

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0007924, Paulding County **OFFICE** Preconstruction
CSMSL-0007-00(924)
Hiram Park and Ride Lot **DATE** September 27, 2007

FROM  Genetha Rice-Singleton, Assistant Director of Preconstruction
TO *For:* SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Brian Summers
Glenn Bowman
Ken Thompson
Michael Henry
Keith Golden
Angela Alexander
Paul Liles
Kent Sager
Ben Buchan
BOARD MEMBER

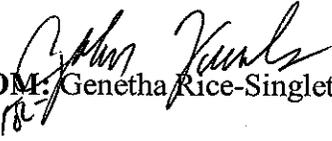
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: P.I. No. 0007924, Paulding County
CSMSL-0007-00(924)
Hiram Park and Ride Lot

OFFICE: Preconstruction

DATE: September 14, 2007


FROM: Genetha Rice-Singleton, Assistant Director of Preconstruction

TO: Gerald M. Ross, P.E., Chief Engineer

SUBJECT: PROJECT CONCEPT REPORT

This project consists of constructing a park and ride lot facility on a 2.30 acre site located in Paulding County. The site is located within an existing 10.65 acre commercial/retail development, which contains a movie theatre and two undeveloped parcels. GRTA has an agreement with the property owner which allows GRTA to provide express bus service at this location. This has been a temporary measure put in place due to the urgent need to provide express service in the area. The park and ride facility infrastructure will consist of approximately 159 parking spaces, two bus pavilions, a Fare Systems Shelter for ticket vending, and access to the site from various locations. A portion of these spaces will be located in an existing paved parking area. The remaining parking will be constructed within a portion of an undeveloped outparcel at the northwest corner of the site. Commuter vehicles can access the parking area via two existing driveways along the northern main driveway, as well as one proposed driveway on Metromont Road.

From 1990 to 2000, the region added more than 1 million residents for a total of 3.7 million. Despite significant investments in freeways and transit systems, radial and suburban cross-town corridors alike are congested. By 2025, the number of daily trips in the region will rise to 14.6 million, a 37% increase. Until recently, an overall transit plan had not been developed for the region which would address the current and future transit needs. The plan, identified as the Regional Transit Action Plan (RTAP), has been developed over a two year time frame and has provided an integrated public transportation network for the region. The plan lays out a new direction in extending transit services into congested corridors through the implementation of a regional express bus program and the regional bus rapid transit system. As part of the development of such a system, locations throughout the region for supporting infrastructure are being identified. Such supporting infrastructure would include but not be limited to, park and ride lots, new construction and existing sites, and maintenance facilities.

0007924, Paulding County
September 14, 2007

Environmental concerns include requiring a Categorical Exclusion be prepared; a Public Information Open House will be held; Time saving procedures is appropriate.

The estimated costs for this project are:

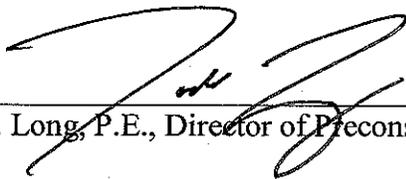
	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>	
Construction (includes E&C And inflation)	\$ 891,000	\$ 890,000	RRB	2008	
Right-of-way	\$ 2,350,000	\$ 2,350,000	RRB	2007	(Add)
Utilities	-0-				

I recommend this project concept be approved.


GRS: JDQ

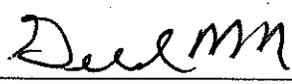
Attachment

CONCUR



Todd I. Long, P.E., Director of Preconstruction

APPROVED



Gerald M. Ross, P.E., Chief Engineer

PRECONSTRUCTION STATUS REPORT

PROJ ID	COUNTY	DESCRIPTION	MGMT. ROW DATE	SCHED DATE	MGMT. LET DATE
0007924	Paulding	HIRAM PARK & RIDE LOT - GRTA	Jan-07	Apr-08	Mar-08
CSMSL-0007-00(924)	FIELD DIST: 7				
TIP #: AR-610	TWIN:	US:			
MPO: Atlanta TMA		EST DATE: 7/31/07			
MODEL YR: 2010					
PROJ MGR: Clowers, Marlo	PROJ LENGTH: 0.00				
PROG: New Construction	TYPE WORK: Park & Ride Lot				
TYPE:					
CONCEPT: PARK & RIDE LOT	LET RESP: DOT	Congressional Districts: 11			

Phase	Approved	Proposed	Cost	Fund	Status
ROW	2007	2007	2,350,000.00	RRB	AUTHORIZED
CST	2008	2008	890,000.00	RRB	PRECST

SCHED START	SCHED FINISH	ACTIVITY	ACTUAL START	ACT/EST FINISH	PCT	DISTRICT COMMENTS
		Define Project Concept	2/16/07	4/27/07	100	Awaiting concept approval from Management [MLC 8/21/07].
		Concept Meeting	5/23/07	6/8/07	100	
		Concept Submittal and Review	7/3/07	7/31/07	100	
9/14/07	9/27/07	Receive Preconstruction Concept Approval			0	
9/27/07	9/27/07	Management Concept Approval Complete			0	
		Environmental Approval	4/1/07	5/16/07	100	
9/27/07	9/27/07	Preliminary Design			33	
10/19/07	10/22/07	FFPR Inspection			0	
		R/W Plans Preparation	5/4/07	5/18/07	100	
		R/W Plans Final Approval	5/23/07	5/23/07	100	
9/14/07	4/18/08	R/W Acquisition			14	
12/21/07	1/3/08	Stake R/W			0	
9/28/07	8/28/08	Final Design			0	
9/23/08	9/24/08	FFPR Inspection			0	
10/8/08	10/21/08	FFPR Response			0	

BIKE PROVISIONS INCLUDED?: N MEASUREMENT E CONSULTANT: R UT EST:

Bridge: NO BRIDGE REQUIRED
 EIS: COX - PCE 5-16-07
 LGPA: NOT APPLICABLE
 Programming: This project was split from PI# 0003543; PE done under 0003541
 EMG: PARK & RIDE LOT

R/W INFORMATION:

PREL PARCEL CT: 1 TOTAL PARCEL CT: 1 ACQUIRED BY: DOT ACQ MGR: Digsby, Pam
 UNDER-REVIEW CT: 0 RELEASED 1 OPT-PEND CT: 1 DEEDS CT: 0 COND-PEND CT: 0 COND-FILED CT: 0
 RW CERT DT: ACQUIRED CT: 0 RELOCATION CT: 0

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: CSMSL-0007-00(924) Paulding County
P.I. No. 0007924
Hiram Park & Ride Lot

OFFICE: AUG - 2 2007 Engineering Services

DATE: August 1, 2007

FROM:  Brian K. Summers, P.E., Project Review Engineer

TO: Genetha Rice-Singleton Assistant Director of Preconstruction

SUBJECT: CONCEPT REPORT

We have reviewed the Concept Report received July 31, 2007 from Marlo Clowers, and have no comments.

The costs for this project are:

Construction	\$ 809,211
E & C	\$ 80,921
Reimbursable Utilities	\$ 0
Right of Way	\$2,350,000

BKS

c: Ben Buchan, Attn.: Marlo Clowers

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924 - AR 610

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE 7/23/07

Mark S. Clowers DVM
Project Manager

DATE 7/30/07

James B. Bush
State Urban Design Engineer

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

9-5-07
DATE

Angie S. Olyson
State Transportation Planning Administrator

DATE

Financial Management Administrator

DATE

State Environmental / Location Engineer

DATE

Project Review Engineer

DATE

State Traffic Safety and Design Engineer

DATE

District Engineer

7-31-07

WBS

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE 7/23/07

Marlon S. Clowers DVM
Project Manager

DATE 7/30/07

James B. Bush
State Urban Design Engineer

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

DATE
8-6-07
DATE

State Transportation Planning Administrator
James F. Simpson
Financial Management Administrator

DATE

State Environmental / Location Engineer

DATE

Project Review Engineer

DATE

State Traffic Safety and Design Engineer

DATE

District Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE: 7/23/07 *M. Robert Clowers* DVM
Project Manager
DATE: 7/30/07 *James B. Bush*
State Urban Design Engineer

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

DATE _____ State Transportation Planning Administrator

DATE _____ Financial Management Administrator

DATE: 7/31/06 _____ State Environmental / Location Engineer
DATE _____ *[Signature]* Project Review Engineer

DATE _____ State Traffic Safety and Design Engineer

DATE _____ District Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE 7/23/07 Marion S. Clowers *D/M*
Project Manager

DATE 7/30/07 James B. Buch
State Urban Design Engineer

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

DATE	State Transportation Planning Administrator
DATE	Financial Management Administrator
DATE	State Environmental / Location Engineer
DATE	Project Review Engineer
<u>8-1-07</u>	<u>Heidi Sobel</u>
DATE	State Traffic Safety and Design Engineer
DATE	District Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P.I. No. 0007924

OFFICE: Environment/Location

DATE: August 7, 2007

FROM: 
Glenn Bowman, P.E., State Environmental/Location Engineer

TO: Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
CSMSL-0007-00(924) / Paulding County
Hiram Park and Ride Lot

The above subject concept report has been reviewed. It is important to note that this project is in a non-attainment area for PM and Ozone.

If you have any questions, please contact me at (404) 699-4401.

GB/lc

Attachment

cc: Brian Summers
Ben Buchan
Jamie Simpson
Angela Alexander
Keith Golden
Kent Sager

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PL No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE 7/23/07 *Mark S. Clowers* *D/M*
Project Manager
DATE 7/30/07 *James B. Bush*
State Urban Design Engineer

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

DATE	State Transportation Planning Administrator
DATE	Financial Management Administrator
<u>8-8-07</u> DATE	<u><i>John Brown</i></u> State Environmental / Location Engineer
DATE	Project Review Engineer
DATE	State Traffic Safety and Design Engineer
DATE	District Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

Recommendation for Approval:

DATE 7/23/07

Marlo S. Clowers *DVM*
Project Manager

DATE 7/30/07

James B. Beck
State Urban Design Engineer

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

DATE _____	State Transportation Planning Administrator
DATE _____	Financial Management Administrator
DATE _____	State Environmental / Location Engineer
DATE _____	Project Review Engineer
DATE _____	State Traffic Safety and Design Engineer
DATE _____	District Engineer

SCORING RESULTS AS PER MOG 2440-2

Project Number: CSMSL-0007-00(924)		County: Paulding		PI No.: 0007924	
Report Date: July 31, 2007		Concept By: DOT Office: District 6			
<input checked="" type="checkbox"/> Concept Stage					
Project Type: Choose One From Each Column		<input type="checkbox"/> Major	<input checked="" type="checkbox"/> Urban	<input type="checkbox"/> ATMS	
		<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Rural	<input type="checkbox"/> Bridge Replacement	
				<input type="checkbox"/> Building	
				<input type="checkbox"/> Interchange Reconstruction	
				<input type="checkbox"/> Intersection Improvement	
				<input type="checkbox"/> Interstate	
				<input type="checkbox"/> New Location	
				<input type="checkbox"/> Widening & Reconstruction	
				<input checked="" type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation	100				
Judgement	100				
Environmental	100				
Right of Way	100				
Utility	100				
Constructability	100				
Schedule	100				

NOTICE OF LOCATION AND DESIGN APPROVAL

**HIRAM PARK AND RIDE LOT
PAULDING COUNTY**

**Project Number CSMSL-0007-00(924)
P. I. No. 0007924**

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of the above project.

Date of Location and Design Approval: SEPTEMBER 27, 2007

This project provides a 2.3-acre park and ride lot within an existing commercial development along Metromont Road, in Paulding County, Georgia. The project lies entirely within Paulding County and within Land District 19, Land Lot 666.

Drawings of maps or plats of the proposed project as approved are on file and are available for inspection at the Georgia Department of Transportation.

