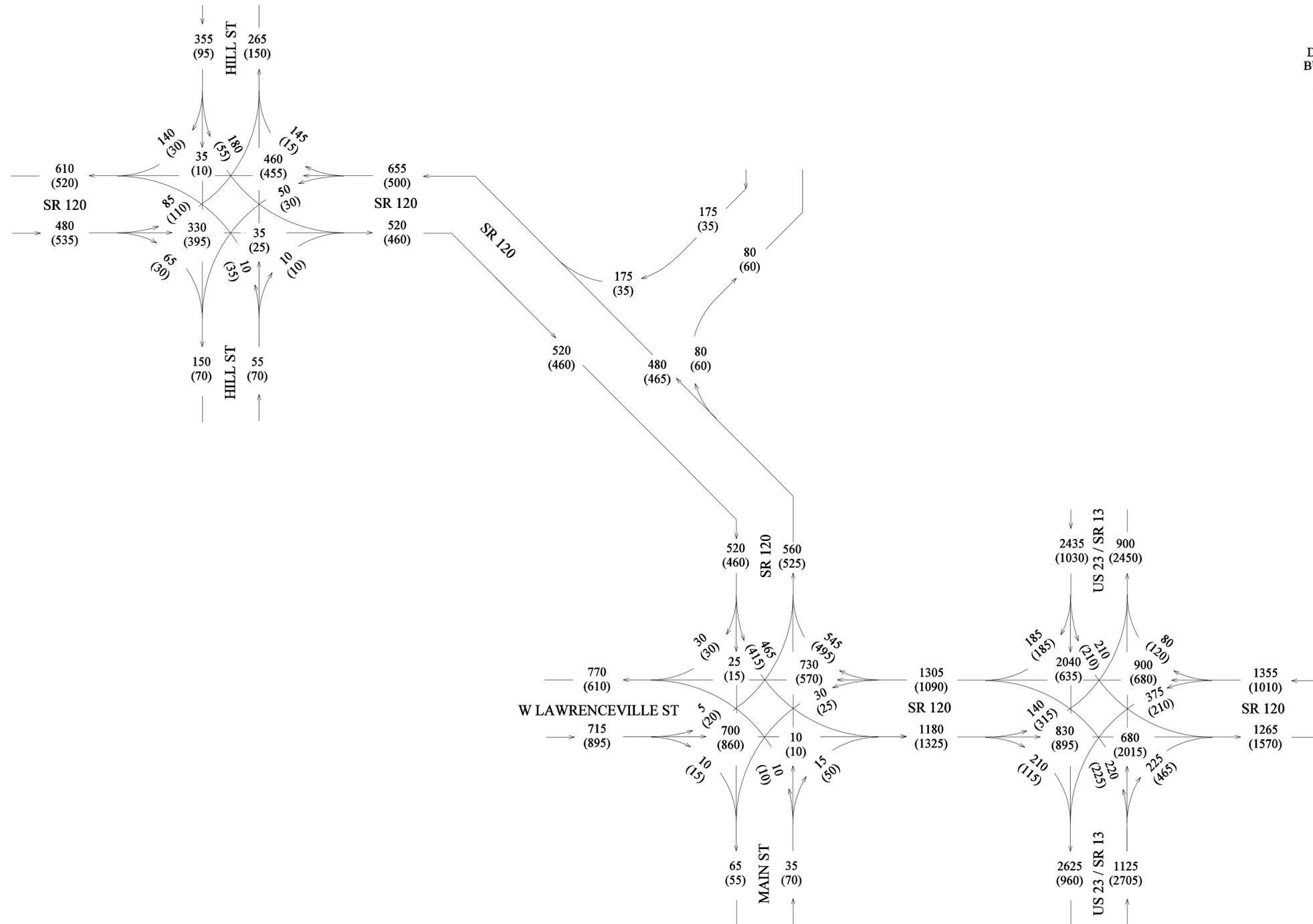
REVISION DATES
09/15/09

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: URBAN DESIGN

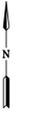
SR 120

DRAWING No.
 7

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		



DHV TRAFFIC VOLUMES
 BUILD DESIGN YEAR 2033
 AM PEAK HOUR = 000
 PM PEAK HOUR = (000)



PEAK HOUR
 TRUCKS = 7.6%

GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

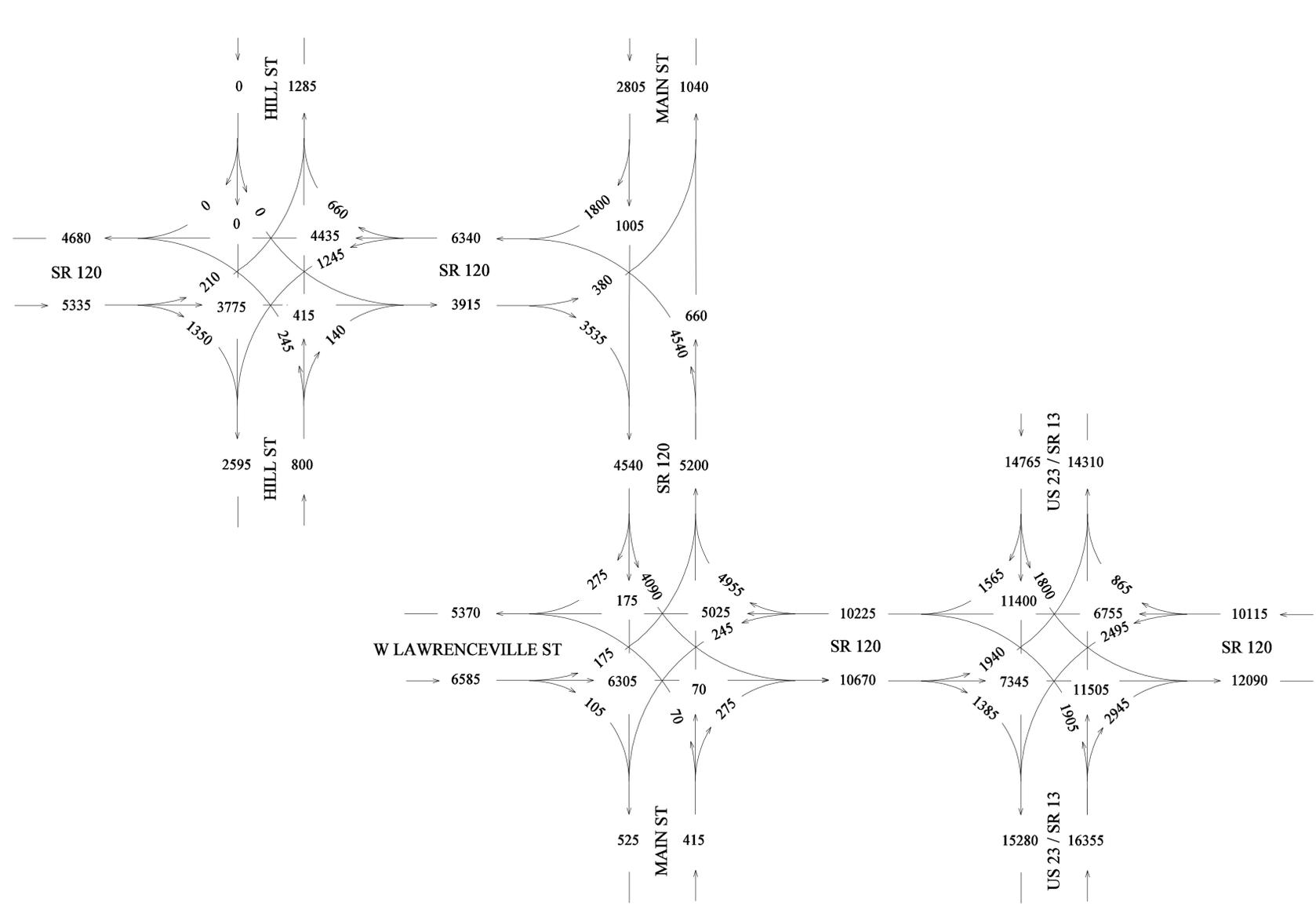
REVISION DATES
09/15/09

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: URBAN DESIGN

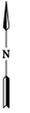
SR 120

DRAWING No.
 8

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		



ADT TRAFFIC VOLUMES
 EXISTING 24-HOUR
 EXISTING 2010 = 000



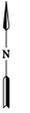
24-HOUR
 TRUCKS = 7.9%
 SINGLE UNIT = 5.5%
 COMBINATION = 2.4%

GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

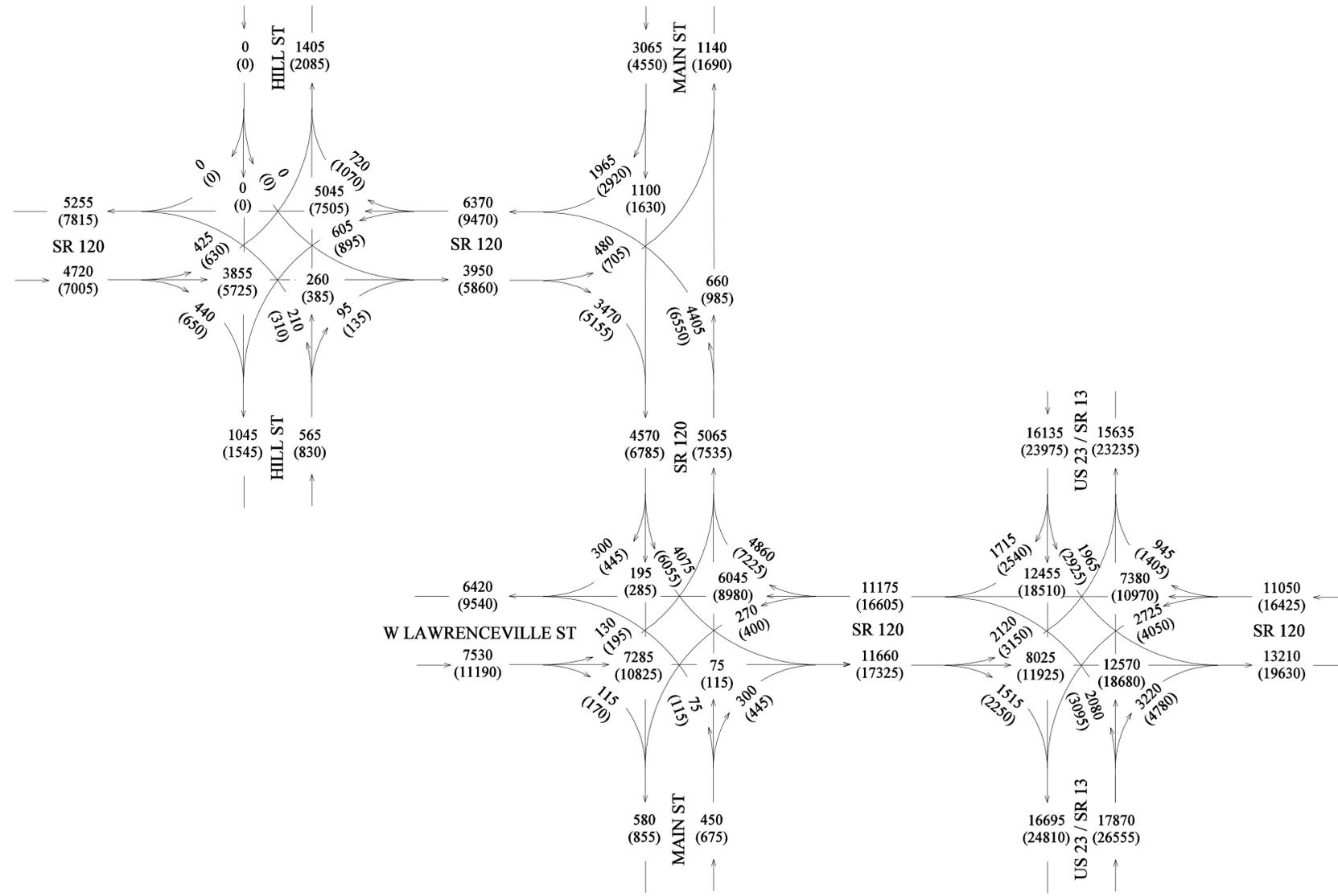
REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
09/15/09		
		OFFICE: URBAN DESIGN
		SR 120
		DRAWING No. 9

