

GEORGIA REGIONAL TRANSPORTATION AUTHORITY
DEVELOPMENT OF REGIONAL IMPACT REVIEW PROCEDURES

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Definitions

Access means land transportation facilities which provide service capacity to a Project.

Alternative Mode Reduction means the estimated percent of external pedestrian, bicycle and transit trips accessing a Project that will be subtracted from the Project's Gross Average Daily Trips before vehicle trips are assigned to a roadway Study Network.

Alternative Study Option means an alternative Transportation Study completed in place of the Transportation Impact Study that focuses on alternative transportation mode access to the Project Site.

Alternative Transportation means transportation, excluding cars and Heavy Vehicles, used to access a Project site. Common alternative modes include, but are not limited to, pedestrian, bicycle, public transit, private shuttle, vanpool, scooter, and ferry.

Applicant means the developer or Project sponsor submitting the Project to the Local Government for administrative action.

Application means the approval request that the Applicant files with the Local Government that triggers DRI review.

Average Daily Trips (ADT) means average weekday trips as defined by the Institute of Traffic Engineers in the most recent edition of the Trip Generation Manual. For certain land uses, average daily trips will be calculated for Saturday or Sunday if peak trips are typically on one of those days.

Background Growth Rate means the expected annual percentage increase in existing traffic volumes from Transportation Study year until the Project Build Out Year.

Build Out Year means the expected year in which all phases of the building components of the Project will be completed.

Business Day(s) means Monday through Friday excluding State-recognized holidays.

Carshare means a model of car rental where people rent cars for short periods of time, often by the hour.

Certificate of Completeness means the GRTA review document noting the non-expedited review schedule and whether the TIS appears complete or if additional information is required.

Conditions of Approval means the items identified in the GRTA Notice of Decision that the permitting Local Government shall satisfy given GRTA's authority to approve or disapprove the use of state or federal transportation funds for Land Transportation Services and Access improvements.

Congestion means traffic volumes which exceed capacity to the extent that a facility does not operate at or better than the Level of Service standard specified in the GRTA DRI Review Procedures.

Curbside Management means to inventory, optimize, allocate, and manage curbspaces to maximize mobility and access for the wide variety of curb demands.

DRI Information Form means the DCA Initial Form (i.e. Form 1) that registers the Project with DCA, and the DCA Additional Form (i.e. Form 2) that provides more detailed information on the Project.

DCA Rules means those rules adopted by the Georgia Department of Community Affairs, Chapter 110-12-

3, effective July 1, 2012, as may be amended from time to time.

Development of Regional Impact (DRI) means those developments defined by DCA Rule 110-12-3.05, or alternative DRI thresholds adopted by the Regional Commission and approved by DCA per DCA Rule 110-12-3.04.

DRI Review Package means the documents required for GRTA to begin the official review. The DRI Review Package includes both DCA forms (Initial and Additional), the Site Plan, and the applicable Transportation Study (either the Transportation Impact Study, Limited Trip Generation Memo or Alternative Study Option).

Enhanced Focus Area means either a specific geography or land use type that warrants enhanced Transportation Impact Study components that are focused on the attributes of either the Project location or land use type that warrant further analysis.

Enhanced Focus Area – Dense Urban Environment means an Enhanced Focus Area of the Transportation Impact Study focused on impact and access considerations unique to urban environments with high densities and a pedestrian-focused urban design.

Enhanced Focus Area – Heavy Vehicles means an Enhanced Focus Area of the Transportation Impact Study focused on impact and access considerations unique to Heavy Vehicles.

Executive Director means the chief executive officer of the Georgia Regional Transportation Authority

Gross Average Daily Trips (Gross ADT) means the Project's estimated total ADT before any reductions are made for alternative mode access, pass-by trips, and internal capture.

GRTA means the Georgia Regional Transportation Authority created under O.C.G.A. §50-32-1, et seq.

GRTA DRI Review Procedures means these GRTA DRI Review Procedures adopted to implement the provisions of O.C.G.A. §50-32-1 et seq.

Heavy Vehicle means a vehicle, or vehicle with an attached trailer, with more than four wheels or two axels, or weighing more than 10,000 pounds, as established in the Letter of Understanding.

Land Development Committee is a committee of the GRTA Board of Directors. The Land Development Committee is designated by the GRTA Board to oversee the DRI program.

Land Transportation Services means services which provide for movement of people by roads, mass transit, or other modes.

Letter of Understanding (LOU) means the document issued by GRTA that gives the Traffic Engineer the approval to proceed with the TIS, Limited Trip Generation Memo or the Alternative Study Option according to the inputs and parameters documented in the Letter of Understanding.

Level of Service (LOS) means the estimated vehicular delay at intersections which is modeled and assigned a letter grade (A – F) according to Highway Capacity Manual specifications.

Limited Trip Generation Memo means the Transportation Study to be utilized when a Project has a Net Average Daily Trips (ADT) of less than 1,000 Net ADT.

Local Government means the local government with permitting approval authority for the Project under DRI review.

Methodology Meeting means the initial meeting where GRTA, the Regional Commission, GDOT District Office, Local Government, Applicant and other relevant stakeholders meet to discuss the inputs to the Project's Transportation Study (TIS, Alternative Study Option, or Limited Trip Generation Memo) that the Applicant will complete as part of the DRI Review Package.

Methodology Meeting Packet means the document the Traffic Engineer provides documenting a Project's Transportation Study inputs and planning context, as specified in the GRTA DRI Review Procedures and the Methodology Meeting Packet template.

Net Average Daily Trips (Net ADT) means the Project's estimated total trips after all applicable reductions are made for alternative mode access, pass-by trips, internal capture, etc.

Notice of Decision (NOD) means the official GRTA decision on whether or not GRTA approves the use of state or federal transportation funds for Land Transportation Services and Access improvements, and whether or not there are any Conditions of Approval that must be met as part of the approval.

Plan of Development means a particular plan for a Project's parcel(s) of land including the location, Build Out Year, Project development phase(s), planned transportation (including roadways, driveways, sidewalks, greenways, TDM and shuttles), character and intensity of land uses and the infrastructure to support them.

Programmed Project means a transportation project that has dedicated local, state, or federal funds programmed on any portion of the project development process (Preliminary Engineering, Right-of-Way, or Construction).

Project means the Development of Regional Impact that is proposed by the Applicant, which is subject to DRI review by GRTA.

Project Site means the physical location of the Project.

Regional Commission means the regional planning commission established under O.C.G.A. §50-8-32. References regarding the Regional Commission relate to the Regional Commission where the Project is located unless otherwise specified.

Ride-hailing means securing an on-demand ride provided by a private vehicle, from either a taxi or from a service through a mobile application, phone number, or website.

Staff Recommendations Report means the GRTA review document that includes the staff's draft Conditions of Approval for inclusion in the GRTA Notice of Decision.

Site Plan means the official plan for the Project that meets the GRTA specifications outlined in the GRTA DRI Review Procedures.

Study Network means the intersections analyzed in the Transportation Impact Study for traffic congestion Level of Service or the corridors, roadway segments or transit that Alternative Study Option will study as documented in the Letter of Understanding.

Traffic Engineer means the person preparing the transportation analysis for the Methodology Meeting

Packet, the Transportation Improvement Study and the Alternative Study Option.

Transportation Demand Management (TDM) means a set of strategies focused on helping people change their travel and commuting behavior to meet their needs by using different modes, traveling at different times, making fewer or shorter trips, or taking different routes.

Transportation Study means the required Project transportation analysis (Transportation Impact Study, Limited Trip Generation Memo, or Alternative Study Option), as determined by the GRTA DRI Review Procedures.

Transportation Impact Study (TIS) means the Transportation Study that GRTA requires for Projects with more than 1,000 Net ADT that focuses on a Project's planning context, alternative mode access and Study Network Level of Service impacts.

GRTA DRI Review Procedures

1 Overview

The Developments of Regional Impact (DRI) program evaluates developments exceeding established thresholds for their land use and transportation impacts and their consistency with established local, state and regional plans. Originally established under the Georgia Planning Act of 1989, the Official Code of Georgia §50-32-14 directs the Georgia Regional Transportation Authority (GRTA) to review DRIs for their transportation impacts. GRTA's DRI review is separate from but concurrent to Regional Commission DRI reviews.

1.1 Purpose

The purpose of these GRTA DRI Review Procedures is to:

- implement GRTA's responsibility for the review of DRIs within GRTA's jurisdiction pursuant to O.C.G.A. §50-32-14,
- ensure that Projects (proposed DRIs) will, to the maximum extent practicable, contribute to improved regional mobility, air quality, and land use practices within GRTA's jurisdiction,
- establish an orderly and efficient process for the review of DRIs by GRTA,
- establish review criteria by which GRTA will determine whether a Project and the expenditure of state and federal funds for Land Transportation Services and Access improvements required to serve the Project are consistent with and further GRTA's goals and objectives to promote the efficient use of limited state and federal resources, ensure that regional transportation plans and air quality standards are implemented and to improve regional mobility and air quality, and
- establish the technical guidelines for data and analysis required to be submitted to GRTA in order to determine whether a DRI should be approved.

1.1.1 Applicability

The provisions of the GRTA DRI Review Procedures shall be liberally construed to achieve the purposes and intent for which they are adopted. These GRTA DRI Review Procedures are adopted pursuant to O.C.G.A. §50-32-1 et seq. These GRTA DRI Review Procedures shall be applicable to any proposed DRI located within the area of GRTA's jurisdiction. These GRTA DRI Review Procedures shall apply to all DRIs submitted, or those DRIs where the Methodology Meeting is held, on or after the effective date.

1.1.2 Approval and Amendments

These GRTA DRI Review Procedures shall become effective 30 calendar days after their approval by a majority of the Board of Directors of GRTA. These GRTA DRI Review Procedures may be amended by GRTA from time to time in the same manner as they were initially approved. In the event that any section or provision of these GRTA DRI Review Procedures is declared to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of these GRTA DRI Review Procedures as a whole or any part thereof other than the part so declared to be invalid.

1.2 DRI Initiation

1.2.1 DRI Determination

Each Regional Commission in the state uses either the Department of Community Affairs (DCA) or their

own DCA-approved thresholds for determining what development types and development sizes (units or square feet) are to be classified as DRIs. The DRI process is initiated when an Applicant files an action with a Local Government and, in coordination with their Regional Commission, determines that the Project meets the requirement of a DRI. The DCA and Regional Commission websites contain detailed information on DRI triggering actions and the size and land use thresholds that constitute a DRI.