**Bill Dungan, District 6/Area 5 Engineer
Department Of Transportation
Buchanan Area Office
4323 US Hwy 27
Buchanan, GA 30113
(770) 646-5522**

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

**James B. Buchan, P.E., State Urban Design Engineer
Department Of Transportation
No. 2 Capitol Square
Atlanta, Georgia 30334
(404) 656-5436
Ben.Buchan@dot.state.ga.us**

Any written request of communication in reference to this project or notice SHOULD include the Project and P.I. Numbers as noted at the top of this notice.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
Office of Urban Design

PROJECT CONCEPT REPORT

Hiram Park and Ride Lot
Paulding County

Project Number: CSMSL-0007-00(924)
PI No. 0007924

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: N/A
COUNTY ROUTE NO: C.R. 6

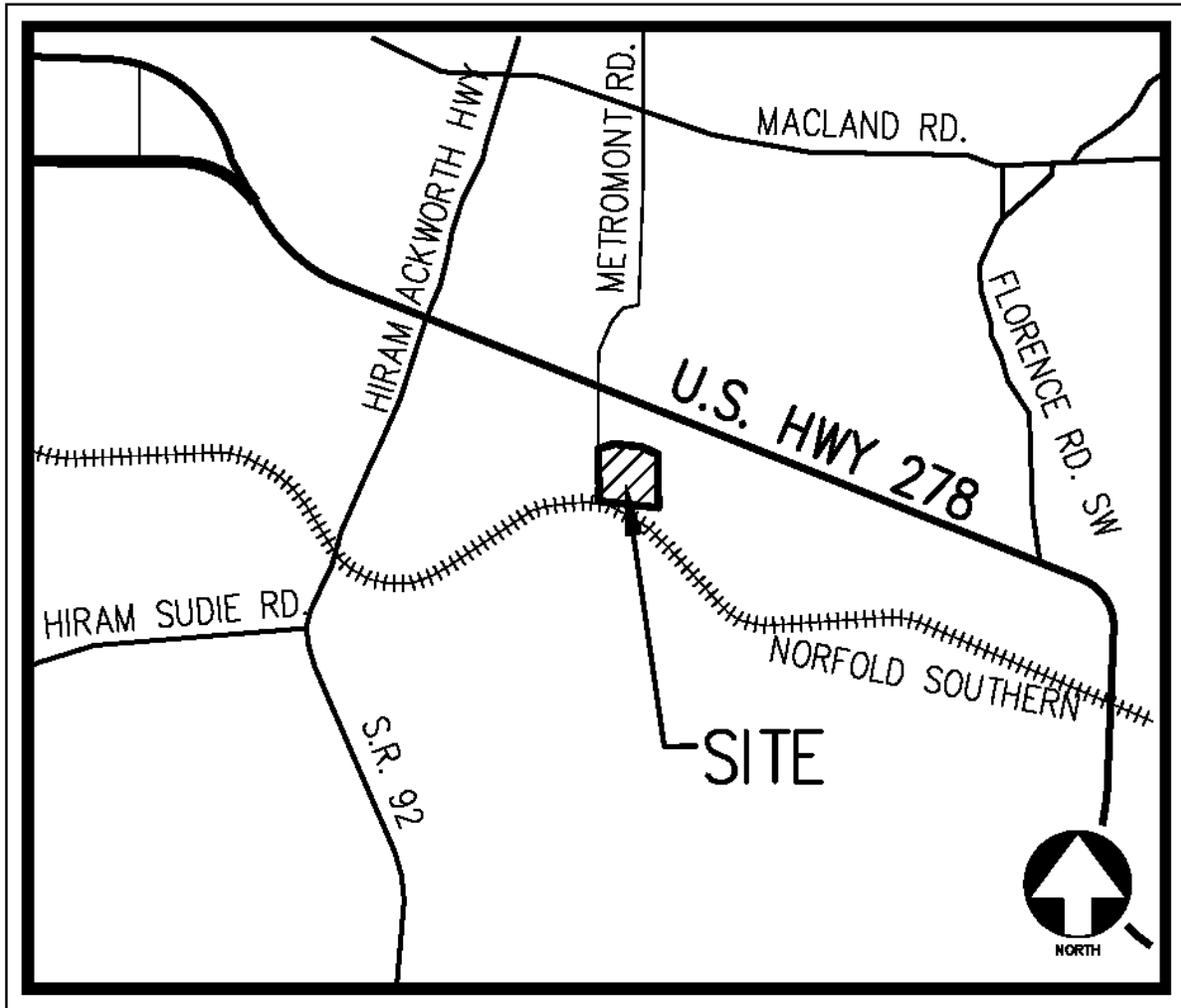
Recommendation for Approval:

DATE 7/23/07 Marlo D Clowers *D/M*
Project Manager

DATE 7/30/07 James B Buch
State Urban Design Engineer

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

DATE _____	_____ State Transportation Planning Administrator
DATE _____	_____ Financial Management Administrator
DATE _____	_____ State Environmental / Location Engineer
DATE _____	_____ Project Review Engineer
DATE _____	_____ State Traffic Safety and Design Engineer
DATE _____	_____ District Engineer



Location Map

Project: CSMSL-0007-00(924) PI No.: 0007924

Description: Hiram Park and Ride Lot

Need and Purpose: Traffic congestion is the most stubborn barrier to continued economic growth in Georgia and the metropolitan Atlanta region. From 1990 to 2000, the Atlanta region added more than 1.0 million residents to total 3.7 million – almost half of the population of Georgia.

Atlanta’s development pattern has increasingly dispersed employment and has generated scattered residential suburbs throughout the region. The dispersed pattern has created suburb-to-suburb transportation needs and has decreased the percentage of the region’s jobs located in one central location, downtown Atlanta (from 25% of the jobs in downtown Atlanta to 6%).

The region’s road network and trip-making patterns have created corridors with high levels of traffic congestion on a daily basis. Despite significant investments in freeways and transit systems, radial and suburban cross-town corridors alike are congested. By 2025, the number of daily person trips in the region will rise to 14.6 million, a 37% increase. There are 44 congested corridors within the 13-county region, as identified by the Atlanta Regional Commission (ARC).

In recent years, the Atlanta metropolitan region has taken major steps in meeting the transportation challenges for its residents and visitors. Until recently, an overall transit plan had not been developed for the region which would address the current and future transit needs. The plan, identified as the Regional Transit Action Plan (RTAP), has been developed over a two year time frame and has provided an integrated public transportation network for the Atlanta region. The RTAP and associated projects are included in the 2025 Amended RTP and the 2003-2005 TIP as Projects AR-367B, AR-367C, AR-392, and AR-393. The RTAP will be an integral transit component of the 2030 Regional Transportation Plan (RTP) being currently developed by the ARC.

The RTAP concept plan is the regional blueprint which would define the future public transportation network for the Atlanta region. The plan lays out a new direction in extending transit services into congested corridors through the implementation of a regional transit network consisting of 1) the Regional Express Bus Program and 2) the Regional Bus Rapid Transit System. The plan also calls for:

- Preservation and maintenance of existing transit services and infrastructure;
- Expanded local bus service throughout the 13-county region;
- A seamless, integrated fare policy for the region;
- An investment in Intelligent Transportation Systems technologies;
- Support tools that will enable more people to perceive transit as a viable option for their travel needs, and
- Land use plans and regulations should be modified to encourage transit-oriented developments; comprehensive plans should take a strong position on the role of transit in the community.

The RTAP has identified a regional express bus system, supporting circulator systems, arterial Bus Rapid Transit (BRT) corridors, and high speed BRT corridors. The identified system will provide competitive choices to the region’s residents, will enhance the customer experience, will invest wisely and optimize value of such a system, and will develop an integrated system.

As part of the development of such a system, locations throughout the region for supporting infrastructure are being identified. Such supporting infrastructure would include, but not be limited to, park and ride lots, new construction and existing sites, and maintenance facilities. One identified facility is the Hiram Park and Ride Lot in Paulding County, which is described below.

Description of the proposed project:

Existing Conditions and Current Bus Service

The proposed project consists of constructing a park and ride lot facility on a 2.30-acre site located in Paulding County, Georgia. The site is located within an existing 10.65-acre commercial/retail development, which contains a movie theatre and two undeveloped outparcels. GRTA has an agreement with the property owner which allows GRTA to provide express service at this location. Currently, commuters park in the overflow parking areas for the movie theatre, and the buses pick up and drop off riders along the northern boundary of the site. This has been a temporary measure that was put in place due to the urgent need to provide express service in the area. The purpose of this project is to construct a permanent park and ride facility, with two bus pavilions, bus parking and designated parking areas for commuters using the express service. Refer to the attached Route Information and System Map for more information about the Xpress service at this location.

Proposed Improvements

The park and ride facility will consist of approximately 159 parking spaces. A portion of these spaces will be located in an existing paved parking area. It is the intent to maintain the existing asphalt in this area, and modify the parking layout with islands and new striping to obtain the desired design. The remaining parking will be constructed within a portion of an undeveloped outparcel at the northwest corner of the site. Commuter vehicles can access the parking area via two existing driveways along the northern main driveway, as well as one proposed driveway on Metromont Road. There is an existing curb cut at this location, but the driveway has not been constructed.

Two bus parking stalls will be constructed along the existing internal retail development driveway along the northern boundary of the site. This will allow for the buses to pull into and out of the pavilion area, without blocking the road. It will also provide a safe area for riders to enter and exit the buses. Refer the attached renderings of the Bus Pavilions that will be constructed on this site.

Pavement Design

QORE Property Sciences was contracted to obtain pavement cores in the existing paved areas in order to determine the thickness and condition of the pavement. Cores were tested from both the internal driveway that the buses are currently using, and the parking area currently used by commuters. The test results are included as an attachment to this report. In addition, URS and GRTA conducted a field review to examine the current visible condition of the pavement, particularly in the area where the buses stop. Photographs of the pavement condition taken during the field review are also included as an attachment to this report. These two documents were used to determine the proposed pavement designs for this project. A summary of the pavement designs is as follows:

Commuter Parking Area – Existing Paved Area

Pavement Cores 1, 2, 4, 5 and 6 indicate that there is approximately 2-inches of asphalt and 6-inches of GAB in this area. For this project, this pavement will remain in place and no overlay is proposed.

Commuter Parking Area – New Pavement

The geotechnical report states that the soil support value in this area is 3.0. The pavement design is based on the Commuter Park and Ride Lots Minor Pavement Design Policy, dated September 19, 2006. This policy states that for pavement in commuter parking areas with a soil support value of 3.0 or less, the following pavement structure shall be used:

- 1-1/4 inches 9.5 mm Superpave
 - 2 inches 19 mm Superpave
 - 8 inches GAB
- Specify subgrade to be stabilized with 4 percent Portland Cement, 6 inches thick

Bus Lane – Existing Paved Area

Pavement Cores 3 and 7 indicate that the asphalt depth is just greater than 3-inches, but the depth of GAB in this area varies from only 4-1/2 to 8-3/4 inches. However, there are no visible indications of pavement failure in this area, not even where the buses stop. GRTA buses have been servicing this location for over a year. In addition, there is a construction site just to the west of this project, and this internal driveway is being used for construction equipment. For these two reasons, it is reasonable to leave the existing pavement in place, with no overlay at this time.

Bus Parking Area – New Pavement

The geotechnical report states that the soil support value is 3.0. The pavement design is based on the Commuter Park and Ride Lots Minor Pavement Design Policy, dated September 19, 2006. This policy states that for pavement in designated bus ways with a soil support value of 3.0 or less, the following pavement structure shall be used:

- 1-1/4 inches 9.5 mm Superpave
 - 2 inches 19 mm Superpave
 - 3 inches 25 mm Superpave
 - 8 inches GAB
- Specify subgrade to be stabilized with 4 percent Portland Cement, 6 inches thick

Hydrology

There is an existing detention pond on the site that was designed for build-out of the development. No additional detention will be required for this project.