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		

ADT TRAFFIC VOLUMES
 NO-BUILD 24-HOUR
 BASE YEAR 2013 = 000
 DESIGN YEAR 2033 = (000)



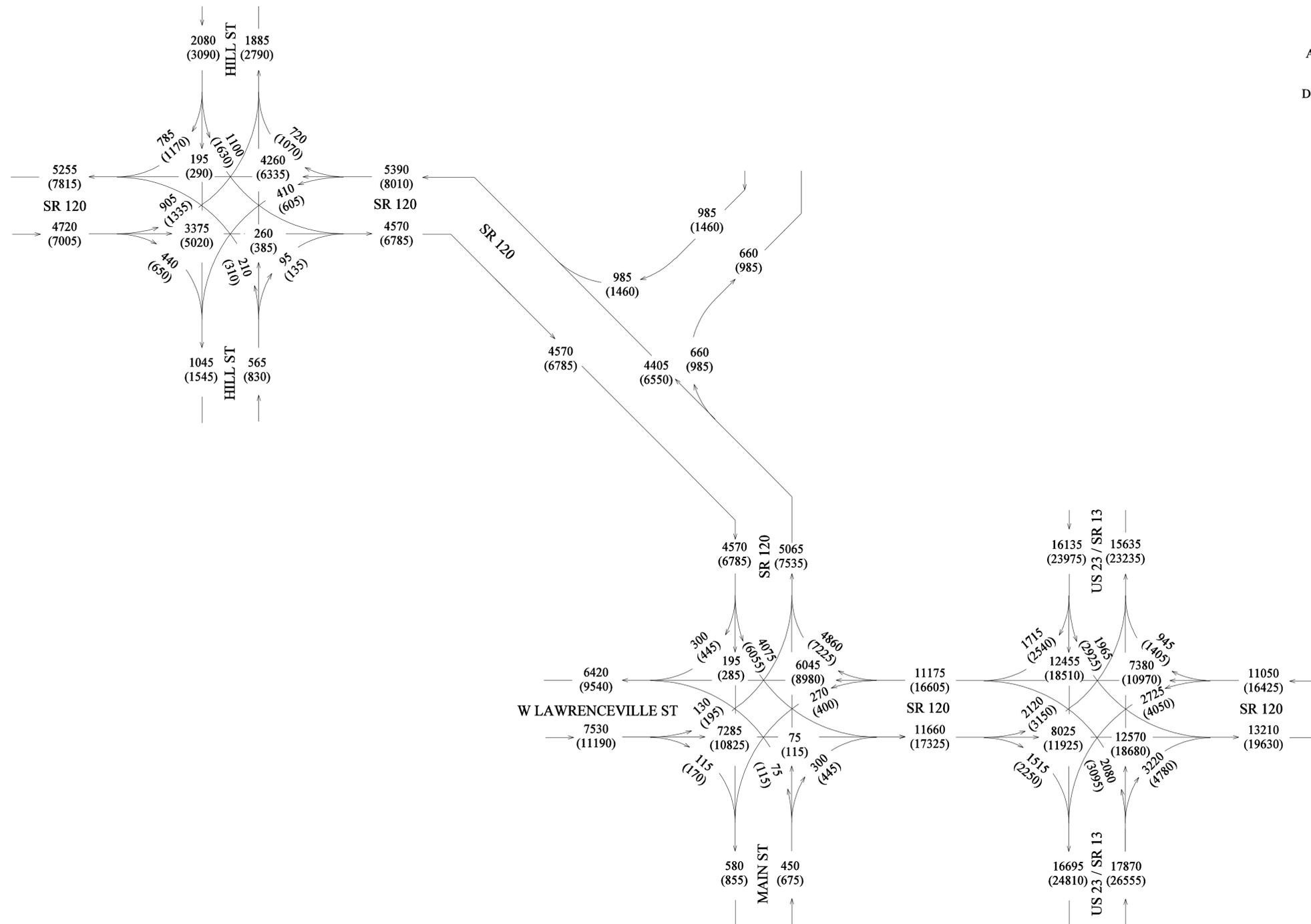
24-HOUR
 TRUCKS = 7.9%
 SINGLE UNIT = 5.5%
 COMBINATION = 2.4%



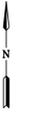
GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
09/15/09		OFFICE: URBAN DESIGN	
		SR 120	
		DRAWING No. 10	

PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
CSCMQ-0006-00(839) & CSSTP-0007-00(100)		



ADT TRAFFIC VOLUMES
 BUILD 24-HOUR
 BASE YEAR 2013 = 000
 DESIGN YEAR 2033 = (000)



24-HOUR
 TRUCKS = 7.9%
 SINGLE UNIT = 5.5%
 COMBINATION = 2.4%

GWINNETT COUNTY
 CITY OF DULUTH
 SR 120
 CSCMQ-0006-00(839)
 PI 0006839
 &
 CSSTP-0007-00(100)
 PI 0007100 03/10

REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
09/15/09		OFFICE: URBAN DESIGN	
		SR 120	
		DRAWING No. 11	

Traffic Signal Warrant Analysis

SR 120 at Main Street/ West Lawrenceville Street

City of Duluth, Georgia

Prepared for:
City of Duluth

Prepared by:
Kimley-Horn and Associates, Inc.
Norcross, Georgia

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1.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has been retained by City of Duluth to perform a traffic signal warrant analysis along State Route 120 (Duluth Highway) at its intersection with Main Street/West Lawrenceville Street. This report has been prepared for submittal to City of Duluth, Gwinnett County, and the Georgia Department of Transportation (GDOT). This report summarizes the data collection, analysis, and conclusions from the traffic signal warrant analysis for the SR 120 at Main Street/West Lawrenceville Street intersection. This report documents the results of the existing year 2009 analysis. **Figure 1** is a map that shows the study intersection for this traffic signal warrant analysis.

2.0 EXISTING CONDITIONS

2.1 Roadway Conditions

SR 120 is a currently a two-lane roadway with a posted speed limit of 25 MPH. SR 120 is considered to have a north-south orientation (southbound approach) and east-west orientation (westbound approach) in the vicinity of the study intersection.

West Lawrenceville Street is a currently a two-lane roadway with a posted speed limit of 35 MPH. West Lawrenceville Street is considered to have an east-west orientation in the vicinity of the study intersection.

Main Street is a currently a two-lane roadway with a posted speed limit of 25 MPH. Main Street is considered to have a north-south orientation in the vicinity of the study intersection.

Intersection sight distance was measured using a driver's eye height of 42" and a vehicle height of 42" per AASHTO guidelines. Sight distance measurements were taken from the southbound, eastbound, and westbound approaches looking towards the east (westbound traffic is the only free-flow movement). Per GDOT's *Regulations for Driveway and Encroachment Control*, the required minimum intersection sight distance looking eastward from the three (3) STOP-controlled approaches is 390'. The measured sight distance from the southbound and eastbound approaches exceeds 400' looking toward the east. This is the distance to the signalized intersection along SR 120 at Buford Highway (US 23/SR 13).

The measured sight distance from the northbound approach is approximately 400' looking toward the east, which is the distance to the signalized intersection along SR 120 at Buford Highway (US 23/SR 13). This measurement was performed as if a driver on the northbound approach were located 15' back from the tangent. It should be noted that if the driver were located 15' back from the stop bar, then sight distance is approximately 75'. The sight distance is obstructed by a building on the southeast quadrant when a vehicle stops at the stop bar.

2.2 Existing Traffic Control

The 4-leg study intersection currently operates as a 3-way stop. The westbound SR 120 approach operates under free-flow conditions to prevent queuing through the railroad crossing. The southbound SR 120, eastbound West Lawrenceville Street, and northbound Main Street approaches operate under STOP conditions.

2.3 Vehicular Speeds

The posted speed limit along SR 120 in the vicinity of Main Street/West Lawrenceville Street is 25 MPH. The posted speed limit along Main Street is 25 MPH, and the posted speed limit along West Lawrenceville Street is 35 MPH.

2.4 Pedestrian Movements

One brick crosswalk is present at this intersection across the eastbound approach (west leg) of West Lawrenceville Street. Sidewalks are present along both sides of the northbound approach (south leg) of Main Street, along the west side of the southbound approach (north leg) of SR 120, and along both sides of the eastbound approach (west leg) of West Lawrenceville Street.

2.5 Parking

Along the westbound approach of SR 120, on-street parking is not permitted. Along the southbound approach of SR 120, angled parking is permitted along both the east and west sides of the roadway. Along the eastbound approach of West Lawrenceville Street, parallel parking is permitted along the south side of the roadway and 90-degree parking is permitted along the north side of the roadway. Along the northbound approach of Main Street, angled parking is permitted along the west side of the roadway.

2.6 Vehicular Volumes

Intersection turning movement volume counts were performed for twelve (12) continuous hours at the unsignalized study intersection between 7:00 AM and 7:00 PM in March 2009. The AM and PM peak hour traffic volumes are shown in **Figure 2** and **Figure 3**; the turning movement volume counts are included in the Appendix.

Annual average daily traffic (ADT) volumes for SR 120 are reflected in **Table 1**. These AADT volumes were obtained from the GDOT State Traffic And Report Statistics (STARS) website. The GDOT count stations were located along SR 120 at TC #0158 (approximately 1.0 mile to the west) and TC #0161 (approximately 1.0 mile to the east). A GDOT count station was also located along West Lawrenceville Street at TC #0596 (approximately 850' to the west).

YEAR	SR 120 TC #0158 EST. ADT	SR 120 TC #0161 EST. ADT	West Lawrenceville Street TC #0596 EST. ADT
2003	15,511	20,681	NO DATA
2004	15,789	24,288	NO DATA
2005	11,220	21,620	NO DATA
2006	13,110	21,690	NO DATA
2007	13,420	20,330	10,380

One (1) twenty-four hour tube count was also collected in March 2009 along SR 120 between Hill Street and Mattison Street. Following analysis of this data, it was determined that approximately 76% of the 24-hour traffic occurs during the 12-hour period between 7:00 AM and 7:00 PM. While 24-hour tube counts were not performed on all four (4) approaches of the study intersection, the data from the 24-hour tube-count in the near vicinity was utilized to develop approximate 24-hour volumes for each of the four (4) intersection approaches. **Table 2** shows the approximate twenty-four volumes at the study intersection.