1.2.2 DRI Stakeholders

After the Regional Commission has determined that a development is a DRI, the Applicant shall coordinate with GRTA, the Regional Commission and the Local Government to identify stakeholders and schedule a Methodology Meeting. The Methodology Meeting is held to discuss inputs to the Project's required Transportation Study. The stakeholders involved in the GRTA DRI review process shall include the following at a minimum:

- GRTA,
- Local Government planning and transportation staff,
- Regional Commission,
- GDOT District Office, and
- Applicant team (Developer and their Traffic Engineer, site designers and legal support, as determined by the Applicant).

Additional stakeholders shall be included, as applicable:

- Neighboring cities and counties, if the draft Study Network includes intersections in their jurisdiction or if a portion of the Project Site is in their jurisdiction,
- Transit operators, if the Project Site is within ¼ mile of a bus service or ½ mile of an existing high capacity transit station, or within ½ mile of a planned high capacity transit corridor as identified in the Atlanta-Region Transit Link Authority's Regional Transit Plan if station locations are not yet finalized, and
- Community Improvement District(s) (CIDs) and Transportation Management Associations (TMAs), if Study Network intersections are located within the boundaries of CIDs or TMAs.

Figure 1 identifies the thirteen county GRTA jurisdiction and the corresponding GDOT District Offices and Regional Commissions applicable to each county's DRI review.

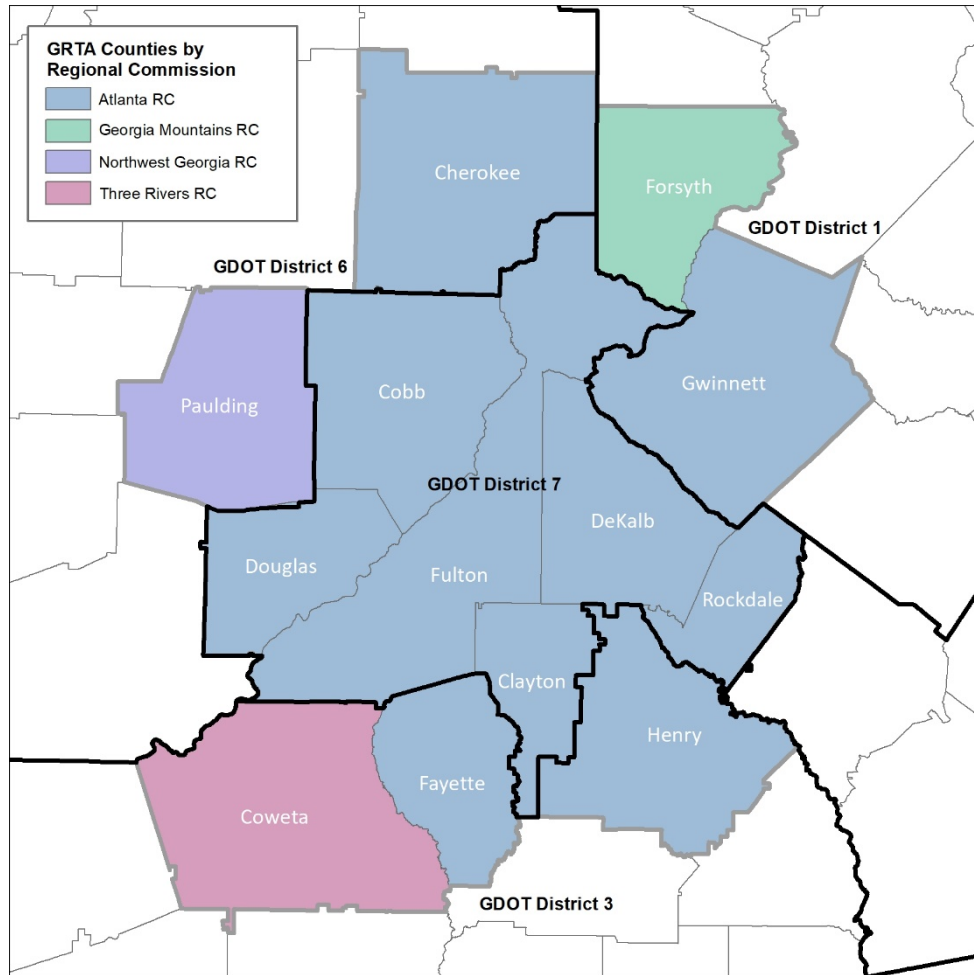


Figure 1 GRTA Boundary Map

1.3 Process Overview

1.3.1 Methodology Meeting & Letter of Understanding

After determination that a Project qualifies as a DRI, the Local Government, Regional Commission and GRTA will coordinate with stakeholders to schedule the Methodology Meeting. The Local Government shall make the formal request for the Methodology Meeting. The Methodology Meeting shall be used to discuss the inputs and parameters of a Project’s Transportation Study. The Transportation Study shall either be a Transportation Impact Study (TIS), a Limited Trip Generation Memo, or an Alternative Study Option, as set forth in these GRTA DRI Review Procedures. After the Methodology Meeting, GRTA staff will issue the Letter of Understanding (LOU) documenting the approved inputs to the Transportation Study. The LOU shall be issued no later than five (5) Business Days of GRTA staff receiving the final Methodology Meeting Packet (MMP).

1.3.2 Transportation Study Development & Submittal

After issuance of the LOU, the Applicant’s Traffic Engineer will collect any data required to develop the applicable Transportation Study. The GRTA review period is initiated once GRTA receives a complete DRI Review Package, which includes the applicable Transportation Study, the official Site Plan, the DCA “Initial

Form” (aka Form 1) that registers the Project with DCA, and the DCA “Additional Form” (aka Form 2) that provides more detailed information on the Project.

1.3.3 GRTA Review & Decision

GRTA reviews the Transportation Study on expedited or non-expedited review timeline depending on the Transportation Study type or estimated Project traffic as detailed in Section 4. GRTA issues a Staff Recommendations Report to the stakeholders noting draft Conditions of Approval proposed for the GRTA Notice of Decision (NOD). GRTA staff may hold a meeting to discuss the draft Conditions of Approval, as needed, before issuing a NOD. Section 4.4 and Section 5 contain detailed information on the Notice of Decision and the processes for Notice of Decision appeals and revisions.

1.4 GRTA Review Coordination

1.4.1 Memorandum of Understanding for Review

GRTA may enter into memoranda of understanding with Regional Commissions in order to coordinate the review process under the DCA Rules and these GRTA DRI Review Procedures and for such other means which are appropriate to achieve the purposes of these GRTA DRI Review Procedures.

1.4.2 Options for Contracting GRTA Review

The technical analysis may, in GRTA’s sole discretion, be conducted by GRTA’s staff and/or qualified public agency or private professional retained by GRTA to conduct such analyses.

2 Methodology Meeting Packet (MMP)

2.1 MMP Purpose & Applicability

2.1.1 Purpose

To ensure consistency across DRI Applications and facilitate efficient review for stakeholders, all Applicants are required to follow the Methodology Meeting Packet (MMP) template. Submitted MMPs that do not follow the template may be rejected and the Methodology Meeting postponed until a complete MMP is submitted. The latest MMP template will be posted to GRTA’s website.

2.1.2 Applicability

Some or all sections of the MMP shall be required for a Project’s Transportation Study depending on Transportation Study. The requirements for each type of Transportation Study are as follows:

- Transportation Impact Study:
 - Section 2.2 (all) - MMP Requirements, including Enhanced Focus Area sections, as applicable.
- Limited Trip Generation Memo:
 - Section 2.2.1 - Project Location & Overview,
 - Section 2.2.2 - Programmed Transportation Projects & Planned Transportation Projects,
 - Section 2.2.3 - Existing Alternative Transportation,
 - Section 2.2.4 - Trip Generation *for Projects with Gross ADT greater than 1,000*, or Section 2.2.4.1 *only for Projects with Gross ADT less than 1,000*,
 - Section 2.4 - Draft Schedule (2.4), and
 - A proposed Heavy Vehicle route map if the Project is expected to generate Heavy Vehicle trips.

- Alternative Study Option:
 - Section 2.2.1 - Project Location & Overview,
 - Section 2.2.2 - Programmed Transportation Projects & Planned Transportation Projects,
 - Section 2.2.3 - Existing Alternative Transportation,
 - Section 2.2.4 - Trip Generation
 - Section 2.4 - Draft Schedule, and
 - Section 3.3. - Alternative Study Option.

2.2 MMP Requirements

Submittal Requirements

The MMP shall be sent electronically to the Methodology Meeting stakeholders as identified in Section 1.2 at least five (5) Business Days before the scheduled Methodology Meeting. An MMP received after 5:00 pm local time shall be considered as arriving on the next Business Day. The file size attachments to email(s) containing the MMP must be less than 10 megabytes or the MMP may be provided through a file sharing service regardless of the size of the attachments.

2.2.1 Project Location and Overview

2.2.1.1 Project Context

The MMP shall include:

- A description of Project location (address and GPS coordinates),
- Proposed Project uses and size (square feet, units),
- Project Site size (acres),
- Existing zoning,
- Proposed zoning (if applicable),
- DRI review trigger including local case or reference numbers,
- Requested Transportation Study type,
- Requested review timeline (expedited or non-expedited),
- A description of how the Project relates to the area's existing infrastructure and future plans for the area (e.g. land use, corridor plans, transportation plans, etc.) and,
- A Site Plan as required in Section 7.1.

2.2.1.2 Project Orientation

The MMP shall include a Project Orientation Map showing clearly delineated Project boundaries, the location of all proposed entrances and exits, road names, and all city and county boundaries. All roads proposed in the draft Study Network (Section 2.2.5.1), the number of lanes and ownership (city, county, GDOT, private) shall be provided in table format.

2.2.1.3 Project Phasing

A phasing schedule shall be provided for any Projects involving multiple phases. The phasing schedule shall assign all proposed uses and square footage by phase. The phasing schedule shall be clearly delineated using color codes or phase boundaries on both the Project Orientation Map and the Site Plan. The MMP and Site Plan shall also delineate all proposed transportation elements (roadways, driveways, parking, sidewalks, greenways, Transportation Demand Management programs, etc.) by phase.

2.2.2 Programmed Transportation Projects & Planned Transportation Projects

2.2.2.1 Programmed Projects

The MMP shall document any funded transportation projects that intersect the Study Network or Project Site. Projects shall be identified in the Atlanta region's Transportation Improvement Program (TIP) and Regional Transportation Plan, local T-SPLOST programs, CID work programs, transit operator work programs, GDOT's Construction Work Program and conversations with local governments. If a transportation project has an adopted GDOT Concept Report or other official design document, the design plan shall be included as an attachment to the MMP.