Refer to the attached Concept Plan for further details.

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

PDP Classification: Major , or Minor

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

Functional Classification: CR 6/Metromont Road – Urban Local street

U.S. Route Number(s): N/A
State Route Number(s): N/A
County Route Number(s): CR 6 – Metromont Road

Traffic (2007 AADT): CR 6/Metromont Road – 1,500

Existing design features:

- Typical Section: CR 6/Metromont Road is a two-lane urban section. There is no sidewalk along the road in the areas adjacent to the project site.
- Posted speed: CR 6/Metromont Road - 35 mph
- Minimum radius for curve: N/A
- Maximum superelevation rate for curve: N/A
- Maximum degree of curvature: N/A
- Maximum grade: N/A
- Width of right of way: CR 6/Metromont Road – 80' R/W
- Major structures: None
- Major interchanges or intersections: N/A
- Existing length of roadway segment: 0 miles in length

Proposed Design Features:

- Proposed typical section(s): No roadway improvements are expected to CR 6/Metromont Road itself. The existing curb cut within the northernmost part of the parcel will be extended to create an additional access point for the parking area.
- Proposed Maximum grade Side Street: N/A
- Maximum grade allowable Side Street: N/A
- Proposed Maximum grade driveway: N/A
- Proposed Minimum radius of curve: N/A
- Minimum Radius allowable: N/A
- Proposed Superelevation rate for curves: N/A
- Right of way
 - Width: Acquisition of approximately 2.3 acres for parking lot only.
 - Easements: Temporary , Permanent , Utility , Other .
 - Type of access control: Full , Partial , By Permit , Other .
 - Number of parcels: **1 (2-Tracts)** Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures:
 - Bridges: None
 - Retaining walls: Retaining walls will be required along the new parking within the outparcel, as well as within the bus pavilion area. Refer to the attached Concept Plan for details.
- Major intersections: N/A
- Traffic control during construction: Minimal traffic control is anticipated on Metromont Road for the driveway extension. All work will be constructed under traffic.

- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROADWAY WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Design Variances: None expected
- Environmental concerns: None expected
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes , No ,
 - Categorical exclusion , approved 5/16/07
 - Environmental Assessment/Finding of No Significant Impact (FONSI) , or
 - Environmental Impact Statement (EIS) .
- Utility involvements: Gas, Water, Power in R/W and within the project site – Minor adjustments anticipated

Project responsibilities:

- Design, Consultants for GRTA
- Right of Way Acquisition, GDOT
- Relocation of Utilities, GDOT
- Letting to contract, GDOT
- Supervision of construction, GDOT
- Providing material pits, Contractor

Coordination

- Concept meeting date and brief summary: *see attached meeting minutes*
- P. A. R. meetings, dates and results: *Not required*
- FEMA, USCG, and/or TVA: *None*
- Public involvement: *Public meeting not required*
- Local government comments: *None*
- Other projects in the area: *None*
- Other coordination to date: *None*
- Railroad Coordination: *Not required*

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: Done. CE Approved on 5/16/07.
- Time to complete preliminary construction plans: 2 Months
- Time to complete right of way plans: Done. Plans Approved on 5/23/07.
- Time to complete the Section 404 Permit: N/A
- Time to complete final construction plans: 6 Months
- Time to purchase right of way: 2 Months
- List other major items that will affect the project schedule: None anticipated

Alternates considered:

The location for this park and ride lot was chosen to continue the current service that GRTA is providing in Hiram, therefore no alternate locations were considered.

Comments:

Attachments:

1. Preliminary Cost Estimate and Preliminary ROW Estimate
2. Concept Meeting Minutes
3. Notice of Location and Design Approval
4. Report of Pavement Evaluation and Limited Geotechnical Exploration
5. Engineer’s Field Report
6. General Xpress Service information, Route 470 Schedule and Xpress System Map
7. Concept Plan

Estimate Report for file "GRTA Hiram P&R Lot CSMSL-0007-00(924)"

Section ROADWAY ITEMS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	10000.00	TRAFFIC CONTROL - P.I. NO. 0007924	10000.00
210-0100	1	LS	100000.00	GRADING COMPLETE -	100000.00
318-3000	100	TN	20.39	AGGR SURF CRS	2039.00
441-3340	650	SY	37.47	CONC SIDEWALK, 4 IN	24355.50
441-6216	2810	LF	15.66	CONC CURB & GUTTER, 8 IN X 24 IN, TP 2	44004.60
Section Sub Total:					\$180,399.10

Section Pavement Items					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-1101	1740	TN	19.92	GR AGGR BASE CRS, INCL MATL	34660.80
402-3121	70	TN	73.34	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	5133.80
402-3131	270	TN	81.72	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	22064.40
402-3190	430	TN	75.19	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	32331.70
413-1000	240	GL	2.83	BITUM TACK COAT	679.20
Section Sub Total:					\$94,869.90

Section SIGNS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1033	75	SF	21.44	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	1608.00
636-2070	230	LF	9.58	GALV STEEL POSTS, TP 7	2203.40
Section Sub Total:					\$3,811.40

Section STRIPING ITEMS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
652-0095	6	EA	42.03	PAVEMENT MARKING, HANDICAP SYMBOL	252.18
652-0110	0	EA	48.61	PAVEMENT MARKING, ARROW, TP 1	0.00
652-0120	0	EA	46.47	PAVEMENT MARKING, ARROW, TP 2	0.00
652-5451	2960	LF	0.28	SOLID TRAFFIC STRIPE, 5 IN, WHITE	828.80
652-5701	70	LF	1.91	SOLID TRAF STRIPE, 24 IN, WHITE	133.70
652-5801	480	LF	0.92	SOLID TRAF STRIPE, 8 IN, WHITE	441.60
652-9001	70	SY	2.11	TRAFFIC STRIPE, WHITE	147.70
Section Sub Total:					\$1,803.98

Section RETAINING WALLS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
515-2015	260	LF	34.78	GALV STEEL PIPE HANDRAIL - WALL 3	9042.80
xxx-xxxx	140	LF	250.00	REINFORCED CONCRETE WALL, INCL CONCRETE & STEEL - WALL 1	35000.00
xxx-xxxx	130	LF	250.00	REINFORCED CONCRETE WALL, INCL CONCRETE & STEEL - WALL 2	32500.00
xxx-xxxx	260	LF	250.00	REINFORCED CONCRETE WALL, INCL CONCRETE & STEEL - WALL 3	65000.00
Section Sub Total:					\$141,542.80

Section HARDSCAPE/BUILDING ITEMS					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-9000	6	EA	143.06	PRECAST BUMPER BLOCK	858.36
763-0110	1	LS	201352.00	BUS PAVILLION (two buildings included)	201352.00
900-0526	6	EA	651.69	BOLLARDS	3910.14
Section Sub Total:					\$206,120.50

Section STORM DRAINAGE					
Item Number	Quantity	Units	Unit Price	Item Description	Cost

XXX-XXXX	2	AC	29300.00	STORM DRAINAGE	58600.00
Section Sub Total:					\$58,600.00

Section EROSION CONTROL AND GRASSING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
XXX-XXXX	2	AC	16605.00	EROSION CONTROL AND GRASSING	33210.00
Section Sub Total:					\$33,210.00

Section UTILITY - LIGHTING AND COMMUNICATION CONDUITS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
XXX-XXXX	2	AC	28107.00	LIGHTING AND COMMUNICATION CONDUIT	56214.00
Section Sub Total:					\$56,214.00

Section LANDSCAPE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
XXX-XXXX	2	AC	16320.00	LANDSCAPE	32640.00
Section Sub Total:					\$32,640.00

Total Estimated Cost: \$809,211.68

Subtotal Construction Cost	\$809,211.68
E&C Rate 10 %	\$80,921.17
Inflation Rate 0.0 % @ 0.0 Years	\$0.00
<hr/>	
Total Construction Cost	\$890,132.85
Right Of Way	\$2,350,000.
ReImb. Utilities	\$0.00
<hr/>	
Grand Total Project Cost	\$3,240,132.85

DETAIL COST ESTIMATE SUMMARY SHEET

DATE: 3/29/07

PROJECT: CSMSL 0007-00 (924)

P.I. #: 0007924

COUNTY: Paulding

PARCELS: 1

PROJECT DESCRIPTION: GRTA Park N Ride

1. LAND: (Total area and cost by category)

Right of Way: (2.3 AC) 100,188 SF X \$ 12.00/SF

\$ 1,202,256

Permanent and Temporary Easement:

\$ N/A

Total

\$1,202,256

2. IMPROVEMENTS:

Main Structures

\$ N/A

Site Improvements (parking lot site improvements & landscaping)

\$ 200,000

Total

\$ 200,000

3. Damages:

Damages to Land and Structures

\$ N/A

Specialty Costs (Cost to Cures, Trade Fixtures, etc.)

\$ N/A

Total

\$ N/A

4. RELOCATION: (Including Consequential Displacements)

Businesses (# Displaced x \$15,000):

\$ N/A

Residential Tenant: (# Displaced x \$20,000):

\$ N/A

Residential Owner (# Displaced x \$40,000):

\$ N/A

Total

\$ N/A

5. Property Management (Asbestos Removal and Demolition)

Number of Structures _____ x \$25,000/structure

\$ N/A

Number of sites with UST's _____ x \$50,000

\$ N/A

Number of signs (not billboards) _____ x \$1,500

\$ N/A

Total

\$ N/A

Estimated Cost of Right of Way

\$ 1,402,256

C/O, Condemnation Increase & Legal Cost (50% of R/W)

\$ 701,128

Service Fees and Appraisal Cost(# Par x \$7,500)

\$ 7500

Condemnation Cost (# Par x 15% x \$7,500)

\$ 7500

Incidentals (# Par x \$2,000)

\$ 2000

Net Cost

\$ 2,120,384

Market Appreciation (5% rural, 10% urban)

\$ 212,038

TOTAL COST

\$ 2,332,422

TOTAL COST (ROUNDED)

\$ 2,350,000

Credits: # Hours

Cc:
Attachment(s): Project Location Map; Comparable Sales Data

REVISED: 12-8-06

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE **Project No.** RWMSL-0007-00(924) Paulding County **OFFICE** Atlanta, GA
 P.I. No. 0007924 – Hiram Park and Ride Lot-GRTA **DATE** June 27, 2007

FROM Howard P. Copeland, Right of Way Administrator

TO Kent Sager, District Engineer, Cartersville
 ATTN: DeWayne Comer, Pre-Construction Engineer

SUBJECT **Right of Way Authorization**

This is to advise that right-of-way funds in the amount of \$2,350,000.00 have been authorized on June 20, 2007 for the acquisition of the above project. Please proceed with all acquisition activities and make all necessary charges (payroll and expense) under the above numbers beginning immediately.

This project is currently scheduled for a December 2007, Letting.

Relocation is to be handled according to Federal/State guidelines.

Incidental payments (pro-rata share taxes, pre-payment penalties recording and/or cancellation fees, and similar owner incurred payments) are to be made on all projects regardless of whether funding is State-aid or Federal-aid. Federal/State guidelines are to be followed during right-of-way acquisition and the \$15,000 limit does apply.

HPC/KTA/lg

Attachment

c: Todd Long; Wesley Brock; Rhonda Barnett; Yvonia Parham; Phil Copeland; Bobby Risper; Wates Keller; Pam Digsby, Acquisition Manager, Cartersville; General Files



MEMORANDUM

400 Northpark Town Center
1000 Abernathy Road, Suite 900
Atlanta, GA 30328
Phone: (678) 808-8800
Fax: (678) 808-8400

To: Attendees - see attached list
File: 15284026
From: Debbie Cottrell, PE
Copy: Faye DiMassimo, URS
Date: June 20, 2007 Chip Burger, URS
Subject: MEETING MINUTES – Concept Team Meeting for the Hiram Park and Ride Lot
CSMSL-0007-00(924), PI 0007924

Purpose:

The purpose of this memo is to document the Concept Team Meeting held with GDOT and GRTA on Thursday, June 8, 2007 starting at 10:30 AM at GDOT headquarters.