Table 2 Approximate Existing Year 2009 24-Hour Volumes by Direction SR 120 at Main Street/West Lawrenceville Street	
Approach Direction	Approximate Daily Volumes
Westbound along SR 120	9,611
Southbound along SR 120	3,794
Eastbound along West Lawrenceville Street	5,914
Northbound along Main Street	381
TOTAL Entering Intersection:	19,700

2.7 Delay Study

A delay study was not performed for this traffic signal warrant analysis.

2.8 Accident History

Accident information for years 2005-2007 were requested from the Gwinnett County Department of Transportation. There have been 16 accidents at this intersection over this 3-year period (4 in 2005, 7 in 2006, and 5 in 2007). Additionally, there have been 3 injuries over this 3-year period (all 3 occurred in 2006) and 0 fatalities. The 16 accidents consist of 6 right-angle crashes, 1 left-angle crash, 6 rear-end crashes, and 3 other crashes. Seven (7) of these accidents (right-angle and left-angle) may be correctable by the installation of a traffic signal.

2.9 Adjacent Signalized Intersections

The signalized intersection of SR 120 at Buford Highway (US 23/SR 13) is located approximately 400' to the east of the study intersection. Additionally, the Norfolk Southern Railroad with a gated crossing is located approximately 150' to the east of the study intersection.

2.10 Intersection History

At the time of this report, it is believed that the intersection has not been studied in the past for signal warrants.

3.0 TRAFFIC SIGNAL WARRANT ANALYSIS

3.1 Introduction

The traffic signal warrant analysis was performed based on the criteria contained in the *Manual on Uniform Traffic Control Devices (MUTCD)*, 2003 Edition published by the Federal Highway Administration (FHWA). According to the MUTCD, the investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location:

- Warrant 1, Eight-Hour Peak Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network

A traffic control signal should not be installed unless one or more of the above warrants are met. However, the satisfaction of a traffic signal warrant or warrants should not in itself require the installation of a traffic control signal.

The MUTCD states engineering judgment and rationale should be applied to a minor street approach with one lane plus a right-turn lane. The right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. Traffic volumes used in the warrant analysis were based on the left-turn and through volumes, and did not include right-turn volumes.

This traffic signal warrant analysis evaluated projected traffic conditions to determine if they satisfy the minimum vehicular volume warrants established by the MUTCD. Warrants 1 and 2 are the vehicular volume warrants and are based on mainline traffic volumes, side street traffic volumes, and number of travel lanes.

Warrant 1 (Eight Hour Vehicular Volume) Condition 1A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic signal. Warrant 1 Condition 1B is intended for application where Condition 1A is not satisfied and where the traffic volume on a major street is so heavy that traffic on the intersecting minor street suffers excessive delay or conflict in entering or crossing the major street. If both Condition 1A and Condition 1B are 80% satisfied, Warrant 1C would be satisfied.

Warrant 2 (Four Hour Vehicular Volume) is intended at locations where the volume of intersecting traffic is the principal reason to consider installing a traffic signal.

The relevant pages from the MUTCD that address traffic signal warrants are included in the Appendix.

3.2 Signal Warrant Analysis for Existing Year 2009 Conditions

The results of the signal warrant analysis under existing year 2009 conditions for the SR 120 at Main Street/West Lawrenceville Street intersection are shown in **Table 3**. For the existing conditions, the right-turn volumes were removed from the minor streets (SR 120 north leg and Main Street). The major street was assigned as a two-lane roadway, and the minor street was assigned to have a one-lane approach. Based on existing 2009 traffic volumes, the east-west segment of SR 120/West Lawrenceville Street handles more traffic than the north-south segment of SR 120/Main Street. Therefore, the east-west direction is considered the major street and the north-south direction is considered the minor street.

Table 3 SR 120 at Main Street/West Lawrenceville Street Traffic Signal Volume Warrant Analysis Results Existing Year 2009 Conditions		
Warrant	Criteria Satisfied	Hrs Met/ Required
1A	MET	12 / 8
1B	MET	12 / 8
1C	MET	12 / 8
2	MET	12 / 4

As shown in **Table 3**, Warrants 1A, 1B, 1C, and 2 are satisfied under existing year 2009 traffic conditions. It should be noted that traffic data was collected for 12 hours for this analysis.

4.0 INTERSECTION CAPACITY ANALYSIS

The capacity and level of service (LOS) determinations were made for the intersection of SR 120 at Main Street/West Lawrenceville Street using *Synchro Professional, Version 6.0*. The program uses methodologies contained in the 2000 Highway Capacity Manual to determine the operating characteristics of the proposed intersections. The capacity was examined for the existing year 2009 conditions during the AM and PM peak hour. In the evaluation of the existing unsignalized intersection, the critical movement is the operation of the stop-controlled approaches at their intersection with major streets that operate under free-flow conditions.

At this study intersection, three (3) of the four (4) approaches are STOP-controlled and the westbound SR 120 approach operates under free-flow conditions. Because the Highway Capacity Manual does not offer guidance on delay and/or level of service for this type of intersection operation, the SR 120 at Main Street/West Lawrenceville Street intersection was analyzed as an all-way stop. The results of the intersection capacity analysis are summarized in **Table 4**. Peak hour movement counts used in the analysis are shown in the Appendix.

For the unsignalized capacity analysis, existing traffic control and geometry was used. For the signalized capacity analysis, signalized control and the addition of a southbound left-turn lane was used.

Table 4 SR 120 at Main Street/West Lawrenceville Street Level-of-Service Summary LOS (delay in seconds)				
Intersection	Approach	AM Peak Hour	Midday Peak Hour	PM Peak Hour
Existing Year 2009 Conditions – Unsignalized				
SR 120 at Main Street/ West Lawrenceville Street (STOP Controlled as All-Way Stop)	Northbound	B (11.1)	B (10.4)	B (12.9)
	Southbound	C (19.9)	B (14.8)	C (24.2)
	Eastbound	D (30.3)	C (19.3)	F (64.9)
	Westbound	Free-Flow		
	Overall	D (26.2)	C (18.0)	E (35.4)
Existing Year 2009 Conditions – Signalized				
SR 120 at Main Street/ West Lawrenceville Street (Signal)	Northbound	D (36.4)	D (35.7)	D (38.9)
	Southbound	D (41.6)	D (39.8)	D (43.1)
	Eastbound	C (27.7)	C (27.1)	C (27.5)
	Westbound	C (25.3)	C (25.7)	C (20.7)
	Overall	C (29.2)	C (28.5)	C (28.4)

From **Table 7**, analyses indicate the unsignalized approaches operate at LOS D or better during the AM and midday peak hours for the existing year 2009 conditions. The northbound and southbound unsignalized approaches operate at LOS D or better for the existing year 2009 conditions. However, the eastbound unsignalized approach operates at LOS F during the PM peak hour.

With installation of a traffic signal and a southbound left-turn lane for the existing year 2009 conditions, all four (4) signalized approaches (as well as the overall intersection) are projected to operate at LOS D or better during the AM, midday, PM peak hours.

5.0 ADDITIONAL INFORMATION

A separate traffic study has previously been prepared for the City of Duluth, titled “SR 120 Realignment, Davenport Road Extension, Ridgeway Road Extension, & Hospital Connector”. This study included analyzing the traffic impacts if SR 120 were relocated to intersect Buford Highway (US 23/SR 13) and the Norfolk Southern Railroad approximately 250’ north of its existing location. This realignment would remove the jog that SR 120 currently experiences, and would allow vehicles traveling along SR 120 to make through movements as opposed to left-turn and right-turn movements.

If this SR 120 realignment were to occur, the study intersection of SR 120 at Main Street/West Lawrenceville Street would become a 3-leg intersection and the westbound approach (east leg) of SR 120 would be removed. However, there is no schedule and no funding for this SR 120 relocation. Therefore, it is currently anticipated that the study intersection will remain a 4-leg intersection.

6.0 CONCLUSION

Kimley-Horn and Associates, Inc. has been retained by City of Duluth to perform a traffic signal warrant analysis along State Route 120 (Duluth Highway) at its intersection with Main Street/West Lawrenceville Street based on existing year 2009 conditions.

Table 5 shows a summary of the signal warrant analysis results.

Table 5 SR 120 at Main Street/West Lawrenceville Street Traffic Signal Volume Warrant Analysis Results Summary Table				
Scenario	Warrant 1A	Warrant 1B	Warrant 1C	Warrant 2
Existing Year 2009	12 / 8	12 / 8	12 / 8	12 / 4

Warrant 1A – Eight-Hour Vehicular Volume, Condition 1A

Warrant 1B – Eight-Hour Vehicular Volume, Condition 1B

Warrant 1C – Eight-Hour Vehicular Volume, 80% of Condition 1A and 1B

Warrant 2 – Four-Hour Vehicular Volume

A traffic signal at the SR 120 at Main Street/West Lawrenceville Street intersection meets Warrants 1A, 1B, 1C, and 2 for the existing year 2009 conditions.

Capacity analyses indicate the unsignalized approaches operate at LOS D or better during the AM and midday peak hours for the existing year 2009 conditions. The northbound and southbound unsignalized approaches operate at LOS D or better for the existing year 2009 conditions. However, the eastbound unsignalized approach operates at LOS F during the PM peak hour.

With installation of a traffic signal for the existing year 2009 conditions, all four (4) signalized approaches (as well as the overall intersection) are projected to operate at LOS D or better during the AM, midday, PM peak hours.



6.1 Recommendations

Based on the projected traffic conditions, we offer the following:

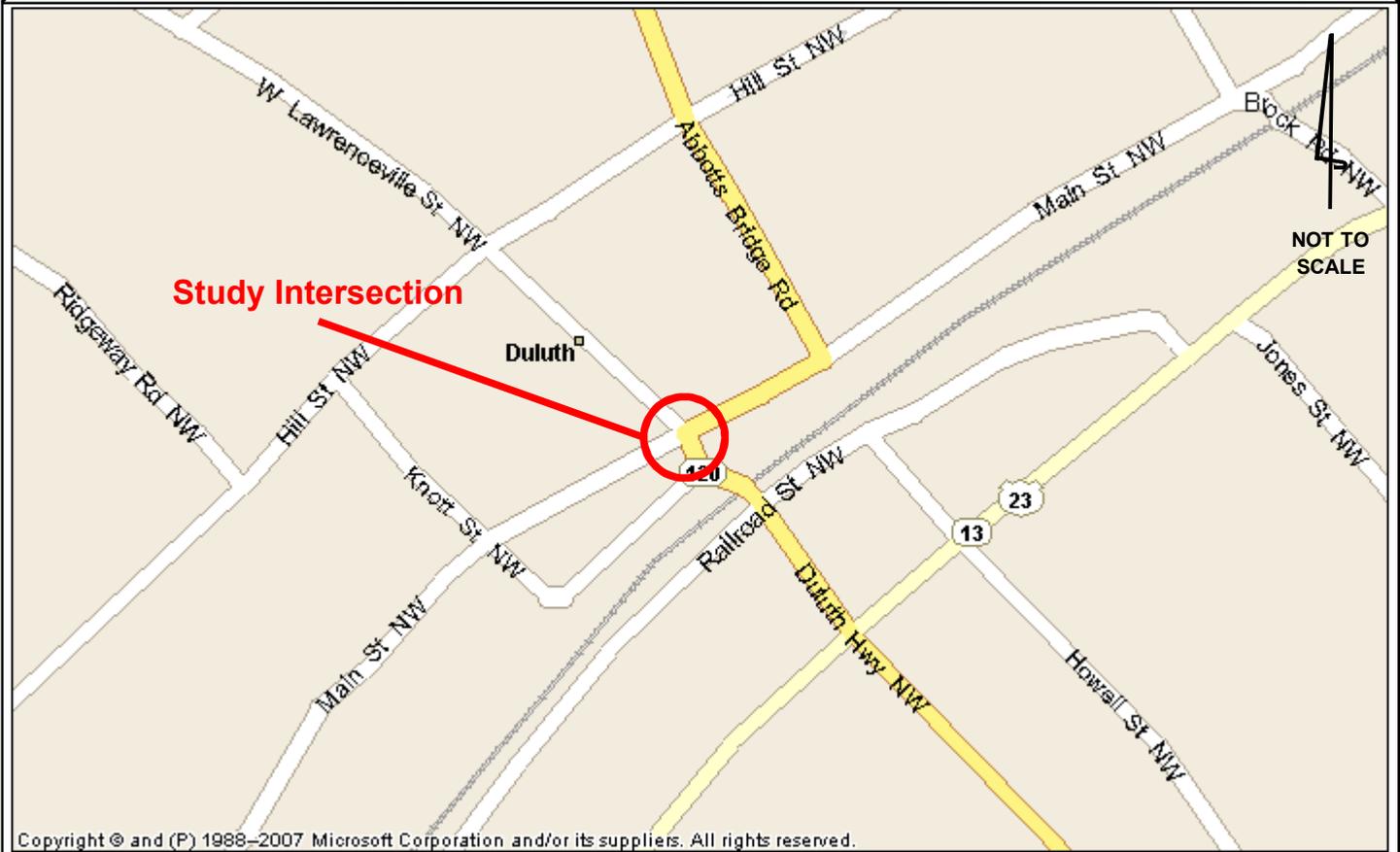
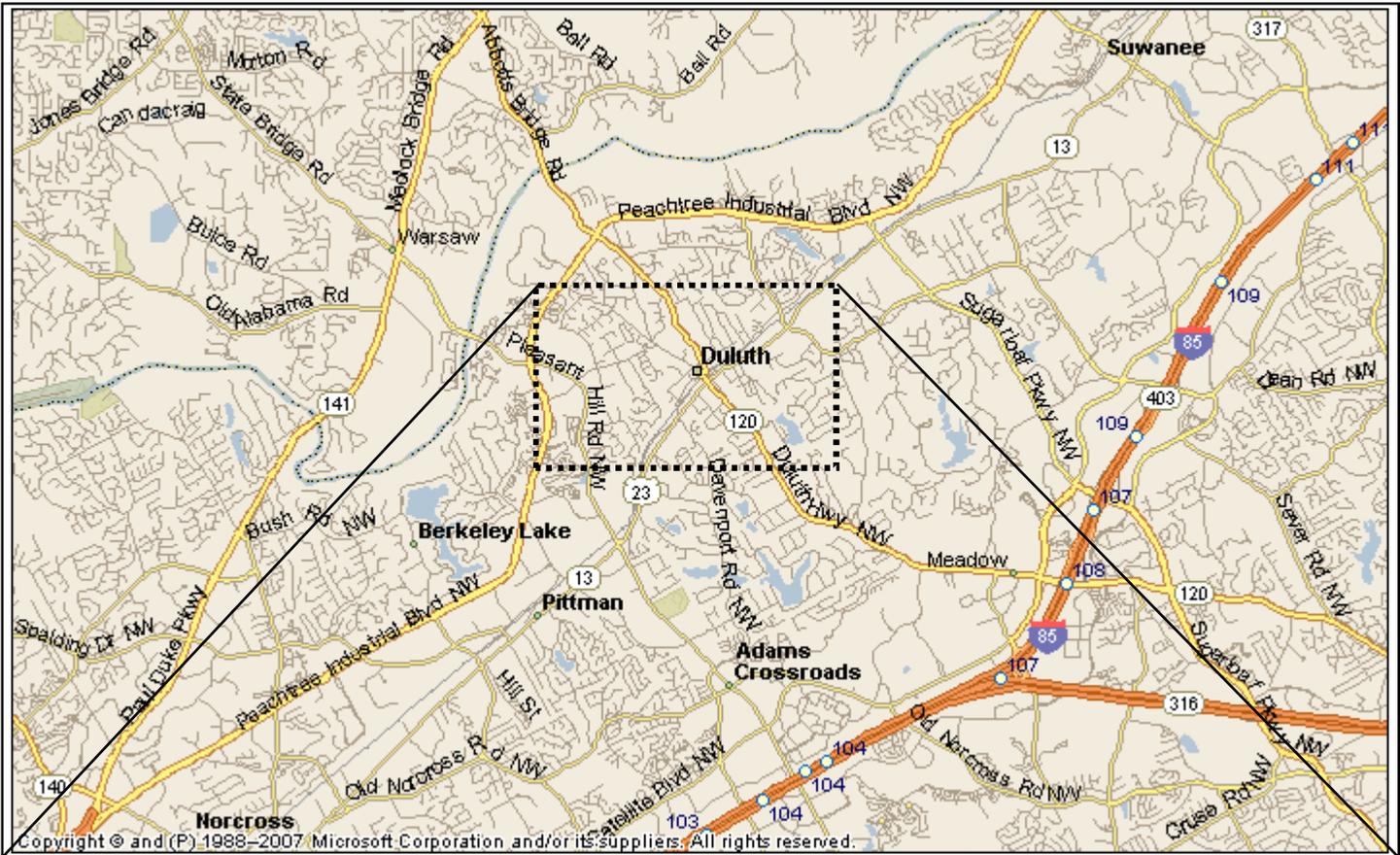
- A traffic signal is recommended at the intersection of SR 120 at Main Street/West Lawrenceville Street, based on existing 2009 traffic volumes
- The following geometry is recommended for this intersection:
 - Construct a second southbound approach lane along SR 120 to create one exclusive left-turn lane and one shared left-turn/through/right-turn lane.
 - Increase the radius of the westbound right-turn lane along SR 120 to create more separation from the traffic signal.
- Provide split-phase operation for the southbound and northbound approaches.
- Provide railroad preemption for the traffic signal to provide safe operation during the presence of a train.

PREPARED BY: John D. Walker DATE 04/XX/09
 Kimley-Horn and Associates, Inc.

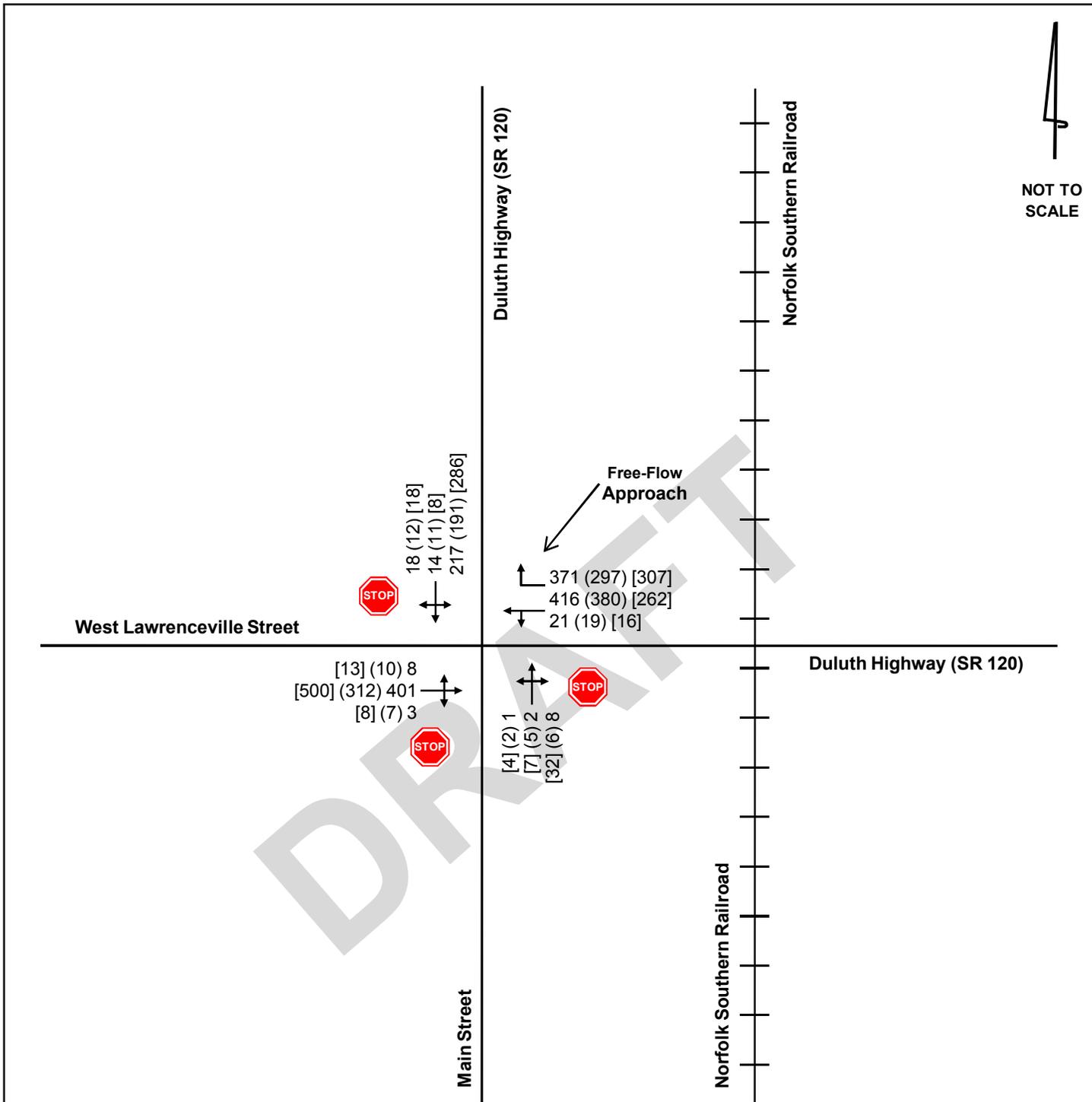
RECOMMENDED BY: _____ DATE _____
 District Traffic Engineer