2.2.2.2 Planned Projects

Unfunded transportation plans (e.g. county Comprehensive Transportation Plans, greenway master plans, short range transit plans, and the ATL's Regional Transit Plan) shall also be used to identify potential future transportation projects that intersect the Study Network or Project Site.

2.2.2.3 Documentation Requirements

All transportation projects shall be listed in table format and include the project name, documentation source, ARC-ID in the TIP, GDOT project ID number, and the applicable years for design, right-of-way, utilities and construction as available.

2.2.2.4 Assumptions for Transportation Study

Transportation projects intersecting the Project Site or Study Network shall be modeled as complete if the construction completion year is the same as or before the Project build-out year.

2.2.2.5 Programmed Project Consistency

The MMP and Transportation Study shall identify and document any instances where a DRI Project's proposed Plan of Development is anticipated to require alignment, design, right-of-way or schedule changes to a programmed transportation project.

2.2.3 Existing Alternative Transportation

2.2.3.1 Existing Alternative Transportation Overview

The MMP shall include information on alternative transportation to establish how people will access the Project Site and estimate what percent of trips will be made by modes other than passenger vehicles. For the purposes of the GRTA DRI Review Procedures, alternative transportation includes pedestrian, bicycle, public transit, private shuttle, vanpool, and any other means of transportation, excluding passenger vehicle, commercial Heavy Vehicle and ridehail trips, that is anticipated to access a Project.

2.2.3.2 Pedestrian Distance Calculations

When measuring distance from a Project property line to transit stops and stations and other pedestrian destinations, the distance shall be measured along sidewalks, greenways and low traffic volume roads where people would reasonably be expected to walk. The measurement approach shall apply to all pedestrian distance measurements in the MMP, TIS, Limited Trip Generation Memo and Alternative Study Option analyses.

2.2.3.3 Bicycle and pedestrian facilities

The MMP shall include an Existing Alternative Transportation Map that includes the location of existing sidewalk and bicycle facilities located within ¼ mile of the Project Site. The MMP shall also note the sidewalk ordinance standards for the local government(s) in which the Project Site is located. The

description of the standards shall include if sidewalks are required on one or both sides of the street and the required width(s). The description shall also include any required or planned provisions for vegetative buffers, street trees, lighting, furniture zones or any other streetscape amenities. If the Project is residential, commercial or mixed-use, the MMP shall note any destinations within ¼ mile that residents or visitors might be expected to walk to and any potential sidewalk gaps, needed crosswalks and needed crossing signals along the route(s). The destinations and needed pedestrian infrastructure shall both be highlighted in the Existing Alternative Transportation Map.

2.2.3.4 Transit

Existing Transit & Ridership

The MMP shall document in the text the presence of any bus, trolley or shuttle routes within ¼ mile of the Project and any high capacity transit stations within ½ mile of the Project. For each transit route identified, the MMP shall list the operator, route number and name, outbound and inbound end of line destinations, the service span, days in service (weekday, Saturday, Sunday) and the service frequency. The MMP shall also note the location of transit stops adjacent to the Project Site and if any bus pads or transit shelters are present. If the Project borders a roadway with a transit route, the MMP shall include the average daily boardings and alightings for all transit stops adjacent to the Project as well as the nearest stop not bordering the Project Site in each direction. The average daily ridership shall be averaged for each transit operator for a recent fiscal year, calendar year or month that is representative of typical ridership levels, excluding months when school is not in session.

Transit Stop Amenity Standards

In addition to existing ridership, the MMP shall reiterate in the text the Project's estimated Alternative Mode Reduction (Section 2.2.4.2) with the caveat that the estimate also includes walking and bicycling trips not related to transit. The Alternative Mode Reduction shall be included both as a percentage and as the total number of alternative transportation trips. The Project's estimated Alternative Mode Reduction trips shall be added to any existing transit boarding data and compared against transit operator(s) transit stop amenity standards for when amenities such as transit shelters are warranted. For Project's with high levels of anticipated ridership, GRTA may require the TIS or Alternative Study Option examine dedicated transit vehicle pull-off areas for transit vehicles to access the Project.

Transit Access

For high capacity transit stations within ½ mile of the Project and bus, trolley or shuttle routes within ¼ mile of the Project, the MMP shall note the expected pedestrian route to the station and any potential sidewalk needs or other pedestrian barriers along the route. A detailed expected walking path and distance (miles) shall be included in the MMP and applicable Transportation Study.

Transit Requirements for the Existing Alternative Transportation Map

In addition to the existing bicycle and pedestrian facility requirements of Section 2.2.3.3, the Existing Alternative Transportation Map shall include the location and name of transit routes, the location of bus stops and high capacity transit stations and the expected pedestrian routes to transit stops or stations. Where bus routes overlap each other, the Existing Alternative Transportation Map shall clearly delineate the overlap and note where the bus routes diverge.

The Existing Alternative Transportation Map shall be submitted as multiple maps, if necessary, for clarity.

2.2.4 Trip Generation

2.2.4.1 Estimating & Documenting Trips

ITE Trip Generation Manual & Time Periods

The Institute of Transportation Engineers (ITE) Trip Generation Manual shall be used as the basis for estimating a Project's trips. The AM and PM peak and daily total trip generation shall be estimated for the Project. The AM and PM commuting peak periods shall be used for residential, commercial, mixed-use industrial, and other applicable land uses. For Projects where peak periods are expected to be different than standard AM and PM peak periods (e.g., places of worship, stadiums, specific retail), GRTA may require other peak periods be used or may waive requirements for the AM or PM peak period. The peak period to be used in the TIS will be discussed and agreed upon at the Methodology Meeting based on local conditions and the peaking characteristics of the proposed land uses.

Documenting Trip Generation Assumptions

The MMP shall include the trip generation assumptions for all Project land uses. These assumptions include the manual edition used, the corresponding land use code(s), the independent variable input, the selected time period, the equation formula and the equation results. The equation formula selection shall adhere to guidance provided in the most recent version of the Trip Generation Manual on when to utilize a Fitted Curve Equation versus a Weighted Average Rate.

GRTA may request revisions to trip generation assumptions if the estimates do not appear to accurately estimate trip generation of the Project. As noted in greater detail in Section 2.2.4 subsections, assumptions for internal capture reductions (Section 2.2.4.3) and pass-by trips (Section 2.2.4.4) must also be included as attachments.

Accounting for External Bicycle, Pedestrian & Transit Trips

The Applicant shall not utilize the Trip Generation Manual's reduction for external bicycle and pedestrian trips or external transit trips unless otherwise approved by GRTA. Under no circumstances shall reductions for external bicycle and pedestrian trips or external trips be factored into the trip generation calculations if an Applicant is receiving an Alternative Mode Reduction in the MMP.

Accounting for Redevelopment

If a Project is renovating or replacing existing development, the trip generation analysis may subtract out the existing development's square footage or number of units from the trip generation equation only if the existing development had active users or tenants when the traffic counts were collected.

Exemptions to the ITE Trip Generation Manual

Exemptions to using the ITE Trip Generation Manual are allowed, per GRTA approval, in circumstances where the ITE Trip Generation Manual does not have a land use code comparable to the Project. In those cases, the Applicant must provide verifiable survey data of similar sites or other records indicating estimated traffic volumes at the Methodology Meeting. Manual trip surveys must adhere to the recommended procedures in the Trip Generation Manual. The MMP is not considered complete until the alternative data is submitted and verified.

Heavy Vehicle Estimates

For commercial and industrial land uses, the trip generation analysis shall break out Heavy Vehicle and passenger vehicle trip generation estimates. The Traffic Engineer shall provide an initial Project Heavy Vehicle percentage. GDOT's traffic count data from the Traffic Analysis and Data Application (TADA) web tool shall be the primary Heavy Vehicle percentage data source when available. If not available, the Traffic Engineer shall utilize estimates from nearby intersections or estimate a percentage according to the latest ITE Trip Generation Manual procedures, as well as any supplementary National Cooperative Highway Research Program guidance as necessary. At the Methodology Meeting, GRTA shall approve the percent of Heavy Vehicles to be modeling during AM and PM peak periods for the Transportation Impact Study. If traffic counts result in a difference of greater than 2 percent from what was included in the LOU, the higher percentage shall be used and the change shall be called out in the TIS. GRTA may also require school buses, transit bus traffic, fire engines and other Heavy Vehicles be modeled as Heavy Vehicles if their routine origin or destination is either linked to a Study Network intersection or within the Project Site.

2.2.4.2 Alternative Mode Reduction

Alternative Mode Reduction Determination

The ITE Trip Generation Manual's trip estimates are based off national count data historically focused on suburban locations. The Alternative Mode Reduction adjusts those estimates to deduct the estimated percent of trips made walking, bicycling, on transit or via any other alternative mode. At the Methodology Meeting, the Applicant team shall present the Project's location, Site Plan, and the variables described in Section 2.2.4.2 that may result in an Alternative Mode trips to and from the Project. These variables will be discussed amongst the stakeholders to determine an appropriate percentage of Alternative Mode trips to be applied to the trip generation numbers – the Alternative Mode Reduction. If available, neighborhood commuting data and commuter survey data of nearby similar developments may also be submitted for consideration in determining the Alternative Mode Reduction. In the event that an Alternative Mode Reduction cannot be agreed to at the Methodology Meeting, GRTA reserves the right to request additional information from the applicant team. GRTA shall determine the final Alternative Mode Reduction to be used in the Transportation Study.

Variable: Existing Bicycle, Pedestrian & Transit Infrastructure and Services

The Alternative Mode Reduction shall factor in the existing bicycle, pedestrian and transit infrastructure and services identified in Section 2.2.3. This may also include programmed bicycle, pedestrian, and transit projects with a completion date before the Project Build Out Year as well as zoning ordinance standards for sidewalk width, vegetative buffers and street trees. Existing and planned lighting may also be considered as a contributing factor for enhancing pedestrian and transit safety.

Variable: Affordable Housing

The MMP shall note if an affordable housing component is included in the Project. If so, the MMP shall note the set aside percentage and income restrictions.

Variable: Vehicle Parking Requirements

The MMP shall include the local government(s) overall parking requirements for the Project specifying both the minimum and maximum parking requirements. If a zoning district does not include a parking

minimum, the MMP shall reference and describe any applicable regulations regarding parking. The MMP shall also include the amount of parking the development is proposing and the hourly and daily parking rates. If parking rates are not known yet, the MMP shall provide parking rates for the nearest two parking facilities.