Meeting items discussed are as follows:

1. Shaun Green of GRTA provided a project overview, which included the following information. GRTA is currently providing express bus service at this location in Paulding County. GRTA has a temporary lease agreement with the owner of the Movies 278 movie theatre to allow commuters to park in the existing parking lot for the theatre during commuter times. The intent of this project is to purchase the land and construct a permanent bus pavilion area for long-term use. They are currently approximately 80 to 100 commuters using this service.
2. GDOT requested that more information about the Xpress bus service be provided. URS will add some more information about the service to the Concept Report. Specifically, this route continues south to Powder Springs, and then continues south to Thornton Road, where buses access I-20 into downtown Atlanta.
3. GDOT questioned why the other undeveloped outparcel was not purchased, and used to make the park and ride lot larger. GRTA responded that it would be cost prohibitive to purchase the additional land. Also, GRTA will still maintain the shared parking use with the movie theatre, so additional parking spaces are not required at this location.
4. Debbie Cottrell of URS summarized some specific design issues for this project. There is a need for three small retaining walls, as shown on the concept plan. URS anticipates that the GDOT standard gravity wall will be specified in these locations. The existing pavement along the bus path was also discussed. The concept report calls for the pavement to remain in place, since there are no visible signs of excessive wear and it is currently being used for construction traffic. GDOT did not have any comments on this issue.
5. Three GRTA bus pavilions will be constructed on this site. GDOT requested more information about these structures. URS will add renderings of the pavilion design to the concept report.
6. The project schedule was discussed. GRTA is in the process of negotiating with the land owner to purchase the property. The CE for the project has been approved. The project is currently scheduled to be let in December 2007.
7. URS will revise the concept report according to the items discussed, and the meeting notes will be included.

CONCEPT TEAM MEETING 6/8/07

CSMSL-0007-00(924), ARTA Hiram Park: Ride Lot

ATTENDEES:

<u>name</u>	<u>Dept/company</u>	<u>email</u>
Debbie Cottrell	URS	debbie_cottrell@URSCORP.com
Shawn Green	GRTA	sgreen@grta.org
Marlo Clowers	GDOT	Marlo.clowers@dot.state.ga.us
KEN WERTHO	GDOT	Ken.Wertho@dot.state.ga.us
Bill Dungan	GDOT	bill.dungan@dot.state.ga.us
KERRY BONNER	GDOT	kerry.bonner@dot.state.ga.us

NOTICE OF LOCATION AND DESIGN APPROVAL

**HIRAM PARK AND RIDE LOT
PAULDING COUNTY**

**Project Number CSMSL-0007-00(924)
P. I. No. 0007924**

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of the above project.

Date of Location and Design Approval: _____

This project provides a 2.3-acre park and ride lot within an existing commercial development along Metromont Road, in Paulding County, Georgia. The project lies entirely within Paulding County and within Land District 19, Land Lot 666.

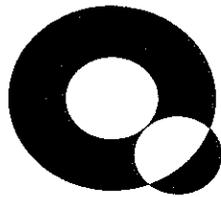
Drawings of maps or plats of the proposed project as approved are on file and are available for inspection at the Georgia Department of Transportation.

**Bill Dungan, District 6/Area 5 Engineer
Department Of Transportation
Buchanan Area Office
4323 US Hwy 27
Buchanan, GA 30113
(770) 646-5522**

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

**James B. Buchan, P.E., State Urban Design Engineer
Department Of Transportation
No. 2 Capitol Square
Atlanta, Georgia 30334
(404) 656-5436
Ben.Buchan@dot.state.ga.us**

Any written request of communication in reference to this project or notice SHOULD include the Project and P.I. Numbers as noted at the top of this notice.



Q O R ETM

PROPERTY SCIENCES

**REPORT OF
PAVEMENT EVALUATION AND
LIMITED GEOTECHNICAL EXPLORATION
HIRAM GRTA PARK AND RIDE LOT
METROMONT ROAD
PAULDING COUNTY, GEORGIA
QORE JOB NO. 27500, REPORT NO. 331023
February 16, 2007**

For

Ms. Jennifer Harper, P.E.
URS Corporation
400 Northpark Town Center
1000 Abernathy Road, N.E., Suite 900
Atlanta, Georgia 30328

Prepared by

QORE, Inc.
11420 Johns Creek Parkway
Duluth, Georgia 30097

**REPORT OF
PAVEMENT EVALUATION AND
LIMITED GEOTECHNICAL EXPLORATION
HIRAM GRTA PARK AND RIDE LOT
METROMONT ROAD
PAULDING COUNTY, GEORGIA
QORE JOB NO. 27500, REPORT NO. 331023
February 16, 2007**

© QORE, Inc., All Rights Reserved



February 16, 2007

URS Corporation
400 Northpark Town Center
1000 Abernathy Road, N.E., Suite 900
Atlanta, Georgia 30328

Attention: Ms. Jennifer Harper, P.E.

Subject: Pavement Evaluation and Limited Geotechnical Engineering Exploration
Hiram GRTA Park and Ride Lot
Metromont Road at U. S. Highway 278
Paulding County, Georgia
QORE Job No. 27500, Report No. 331023

Ladies and Gentlemen:

QORE, Inc. has completed a pavement evaluation and limited geotechnical engineering exploration for the Georgia Regional Transportation Authority's (GRTA) Hiram Park and Ride Lot project in Hiram, Georgia. Our work was performed in general accordance with our Proposal No. 06-1341, dated December 20, 2006. This report summarizes our understanding of the project, the subsurface conditions encountered, asphaltic pavement thicknesses, and presents our pavement remediation recommendations.

PROJECT INFORMATION

Our understanding of the project is based upon our conversations with Ms. Jennifer Harper, P.E. of URS and review of the provided concept plan (Drawing No. CP 3A). We understand that the northern quarter of an existing retail center parking lot, located southeast of the Metromont Road and U.S. 278 intersection will be converted to parking for the GRTA bus program. We have been asked to perform an evaluation on the existing pavement to assess its condition and potential need for an overlay and also a limited geotechnical engineering exploration in the grassed area to the west, adjacent to Metromont Road that will be graded and paved.

PROCEDURES

A portable electric core drill was used to cut seven 4-inch diameter cores through the existing asphaltic concrete pavement. After the core was retrieved and graded aggregate base removed and measured, hand auger borings were advanced. Several hand auger borings were also performed in the grassed area.

The hand auger borings were made by manually twisting a post-hole auger into the soil. The auger consists of two curved blades and a bucket which retains the soil as the auger is advanced. At regular intervals, the hand auger was removed from the boring and cone penetrometer

soundings were performed with a dynamic portable cone penetrometer. The device has a 1.5-inch diameter, 45-degree cone point with a surface area of 3.9 inches which is driven with a 15-pound steel weight sliding on a guide rod.

After the cone point was completely embedded at the test depth it was driven an additional $1\frac{3}{4}$ inches by the steel weight falling 20 inches onto a steel anvil. The number of hammer blows required to drive the cone the $1\frac{3}{4}$ -inch increment was recorded as the "penetration resistance" in units of blows per increment. Penetration resistance, when properly evaluated, is an index to the soil's strength, compressibility, and density.

CORE DATA AND SUBSURFACE CONDITIONS

Measured thicknesses of the asphaltic concrete pavement varied from $1\frac{7}{8}$ to $3\frac{1}{2}$ inches. Measured thicknesses of the graded aggregate base varied from 4 to $7\frac{1}{2}$ inches.

The subgrade at each core location was probed with a small diameter steel rod and was generally assessed to be firm to very firm. We observed a layer of large stone beneath the pavement section (asphalt and graded aggregate base materials) at PC-2.

Each hand auger boring, with the exception of PC-1, initially penetrated up to 7 feet of fill materials generally described as silty sands, sandy silts, and clayey silts with some organics and gravel. Dynamic cone penetrometer values in the fill varied from 3 to 19 blows per increment (bpi). Beneath the fill in Boring PC-7 and below the pavement section in Boring PC-1 were residual soils that were visually described as clayey silts, sandy silts, and silty sands. Dynamic cone penetrometer values in the residual soils ranged from 10 to 20+ bpi. Borings PC-2, PC-3, PC-4, PC-5, and HAB-3 encountered hand auger refusal at depths of 9 inches to $4\frac{1}{2}$ feet on "gravelly" materials. The remaining borings reached their planned termination depth of 5 to 7 feet without encountering hand auger refusal.

Groundwater was not encountered by any of the borings at the time of this exploration. We note that groundwater levels fluctuate with seasonal and cyclical temperature and precipitation and may exist at different levels in the future.

The hand auger boring holes were backfilled with the excavated spoils and the coreholes were backfilled with compacted crushed stone and capped with a cold-mix asphalt patching material.

The preceding is a generalized description of subsurface conditions. The Hand Auger Boring Record in the Appendix contains more specific descriptions for each boring.

LIMITATIONS OF CONCLUSIONS AND RECOMMENDATIONS

This report is for the exclusive use of the URS Corporation and GRTA for specific application to the subject project. Our conclusions and recommendations have been prepared using generally accepted standards of geotechnical engineering practice in the State of Georgia. No other warranty is expressed or implied. This company is not responsible for the conclusions, opinions, or recommendations of others based on these data.

Our conclusions and recommendations are based on project information furnished to us, the data obtained from this subsurface exploration, and our past experience. They do not reflect variations

in the subsurface conditions which are likely to exist between our borings and in unexplored areas of the site due to the inherent variability of the subsurface conditions in this geologic region as well as previous site grading. If such variations become apparent during construction, it will be necessary for us to re-evaluate our conclusions and recommendations based upon on-site observation of the conditions.

If the overall design concept is changed, the recommendations contained in this report must not be considered valid unless the changes are reviewed by our firm and our recommendations modified or confirmed in writing. When the design is finalized, we should be given the opportunity to review the grading plan and applicable parts of the project specifications. This service will allow us to determine whether these documents are consistent with the intent of our recommendations.

Field observations, monitoring, and quality assurance testing during earthwork and foundation installation are an extension of the geotechnical design. We recommend that the owner retain these services and that we be allowed to continue our involvement in the project through these phases of construction. Our firm is not responsible for interpretation of the data contained in this report by others, nor do we accept any responsibility for job site safety which is the sole responsibility of the contractor.

CONCLUSIONS AND RECOMMENDATIONS

EXISTING PAVEMENT

New Pavement

After the "grassed" area is evaluated, filled, and/or remediated, the new pavement section can be constructed. We recommend a minimum 6 inches of graded aggregate base, 2 inches of binder, and 1½ inches of surface course.

The existing pavement appears to be in good condition showing no obvious block, alligator, or reflective cracking. In the automobile parking area, a 1- to 1½-inch overlay can be used to resurface the pavement. Due to anticipated heavy bus loads imposed on the pavement adjoining U. S. Highway 278, we performed a separate analysis.

To avoid any problems with subsidence or cracking of the future pavements due to conditions that may exist within the old fill it should be totally undercut. We expect that this option is economically not feasible. The GDOT pavement evaluation software indicates that a 2-inch overlay will provide a 10-year pavement for use by seven buses per day. The design vehicle used for this assessment is a compressed natural gas-powered bus. Of course, as with any overlay, its performance should be monitored on at least a yearly basis.

EARTHWORK RECOMMENDATIONS

Site Preparation

The borings performed outside of the existing pavement section encountered up to 6 feet of fill. The fill materials appear to have been placed with varying degrees of compactive effort. Additionally, the fill materials were noted to be slightly wet of their optimum moisture contents. Also, some of the near-surface soils were assessed to be of relatively low consistency. To

further evaluate the old fill, test pits could be excavated and density tests performed. If some risk of future subsidence is acceptable, after all vegetation is stripped from the non-paved areas, at-grade areas and areas that are to receive fill should be proofrolled with a fully loaded tandem-axle dump truck or earthmoving scraper in the presence of our engineer. Proofrolling consists of repeated overlapping passes over the subgrade with this equipment. If backhoe pits have not been previously excavated to further evaluate fill, they should be performed at this time. Any buried debris or concentration of organics should be removed.