RECOMMENDED BY: _____ DATE _____
 State Traffic Engineer

APPROVED BY: _____ DATE _____
 Director of Operations

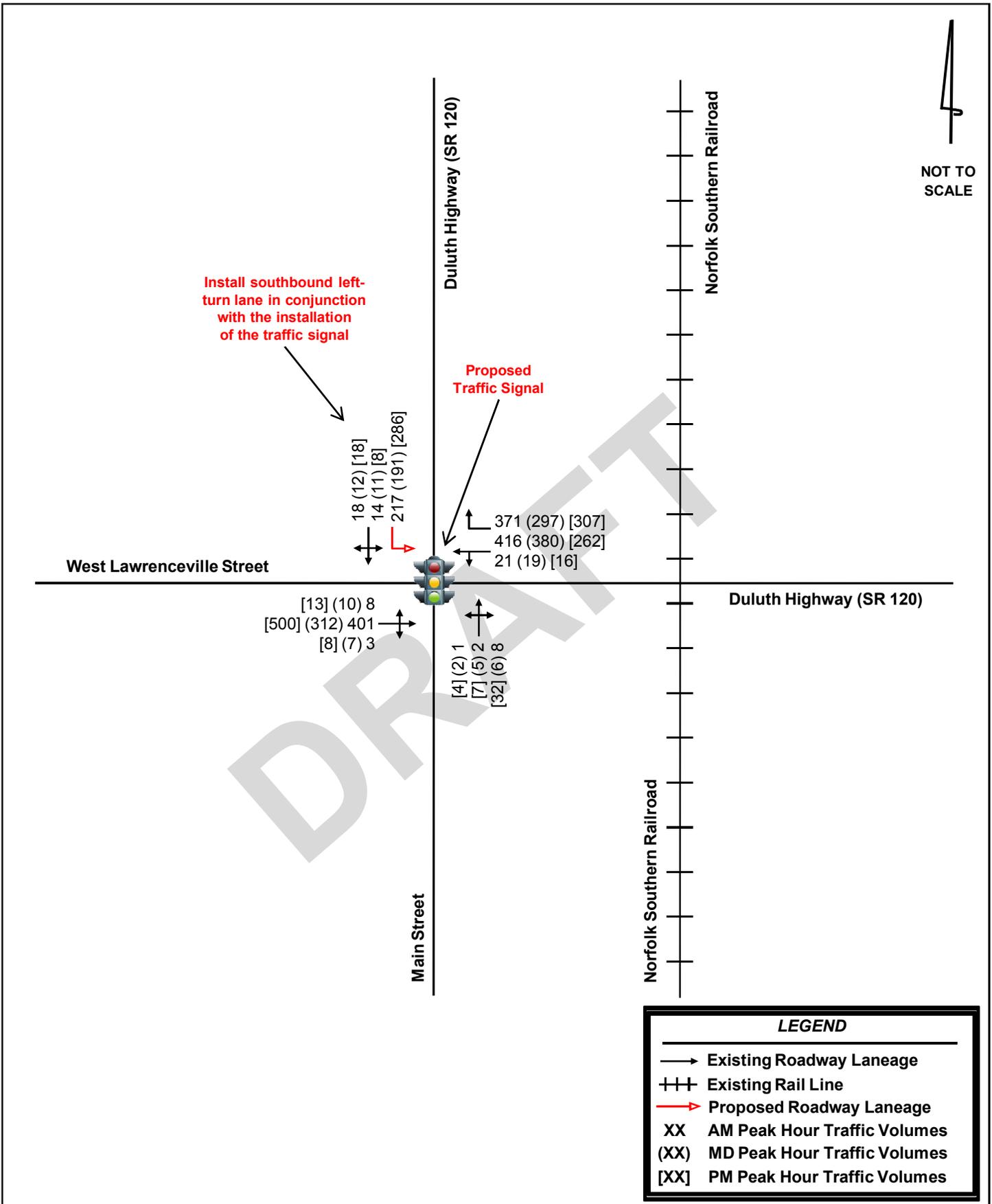


 <p>Kimley-Horn and Associates, Inc.</p>	<p>SR 120 at Main/W. Lawrenceville Traffic Signal Warrant Analysis</p>	<p>Site Location</p>	<p>Figure 1</p>
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LEGEND

- Existing Roadway Laneage
- Existing Rail Line
- XX** AM Peak Hour Traffic Volumes
- (XX)** MD Peak Hour Traffic Volumes
- [XX]** PM Peak Hour Traffic Volumes



 <p>Kimley-Horn and Associates, Inc.</p>	<p>SR 120 at Main/W. Lawrenceville Traffic Signal Warrant Analysis</p>	<p>Existing 2009 Conditions Signalized</p>	<p>Figure 3</p>
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PI No. 0006839, 0007100, SPLOST SP01-46-001, SP05-46-002

CSCMQ-0006-99(839), CSSPT-0007-00(100)

SR 120 Realignment from SR 13/US 23 to Hill Street

Concept Team Meeting

November 19, 2010

9:00am

GDOT – District One Offices

Concept Team Meeting Notes

Mike Rushing (KHA) Leads on Need and Purpose:

- Primary Need is based on failing levels-of-service for intersection operation and accident rates within the project limits that are significantly higher than statewide averages for similar facilities
- Project proposes “operational improvements” to provide better sorting of traffic and operational efficiency
- Intersection capacity analysis
 - o 3-way-stop at Main St and W Lawrenceville St
 - o Traffic Counts are close to 50/50 on W Lawrenceville and SR 120
 - o SR 120 Eastbound on Abbots Bridge is currently a stop-control to allow Main St traffic to have right-of-way
- No capacity/laneage improvements at SR 120 and Buford Hwy (pedestrian improvements only)
 - o Update to countdown heads, possible paver or contrasting material for crosswalks
 - o Traffic analyses show no change from no-build to build condition since no capacity or laneage improvements
- Project also proposes pedestrian connectivity from school to Downtown district
- SPLOST projects:
 - o Widening and Operational improvements
 - o Limits are essentially considered as “curb-to-curb” from Hill Street to Buford Highway
- CMAQ funding for sidewalks to improve pedestrian connectivity
- L230 funding for improvements at SR 120/Buford Highway

Mike (KHA) & Neil Kantner (GDOT D1) mention the previous coordination between city and GDOT for this project and some initial modeling of the traffic and signal pre-emption operation to ensure that operational functionality was preserved before moving to concept report development.

Kelly Wade (FHWA) asks if Main Street and West Lawrenceville will be signalized.

Mike (KHA) says it meets warrants for a signal.

Neil (GDOT D1) asks to discuss the signal.

Mike (KHA) – Buford Hwy at SR 120 is an existing preemption signal. It will be coordinated with pre-emption for the proposed signal at Main St/W Lawrenceville St. The pre-emption will basically clear the traffic between Main St and Buford Highway prior to the RR gates coming down and will prevent movements from entering this segment.

Robert Mahoney (GDOT D1 Preconstruction) asks if Steve Roberts is the day-to-day PM.

Steve Roberts (Bron Cleveland) – yes, and KHA is a sub-consultant for the roadway design. Steve also noted that changes to the Concept Report were made after comments from Planning. These changes are not shown in the printed copy.

Neil (GDOT D1) – Concept Report was submitted to GDOT Office of Design Policy & Support, comments have been received from them and they will be discussed at appropriate points in the review of the Concept Report.

Page #1 – GDOT Office of Design Policy & Support – Use current cover sheet from PDP

Page #2 – GDOT Office of Design Policy & Support – Location unclear, not sure graphic is adequate

- Robert (GDOT D1 Preconstruction) – looking for begin and end project limits
- Mike (KHA) – maybe showing railroad would help label
- Steve (Bron Cleveland) – would it be better with one or multiple graphics?
- Kim Phillips (GDOT Design Policy & Support) – One graphic is good, just needs to be more clear
- Steve (Bron Cleveland) – 7-00(100) Used circle to make clear it is only at the intersection
- Kelly (FHWA) – TIP gives termini for one as Buford Highway to Schools.
- Office of Design Policy & Support – “Fig A” not included, check county lines and clarify streets
- Mike (KHA) – Signs in town show Abbots Bridge street name up to Main Street
- Kim Phillips (GDOT Office of Design Policy & Support) – Maybe show both names – “Duluth Hwy/Abbotts Bridge Rd”
- Neil (GDOT D1) – Check with Road Inventory and use what they have

Page #3 – GDOT Office of Design Policy & Support – concerns about Logical Termini, “safety” reference, and typos.

- Steve (Bron Cleveland) – these changes have been made
- Neil (GDOT D1) – noted that the N&P was approved by GDOT Planning. Also requested to add a “summary” Need and Purpose paragraph at the beginning.

Page #4 – Kelly (FHWA) – 2nd paragraph read “to improve delay”, maybe change to “to reduce delay”.

Page #6 – Kim Coley (GDOT – Planning) – 2nd paragraph, typo on project number

Page #14 – Kelly (FHWA) – Project 6839 specifies a project length, ensure consistency.

- GDOT Office of Design Policy & Support – Consistently describe project by PI #.
 - o Another Duluth Hwy/Abbotts Bridge street name reference
- Neil (GDOT D1) – SPLOST paragraph mentions sidewalks. Are sidewalks provided in this project and where? There is also a “Fig A” reference.

Page #15 – GDOT Office of Design Policy & Support – Has Air Impact been received by GDOT Environmental.

- Neil (GDOT D1) – We are in the environmental phase. Air/Noise will be completed.
- GDOT Office of Design Policy and Support – ARC Coordination not present in SPLOST
- Kim Phillips (GDOT Office of Design Policy and Support) – Want to make sure traffic is not being put on a State Route that isn’t already there. If there is, it needs to be cleared thru model.
- Neil (GDOT D1) – Based on traffic counts, project is consistent with current relationships.
- Kelly (FHWA) – Proposing an improvement that could affect trips?
- Kim Phillips (GDOT Office of Design Policy & Support) – Is it going to impact the trips?
- Mike (KHA) – Intent of the project is to improve the operation. Do not have O&D studies to show this. Are they really needed?
- Kim Phillips (GDOT Office of Design Policy & Support) – Yes, or some other discussion to explain and show basis for work.
- Neil (GDOT D1) – I’m not sure O&D is necessary
- Kelly (FHWA) – Build and No-Build scenarios should show this.
- Mike (KHA) – It is based on a method and is judgment. The Build and No-Build reflect our projections of the distribution of traffic based on comprehensive traffic data we have collected over the downtown network. Will attempt to document this with a discussion in the revised Concept Report.
- Neil (GDOT D1) – noted that the traffic has been reviewed and approved by the Planning Office.
- Kelly (FHWA) – Using Design Year 2030 for traffic?
- Mike (KHA) – confirmed that traffic analysis and Need/Purpose approved using 2013/2033
- Neil (GDOT D1) – Under “Existing Design Features” – does not show connectivity, make consistent with road names to be able to follow sections of the project
- Mike (KHA) – Need to verify if min radius listed (154’) is really an existing feature
- Neil (GDOT D1) – Typical section, need a better full explanation, incl. turn lanes, etc.
- GDOT Office of Design Policy & Support - #16 & #18, proposed and allowable grades look suspect
- Mike (KHA) – Verified that based on current concept, rolling criteria is met (9%), and actual max grade will be in the 7-7.5% range
- Neil (GDOT D1) – Max existing grade is 10%, check these
- Mike (KHA) – Will verify max existing grades within the project limits
- Kim Phillips (GDOT Office of Design Policy & Support) – signed for 35, designed for 25.
- Neil (GDOT D1) – do not think 25 is allowable for an urban arterial
- Mike (KHA) – concurred that 25 does not meet AASHTO for urban arterial. Typically design speed is basic control and design exceptions are processed for other components that don’t meet. School zone is posted 25. We can go with 35 and have more exceptions or we can drop posted. Either way, there will still be design exceptions.