Variable: Alternative Parking

The MMP shall include the location and number of any parking shared with an existing development, dedicated vanpool or carpool parking, dedicated carshare parking and bicycle parking that will be included in the proposed development. The MMP shall also note if the Project will include provisions for unbundled parking. The Methodology Meeting will discuss the overall parking composition in adjusting the Project's estimated trips. The MMP will not be considered complete until final parking numbers are provided.

Variable: Transportation Demand Management (TDM)

Any TDM features of the Project should also be captured in the Alternative Mode Reduction. Examples of TDM supportive design features include:

- Dedicated parking for bicycles, vanpool, carpool or carshare
- Enhanced pedestrian environments including street trees and furniture zones
- An established, verified employer program(s) encouraging employees to take transit, telework or work flexible schedules
- Company fleet vehicles for staff to use who do not drive alone to work
- Showers and changing facilities for employees walking or bicycling to work
- Shuttle service and associated transit amenities such as transit shelters, benches, etc.
- Real-time transit arrival and departure information available to employees and visitors

The Traffic Engineer shall determine TDM reductions using the recommended procedures in the most recent ITE Transportation Impact Analyses for Site Development publication. Additional resources identified in the Trip Generation Manual and other TDM reduction estimates are allowed with GRTA approval.

Supplemental Data Sources

The Atlanta Region's Activity Based Model, the Regional On-Board Transit Survey, or Census data may be used to supplement the case for a proposed Alternative Mode Reduction if the Project's anticipated market is comparable to the area's existing demographics. When using Census data, the analysis shall utilize the American Community Survey's most recent five-year estimates.

Crosswalk Delay Adjustment

If an Alternative Mode Reduction is granted, GRTA may approve proposed pedestrian crosswalk delay adjustment(s) to be modeled in the TIS at Study Network intersections where pedestrian crossings are expected based on the Project's Plan of Development and the Existing Alternative Transportation Map.

2.2.4.3 Internal Capture / Mixed-Use Reduction

Calculations and Documentation

The ITE Trip Generation Manual allows for a reduction in the trip generation estimate if a Project is mixed-

use given a portion of the trips will be internal to the Project. The internal capture / mixed-use reduction shall adhere to the maximum mixed-use reduction established in ITE Trip Generation Manual. To qualify for a reduction in trip generation, the MMP shall demonstrate that site design features incorporated in the Site Plan justify the application of mixed-use reductions to the Project. The ITE internal capture / mixed-use reduction ITE template must be included with the MMP in both a PDF and an Excel file format.

Determination Exceptions

GRTA may allow for deviations from the standard ITE internal capture / mixed-use reduction if the Traffic Engineer provides documentation suggesting revisions are needed. The basis for revisions shall come from official publications such as the National Cooperative Highway Research Program's report: "Enhancing Internal Trip Capture Estimation for Mixed-Use Developments."

2.2.4.4 Pass By Trips Reduction

Pass By Trip Applicability

The ITE Trip Generation Manual allows for a reduction in the trip generation estimate if a portion of the estimated trips are expected to be diverted trips that would be passing by the Project regardless of whether the Project existed, also known as a "pass by" trip. Pass by trip reductions shall be reserved for the portions of Projects associated with common errands such as retail and restaurants that are located on arterial and collector roadways. The overall pass by trip reduction shall not exceed 15% of a roadway's traffic volume standard (Appendix 7.2).

Documentation

If claiming a pass by trip reduction, a table showing the roadway facility type, the roadway's traffic volume standard (using standards in the Appendix 7.2) and the estimated pass by trips percentage of the design volume shall be included in the MMP. The ITE pass-by trip ITE template must be included with the MMP in both a PDF and an Excel file format.

2.2.4.5 Final Trip Generation Documentation

Order of Trip Reduction

The order of analysis for Alternative Mode Reduction, internal capture reduction, and pass-by reduction shall be: internal capture reductions, Alternative Mode Reduction, then pass-by reductions. Each of the reductions shall be applied to the net trips after the application of the immediately previous reduction. The resulting Net ADT shall determine the Project's review schedule (Section 4) and whether the Applicant is required to submit a Transportation Impact Study (Section 3.2) or a Limited Trip Generation Memo (Section 3.1).

Trip Generation Summary Table

The MMP shall include a Trip Generation Summary Table showing the ITE Trip Generation Manual Gross ADT estimate with the reductions for alternative modes, internal capture / mixed-use, and pass by trips. The Table must include the starting Gross ADT and the Net ADT after all reductions.

2.2.5 Traffic Assignment, Study Network & Other Adjustments

2.2.5.1 Trip Assignment & Draft Study Network

The MMP analysis shall assign the estimated Net Average Daily Trips (ADT) to the surrounding roadway

network to develop a draft Study Network. The following approach shall be used to develop the Study Network for both expedited and non-expedited TIS Project reviews:

1. Develop Trip Assignment Travel Patterns

The Traffic Engineer shall develop draft travel patterns based on existing travel patterns in the area. Allowable resources for deriving travel patterns include the Longitudinal Employer-Household Dynamics dataset, the ARC Activity Based Model, Census data, and Project market research. The MMP shall document how the trip assignment was derived.

2. Trip Assignment Map(s)

The MMP shall include a Trip Assignment Map showing the Traffic Engineer's draft assumptions in how the estimated trips will travel across the Study Network. The map shall use different colors for each direction and use a smaller font size each time the trip assignment passes through an intersection approach. The map shall include trip assignment percentages for all Study Network approaches where Projects trips will be modeled. A separate Trip Assignment Map shall be prepared for each individual land use within mixed-use Projects.

For industrial and commercial Projects, the MMP shall provide a Trip Assignment Map showing the route(s) Heavy Vehicles will take from the site throughout the entire Study Network. The MMP shall specify roadways with Heavy Vehicle restrictions as well as any official designated Heavy Vehicle routes. The MMP shall also include the percent of Heavy Vehicles that will be modeled in the Transportation Impact Study at applicable intersections. The percent of Heavy Vehicles shall be consistent with the estimated number of Heavy Vehicle trips (Section 2.2.4.1).

3. Study Network based on Road Capacity Consumed

The Traffic Engineer shall compare Project trip assignments to the adjusted two-way generalized roadway service volumes at the appropriate Level of Service standard. The Florida Department of Transportation (FDOT) standards referenced in Appendix 7.2 shall be used for determining roadway service volume standards given the roadway type and the Level of Service standard (Section 3.2.2.1). These tables may be modified to reflect area-specific conditions, if approved by GRTA at the Methodology Meeting based on appropriate documentation. If and when the Georgia Department of Transportation establishes facility service design standards, these standards shall be used instead if found to meet the needs of the DRI program. Where the net trips generated by a Project exceed seven percent of the two-way, daily service volumes at the appropriate Level of Service standard, the segment shall be included in the Study Network.

The results of the seven percent analysis shall be included in a table specifying:

1. Road names, road segment termini, roadway classification, and number of lanes,
2. Total service volume capacity for each road segment (Appendix 7.2),
3. Adjusted volume for the LOS standard (if applicable) for each road segment, and
4. Capacity consumed by the Project (both numerically and percent) for each road segment, and if the capacity consumed is above seven percent (yes/no).

4. Study Network based on Nearest Intersections

The Study Network shall include the nearest significant intersections in both directions from any Project driveways, regardless of the seven percent rule, unless otherwise approved by GRTA. If there are multiple driveways intersecting multiple roads, the analysis shall apply to all nearest significant intersections.

5. Project Driveways & Internal Roadways

The Study Network shall include all Project driveways connecting to external Study Network roadway segments as Study Network intersections. For infill Projects, GRTA staff may also determine that existing roadways internal to an infill project shall be included as Study Network intersections.

6. Final Study Network Determination

GRTA may, at its discretion, agree to reduce the number of intersections and access points to be studied within the Study Network if minor intersections are signalized, and do not significantly impede traffic flow along a corridor. If approved by GRTA, the Traffic Engineer may remove these intersections from the TIS. For example, the seven percent rule may be limited to within 2.0 miles of all edges of the Project measured along roadways if GRTA, the local government(s) and GDOT (if applicable) agree the seven percent rule has incorporated satisfactory intersections within that boundary. Additionally, GRTA may require a larger Study Network at the request of an impacted jurisdiction, agency, Regional Commission or GRTA staff.

7. Study Network Map

A Study Network Map shall be included in the MMP. The map shall include the draft Study Network segments and intersections, road names, state and federal road numbers (as applicable), all city and county municipal boundaries and also delineate intersection and roadway ownership. In addition, the Study Network Map shall include all Project access points to external roads.

2.2.5.2 Background Growth Rate

Definition

The Traffic Engineer shall provide a draft Background Growth Rate in the MMP for discussion at the Methodology Meeting. The Background Growth Rate is the expected annual percent increase in existing Study Network traffic volumes from current year until the Project Build Out Year. The Transportation Impact Study applies this growth rate to the existing condition in the Study Network annually until the Project's Build Out Year.

Background Growth Rate Determination

The Background Growth Rate shall be based on historical traffic count growth within the Study Network when available. Historic counts at nearest intersections to the Study Network shall be used when historic counts are not available within the Study Network. GDOT's traffic count data from the Traffic Analysis and Data Application (TADA) web tool shall be the primary data source when available. Traffic counts conducted by city or county governments are allowable if GDOT counts are not available in the Study Network area. Estimates from Comprehensive Transportation Plans and ARC's Activity Based Model are allowed when historical traffic growth is not available. Census population growth trend data may be provided by the Traffic Engineer for consideration in determining the Background Growth Rate.

Different Rates by Roadway

In the event that historic growth rates vary by facility within the Study Network, the traffic analysis may be prepared using the actual rates by facility, or an average growth rate by facility type, or for the Study Network as a whole may be used subject to GRTA's approval at the Methodology Meeting.

Different Rates by Phase

For Projects with a build out period longer than ten years, a different growth rate may be required for later phases.

Adjustments for Nearby Development

At the Methodology Meeting, stakeholders may agree to adjust the Background Growth Rate upwards to accommodate previously reviewed DRI Projects and other non-DRI development projects in the Study Network area when these developments are expected to be fully or partially open between the current year and the Project's Build Out Year. Alternatively, a lower Background Growth Rate may be used when previously reviewed DRI Projects' trips are added in separately.