Any materials judged to deflect excessively under the wheel loads and which cannot be densified by continued rolling should be undercut to stable soils or stabilized in place before placing fill. Based on our boring data and observations, we anticipate that the upper 1½ to 2 feet of fill at several locations will require undercutting, drying, and recompacting. The extent of this will partially depend on weather conditions at the time of construction. The construction budget should include a contingency for undercutting and replacement.

Structural Fill

After subgrade evaluation/preparation, below grade areas may be brought to their design subgrades with structural fill. Structural fill is defined as inorganic natural soil with maximum particles sizes of 3 inches, and plasticity indexes of 30 or less. Structural fill should be placed in relatively thin (4- to 8-inch) layers and compacted to at least 95 percent of the soil's standard Proctor maximum dry density. The upper 12 to 18 inches of the pavement subgrade should be compacted to 100 percent of the soil's standard Proctor maximum dry density. In our opinion, the residual soils and the existing fill similar to those encountered in our borings, less any organic materials, can be used as structural fill. It should be anticipated that drying of old fill will be required to allow compaction to structural fill standards. Any fill soils from off-site sources also must meet these criteria and should be evaluated by the geotechnical engineer before being brought to the site.

Density Testing

In-place density testing must be performed as a check that the previously recommended compaction criteria are achieved. Density testing on a part-time basis may suffice since only limited fill placement is expected. A suggested *part-time* testing frequency is one test for every 5,000 square feet of in-place fill for building/parking areas, and one test for every 100 to 150 linear feet of utility trench backfill. As fill is being placed, tests should be performed at vertical intervals of 2 feet or less by an experienced soil technician working under the direction of our project engineer.

EXCAVATION CONDITIONS

No rock, partially weathered rock, or very dense/hard soils were encountered within the depths explored. We anticipate that excavation can be accomplished with conventional rubber tired or heavy grading equipment.

FINAL SUBGRADE PREPARATION

Between completion of mass grading and construction of floor slabs and pavement base courses, subgrades are often disturbed by weather, utility line installation, and other construction activities.

For this reason, subgrades should be evaluated by a geotechnical engineer immediately prior to constructing floor slabs and pavement base courses. During these evaluations, the subgrades should be proofrolled with a fully loaded tandem-axle dump truck. Areas judged by the geotechnical engineer to perform unacceptably under the moving load should be undercut and replaced with compacted crushed stone or structural fill.

PAVEMENT DESIGN VALUES

Based on our experience in Paulding County and current GDOT guidelines, we recommend the following values be used in the pavement design calculations for this project:

Soil Support Value	=	3.0
Regional Factor	=	1.8
Subgrade Reaction, k_s	=	150 pci

Additionally, graded aggregate base is the only base material recommended for use on this project.

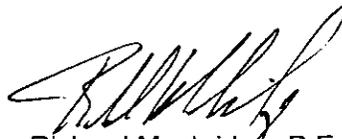
ACKNOWLEDGMENT

QORE, Inc. appreciates the opportunity to provide the pavement evaluation and limited geotechnical exploration for GRTA's Hiram Park and Ride Lot project. If you have any questions regarding this report or if we can be of further assistance, please do not hesitate to contact us.

Respectfully submitted,

QORE, Inc.


Jeffrey A. Doubrava, P.E.
Project Geotechnical Engineer
Reg. Ga. 30803

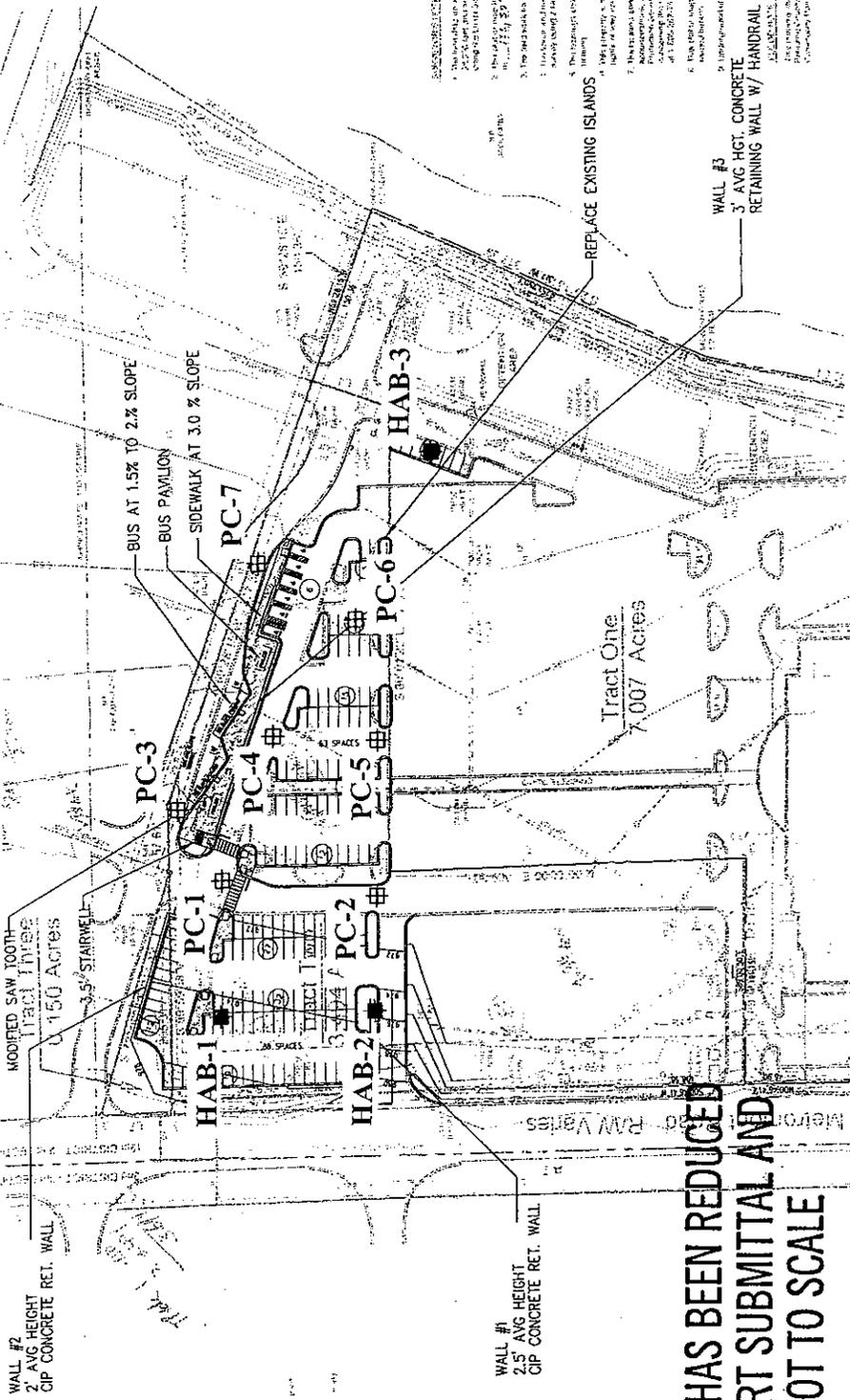

Richard Mockridge, P.E.
Vice President

JAD/RM/rs

Enclosures

APPENDIX

HAND AUGER BORING AND PAVEMENT CORING LOCATION PLAN
HAND AUGER BORING RECORDS
PROCEDURES



1. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.01.
2. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.02.
3. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.03.
4. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.04.
5. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.05.
6. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.06.
7. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.07.
8. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.08.
9. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.09.
10. The retaining wall shall be constructed in accordance with the provisions of the International Building Code, Section 1807.10.



**THIS PLAN HAS BEEN REDUCED
FOR REPORT SUBMITTAL AND
IS NOT TO SCALE**

LEGEND

- APPROXIMATE HAND AUGER BORING LOCATION
- ⊕ APPROXIMATE PAVEMENT CORE LOCATION

QORE
PROPERTY SCIENCES

PROJECT NO.	27500	REPORT NO.	331023	DATE	01/22/07
VERTICAL SCALE	N/A	HORIZONTAL SCALE	1" = 100'	CAD FILE NO.	27500
DRAWN BY	MRH	REVIEWED BY	SPD	PLATE NO.	1

Hand Auger Boring and Pavement Core Location Plan
Hiram GRTA Park and Ride Lot
Metromont Road
Paulding County, Georgia

HAND AUGER BORING RECORD					
HIRAM GRTA PARK AND RIDE LOT METROMONT ROAD PAULDING COUNTY, GEORGIA JOB NO. 27500, REPORT NO. 331023					
Boring No.	Depth		Description	Penetrometer	
	From	To		Depth	"N"
PC-1	0	2½"	Asphalt		
	2½"	10"	Graded Aggregate Base		
	10"	4'	Residuum – Firm to stiff tan and brown clayey silt	1 3	20+ 14
	4'	5'	Firm tan and brown silty fine to medium sand with some clay	5	12
	5'		Boring terminated		
PC-2	0	3½"	Asphalt		
	3½"	9"	Graded Aggregate Base		
	9"		Hand auger refusal on large ("surge") stone layer		
PC-3	0	3½"	Asphalt		
	3½"	7½"	Graded Aggregate Base		
	7½"	1¼'	Fill – Firm tan and brown clayey silt with traces of organics and sand	1	7
	1¼'	4'	Fill – Stiff tan and brown clayey silt with some sand	3 4	17 17
	4'		Auger refusal		
PC-4	0	2"	Asphalt		
	2"	8¾"	Graded Aggregate Base		
	8¾"	1½'	Fill – Firm red-brown clayey silt with some gravel	1	9
	1½'		Auger refusal in gravelly materials		
PC-5	0	1⅞"	Asphalt		
	1⅞"	9"	Graded Aggregate Base		
	9"	2'	Fill – Firm to stiff brown clayey silt with some sand and gravel	1	19
	2'	3'	Fill – Firm red-brown clayey silt with some gravel	3	7
	3'		Auger refusal in gravelly materials		

HAND AUGER BORING RECORD

**HIRAM GRTA PARK AND RIDE LOT
METROMONT ROAD
PAULDING COUNTY, GEORGIA
JOB NO. 27500, REPORT NO. 331023**

Boring No.	Depth		Description	Penetrometer	
	From	To		Depth	"N"
PC-6	0	2½'	Asphalt		
	2½'	7½'	Graded Aggregate Base		
	7½'	1'	Fill – Firm brown silty fine to medium sand with some gravel	1	20
	1'	6½'	Fill – Firm tan and gray sandy silt with some clay and a trace of gravel	3 5	5 3
	6½'	7'	Fill – Stiff gray and brown sandy silt with a trace of organics	7	12
	7'		Boring terminated		
PC-7	0	3¼"	Asphalt		
	3¼"	12"	Graded Aggregate Base		
	12"	1½'	Fill – Firm tan and gray clayey silt with some sand and organics	1½	11
	1½'	5'	Residuum – Stiff tan and brown sandy silt with a trace of clay	3 5	15 10
	5'		Boring terminated		
HAB-1	0	2'	Fill – Firm tan and brown sandy silt with traces of mica and gravel	1	11
	2'	3'	Fill – Loose tan and brown clayey silt with some sand	3	12
	3'	5'	Fill – Firm tan and brown and white sandy silt with some clay	5	11
	5'		Boring terminated		
HAB-2	0	2¼'	Fill – Firm tan and gray sandy silt with traces of clay, organics, and topsoil	1	7
	2¼'	3¾'	Fill – Stiff red-brown sandy silt with some clay and a trace of mica	3	14
	3¾'	6'	Fill – Firm gray silty sand with traces of clay and organics	5 6	10 8
	6'		Boring terminated		
HAB-3	0	3'	Fill – Firm tan and gray sandy silt with traces of organics, wood pieces, and clay	1	6
	3'	4½'	Fill – Soft to firm red-brown micaceous sandy silt with some gravel	3	4
	4½'		Auger refusal		

PROCEDURES

INTRODUCTION

QORE, Inc. performs tests in general accordance with the American Society for Testing and Materials (ASTM) or the United States Army Corps of Engineers procedures. These procedures are generally recognized as the basis for uniformity and consistency of test results in the geotechnical engineering profession. All work is initiated and supervised by qualified engineers. Our tests are performed by skilled technicians trained in either ASTM or Corps procedures. Our equipment is well maintained, and our laboratory equipment is calibrated at least yearly.