- Neil (GDOT D1) – May have to go thru design exception for design speed. Don't see a problem with going after exception for design speed since this seems appropriate for downtown conditions. Opinions may differ.
- Kim Phillips (GDOT Office of Design Policy & Support) – How is LOS done?
- Mike (KHA) – Would have used posted speed for network. Would have to check, but most likely did not reach this speed. Function of intersection would be the constraint.
- Neil (GDOT D1) – Would traffic ops have a problem with this?
- Todd Sumption (GDOT – D1 Traffic Ops) – Would rather not lower a speed limit on a state route, but it can be done if appropriate. We will need to include the signs to lower the speed limit.
- Mike (KHA) – Would adjust project limits as necessary to include signs.
- Robert Mahoney (GDOT D1 Preconstruction) – so we would have constraining features for 35 mph?
- Mike (KHA) – Yes, constraining features include part of the inside city hall block which is anticipated to be a historical resource. It is a parking impact now, but could be a historical impact if the parking is included in an overall historic parcel. This makes the curve more critical. Even with 25mph design speed, the necessary curve to reduce that impact won't meet minimum.
- Neil (GDOT D1) – agreed that there is a need to design a functional and appropriate facility. Also RR impacts with longer curves could create skewed crossings.
- Mike (KHA) – Free flow right uses flexibility Greenbook gives us to meet and doesn't impact the RR crossing.
- Neil (GDOT D1) – Would suggest going for 25 mph design exception unless otherwise directed.
- Neil (GDOT D1) – re-check design exceptions. Look at time saving procedures – do we anticipate public meetings and CE?
- Kelly (FHWA) – TIP in 2012.
- Neil (GDOT D1) – Change to 2013.
- Kelly (FHWA) – would this still be open in 2013?
- Harold Mull (GDOT) – anticipates that it will not take longer than 12 months to build. Utility relocation would make a difference, but for general construction, 12 months is more than reasonable without major problems.
- Neil (GDOT D1) – FY13 construction, waiting to hear from Atl.
- Harold (GDOT) – Resurfacing project going thru this area in Spring 2011. Will go thru this intersection, a few months construction. Goes from Fulton Co line to Atkinson Rd. Will be mill and inlay, so will not change elevations.
- Robby Oliver (GDOT Utilities) – Not required to list utilities in Concept Report. Railroad coord should be complete before let and not effect construction time.
- Neil (GDOT D1) – Under “Initial Concept Meeting” put “None”.
- Kelly (FHWA) – for the railroad, during the environmental process, need to document that coord has occurred.
- Neil (GDOT D1) – preliminary coordination package has been prepared.
- Mike (KHA) – Initial submittal to RR generally happens after PFPR. Plans are more advanced than typical at the Concept Report stage. Plans are at a point where if there are no major changes, we can show to RR.
- Robert (GDOT D1 Preconstruction) – Who's in charge of coordination?

- Loren Barlett (GDOT Utilities) – State utility office will do coordination. Will need to determine signals before submitting. Need to speak to Richard about agreements, because it sounds like GDOT may need to do agreements.
- Neil (GDOT D1) – this is not R/W acquisition. This is City’s responsibility. Util agreement and coordination would go thru our office.
- Robert (GDOT D1 Preconstruction) – City being the sponsor would be responsible for all R/W, only shown in SPLOST. Maybe state that City is responsible for all project R/W.
- Jason Moore (GCDWS) – Who is in charge of coordination for Gwinnett Water & Sewer?PVC pipe where widening is proposed in front of school. Gwinnett would likely have to move or replace with ductile iron. How would this be funded. General model is that city would have responsibility for relocations.
- Mike (KHA) – Will do utility submittal after approved concept.
- Robby (GDOT Utilities) – Would you want the relocation pay items in the contract?
- Jason (GCDWS) – Yes, would not want our contractor holding up your contractor.
- Mike (KHA) – Will be all let together as one construction package, but estimates will break out for each project (3 or 4 projects depending on if SPLOST projects are done together or separately).
- Phil McLemore (City of Duluth) – majority of SPLOST money is from Gwinnett, the rest from City. We will have to document how each was used.
- Neil (GDOT D1) – re-emphasized that this project is local let. City of Duluth is responsible. GDOT is liaison for federal aid funds.
- GDOT Office of Design Policy & Support – Project cost estimate table is unclear, suggest spacing between projects.

Page #19 – Robert (GDOT D1 Preconstruction) – Question about time for R/W, don’t know if this is enough time.

- Kim Byers (GDOT R/W) – Especially with the Railroad
- Robert (GDOT D1 Preconstruction) – Need 18-24 months depending on the RR.
- Phil (City of Duluth) – RR has been good to coordinate, school may donate R/W.
- Robert (GDOT D1 Preconstruction) – is parcel count correct, 11 parcels listed.
- Mike (KHA) – Will verify and adjust parcel count based on City-owned property.
- Neil (GDOT D1) – Need to discuss R/W time.
- Kelly (FHWA) – Reminds that we must follow the Uniform Act for entire project for R/W.
- Loren (GDOT Utilities) – Min 18 months for RR coordination should be shown.
- Mike (KHA) – would like to be able to start the “clock” on RR coordination after approval of Concept so that things can happen concurrently.
- GDOT Office of Design Policy & Support – update schedule to cover PDP format. Need to show begin and end dates in schedule.

Page #20 – Neil (GDOT D1) – Traffic warrant analysis may still be under review with concept report submitted.

- Mike (KHA) – didn’t think traffic warrant analysis has to be included. This is not usually required for a concept report. The draft analysis is attached to the Concept Report.
- Kim Phillips (GDOT Office of Design Policy & Support) – asked if the signal warrant analysis has been approved.

- Robert (GDOT D1 Preconstruction) – in recent projects it just needed to be shown that it was being reviewed.
- Kim Phillips (GDOT Office of Design Policy & Support) – Construction estimate needs to be approved and in CES.
- Neil (GDOT D1) – will not be part of const. report from CES because it is local let. CES will be used as a tool only.
- James Harry (GDOT) – Can we go over the estimate? Page 18 and the estimate do not match?
- Neil (GDOT D1) – There will be more definition of what each project includes.
- Mike (KHA) – it was discussed after the meeting that the amounts shown on Page 18 are the full, funded amounts for each project. Not necessarily the estimate for each “project”.
- Harold (GDOT) – noted that he has some constructability suggestions and will send to Neil
- Roy Young (Norfolk Southern RR) – It would help expedite things to have a meeting in the field and see where things are. Would need to replace concrete at crossing and may need full closure during project. Also possible that replacement of crossing could occur during upcoming mill and inlay project so that it would be in-place prior to this project.
- Loren (GDOT Utilities) – Would want to be a part of any field meeting.

**DEPARTMENT OF
TRANSPORTATION STATE OF
GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0006839 & 0007100 OFFICE: Environmental Services :DATE: March 24, 2011

FROM Glenn Bowman, P.E., State Environmental Administrator

TO Distribution Below

SUBJECT PUBLIC INFORMATION OPEN HOUSE SYNOPSIS

PROJECT No. & COUNTY: SP01-46-001 & SP05-46-002; CSCMQ-0006-00(839) and CSSTP-0007-00(100) Gwinnett

PROJECT DESCRIPTION: Projects SP01-46-001 & SP05-46-002 are two locally funded projects that would widen and make operational improvements along SR 120 from the intersection with the Norfolk Southern R/R, west on SR 120/W. Lawrenceville Street, north on SR 120/Main Street, then west on SR 120/Duluth Highway to its intersection with Hill Street

Project P.I. No. 0006839 would provide 5 foot wide sidewalks along SR 120/Duluth Highway from its intersection with the Norfolk Southern R/R, west on SR 120/W Lawrenceville Street, north on SR 120/Main Street, then west on SR 120/Duluth Highway to its intersection with Hill Street. Sidewalks would also be included on Hill Street between W. Lawrenceville Street and SR 120.

Project P.I. No. 0007100 would provide pedestrian facility improvements at the intersection of SR 120 and SR 13/US 23/Buford Highway.

Total project length is approximately 0.23 mile.

DATE: March 24, 2011

NUMBER IN ATTENDANCE: 47

FOR: 2 CONDITIONAL: 5 UNCOMMITTED: 1 AGAINST: 2

OFFICIALS IN ATTENDANCE:

Phil McLemore, City Administrator

Nancy Harris, Mayor of Duluth

Marsha Anderson Bomar, Duluth City Council

Jim Dugan, Duluth City Council

MEDIA

ADDITIONAL COMMENTS: Project is needed. Citizens are concerned about the elimination of the through traffic movement westbound on Main Street from Abbotts Bridge to West Lawrenceville. Two property owners are concerned about their driveway being too steep. Two citizens are concerned about the sidewalk stopping mid block and also about storm water drainage.

PREPARED BY: Steve Roberts, BCA for Laura Dixon , ____

TELEPHONE No.: (404) 841 6364

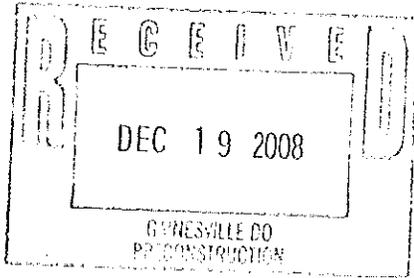
RLW

Gena L. Evans, Ph.D., Commissioner



DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000



December 15, 2008

The Honorable Nancy Harris, Mayor
City of Duluth
3167 Main Street
Duluth, Georgia 30096

Dear Mayor Harris:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Duluth for the following project:

PROJECT#: CSSTP-0007-00(100) Gwinnett County, P.I. #0007100

We look forward to working with you on the successful completion of the joint project.
Should you have any questions, please contact the Project Manager Neil Kantner (770)532-5522.

Sincerely,

A handwritten signature in cursive script that reads "Angela O. Whitworth".

Angela O. Whitworth,
Financial Management Administrator

AOW: rm

Enclosure

c: Bob Rogers
~~Russell McMurray - District 1~~
Jeff Baker - Utilities

CSSTP-0007-00(100) GWINNETT COUNTY

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
CITY OF DULUTH
FOR
PEDESTRIAN FACILITY

This Framework Agreement is made and entered into this 16th day of December, 2008, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Duluth, acting by and through its Mayor and City Council or Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of

certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶1(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design), all reimburseable utility relocation costs, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT and eligible for reimbursement by the DEPARTMENT shall not be considered reimbursible to the

LOCAL GOVERNMENT until the LOCAL GOVERNMENT receives a written notice to proceed for each phase of the PROJECT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, right of way acquisitions or construction as specified in Attachment A.

3. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the Preconstruction Engineering Activities. The Right of Way and Construction funding estimate levels as specified in Attachment A are provided herein for planning purposes and does not constitute a funding commitment for right of way and construction activities. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for applicable Right of Way and Construction when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds, if the PROJECT does not proceed forward to completion due to a lack of available funding in future Project phases.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance of the project and the continual operations of any and all sidewalks and the grass strip between the curb and gutter and the sidewalk within the PROJECT limits.

CSSTP-0007-00(100) GWINNETT COUNTY

5. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program (TIP/STIP). Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the project's implementation until funds can be re-identified for construction or right of way, as applicable.

6. The LOCAL GOVERNMENT shall certify that they have read and understands the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, AND FEDERAL AUDIT REQUIREMENTS" and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish all of the design activities for the PROJECT. The design activities shall be accomplished in accordance with the

DEPARTMENT's Plan Development Process, the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, the DEPARTMENT's Plan Presentation Guide, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The LOCAL GOVERNMENT responsibility for design shall include, but is not limited to the following items:

a. Prepare the PROJECT concept report in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of design due to public input, environmental requirements, or right of way considerations.

b. Develop the PROJECT base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak hour volumes and shall indicate the percentage of trucks expected on the facility.