2.2.5.3 Curbside Management

If the Transportation Impact Study requires an Enhanced Focus Area for Dense Urban Environments (Section 3.2.4.2), the MMP shall note the proposed curbside management approach for the Project. The information must note where on the Site Plan moving trucks, mail and parcel trucks, Heavy Vehicle inventory deliveries, ride-hailing trips and restaurant takeout delivery will occur, and if there are local ordinance requirements requiring off-site delivery or pick-up/drop-off accommodations. If these trips are expected to occur off-site during peak trip hours utilizing a travel lane, the traffic modeling shall be adjusted accordingly to account for the capacity reduction. Depending on the existing and anticipated curbside management, the analysis might include a lane reduction in the LOS modeling or modeling techniques to reduce the saturated flow rate such as the Bus Blockage feature in Synchro.

2.3 Traffic Count Requirements

The traffic counts for the Transportation Impact Study shall only be collected on typical weekdays while school is in session unless otherwise agreed upon. Tuesday, Wednesday and Thursday are preferred collection days unless otherwise agreed upon. Saturday and Sunday traffic count days will be utilized when a Project's peak demand falls during that period or when otherwise determined to be warranted. Previously taken counts may be used if less than a year old from the date of the Methodology Meeting. With approval from GRTA, counts older than a year may be allowed and grown at the Background Growth Rate under circumstances where school and commuting traffic is abnormal for an extended period of time. In that instance GRTA, GDOT and the Local Government must approve the use of counts older than a year.

Counts shall not be collected over summer/fall/winter/spring student breaks, teacher workdays or during unusual weather events. The weeks of Thanksgiving and July 4th are excluded from traffic count collection. Ten days before and ten days after Christmas Day are excluded from traffic counts due to employees and students being on vacation and because of potential greater retail traffic this time of year.

2.4 Draft Schedule

The MMP shall include a draft schedule that includes proposed traffic count dates, a draft Transportation

Study submittal date, an anticipated GRTA review schedule adhering to Section 4, and any anticipated Local Government review dates.

2.5 Final Methodology Meeting Package & Letter of Understanding

2.5.1 Revised MMP & GRTA Letter of Understanding

Following the Methodology Meeting, the Traffic Engineer will send out a revised Methodology Meeting Package to all meeting stakeholders reflecting the changes discussed at the Methodology Meeting. Once the revised MMP is received and any remaining items for clarification are resolved, GRTA will issue a Letter of Understanding (LOU) within five (5) Business Days. The LOU certifies the MMP and documents the inputs and parameters to be used in the Transportation Study. The LOU will also state whether the Project review is expedited based on Net ADT or the Alternative Study Option is to be used. Traffic counts shall not begin until the LOU is issued, unless GRTA approves otherwise at the Methodology Meeting. Any additions and revisions from the original MMP to the revised MMP shall be clearly identified in the revised MMP using red font.

2.5.2 Project Modifications after the Methodology Meeting

The Applicant shall be required to supplement the MMP or Transportation Study as appropriate for any modifications to the Project which occur subsequent to either the Methodology Meeting or the Transportation Study submittal and prior to the issuance of an NOD.

3 Transportation Study Requirements

The potential Transportation Study requirements include a Limited Trip Generation Memo (Section 3.1), a Transportation Impact Study (Section 3.2) or an Alternative Study Option (Section 3.3). If a Project has less than 1,000 Net ADT then the Project requires a Limited Trip Generation Memo. If a Project has more than 1,000 Net ADT then the Project requires a Transportation Impact Study. GRTA may also approve an Alternative Study Option in place of the Transportation Impact Study per the requirements of Section 3.3.

3.1 Limited Trip Generation Memo

A Limited Trip Generation Memo is required in place of the TIS when a Project is estimated to have less than 1,000 Net ADT. The Limited Trip Generation Memo shall include a memo from the Applicant that includes the following:

- A written request that GRTA allow the Limited Trip Generation Memo and expedited review schedule based on the Project's estimated Net ADT < 1,000;
- The final MMP as an attachment per the requirements in Section 2.1;
- The Heavy Vehicle or Dense Urban Environment Enhanced Focus Area requirements of Section 3.2, if the Project qualifies for either Enhanced Focus Area.

The Limited Trip Generation Memo shall not be submitted until after GRTA issues the LOU confirming the limited trip numbers. If the Limited Trip Generation Memo and complete DRI Review Package arrives before the LOU is issued, GRTA review will not begin until the first Business Day after the LOU is issued.

3.2 Transportation Impact Study (TIS)

A Transportation Impact Study (TIS) is required for Projects with an estimated Net ADT greater than 1,000. The MMP shall be included as an attachment to the Transportation Impact Study.

TIS Overview

The TIS includes a traffic impact Level of Service (LOS) analysis that examines three scenarios: the Existing Condition, a future No-Build Condition, and a future Build Condition. The traffic impact LOS analysis also models any needed improvements to offset the traffic impacts from the Project whenever a roadway approach does not meet the LOS standards. If the Project includes industrial or commercial land uses, the Transportation Impact Study shall include a Heavy Vehicle - Enhanced Focus Area analysis per the requirements of Section 3.2.4.1. Projects located in a dense urban setting meeting the requirements of Section 3.2.4.2 shall require the Dense Urban Environment – Enhanced Focus Area analysis. Projects in Dense Urban Environments may also be eligible to be reviewed using an Alternative Study Option per the stipulations and requirements of Section 3.3.

TIS Sign & Seal Requirement

A licensed traffic engineer shall sign and seal the Transportation Impact Study.

3.2.1 Inputs from Methodology Meeting Packet

The Transportation Impact Study shall incorporate all inputs outlined in the final Methodology Meeting Packet and documented in the GRTA LOU. The GRTA LOU shall be the foremost source for inputs and parameters with the final MMP serving a source for any inputs or parameters not documented in the LOU.

3.2.2 Scenario Modeling

The TIS shall calculate LOS for the Existing, No-Build, and Build Conditions according to the requirements and specifications outlined in Section 3.2.

3.2.2.1 Level of Service Analysis

Vehicle delay shall be calculated for all Study Network intersections with the LOS measured as seconds of delay. The procedures in the Highway Capacity Manual (HCM 6th edition or newer) shall be used for signalized and unsignalized intersections, and for queue and roadway segment analysis when applicable. All LOS report tables shall include all discretionary inputs, parameters and settings employed in estimating LOS delay. LOS determinations shall adhere to the thresholds established in the HCM as summarized in Table 1.

Table 1: Intersection Level of Service Standards			
<i>Source: Highway Capacity Manual 6th Edition</i>			
LOS	LOS for Signalized Intersections <small>(seconds of delay)</small>	LOS for Unsignalized Intersections <small>(seconds of delay)</small>	LOS Description
A	≤10	0 – 10	Free Flow
B	>10 – 20	>10 – 15	Stable Flow (slight delays)
C	>20 – 35	>15 – 25	Stable Flow (acceptable delays)
D	>35 – 55	>25 – 35	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	>35-50	Unstable flow (intolerable delay)
F	>80	>50	Forced flow (congested and queues fail to clear)

LOS Standards for Analysis

The default LOS standard for intersections and their approaches is a LOS D. A LOS standard of 'E' is allowable in the following instances:

1. If an adopted Comprehensive Transportation Plan (or other applicable city or CID plan) notes the LOS standard for this area is E or F.
2. A Study Network intersection is located in a Region Core, Regional Employment Corridors, or a Regional Center zone as specified in the Atlanta Regional Commission's Unified Growth Policy Map. If ARC updates their designations to add or modify zone types, the old designations shall hold until GRTA updates these designations.
3. A Study Network intersection is within ½ mile of a fixed guideway transit station.
4. A LOS E is allowed if the existing LOS for the intersection is LOS F.
5. If an individual approach has a LOS of F, the LOS standard for that approach may be E even if the overall intersection LOS is E or better.

A LOS F is always considered a failing LOS.

Queue Length Analysis

Queue length analysis shall be included for all intersection approaches with a failing LOS where the Project is adding additional trips to that approach. Queue length analysis shall be modeled according to Highway Capacity Manual procedures. The LOS documentation in TIS Appendix shall include the 50th percentile queue, the 95th percentile queue, the storage length, and taper length.

Roadway Segment LOS Analysis

Additionally, GRTA, GDOT or the local government(s) may request LOS calculations for roadway segments connected to Study Network intersections. The request will be made at the Methodology Meeting.

3.2.2.2 Software Assumptions and Inputs

Software & Methodology

Software that incorporates the HCM, such as Synchro, are allowable alternatives to the Highway Capacity Software (HCS7 edition or newer). Other methodologies may be used if approved during the Methodology Meeting.

Software Inputs

Signal timing and other modeling inputs shall adhere to procedures established in the HCM. The modeling shall incorporate municipal and state traffic signal specifications and roadway dimensions to the maximum extent possible. GRTA reserves the right to request revised information if the modeling assumptions are not standard inputs or do not reflect Study Network conditions. GRTA reserves the right to pause the review timeline until the requested information is provided. If the information is not provided within 90 calendar days of the Methodology Meeting, GRTA will coordinate with the Regional Commission to determine if the Project must be resubmitted for DRI review.

3.2.2.3 Existing Condition

The Existing Condition section of the TIS shall include an intersection LOS analysis of the Study Network for the current study year. A summary table shall be provided in the TIS for all Study Network intersections

noting the LOS for all intersection approaches, as well as the total LOS for the intersection. The study shall also provide analysis on which approaches fail and notable factors attributing to intersection approaches not meeting LOS standards. The Existing Condition section shall also include an Existing Condition traffic volume map that shows the total Existing Condition traffic volume at all Study Network intersection approaches.

3.2.2.4 No-Build Condition

No-Build Condition Modeling

The No-Build Condition section of the TIS includes the Study Network LOS intersection analysis from the current study year until the Project Build Out Year. The Background Growth Rate identified in the LOU shall be applied to the existing conditions from the current year until the Build Out Year. In some cases and as identified at the Methodology Meeting and documented in the LOU, GRTA may require trips from nearby DRIs to be added into the analysis if the nearby DRIs' Build Out Year is between the study year and the Project's Build Out Year. The No-Build Condition modeling analysis shall also include transportation projects that will be completed before the Build Out Year if the transportation project is funded and located within or intersects a Study Network approach.

Modeling Needed Improvements

In situations where an intersection approach is currently operating below the appropriate Level of Service standard, an improvements analysis shall be conducted to determine the minimum improvements required to provide the appropriate LOS standard, while taking into account any constraints in the roadway segment or intersection. Required improvements shall be depicted on the No-Build Condition traffic volume map. A summary table shall also be provided showing the LOS both before and after the improvements for all failing approaches.