Subsequent portions of this Appendix briefly describe of our testing procedures. Where applicable, we have referenced these procedures to either ASTM or the Corps of Engineers standards which contain specific descriptions of apparatus, procedures, reporting, etc.

Annual Book of ASTM Standards, Section 4, Volumes 4.08 and 4.09: Soil and Rock. American Society for Testing and Materials, Latest Edition.

EM 1110-2-1803, Subsurface Investigations, Soils, Chapter 3. U.S. Army Corps of Engineers, 1972.

EM 1110-1-1801, Geological Investigations. U.S. Army Corps of Engineers, 1978.

EM 1110-2-1907, Soil Sampling. U.S. Army Corps of Engineers, 1972.

EM 1110-1-1802, Geophysical Exploration. U.S. Army Corps of Engineers, 1979.

EM 1110-2-1906, Laboratory Soils Testing. U.S. Army Corps of Engineers, 1970.

PROCEDURES

HAND AUGER BORINGS WITH PORTABLE CONE PENETROMETER TESTS

The borings were made by manually twisting a post-hole auger into the soil. The auger consists of two curved blades and a bucket which retains the soil as the auger is advanced. At regular intervals, the hand auger was removed from the boring and cone penetrometer soundings were performed with a dynamic portable cone penetrometer. The device has a 1.5-inch diameter, 45-degree cone point with a surface area of 3.9 inches which is driven with a 15-pound steel weight on a guide rod.

After the cone point was completely embedded at the test depth it was driven an additional $1\frac{3}{4}$ inches by the steel weight falling 20 inches onto a steel anvil. The number of hammer blows required to drive the cone the $1\frac{3}{4}$ -inch increment was recorded as the "penetration resistance" in units of blows per increment. Penetration resistance, when properly evaluated, is an index to the soil's strength, compressibility, and density.



ENGINEER'S FIELD REPORT

Project:	Hiram Park and Ride Lot	Project No.:	CSMSL-0007-00(924)
Project County:	Paulding	Weather:	
Present at Site:	Debbie Cottrell – URS Shaun Green - GRTA	Date:	March 20, 2007

CONSTRUCTION ACTIVITIES SINCE LAST REPORT*:

Project is still in the Concept Design phase. Construction has not begun.

OBSERVATIONS:

There were approximately 90 vehicles parked in the temporary GRTA parking area.

The existing pavement in the roadway that the buses use seemed to be in very good condition. There were no visible signs of pavement failure where the buses stop, or where they turn left to exit the lot.

Construction traffic was observed on that same road. It is being used to access the construction site for an office park just east of this parking lot. Several cars were also observed using this road to access the restaurants on the north side of the road.

RECOMMENDATIONS:

Project Name: Hiram Park and Ride Lot	Site Location:	Project No. CSMSL-0007-00(924)
---	-----------------------	--

Photo No. 1	Date: 03/20/2007
------------------------------	----------------------------

Direction Photo Taken:
Looking west

Description:
The roadway on the left is the current path that GRTA buses use at this location. The cars parked in this photo are GRTA riders.

This is also the location for the future bus pavilion area for this project.



Photo No. 2	Date: 03/20/2007
------------------------------	----------------------------

Direction Photo Taken:
Looking west, towards Metromont Road

Description:
This is the current bus path that the GRTA buses use to service this location.

The proposed bus pavilion area will be located where the island is on the left side of this photo.



Project Name: Hiram Park and Ride Lot	Site Location:	Project No. CSMSL-0007-00(924)
---	-----------------------	--

Photo No. 3	Date: 03/20/2007
------------------------------	----------------------------

Direction Photo Taken:
Looking east

Description:
The concrete sidewalk on the right side of the road is the temporary bus stop for GRTA riders. No pavement failure is evident in this area where the buses stop.



Photo No. 4	Date: 03/20/2007
------------------------------	----------------------------

Direction Photo Taken:
Looking east

Description:
This is a closer view of the pavement at the current bus stop.



Project Name: Hiram Park and Ride Lot		Site Location:	Project No. CSMSL-0007-00(924)
Photo No. 5	Date: 03/20/2007		
Direction Photo Taken: Looking south, towards the movie theatre			
Description: This is a closer view of the pavement at the current bus stop location. The cars parked in this area are GRTA riders.			

Photo No. 6	Date: 03/20/2007		
Direction Photo Taken: Looking west, standing at the current bus stop			
Description: Construction traffic is currently using this road to access the construction site in this photo.			



FAST SCHEDULES

- Choose one ▲
- Guía de viajes
- Route 400
- Route 408
- Número de ruta 408
- Route 410
- Route 412 ▼

About Xpress

Xpress is metropolitan Atlanta's newest public transportation service. Operated as a partnership between the Georgia Regional Transportation Authority (GRTA) and 11 counties in the region, **Xpress** provides a relaxing, easy-to-use connection between home and work for the region's commuters. Clean, comfortable and convenient, **Xpress** began operation in June 2004 with routes to downtown Atlanta from Hampton, Jonesboro and Conyers.

Additional routes have been added from Douglasville, Newnan and McDonough to downtown Atlanta and from Cumming to the North Springs MARTA station. More routes will be added over the next several years, taking into account the availability of park-and-ride lots, transit connections and customer interest. Current plans envision a network of 27 **Xpress** routes serving the region by the end of the decade.

Schedules:

Xpress service is provided Monday through Friday beginning at approximately 5:30 a.m. and ending at approximately 9:30 p.m. Check individual route [schedules](#) for specific hours of operation.

Off Peak Hours:

Off-peak hours (times when traffic congestion is lighter) occur between 9 a.m. and 3 p.m. and after 7 p.m.

Fares:

Xpress 31-day (\$80) and 20-ride ride (\$45) and 40-ride (\$85) fare cards may be purchased through this website, at the MARTA Five Points, Sandy Springs and North Springs stations, and at the GRTA offices. (The MARTA RideStore will not accept credit cards.) One way (\$3) and round-trip (\$5) fares may be purchased, using exact change please, on the coaches. [Click here to learn more ...](#)

Half Price Fares:

The elderly, Medicare card holders and persons with disabilities are eligible for half-price fares on those routes operating during off-peak hours. You must show the driver your Medicare card to qualify for the half fare.

Frequently Asked Questions:

Where does Xpress run?

Xpress operates in 11 Georgia counties and the City of Atlanta. The counties are Clayton, Cobb, Coweta, DeKalb, Douglas, Forsyth, Fulton, Gwinnett, Hall, Paulding and Rockdale. A [system map](#) and [schedules](#) can be found by clicking on the underlined words.

Who Runs Xpress?

GRTA, the Georgia Regional Transportation Authority, is currently responsible for

Atlanta, G



SEARCH XPRESS

- About Xpress
- Xpress Schedules
- System Map
- Xpress Tickets
- Guía de viajes
- Future Routes and Park & Ride Lots
- Xpress Ridership
- Xpress Customer Service
- Customer Satisfaction Survey
- Contact Xpress
- Partner Systems

- Xpress It
- Careers
- Guaranteed Ride Home

coordinating the operations of **Xpress**. GRTA has contracted with McDonald Transit Associates, Inc. to operate and maintain the **Xpress** system. The [Xpress](#) page has specific contact information for GRTA.

How is **Xpress** funded?

Xpress operations are supported with rider fares, federal, state and local funds. Each of the participating counties made a one-time payment that will help pay for approximately the first 5 years of **Xpress** operations. In exchange for this support, GRTA, the Georgia Department of Transportation (GDOT) and the State Road and Tollway Authority (SRTA) provided funds for the construction of arterial road improvements selected by each county. The ratio of county funds to arterial road improvement funds is approximately 1:12. In other words, for each \$1 a county provided, GRTA and its partners provided \$12. Assistance was also provided by the Atlanta Regional Commission to schedule the arterial road programs in the region's transportation improvement program.

Can **Xpress riders transfer to or from MARTA?** Bus to rail transfers are available from your driver on routes that connect to MARTA rail stations. **Xpress** accepts MARTA transfers and current monthly or weekly MARTA TransCards at North Springs, Civic Center, Peachtree Center and Five Points stops. The MARTA/**Xpress** Transfer page has more information about transferring between the two systems.

How can I apply for a job with **Xpress**?

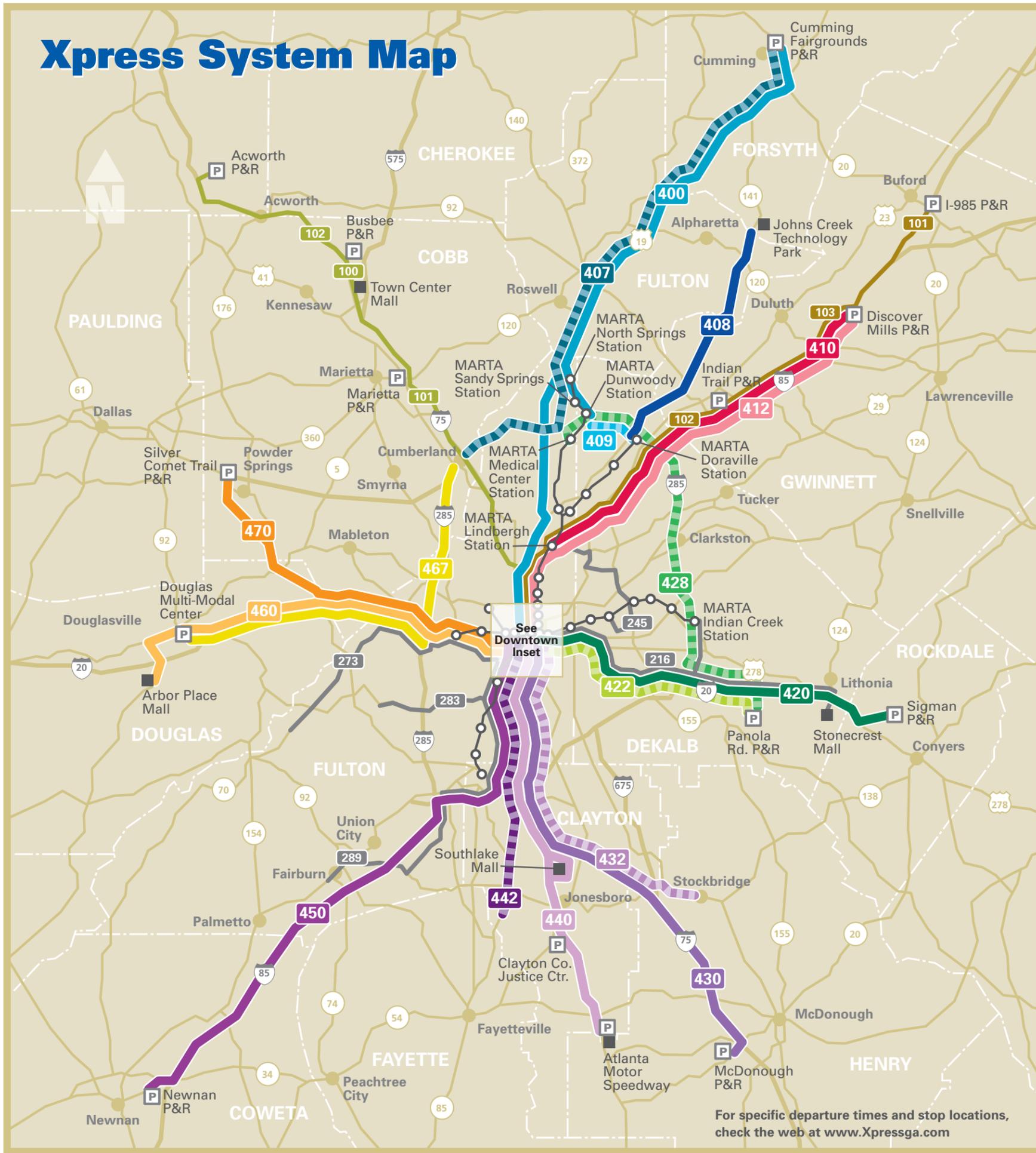
McDonald Transit Associates, Inc. is responsible for hiring employees to staff **Xpress** operations. More information is available on the [Employment](#) page.