CSSTP-0007-00(100) GWINNETT COUNTY

c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.

d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required as well as any environmental reevaluations required. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.

f. Perform all surveys, mapping, soil investigation studies and pavement evaluations needed for design of the PROJECT.

g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA) approvals. These efforts shall be coordinated with the DEPARTMENT. As part of the design an environmental assessment will be conducted, which may or may not result in environmental impacts of the surrounding area. If it is determined that there will be impacts that will

require mitigation, then it will be the responsibility of the LOCAL GOVERNMENT to resolve the matter.

h. Prepare the PROJECT drainage design including erosion control plans and the development of the hydraulic studies for the Federal Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.

i. Prepare traffic studies, preliminary construction plans including a cost estimate for the Preliminary Field Plan Review, preliminary and final utility plans, preliminary and final right of way plans, staking of the required right of way, and final construction plans including a cost estimate for the Final Field Plan Review, erosion control plans, lighting plans, traffic handling plans, and construction sequence plans and specifications including special provisions for the PROJECT.

j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT guidelines.

k. Failure of the LOCAL GOVERNMENT to follow the DEPARTMENT's Plan Development Process will jeopardize the use of Federal funds in some or all of the categories outlined in this Agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding.

8. All Primary Consultant firms hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. Any Consultant hired by the Local Government to perform work on the Project must be compliant to applicable state and federal regulations relating to the procurement of design services in accordance with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act.

9. The PROJECT construction and right of way plans shall be prepared in English units.

10. All drafting and design work performed on the project shall be done utilizing the DEPARTMENT's latest approved software respectively, and shall be organized as per the Department's guidelines on electronic file management.

11. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

12. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the design of the bridge(s) and prepare any required hydraulic and hydrological studies. The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

13. The LOCAL GOVERNMENT shall follow the DEPARTMENT's procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT's Project Liaison and the District Utilities Engineer.

14. The LOCAL GOVERNMENT shall address all railroad concerns, comments, and requirements to the satisfaction of the DEPARTMENT.

15. If the right of way phase is 100% local funding with no Federal or State reimbursement, upon the DEPARTMENT's approval of the project right of way plans, verification that the approved environmental document is current, which shall mean that the approval of the environmental document occurred within six (6) months of the approval notice by the DEPARTMENT's for project right of way plans, and delivery of a written notice to proceed, the LOCAL GOVERNMENT may

proceed with the acquisition of the necessary right of way for the PROJECT. If the right of way phase involves federal and/or state funding reimbursement, upon the Department's approval of the project right of way plans, the Local Government may proceed with all pre-acquisition right of way activities, however, property negotiation and acquisition cannot commence until right of way funding authorization is approved. Right of way acquisition shall be in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT and in accordance with the "Contract for the Acquisition of Right of Way" to be prepared by the Office of Right of Way and executed between the LOCAL GOVERNMENT and the DEPARTMENT prior to the commencement of any right of way activities. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. In the event the LOCAL GOVERNMENT is to receive reimbursement of all or part of the acquisition funding, reimbursable right of way costs are to include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. All required right of way shall be obtained and cleared of obstructions, including underground storage tanks, prior to advertising the PROJECT for bids. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the approved right of way plans, as deemed necessary by the

DEPARTMENT, for whatever reason, as needed to purchase the required right of way.

16. Upon completion and approval of the PROJECT plans, certification that all needed rights of way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the LOCAL GOVERNMENT the PROJECT shall be let for construction. The DEPARTMENT, unless shown otherwise on Attachment A, shall be solely responsible for securing and awarding the construction contract for the PROJECT.

17. The LOCAL GOVERNMENT shall review and make recommendations concerning all shop drawings prior to submission to the DEPARTMENT. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer diskettes and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if required. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

CSSTP-0007-00(100) GWINNETT COUNTY

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

RECOMMENDED:

CITY OF DULUTH

Russell R McManis
District Engineer

David L. ...
Director of Preconstruction

Don M. ...
Chief Engineer

DEPARTMENT OF TRANSPORTATION

BY: Barbara S. ...
Commissioner

ATTEST: [Signature]
Treasurer

REVIEWED AS TO LEGAL FORM:

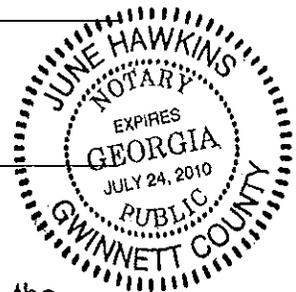
Jade S. ...
Office of Legal Services

BY: [Signature]
Nancy Harris
Mayor

Signed, sealed and delivered this 14 day of July, 2008 in the presence of:

[Signature]
Witness

June Hawkins
Notary Public



This Agreement approved on the 14 day of July, 2008

[Signature]
City/County Clerk (as appropriate)

FEIN: 58-60002457

ATTACHMENT "A"
Project Number: CSSTP-0007-00(100) – Gwinnett County

Project (PI#, Project #Description)	Work Type	Preliminary Engineering		Right of Way		Construction		Utilities Relocation Costs by
		Funding	Design	Funding of Real Property	Acquisition & Administrative Cost by	Funding	Letting by	
PI# 0007100 CSSTP-0007-00(100) US 23 (Buford Hwy) at SR 120 (Duluth Hwy)	Pedestrian Facility	100% Local	Local	100% Local	Local	80% DOT/Fed-\$496,000 20% Local-\$124,000 >100% Local	Local	100% Local
	<i>Signage</i>							

Note: 1. Maximum allowable GDOT reimbursible amount may be shown above in lieu of percentages when applicable. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.
 2. Cash participation limits may be shown above in lieu of percentages when applicable.

Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

Training Certification Requirement

The Local Government shall provide a written certification that all appropriate staff (employees and consultants) involved in the Project have attended or are scheduled to attend the Department's Plan Development Process Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

Robert

Gena L. Evans, Ph.D., Commissioner

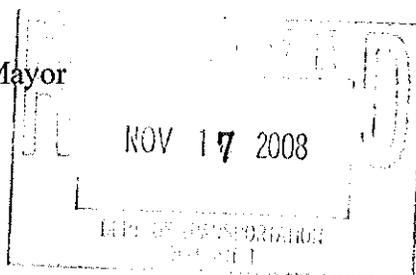


DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
 Atlanta, Georgia 30308
 Telephone: (404) 631-1000

November 7, 2008

The Honorable Nancy Harris, Mayor
 City of Duluth
 3167 Main Street
 Duluth, Georgia 30096



Dear Mayor Harris:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Duluth for the following projects:

PROJECT#: CSCMQ-0006-00(839) Duluth County, P.I. #0006839

We look forward to working with you on the successful completion of the joint project. Should you have any questions, please contact the Project Manager Neil Kantner at (770)532-5522.

Sincerely,

Angela O. Whitworth, 
 Financial Management Administrator

AOW: rm

Enclosure

c: Bob Rogers
~~Russell McMurray - District 1~~
 Jeff Baker - Utilities

CSCMQ-0006-00(839) GWINNETT COUNTY

NO FUNDS

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
CITY OF DULUTH
FOR
PEDESTRIAN FACILITY

This Framework Agreement is made and entered into this 14 day of July, 2008 by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Duluth, acting by and through its Mayor and City Council or Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of

CSCMQ-0006-00(839) GWINNETT COUNTY

certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶1(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design), all reimburseable utility relocation costs, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT and eligible for reimbursement by the DEPARTMENT shall not be considered reimbursible to the

LOCAL GOVERNMENT until the LOCAL GOVERNMENT receives a written notice to proceed for each phase of the PROJECT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, right of way acquisitions or construction as specified in Attachment A.

3. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the Preconstruction Engineering Activities. The Right of Way and Construction funding estimate levels as specified in Attachment A are provided herein for planning purposes and does not constitute a funding commitment for right of way and construction activities. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for applicable Right of Way and Construction when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds, if the PROJECT does not proceed forward to completion due to a lack of available funding in future Project phases.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance of the project and the continual operations of any and all sidewalks and the grass strip between the curb and gutter and the sidewalk within the PROJECT limits.

5. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program (TIP/STIP). Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the project's implementation until funds can be re-identified for construction or right of way, as applicable.

6. The LOCAL GOVERNMENT shall certify that they have read and understands the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, AND FEDERAL AUDIT REQUIREMENTS" and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish all of the design activities for the PROJECT. The design activities shall be accomplished in accordance with the

DEPARTMENT's Plan Development Process, the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, the DEPARTMENT's Plan Presentation Guide, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The LOCAL GOVERNMENT responsibility for design shall include, but is not limited to the following items:

a. Prepare the PROJECT concept report in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of design due to public input, environmental requirements, or right of way considerations.

b. Develop the PROJECT base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak hour volumes and shall indicate the percentage of trucks expected on the facility.

c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.

d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required as well as any environmental reevaluations required. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.

f. Perform all surveys, mapping, soil investigation studies and pavement evaluations needed for design of the PROJECT.

g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA) approvals. These efforts shall be coordinated with the DEPARTMENT. As part of the design an environmental assessment will be conducted, which may or may not result in environmental impacts of the surrounding area. If it is determined that there will be impacts that will

require mitigation, then it will be the responsibility of the LOCAL GOVERNMENT to resolve the matter.

h. Prepare the PROJECT drainage design including erosion control plans and the development of the hydraulic studies for the Federal Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.

i. Prepare traffic studies, preliminary construction plans including a cost estimate for the Preliminary Field Plan Review, preliminary and final utility plans, preliminary and final right of way plans, staking of the required right of way, and final construction plans including a cost estimate for the Final Field Plan Review, erosion control plans, lighting plans, traffic handling plans, and construction sequence plans and specifications including special provisions for the PROJECT.

j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT guidelines.

k. Failure of the LOCAL GOVERNMENT to follow the DEPARTMENT's Plan Development Process will jeopardize the use of Federal funds in some or all of the categories outlined in this Agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding.

8. All Primary Consultant firms hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. Any Consultant hired by the Local Government to perform work on the Project must be compliant to applicable state and federal regulations relating to the procurement of design services in accordance with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act.

9. The PROJECT construction and right of way plans shall be prepared in English units.

10. All drafting and design work performed on the project shall be done utilizing the DEPARTMENT's latest approved software respectively, and shall be organized as per the Department's guidelines on electronic file management.

11. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

12. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the design of the bridge(s) and prepare any required hydraulic and hydrological studies. The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

13. The LOCAL GOVERNMENT shall follow the DEPARTMENT's procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT's Project Liaison and the District Utilities Engineer.

14. The LOCAL GOVERNMENT shall address all railroad concerns, comments, and requirements to the satisfaction of the DEPARTMENT.

15. If the right of way phase is 100% local funding with no Federal or State reimbursement, upon the DEPARTMENT's approval of the project right of way plans, verification that the approved environmental document is current, which shall mean that the approval of the environmental document occurred within six (6) months of the approval notice by the DEPARTMENT's for project right of way plans, and delivery of a written notice to proceed, the LOCAL GOVERNMENT may

proceed with the acquisition of the necessary right of way for the PROJECT. If the right of way phase involves federal and/or state funding reimbursement, upon the Department's approval of the project right of way plans, the Local Government may proceed with all pre-acquisition right of way activities, however, property negotiation and acquisition cannot commence until right of way funding authorization is approved. Right of way acquisition shall be in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT and in accordance with the "Contract for the Acquisition of Right of Way" to be prepared by the Office of Right of Way and executed between the LOCAL GOVERNMENT and the DEPARTMENT prior to the commencement of any right of way activities. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. In the event the LOCAL GOVERNMENT is to receive reimbursement of all or part of the acquisition funding, reimbursable right of way costs are to include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. All required right of way shall be obtained and cleared of obstructions, including underground storage tanks, prior to advertising the PROJECT for bids. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the approved right of way plans, as deemed necessary by the

DEPARTMENT, for whatever reason, as needed to purchase the required right of way.