Tables and Figures

A summary table shall be provided in the TIS for all Study Network intersections noting the LOS for all intersection approaches, as well as the total LOS for the intersection. The No-Build Condition section shall also include a No-build Condition traffic volume map that shows the total No-Build Condition traffic volume at all Study Network intersection approaches. Separate maps and related graphics shall be provided for each phase if the Project includes multiple modeled phases. The study shall also provide analysis on which approaches fail, notable factors attributing to intersections not meeting LOS standards, and the rationale behind the proposed improvements.

3.2.2.5 Build Condition

Build Condition Modeling

The Build Condition section of the TIS includes an analysis of the Build Out Year with the Background Growth Rate applied (i.e., No-Build Condition) and the addition of the Project's Net ADT according to the final MMP's trip assignment map. This analysis shall include the Study Network intersections from the Existing and No-Build Conditions as well as the Project's proposed driveways and access locations. This section shall include the proposed geometric requirements and control methods for all Project driveways and access locations.

Modeling Needed Improvements

For intersection approaches with a failing LOS, the analysis must model the minimum improvement needed to improve the LOS to passing. A summary table shall also be provided showing the LOS both before and after the improvements for all failing approaches. Required improvements shall be depicted on the build condition traffic volume map, clearly depicting in different colors the improvements required for no-build traffic and the improvements required for build traffic.

Tables and Figures

A summary table shall be provided in the TIS for all Study Network intersections noting the LOS for all intersection approaches, as well as the total LOS for the intersection. The build condition section shall also include two build condition traffic volume maps, one showing only the total Project generated trips broken out by all Study Network intersection approaches, and the second showing the total build condition traffic volumes broken out by Study Network intersection approach. The study shall also provide analysis on which approaches fail, notable factors attributing to intersections not meeting LOS standards and the rationale behind the proposed improvements.

3.2.2.6 Requirements for Multiple Phases

All required Level of Service intersection and queue analysis, maps, and figures for the No-Build Condition and Build Condition shall be broken out by phase when a Project is determined to be modeled in multiple phases in the LOU. If improvements are proposed for failing approaches in the earlier phase, they shall be included in later phase modeling with the same assumptions when determining if additional improvements are necessary to meet LOS standards beyond what was proposed in preceding phase.

3.2.3 Modeling & Documenting Improvements for Failing LOS

3.2.3.1 Modeling improvements for Failing LOS

Minimum Improvement

The TIS analysis shall model the minimum improvement needed to improve an approach's LOS from failing to passing. In selecting the minimum improvement, consideration shall be given to how feasible an improvement would be to implement given constraints at the intersection.

Traffic Signal Modeling

Modeling between Existing and No-Build Conditions:

Changes to signal timing (sequences, splits, offsets, phases, cycles) shall not be made in LOS modeling between the existing and no-build conditions, unless modifications are required to accurately model a programmed transportation project.

Modeling between No-Build and Build Conditions:

Changes to signal sequences, splits and offsets are allowed to LOS modeling between the no-build and build phase. Changes to signal cycles shall not be allowed unless approved by GRTA at the Methodology Meeting. The Traffic Engineer shall include in the TIS an explanation of all signal timing changes between the no-build and build conditions.

Modeling and Mitigation:

Changes to signal timing splits or cycle lengths should not be considered mitigation. Changes to

phasing, except in cases where there is a new approach to an intersection, can be considered toward mitigation.

Adherence to Signal Timing Practices of Signal Owners:

All signal timing parameters shall comply with the general signal timing practices of the jurisdiction maintaining the signal.

Multiple Mitigation Recommendations Option

The Applicant has the option of submitting multiple recommendations as mitigation solutions to meet the required LOS standard as part of the transportation analysis. The inclusion of multiple recommendations should occur only when the context and character of the area require additional consideration. If multiple mitigation recommendations are provided, the traffic analysis shall identify the preferred alternative.

3.2.3.2 Approval of Proposed Improvement Modeling

If requested during the Methodology Meeting, the Traffic Engineer shall submit a summary of failing approaches under the No-Build and Build Conditions as well as the proposed modeled improvement(s) for GRTA and applicable intersection owners (GDOT, county and city) to approve, within reason, as the modeled improvements. This optional step is designed to minimize additional analysis requested after the study is received and increase the feasibility of modeled improvements. In instances where an agreement cannot be reached, GRTA shall have the final say on the proposed modeled improvement. If GDOT or a local government has not reached a determination on preferred modeled improvements within ten (10) Business Days of documented contact, GRTA may make a determination on the proposed modeled improvements.

3.2.3.3 GDOT Intersection Control Evaluation Analysis

The TIS analysis shall utilize the GDOT Intersection Control Evaluation (ICE) – Stage 1 tool for GDOT maintained intersections with a failing approach if an approach is not meeting the LOS standard and the Project is increasing trips to that approach by twenty (20) percent or more. GDOT may specify specific Study Network intersections or approaches where the ICE analysis is not required at the Methodology Meeting. The results of the ICE analysis shall factor into selected a preferred modeled improvement in the No-Build and Build Conditions. The completed ICE analysis shall be included as an Excel file attachment in the TIS submittal package.

3.2.3.4 Signal Warrants Analysis

The TIS shall utilize the Manual on Uniform Traffic Control Devices (MUTCD) signal warrants analysis to determine if any proposed signal improvement meets signal warrants analysis. At a minimum, the 4 hour signal warrants analysis must be conducted and included as an attachment. Additional warrants analyses are optional. The signal warrant analysis is utilized at this stage to indicate if a signal is expected to meet warrants analysis by a Project's Build Out Year. This preliminary signal warrants analysis is not a substitution for future signal warrants analysis that GDOT or local governments may require. If a roundabout is recommended in lieu of a traffic signal, the TIS shall still include the signal warrants analysis to note if a signal is a feasible improvement, and also complete GDOT's Roundabout Analysis Tool to note how a roundabout performs at the Project Build Out Year. If the intersection is a city or county intersection which has their own adopted roundabout analysis procedures, those procedures may be employed in place of GDOT's Roundabout Analysis Tool for the applicable city or county intersections. If a new traffic

signal is proposed on a GDOT route, the analysis shall also note the distance between existing signals in all directions and if the new signal would meet GDOT signal spacing standards.

3.2.3.5 Project Driveway Turn Lane Analysis

The TIS shall identify any Project driveways on city, county or state routes with turn movements that meet the standards of the intersection owner. If city or county standards are not in place, the turn movements shall be compared against the current *GDOT Regulations for Driveway and Encroachment Control*.

3.2.3.6 TIS Executive Summary

The TIS shall include an Executive Summary at the beginning of the TIS that provides an overview of the TIS impacts and proposed mitigation. The Executive Summary shall include the following summary tables:

Level of Service

An Executive Summary shall include one stand-alone summary table for all intersections with failing LOS approaches that shows the failing no-build LOS approach, failing no-build LOS approach with improvements, failing build LOS approach, and failing build LOS approach with improvements. For the failing LOS approaches in the build condition, the table shall also note the Project's total added trips and their respective percentage of the overall total build condition traffic volume at that approach.

Queue Length

The Executive Summary shall include a table summarizing any approaches where the Project adds trips to an approach and the approach exceeds queue storage capacity, per the requirements of Section 3.2.2.1.

3.2.3.7 Recommended Roadway Improvements Impacts to Transit

The TIS shall note how any recommended roadway or intersection improvements may impact existing or programmed transit routes located on corridors adjacent to or accessing the Project. For example, the TIS shall examine how adding a right turn lane could prohibit a transit operator from effectively accessing an existing transit stop, or how changing intersection geometry could impact buses' ability to make turns.

3.2.4 Enhanced Focus Areas

3.2.4.1 Heavy Vehicle Enhanced Focus Area

The TIS shall include a Heavy Vehicle Enhanced Focus Area component if the Project includes industrial or commercial components, or other components expected to generate Heavy Vehicles. The Applicant may provide information at the Methodology Meeting about the Project's intended industrial or commercial components to propose that the proposed commercial land use will not generate Heavy Vehicle traffic. The requirements in this section shall apply to not only commercial Heavy Vehicles but also to transit buses, school buses, and fire engines.

The Heavy Vehicle Enhanced Focus Area must include the following information:

Heavy Vehicle Routing: Provide a description of the routes Heavy Vehicles are expected to take to access the Project Site within the Study Network. The routing path shall be confirmed during the Methodology Meeting. Where applicable, the TIS should note specific Heavy Vehicle-only entrances to the Project, and any roadways in the Study Network that have an ordinance prohibiting Heavy Vehicles or that have underpass or bridge constraints that limit Heavy Vehicles.

Pavement Condition: The TIS shall note the pavement condition of the Project's Heavy Vehicle route(s). The Heavy Vehicle route pavement condition analysis shall be limited to the roadway segments between all proposed Heavy Vehicle driveways and the nearest Study Network intersections in both directions. The Heavy Vehicle route pavement condition analysis shall specifically indicate roadway sections where the pavement condition is distressed. Examples of distressed pavement include, but are not limited to, cracking, rutting, raveling, loss of section, bleeding, corrugation, edge distress, patches, potholes, and base failures. The analysis shall include photo documentation and location information for the pavement distress. Google Maps Street View may be used when recent imagery is available and accurately displays current conditions.

Roadway Width: The TIS shall note the lane width for the Project's Heavy Vehicle driveways and the roadway segments between the driveways and the nearest Study Network intersection(s) in each direction Heavy Vehicles are expected to travel. The analysis shall include the roadway width of each lane, in tabular format, for distinct roadway segments. The table shall also include roadway width standards for Heavy Vehicles for the applicable owner of the roadway (city, county, GDOT). If local standards are unavailable, GDOT standards shall be used unless approved otherwise.

Corner Radii: The TIS shall note the corner radii for curbs/driveways and the anticipated wheel-path for the Project intersections. This information shall be included in as a diagram along with Heavy Vehicle radii standards for the typical Heavy Vehicles proposed to access the site. The standards provided shall be for the intersection owner (city, county, GDOT). If local standards are unavailable, GDOT standards shall be used unless approved otherwise.

Heavy Vehicle Staging: Describe how the Site Plan includes space for Heavy Vehicle staging and overflow. Note the Project's anticipated delivery hours and the number of delivery vehicles expected during the peak delivery period. Note the Site Plan's ability to accommodate the peak number of vehicles and include where vehicle overflow would occur both on and off the Site Plan.