[Home](#) | [About Xpress](#) | [Accessibility](#) | [Contact Xpress](#) | [Customer Service](#) | [Xpress It](#) | [Xpress Schedules](#) | [Xpress Tickets System Map](#) | [Partner Systems](#) | [Customer Bill of Rights](#) | [Lost and Found](#) | [GRTA Home](#) | [Privacy Policy](#) | [Employment](#)

©2004, 2005, 2006 [GRTA](#)

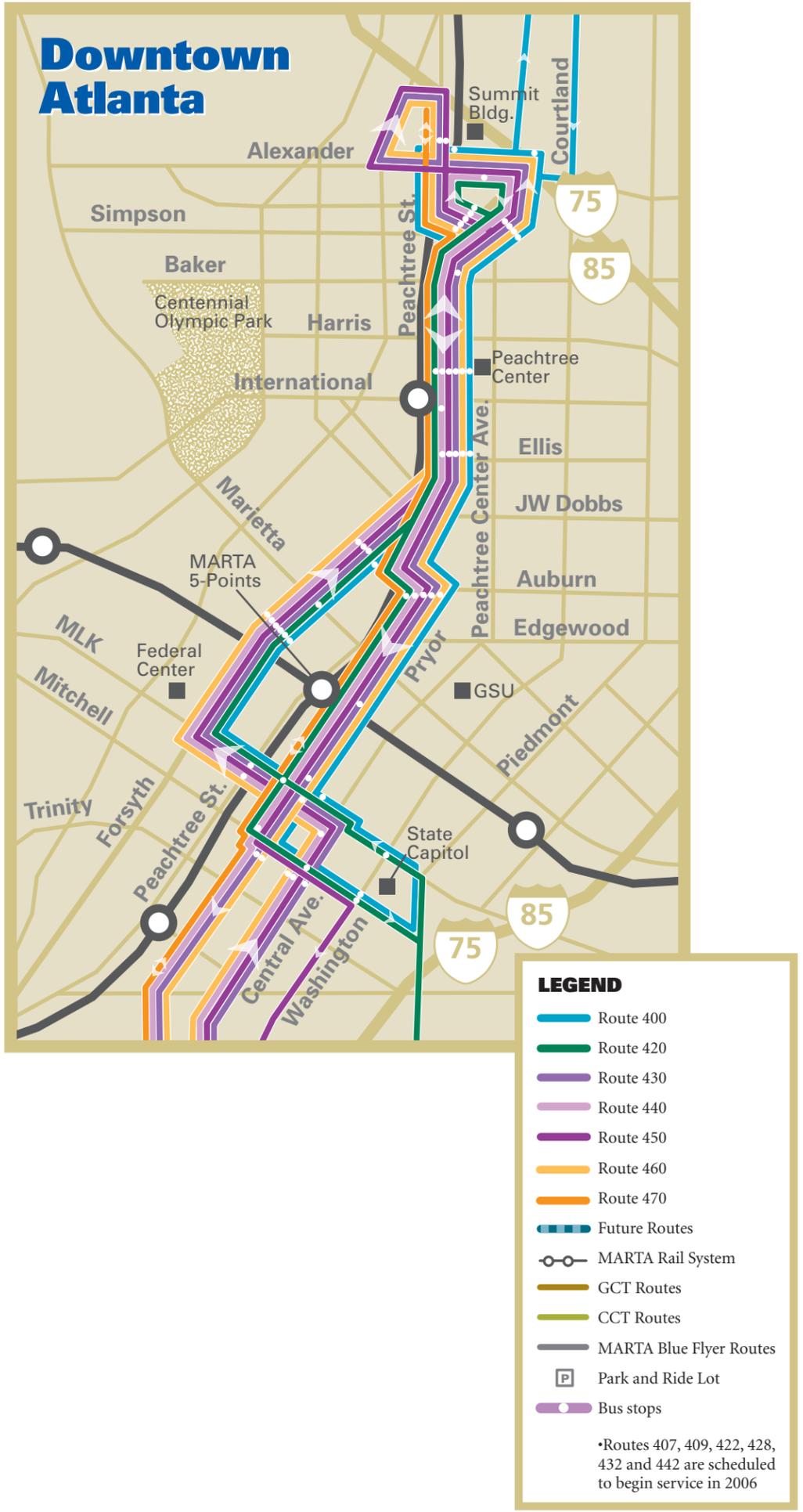
This website requires Microsoft Internet Explorer 4 or Netscape version 4 as well as screen resolution of at least 800x600. Contact the [webmaster](#) if you experience any technical problems.

Xpress System Map



For specific departure times and stop locations, check the web at www.Xpressga.com

Downtown Atlanta



LEGEND

- Route 400
- Route 420
- Route 430
- Route 440
- Route 450
- Route 460
- Route 470
- Future Routes
- MARTA Rail System
- GCT Routes
- CCT Routes
- MARTA Blue Flyer Routes
- Park and Ride Lot
- Bus stops

*Routes 407, 409, 422, 428, 432 and 442 are scheduled to begin service in 2006



FAST SCHEDULES

Choose one
 Guia de viajes
 Route 400
 Route 408
 Route 410
 Route 412
 Route 418

[Home](#)

[About Xpress](#)

[Accessibility](#)

[Contact Xpress](#)

[Xpress
Customer Service](#)

[Xpress It](#)

[Xpress Schedules](#)

[System Map](#)

[Xpress Tickets](#)

[Guia de viajes](#)

[Future Routes and
Park & Ride Lots](#)

[Partner Systems](#)

[Customer Bill of
Rights](#)

ROUTE 470 -HIRAM/POWDER SPRINGS TO DOWNTOWN effective April 24, 2006

This route is operated by Cobb Community Transit. Only CCT fares, passes, the Breeze Card and exact cash will be valid on this route.

A.M. ROUTE

Movies 278 at 185 Metromount Rd. and U.S. 278 in Hiram	Silver Comet Trailhead Powder Springs	Blair Bridge Rd.	MARTA Five Points Station Forsyth St.	McGill Blvd. at MARTA Civic Center Station
5:20 A.M.	5:30 A.M.	5:46 A.M.	6:17 A.M.	6:25 A.M.
5:50	6:00	6:16	6:47	6:55
6:20	6:30	6:46	7:17	7:25
6:50	7:00	7:16	7:47	7:55
7:20	7:30	7:46	8:17	8:25
7:50	8:00	8:16	8:47	8:55

P.M. ROUTE

McGill Blvd. at MARTA Civic Center	Pryor St. at Alabama St.	Blair Bridge Rd.	Silver Comet Trailhead Powder Springs	Movies 278 at 185 Metromount Rd. and U.S. 278 in Hiram
3:45 P.M.	3:55 P.M.	4:27 P.M.	4:43 P.M.	4:48 P.M.
4:15	4:25	4:57	5:13	5:18
4:45	4:55	5:27	5:43	5:48
5:15	5:25	5:57	6:13	6:18
5:45	5:55	6:27	6:43	6:48
6:15	6:25	6:57	7:05	7:18

REVERSE COMMUTES

McGill Blvd. at MARTA Civic Center Station	Pryor St. at Alabama St.	DOT Park & Ride at Blair Bridge Rd.	Powder Springs at Silver Comet Trail	Movies 278 at Metromount Rd. and U.S. 278 in Hiram
>>6:30 A.M. 5:53 P.M.<<	>>6:38 A.M. 5:45 P.M.<<	>>7:12 A.M. 5:14 P.M.<<	>>7:28 A.M. 4:58 P.M.<<	>>7:33 A.M. 4:53 P.M.<<

INBOUND TO DOWNTOWN ATLANTA

- [Central and Mitchell](#)
- [Martin Luther King, Jr. and Peachtree](#)
- [Forsyth near Alabama - MARTA Five Points Station Entrance](#)
- [Forsyth and Luckie - Across from Rialto Theater](#)
- [Peachtree and Ellis](#)
- [Peachtree Center \(Peachtree Street between Andrew Young International Boulevard and Harris\)](#)
- [Peachtree Street north of Baker - in front of SunTrust Building](#)
- [McGill and West Peachtree - in front of the Summit Building](#)
- And all MARTA stops on this route

OUTBOUND FROM DOWNTOWN ATLANTA

- [West Peachtree and McGill - on West Peachtree across from the Summit Building](#)

- [Peachtree and Baker - in front of the Carnegie Library Monument](#)
- [Peachtree Center - Peachtree Street between Andrew Young International Boulevard and Harris](#)
- [Auburn and Park Place \(in front of the fountain\)](#)
- [Pryor and Upper Alabama](#)
- [Mitchell and Central](#)
- And all MARTA stops on this Route

This route will be operated by Cobb Community Transit. Only CCT fares and passes, the Breeze Card and exact cash will be accepted on this route. All questions regarding CCT local routes and all requests to purchase CCT passes, please call CCT Customer Service at 770-427-4444.

Fares - CCT Fares Route 470

Express One-way	\$3.00
Express Round-trip	\$4.00
Express reverse Commute	\$1.25
Express 20-Ride	\$36.00
Express 10-Ride	\$27.00
Express 31-Day	\$70.00

- Passengers using the GRTA Route 470 or the Route 47 must purchase their bus pass from CCT. GRTA will not be selling CCT bus passes. GRTA passes purchased for other GRTA routes will not be valid on the route 470 or route 47.
- Passes for the route 470 or route 47 can be purchased in person at CCT at 463 Commerce Park Drive, Suite 114, between the hours of 8 AM - 5 PM Monday through Friday.
- Passes can be purchased at the CCT Customer Service Center located at the Marietta Transfer Center, 800 S. Marietta Parkway, Marietta.
- Cash, checks, money orders and credit cards are accepted.
- Passes can be purchased by mail by calling 770-428-1218.
- Passengers can also phone in their credit card purchase to 770-428-1218 and their pass will be mailed to them.