16. Upon completion and approval of the PROJECT plans, certification that all needed rights of way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the LOCAL GOVERNMENT the PROJECT shall be let for construction. The DEPARTMENT, unless shown otherwise on Attachment A, shall be solely responsible for securing and awarding the construction contract for the PROJECT.

17. The LOCAL GOVERNMENT shall review and make recommendations concerning all shop drawings prior to submission to the DEPARTMENT. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer diskettes and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if required. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

RECOMMENDED:

CITY OF DULUTH

Donald R Mc Murray
District Engineer

Veretha King *for*
Director of Preconstruction

David M R
Chief Engineer

DEPARTMENT OF
TRANSPORTATION

BY: Steve Everett
Commissioner *Everett*

ATTEST: [Signature]
Treasurer *(14)*

REVIEWED AS TO LEGAL FORM:
Sandra Shyers 9/17/08
Office of Legal Services

BY: [Signature]
Nancy Harris
Mayor

Signed, sealed and delivered this
14th
day of July, 2008, in
the
presence of:

[Signature]
Witness

[Signature]
Notary Public



This Agreement approved on the
14 day of July, 2008.

[Signature]
City/County Clerk (as appropriate)

FEIN: 58-60002457

ATTACHMENT "A"
Project Number: CSCMQ-0006-00(839) – Gwinnett County

Project (PI#, Project #Description)	Work Type	Preliminary Engineering Funding	Design	Right of Way		Acquisition & Administrative Cost by	Construction		Utilities Relocation Costs by
				Funding of Real Property	Funding of Real Property		Funding	Letting by	
PI# 0006839 - CSCMQ-0006-00(839) SR 120 FM US 23 to Duluth High/Middle School	Pedestrian Facility	100% Local(Duluth)	Local	100% Local (Duluth)	Local	80%GDOT/FEED-\$496,000 20%Duluth-\$124,000 >100%Duluth	Local	100% Local	

Note: 1. Maximum allowable GDOT reimbursible amount may be shown above in lieu of percentages when applicable. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.
 2. Cash participation limits may be shown above in lieu of percentages when applicable.

ATTACHMENT "B"

0006839 – Gwinnett County

Proposed Project Schedule

Environmental Phase				
Concept Phase				
Preliminary Plan Phase				
Right of Way Phase				

Deadlines for Execute Dec/2008 Mar/2009 N/A Jul/2009
 Responsible Parties Agreement (Approve Concept) (Approve. Env. Document) (Authorize Right of Way Funds) (Authorize Const. funds)

Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

Training Certification Requirement

The Local Government shall provide a written certification that all appropriate staff (employees and consultants) involved in the Project have attended or are scheduled to attend the Department's Plan Development Process Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

P.I. Number 0007100

County Gwinnett

Project Number _____

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

ENTER FPL DIESEL	3.254
ENTER FPM DIESEL	7.322

ENTER FPL UNLEADED	2.99
ENTER FPM UNLEADED	6.7275

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)		0.29		0.15		
Excavations paid as specified by Sections 206 (CUBIC YARD)		0.29		0.15		
GAB paid as specified by the ton under Section 310 (TON)	386.000	0.29	111.94	0.24	92.64	
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)	878.000	2.90	2546.20	0.71	623.38	
PCC Pavement paid as specified by the square yard under Section 430 (SY)		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
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Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
SUM QF DIESEL=		2658.14		SUM QF UNLEADED=		716.02		
DIESEL PRICE ADJUSTMENT(\$)				\$9,947.03				
UNLEADED PRICE ADJUSTMENT(\$)				\$2,462.03				

ASPHALT CEMENT PRICE ADJUSTMENT (BITUMINOUS TACK COAT 125% MAX)

APPLICABLE TO CONTRACTS/PROJECTS CONTAINING THE 413 SPECIFICATION, SECTION 413.5.01 ADJUSTMENTS
ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

460

ENTER APM

1035

125.00%

INCREASE ADJUSTMENT

L.I.N.	TYPE	TACK (GALLONS)	TACK (TONS)	REMARKS
4131000		287	1.2327	

TMT = 1.2327

PRICE ADJUSTMENT(\$)

\$680.45

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT 125% MAX

ENTER APL

460

ENTER APM

1035

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

125.00%

INCREASE ADJUSTMENT

L.I.N. / Spec Number	MIX TYPE	HMA	JMF AC%	AC	REMARKS
4023113	12.5 mm SP	702	5.00	35.10	
4023121	25 mm SP	117	5.00	5.85	
4023190	19 mm SP	59	5.00	2.95	
	19 mm SP		5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		
			5.00		

TMT = 43.90

PRICE ADJUSTMENT(\$)

\$24,232.80

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

ENTER APM

125.00%

INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT = <input style="width: 150px;" type="text"/>		
REMARKS:		

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)
4131000	PG 58-22	287
TMT = <input style="width: 150px;" type="text" value="1.2327"/>		
REMARKS:		

MONTHLY PRICE ADJUSTMENT(\$)

\$680.45

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

DIESEL PRICE ADJUSTMENT(\$) \$9,947.03

UNLEADED PRICE ADJUSTMENT(\$) \$2,462.03

ASPHALT CEMENT PRICE ADJUSTMENT (*BITUMINOUS TACK COAT 125% MAX*) \$680.45

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT *125% MAX* \$24,232.80

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(*Surface Treatment 125% MAX*) \$680.45

REMARKS:

TOTAL ADJUSTMENTS

\$38,002.75

P.I. Number 0006839County Gwinnett

Project Number _____

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

ENTER FPL DIESEL	3.254
ENTER FPM DIESEL	7.322

ENTER FPL UNLEADED	2.99
ENTER FPM UNLEADED	6.7275

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)		0.29		0.15		
Excavations paid as specified by Sections 206 (CUBIC YARD)		0.29		0.15		
GAB paid as specified by the ton under Section 310 (TON)		0.29		0.24		
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)		2.90		0.71		
PCC Pavement paid as specified by the square yard under Section 430 (SY)		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
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Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Piling____inch (LF) Section 520				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
SUM QF DIESEL=				SUM QF UNLEADED=				
DIESEL PRICE ADJUSTMENT(\$)								
UNLEADED PRICE ADJUSTMENT(\$)								

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(Surface Treatment 125% MAX)

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

ENTER APM

125.00%	INCREASE ADJUSTMENT
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Use this side for Asphalt Emulsion Only		
L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

Use this side for Asphalt Cement Only		
L.I.N.	TYPE	TACK (GALLONS)
4131000	PG 58-22	
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

MONTHLY PRICE ADJUSTMENT(\$)	
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ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

DIESEL PRICE ADJUSTMENT(\$)

UNLEADED PRICE ADJUSTMENT(\$)

ASPHALT CEMENT PRICE ADJUSTMENT (*BITUMINOUS TACK COAT 125% MAX*)

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT *125% MAX*

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(*Surface Treatment 125% MAX*)

REMARKS:	
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TOTAL ADJUSTMENTS	
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P.I. Number SPLOST LOCAL

County Gwinnett

Project Number _____

Special Provision, Section 109-Measurement and Payment
FUEL PRICE ADJUSTMENT (ENGLISH 125% MAX)

ENTER FPL DIESEL	3.254
ENTER FPM DIESEL	7.322

ENTER FPL UNLEADED	2.99
ENTER FPM UNLEADED	6.7275

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

INCREASE ADJUSTMENT
125.00%

INCREASE ADJUSTMENT
125.00%

ROADWAY ITEMS	QUANTITY	DIESEL FACTOR	GALLONS DIESEL	UNLEADED FACTOR	GALLONS UNLEADED	REMARKS
Excavations paid as specified by Sections 205 (CUBIC YARD)		0.29		0.15		
Excavations paid as specified by Sections 206 (CUBIC YARD)		0.29		0.15		
GAB paid as specified by the ton under Section 310 (TON)	2489.000	0.29	721.81	0.24	597.36	
Hot Mix Asphalt paid as specified by the ton under Sections 400 (TON)		2.90		0.71		
Hot Mix Asphalt paid as specified by the ton under Sections 402 (TON)	1983.000	2.90	5750.70	0.71	1407.93	
PCC Pavement paid as specified by the square yard under Section 430 (SY)		0.25		0.20		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Bridge Excavation (CY) Section 211				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Class __ Concrete (CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Superstru Con Class__(CY) Section 500				8.00		1.50		
Concrete Handrail (LF) Section 500				8.00		1.50		
Concrete Barrier (LF) Section 500				8.00		1.50		

BRIDGE ITEMS	Quantity	Unit Price	QF/1000	Diesel Factor	Gallons Diesel	Unleaded Factor	Gallons Unleaded	REMARKS
Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
Stru Steel <u>Plan Quantity</u> (LB) Section 501				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
PSC Beams____ (LF) Section 507				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Stru Reinf <u>Plan Quantity</u> (LB) Section 511				8.00		1.50		
Bar Reinf Steel (LB) Section 511				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Piling____ inch (LF) Section 520				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Drilled Caisson,____ (LF) Section 524				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
Pile Encasement,____(LF) Section 547				8.00		1.50		
SUM QF DIESEL=			6472.51	SUM QF UNLEADED=			2005.29	
DIESEL PRICE ADJUSTMENT(\$)					\$24,220.78			
UNLEADED PRICE ADJUSTMENT(\$)					\$6,895.19			

ASPHALT CEMENT PRICE ADJUSTMENT FOR TACK COAT(Surface Treatment 125% MAX)

BITUMINOUS

APPLICABLE TO CONTRACTS CONTAINING THE 413 SPEC. SECTION 413.5.01 ADJUSTMENTS ASPHALT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

ENTER APL

ENTER APM

125.00%

INCREASE ADJUSTMENT

Use this side for Asphalt Emulsion Only

L.I.N.	TYPE	ASPHALT EMULSION (GALLONS)
TMT =		<input style="width: 100px;" type="text"/>
REMARKS:		

Use this side for Asphalt Cement Only

L.I.N.	TYPE	TACK (GALLONS)
4131000	PG 58-22	489
TMT =		<input style="width: 100px;" type="text" value="2.1003"/>
REMARKS:		

MONTHLY PRICE ADJUSTMENT(\$)

\$1,159.37

ADJUSTMENT SUMMARY

FUEL PRICE ADJUSTMENT (*ENGLISH 125% MAX*)

DIESEL PRICE ADJUSTMENT(\$)

\$24,220.78

UNLEADED PRICE ADJUSTMENT(\$)

\$6,895.19

ASPHALT CEMENT PRICE ADJUSTMENT (*BITUMINOUS TACK COAT 125% MAX*)

\$1,159.37

400 / 402 ASPHALT CEMENT PRICE ADJUSTMENT *125% MAX*

\$52,384.80

ASPHALT CEMENT PRICE ADJUSTMENT FOR BITUMINOUS TACK COAT(*Surface Treatment 125% MAX*)

\$1,159.37

REMARKS:

TOTAL ADJUSTMENTS

\$85,819.50