Pedestrian Safety: The TIS shall note what pedestrian infrastructure will be provided within the Project, including along and across all driveways, and the associated Americans with Disabilities Act (ADA) compliance.

3.2.4.2 Dense Urban Environments Enhanced Focus Area

The TIS requires a Dense Urban Environment Enhanced Focus Area component if the Project is located in a dense urban environment. A Dense Urban Environment is defined as an area of dense residential or employment density oriented around an interconnected roadway network where buildings and sidewalks are oriented to the street. Any Project located within the Midtown Community Improvement District (CID), the Central Atlanta Progress CID, or the Buckhead CID requires the Dense Urban Environment Enhanced Focus Area analysis. GRTA, with input from the Regional Commission and Local Government, may determine that additional areas meet the criteria for the Dense Urban Environment designation. GRTA shall consider existing and planned density, roadway and pedestrian networks and availability of transit when making the determination.

Curbside Management

The Dense Urban Environment Enhanced Focus Area shall include the following Curbside Management information and modeling adjustments:

Heavy Vehicle Deliveries: The analysis shall explain how the proposed Project will receive Heavy Vehicle deliveries. The analysis shall specifically explain where Heavy Vehicle deliveries will occur on the Site Plan and note any specific dedicated areas for Heavy Vehicle deliveries. For this analysis, Heavy Vehicle deliveries include moving trucks, mail and parcel trucks and inventory deliveries made by vans or other Heavy Vehicles. If a dedicated delivery spot is proposed, the analysis shall provide the lane width and length dimensions as well as the delivery vehicle's wheel path dimensions. If a specific delivery space is not provided, GRTA may require the TIS include a lane reduction in the LOS modeling or other modeling techniques to reduce the saturated flow rate such as the Bus Blockage feature in Synchro.

Ride-hail and Takeout Deliveries: The analysis shall explain how the Project will receive ride-hail pick-up and drop-offs as well as restaurant takeout deliveries. If a dedicated delivery spot is proposed, specify the lane width and length dimensions. If a specific ride-hail or delivery space is not provided, GRTA may require the TIS include a lane reduction in the LOS modeling or other modeling techniques to reduce the saturated flow rate such as the Bus Blockage feature in Synchro if temporarily parked vehicles are expected to impact vehicle flow during peak commute hours.

Curbside Management Impacts to Transit Vehicles: The analysis shall also examine the impact that the Project's proposed deliveries, on-street parking and ride-hailing locations may have on transit vehicles being able to provide ADA compliant access to existing and proposed transit stops.

Modeling Adjustments

GRTA may require that the traffic level of service analysis employ modeling features that simulate dense urban areas. These modeling features include GRTA approving a pedestrian crosswalk delay and a Central Business District flow rate adjustment.

3.3 Alternative Study Option

3.3.1 Alternative Study Option Determination

In lieu of the Transportation Impact Study, an Alternative Study Option may be allowed if 1) the Local Government requests an Alternative Study Option, and 2) GRTA determines the Project's surroundings would benefit from an Alternative Study Option based on the surrounding land use, roadway and pedestrian transportation networks, transit availability, existing plans for the area, programmed transportation projects in the area, the area's alternative transportation mode share and the area's overall employment or residential density. GRTA shall also consider if the Project's potential impacts to intersection LOS and the feasibility of intersection improvements when determining whether to allow an Alternative Study Option.

The official request for an Alternative Study Option must come from the Local Government filing the Project with DCA. Alternative Study Options shall generally be the same level of scope as the Transportation Impact Study. The request for the Alternative Study Option shall be made before the delivery of the Methodology Meeting Packet so that GRTA may decide if the Alternative Study Option is allowed, and so that the Methodology Meeting Packet is prepared according to the requirements for the appropriate Transportation Study type. GRTA shall make the final determination on if an Alternative Study Option is allowed and if the proposed study concept is of appropriate content and scope. Pursuing an

Alternative Study Option does not preclude GRTA from issuing Conditions of Approval related to roadway and site access improvements. The Alternative Study Option shall be completed by an AICP certified planner or a firm pre-qualified with GDOT for Mass & Rapid Transportation Planning or Non-Motorized Transportation Planning.

3.3.2 Potential Study Concepts

Potential Alternative Study Option concepts are included below. The concepts are designed to inventory alternative transportation existing conditions and to identify a Project's estimated alternative transportation impacts. Potential Alternative Study Options may include, but are not limited to, combinations of and modifications to the concepts below:

- *Pedestrian & Streetscape Needs Analysis.* A sidewalk, curb cut and street tree inventory and needs analysis for roadways and other pedestrian corridors accessing the Project. The analysis shall extend ½ a mile from the Project Site. The study shall also include an analysis on trip origins, preferred walking routes and pedestrian destinations within the ½ mile network. Actual conditions may justify having the analysis extend shorter or longer distances, as agreed upon at the Methodology Meeting. Examples of study recommendations might include recommendations regarding sidewalk gaps, curb cut replacements and new installations, ADA compliance, crosswalks, pedestrian crossing signals, lighting, street tree locations, sidewalk repairs, etc. The analysis shall also examine the impact that pedestrian and streetscape improvements could create for existing or planned transit service's ability to pick up curbside passengers, including ADA impacts.
- *Bicycle Needs Analysis.* A bicycle facility inventory and needs analysis for corridors accessing the Project. The analysis shall extend 3 miles from the Project. An analysis of 5 miles shall be used if the Project's size or location warrants a larger bicycle commute shed. Actual conditions may justify having the analysis extend shorter or longer distances, as agreed upon at the Methodology Meeting. The analysis shall include connections to regional trails as well as other trip attractors that bicyclists might be expected to access along a route. Such attractors might include, but are not limited to, schools, parks, retail, transit, employment centers and daycares. Examples of study recommendations might include recommendations regarding bicycle facilities, striping, bicycle rack locations, pothole repair, signage, bicycle repair stations, accommodations for detection and crossing at intersections, etc.
- *Transit Stop Amenities Analysis.* An inventory of existing transit service, existing and projected (Project) ridership by station and transit stop, and the identification of needed transit stop amenities at the transit stop level. Ridership shall be compared against transit operator(s) transit amenity standards when determining recommended improvements. The analysis would include a level of detail and amenity considerations beyond the analysis in the TIS. Examples of transit stop amenities may include but are not limited to: signage, transit shelters, bus stop landing pads, benches, trash receptacles, general transit operator information, real time arrival information, call boxes, etc.
- *Transit Route Capacity & Performance Analysis.* An inventory of transit route ridership serving the Project, each route's performance against operator(s) performance standards and each route's ability to accommodate Project transit trips.
- *Transit Route Development Analysis.* Develop a transit service plan for the Project Site if there is an existing transit operator and the Project Site is either currently not served by transit or if the

existing transit serving the Project Site is at capacity or does not sufficiently serve potential ridership markets. The analysis shall include proposed routing, service type, transit stop locations, transit stop amenity locations, pedestrian infrastructure, headways, service span, ADA implications for paratransit service, capital and operating costs and potential funding sources. The routing shall be based off demographic data, employment data, congestion data, existing transit ridership data (when applicable) and include input from the transit operator.

- *Transportation Demand Management Needs Analysis.* Develop a Transportation Demand Management plan for the Project. Identify the Project's market demand and develop recommendations for TDM programs and Project Site features. The TDM plan is envisioned to be a supplement to another Alternative Transportation Study Option focus area. Examples of recommendations might include recommendations regarding shared parking, vanpool, carshare, bicycle / pedestrian / transit infrastructure, commuter programs, teleworking, fleet vehicles, on-site showers and changing facilities, etc. The analysis shall also document any existing TDM components required by local ordinances and document existing programs in place through applicable Transportation Management Associations. If the TMA has a TDM plan, the analysis shall describe how the proposed Project's TDM recommendations align with the TDM plan.

All Alternative Study Option studies shall reference and be consistent with applicable bicycle, pedestrian and/or transit plans in the needs analysis and recommendation development.

3.3.3 Alternative Study Option MMP Requirements

Projects that are to be analyzed using the Alternative Study Option shall include the requirements identified in Section 2.1 in the MMP. Section 2.1 requirements shall be included first in the Alternative Study Option MMP and followed by the additional sections as listed below, in the following order, unless approved otherwise:

- *Proposed Study Analysis*
 - Provide a detailed description of the study's proposed focus and analysis.
- *Estimated Project Trips & Mode Share Split*
 - Provide an estimate of the Project's total trips including mode share breakouts for single occupancy vehicles, carpool, transit, walking and bicycling. The total number of trips shall be estimated using the ITE Trip Generation Manual and the procedures identified and documented as required in Section 2.2.4.
- *Study Area / Study Network*
 - Note the proposed study area based off any relevant distances specified in Section 3.3. Include a Study Network map clearly delineating all study network segments, corridors and/or service areas, as well as any relevant destinations.
- *Proposed Analysis*
 - Include a detailed technical analysis of the proposed approach for evaluating existing conditions and determining potential improvement needs. Note any stakeholder coordination that will need to occur as part of the needs analysis and recommendation development.
- *Data Plan*
 - Include an overview of the data collection plan. Note what data is existing and what data shall be collected or requested. Note any stakeholder coordination that will need to occur

as part of the data plan.

- *Proposed Report Structure*
 - Include a proposed outline for the Alternative Study Option final report submittal. Alternative Study Options shall adhere to any templates referenced in the Letter of Understanding. Absent a referenced LOU template, the Alternative Study Option shall include sections for an 'Executive Summary', 'Study Approach', 'Existing Conditions', 'Needs Analysis' and 'Recommendations' unless noted otherwise.

If stakeholders cannot agree on Alternative Study Option inputs and study parameters at the Methodology Meeting, GRTA staff shall make a final determination.

4 Schedule & Documentation

4.1 Traffic Study Documentation Requirements

4.1.1 Templates

As part of the GRTA LOU, GRTA may develop and require templates for any GRTA required Transportation Study and for the MMP. A template shall not include any new or additional requirements not provided for in these GRTA DRI Review Procedures. In the absence of a template, the MMP and any Transportation Study shall be organized according to the sequence of the sections and subsections of the GRTA DRI Review Procedures.

4.1.2 Submittal instructions

4.1.2.1 MMP Submittal

The MMP shall be emailed to meeting stakeholders no later than five (5) Business Days before the Methodology Meeting. If the MMP is not received at least five (5) Business Days before the meeting, GRTA staff reserves the right to reschedule the meeting. MMP recipients shall include the stakeholders listed in Section 2.2. A revised MMP (if required after the Methodology Meeting), shall also include all additional stakeholders present at the Methodology Meeting in addition to the stakeholders listed in Section 2.2.