Passes can also be purchased on line by going to the [CCT Website](#)

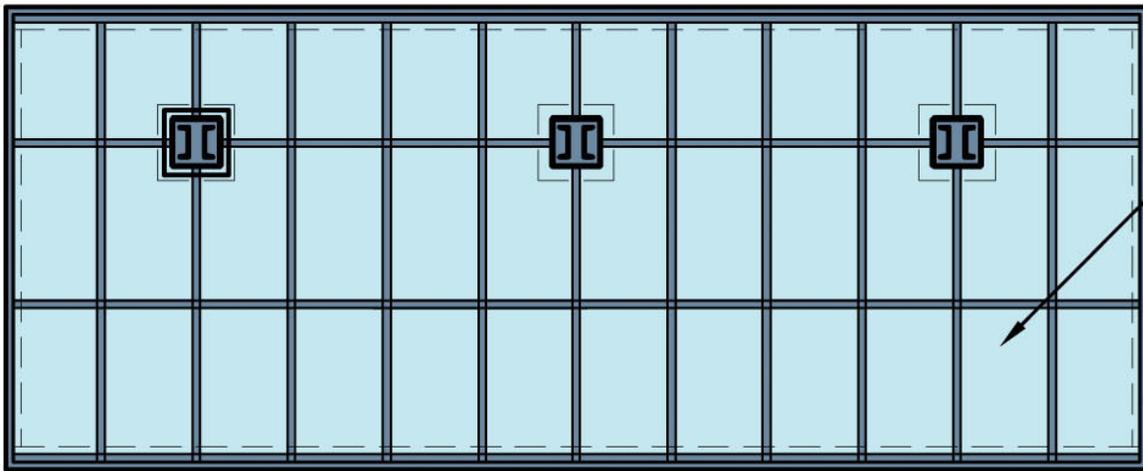
Transfers

Transfers to and from MARTA and Route 470 are free. At this time, there are no free transfers between a CCT express coach and a GRTA Xpress coach.

Guaranteed Ride Home

The Regional Call Center will provide Guaranteed Ride Home services for CCT passengers on all express routes. Follow procedures as provided in the GRH section except ask for a CCT express pass as proof of ridership.

Route 470 - Click on map for larger, printable image



TRANSLUCENT
FIBERGLASS w/
METAL FRAME CANOPY

Overhead Plan

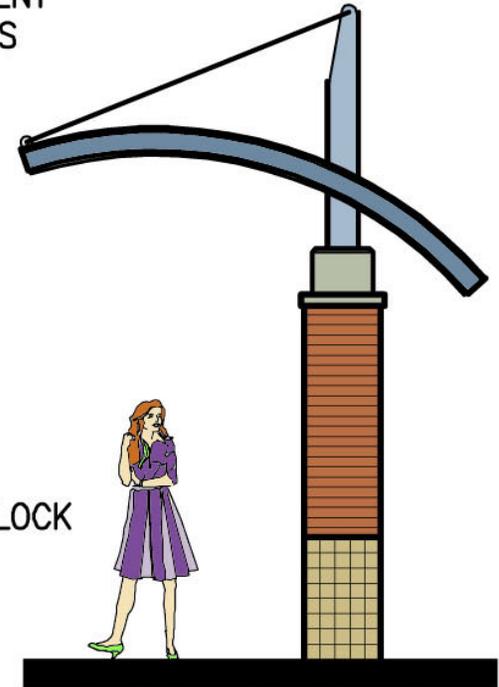


TRANSLUCENT
FIBERGLASS

BRICK

GLAZED BLOCK

Front Elevation

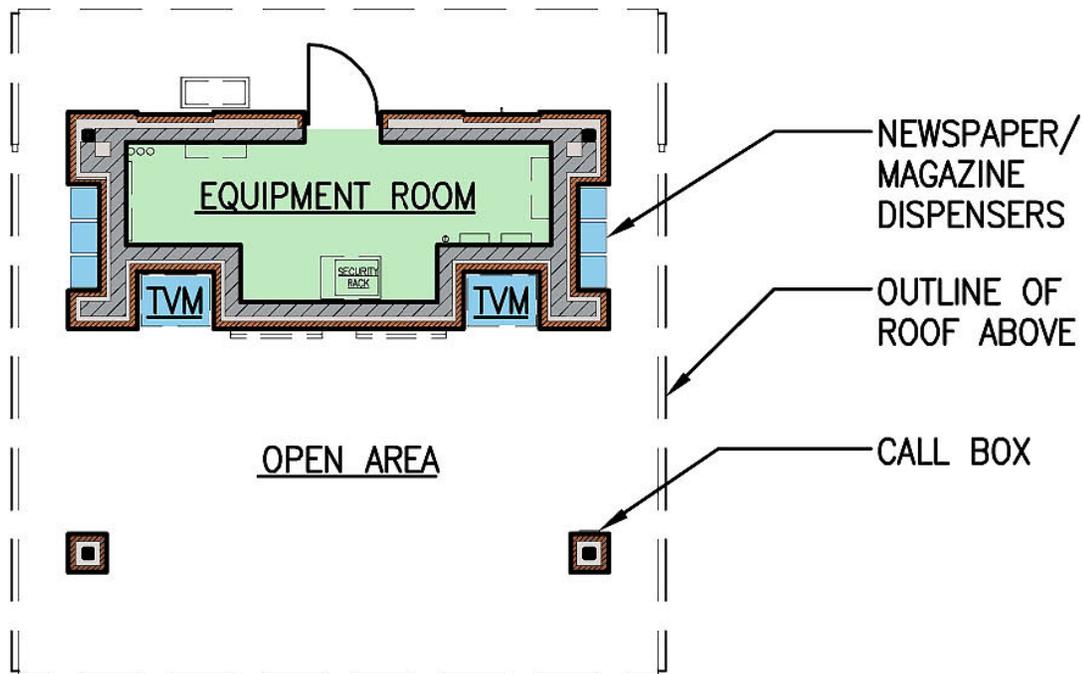


Side Elevation



BUS PAVILION

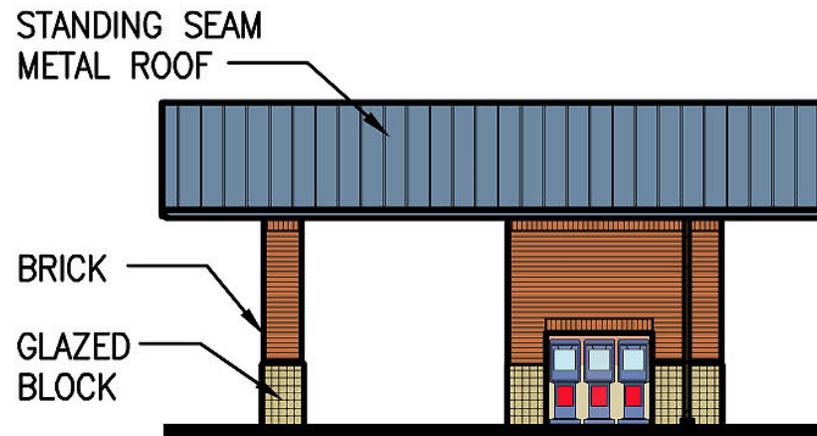




Floor Plan



Front Elevation



Side Elevation



FARE SYSTEMS SHELTER



LEGEND

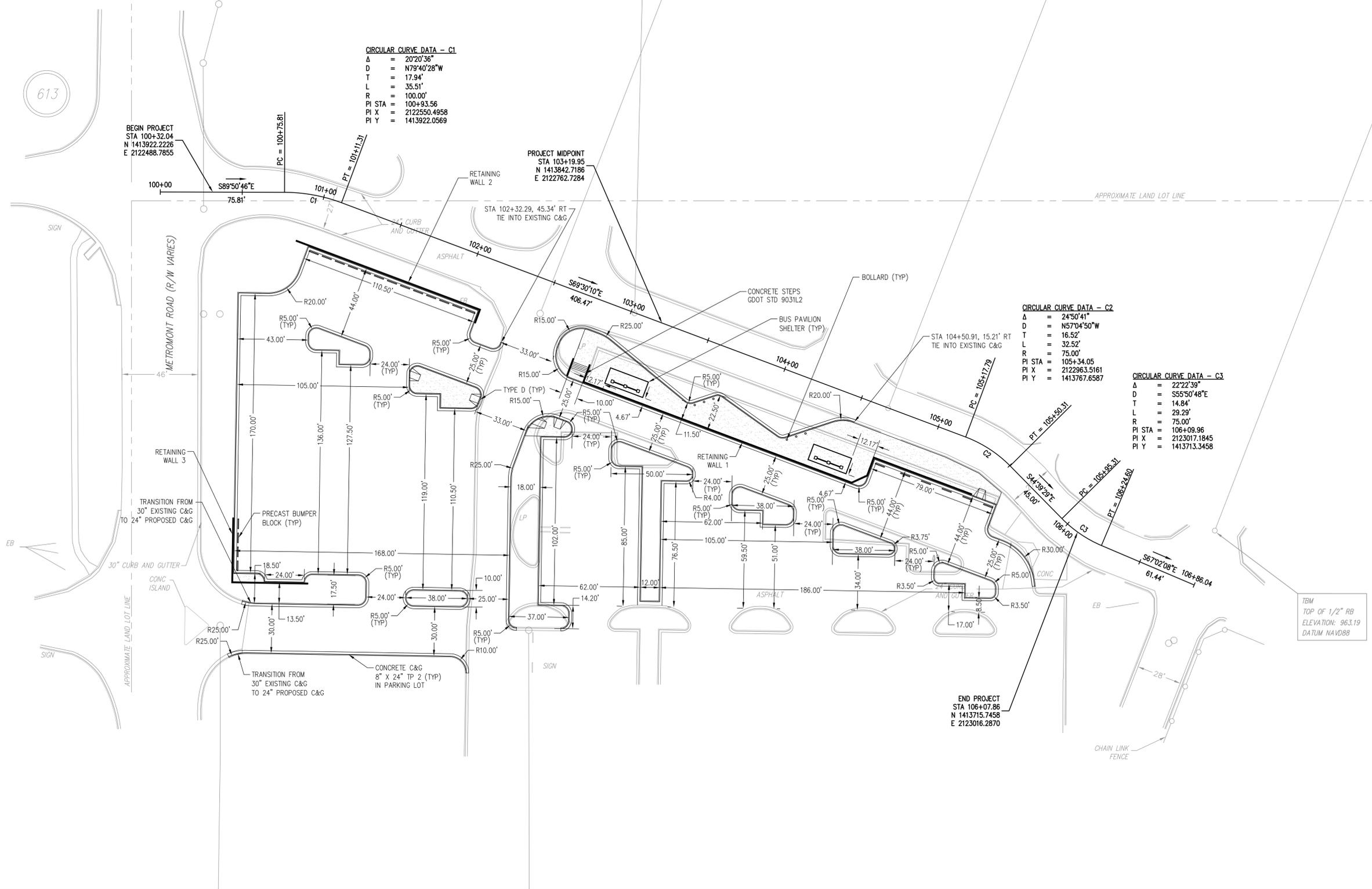
CONCRETE SIDEWALK AREAS

- NOTES**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - A MINIMUM FIVE FOOT CLEAR SPACE MUST BE PROVIDED BEHIND EACH ADA HANDICAP RAMP.

CIRCULAR CURVE DATA - C1
 Δ = 20°20'36"
 D = N79°40'28"W
 T = 17.94'
 L = 35.51'
 R = 100.00'
 PI STA = 100+93.56
 PI X = 212250.4958
 PI Y = 1413922.0569

CIRCULAR CURVE DATA - C2
 Δ = 24°50'41"
 D = N57°04'50"W
 T = 16.52'
 L = 32.52'
 R = 75.00'
 PI STA = 105+34.05
 PI X = 2122963.5161
 PI Y = 1413767.6587

CIRCULAR CURVE DATA - C3
 Δ = 22°22'39"
 D = S55°50'48"E
 T = 14.84'
 L = 29.29'
 R = 75.00'
 PI STA = 106+09.96
 PI X = 2123017.1845
 PI Y = 1413713.3458

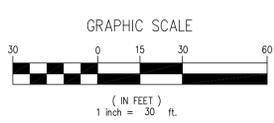


TBM
 TOP OF 1/2" RB
 ELEVATION: 963.19
 DATUM NAVD88

END PROJECT
 STA 106+07.86
 N 1413715.7458
 E 2123016.2870



URS
 400 Northpark Town Center
 1000 Abernathy Road N.E., Suite 900
 Atlanta, Georgia 30328
 Tel: (678) 808-8800, Fax: (678) 808-8400



NO.	REVISIONS

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE OF URBAN DESIGN
SITE AND STAKING PLAN

HIRAM
 PARK AND RIDE LOT

13.01
 DRAWING No.