4.1.2.2 Transportation Study Submittal

The Transportation Study shall be provided electronically to all stakeholders identified in the LOU according to the LOU delivery instructions and include all the documentation as specified. Email attachments shall be limited to 10 megabytes. An FTP file share link shall be provided if the submittal is greater than 10 megabytes.

4.2 GRTA Deliverables, Timelines & Review Decisions

4.2.1 DRI Review Initiation

GRTA must receive all elements of the DRI Review Package before review can be initiated. This includes the required Transportation Study (Limited Trip Generation Memo, Transportation Impact Study, or Alternative Study Option), the official Site Plan meeting the requirements of Appendix 7.1, and the two DCA information forms. If a complete DRI Review Package is not received within 365 calendar days of the Methodology Meeting, GRTA will consider the project withdrawn and closed for review.

4.2.2 Expedited Review

4.2.2.1 Review Period

Projects under 3,000 Net ADT and the Alternative Study Option qualify for expedited review. Once a complete DRI Review Package is received, DRI review begins the following Business Day. The Notice of Decision shall be issued within fifteen (15) Business Days from the first review Business Day. For review packages that arrive on a Monday, the fifteen (15) Business Day review period begins on Tuesday. For review packages that arrive on a Friday, the fifteen (15) Business Day review period begins on the following Monday.

Official holidays observed by the State of Georgia are excluded from the review schedule. Additionally, July 3 through July 5, the Day before and after Thanksgiving, and December 21 through January 1 are excluded from the review given most stakeholders are not available to review documentation or meet to discuss staff recommendations. If additional information is found to be needed during the review period, the review schedule may be paused until the required materials are provided.

4.2.2.2 Staff Recommendations Report

Staff will transmit the Staff Recommendations Report by the eighth (8th) review Business Day. The Staff Recommendations Report includes the draft Conditions of Approval (if any) or if the Project is not recommended for approval. A meeting to discuss the draft recommendations, if requested or determined to be needed by GRTA staff, will be scheduled between when the Staff Recommendations Report is issued and when the Notice of Decision is issued.

4.2.2.3 Notice of Decision

Staff will transmit the Notice of Decision signed by the Executive Director by the fifteenth (15th) review Business Day. The Notice of Decision is the official decision regarding the Project.

4.2.2.4 Completion of DRI Review

The DRI Review is complete once GRTA has issued a Notice of Decision and the appeal period has closed, unless the Project is formally withdrawn from the Local Government, Regional Commission and GRTA. The Local Government may not take final action approving the Project while the DRI process is ongoing. Permissible actions the Local Government may take while the DRI process is underway is provided in DCA section 110-12-3-.03(4).

4.2.3 Non-Expedited

4.2.3.1 Review Period

Projects with a Transportation Impact Study at or over 3,000 Net ADT are reviewed on a non-expedited review schedule. Once a complete DRI Review Package is received, DRI review begins the following Business Day. The Notice of Decision shall be issued within 25 Business Days from the first review Business Day. For review packages that arrive on a Monday, the twenty-five (25) Business Day review period begins on Tuesday. For review packages that arrive on a Friday, the twenty-five (25) Business Day review period begins on the following Monday.

Official holidays observed by the State of Georgia are excluded from the review schedule. Additionally, July 3 through July 5, the day before and after Thanksgiving, and December 21 through January 1 are excluded from the review given most stakeholders are not available to review documentation or meet to discuss staff recommendations.

4.2.3.2 Certificate of Completeness

Staff will transmit a Certificate of Completeness by the 7th review Business Day. The Certificate of

Completeness notes whether the submittal package appears complete and if additional information is needed. Staff may still request additional information or technical clarification even after the Certificate of Completeness is issued. If additional information is found to be needed during the review period, the review schedule may be paused until the required materials are provided (Section 3.2.2.2).

4.2.3.3 Staff Recommendations Report

Staff will transmit the Staff Recommendations Report by the 17th review Business Day. The Staff Recommendations Report includes the draft Conditions of Approval (if any) or if the Project is not recommended for approval. A meeting to discuss the draft recommendations, if requested or determined to be needed by GRTA staff, will be scheduled between when the Staff Recommendations Report is issued and when the Notice of Decision is issued.

4.2.3.4 Notice of Decision

Staff will transmit the Notice of Decision signed by the Executive Director by the 25th review Business Day. The Notice of Decision is the official decision regarding the Project.

4.2.3.5 Completion of DRI Review.

The DRI Review is complete once GRTA has issued a Notice of Decision and the appeal period has closed, unless the Project is formally withdrawn from the Local Government, the Regional Commission and GRTA. The Local Government may not take final action approving the Project while the DRI process is ongoing. Permissible actions the Local Government may take while the DRI process is underway is provided in DCA section 110-12-3-.03(4).

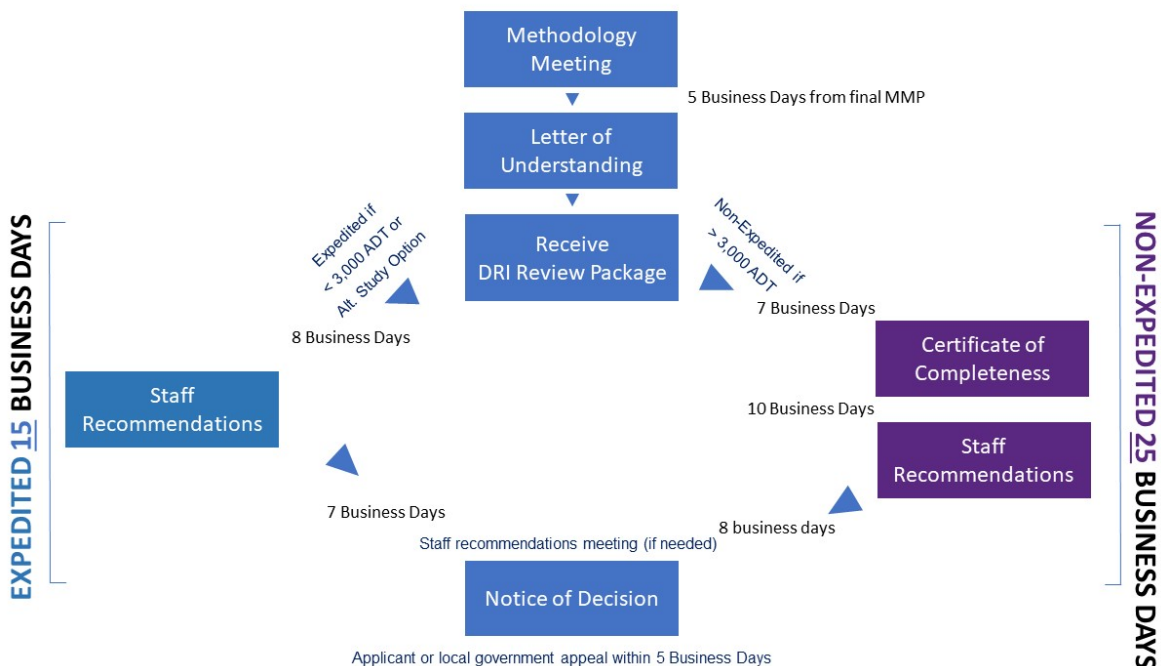


Figure 2 GRTA Review Flow Chart

4.3 Review Criteria

The following criteria will be used in the review of all DRI submittals that GRTA reviews. In the event GRTA determines that a Project fails to satisfy one or more of the criteria for approval of a DRI Plan of

Development, GRTA may still approve the Project. Any such approval shall only be based on the following:

- The information provided in GRTA DRI Review Package, the Transportation Study and the GRTA staff Recommendations Report,
- That in GRTA's opinion, the Project includes uses or other benefits including mitigation programs which are sufficiently beneficial to outweigh the aspects of the Project which are inconsistent with the criteria of this Section, and
- The project includes all practical and economically feasible mitigation elements which minimize the effects of the Project's non-compliance.

4.3.1 Review Guidance

GRTA determinations under the Review Criteria will follow the below guidance:

1. The ultimate measure of a Project is whether the character, location and magnitude of a particular Project is such that it is reasonably anticipated to make a positive as opposed to a negative contribution to GRTA's goals and objectives to improve regional mobility and air quality and that use of state or federal funds to provide required Land Transportation Services and Access constitutes an efficient use of state or federal funds in the context of GRTA's overall objectives.
2. Compliance with the Review Criteria should be considered on a comprehensive basis, that is, limited or total failure to satisfy one or more of the review criteria should be evaluated in the context of GRTA's goals and objectives as they are reflected in the criteria.
3. In evaluating compliance with individual Review Criteria, the decision maker should consider the extent to which a failure to satisfy a particular criteria is attributable to geographic, economic and/or legal factors which are beyond the control of the Applicant or Local Government sponsors of the Project.
4. The objective in the review of individual criteria is to identify any aspects of the Project which are adverse to GRTA's goals and objectives to improve regional mobility and air quality and identify changes to the Project or other actions which would mitigate the negative aspects of the Project through the imposition of Conditions of Approval.

4.3.2 Review Criteria

The following review criteria shall apply to DRI review as noted in Section 4.3.

4.3.2.1 Accessibility

The Project is designed to provide safe, quality, and convenient access and provides the flexibility of non-vehicular transportation options from the proposed development to existing or planned pedestrian, bicycle, or transit facilities such that there is a likelihood of significant use by residents, employees and visitors to the Project.

4.3.2.2 Connectivity

The Project is likely to promote improved regional mobility in terms of new vehicular connections, on-site vehicular movements, and alternate routes that are likely to operate in a safe and efficient manner and avoid delays during peak periods. The Project is designed to maximize bicycle and pedestrian connections within the site as well as promote efficient and direct connections to external bicycle and pedestrian infrastructure. The Project is designed to incorporate existing and planned transit accessing the site. Street and sidewalk networks are designed, to the extent possible, in a manner that provides multiple travel

paths for vehicles and pedestrians thus minimizing traffic bottlenecks and providing more direct pedestrian routes.

4.3.2.3 Access Management

The Project is designed so that vehicular ingress and egress to any on-site parking facilities and all access points to adjacent public roads are likely to operate in a safe and efficient manner and are not reasonably anticipated to result in peak hour ingress and egress congestion on adjacent roads and at nearby intersections. The Project is designed so that pedestrian and bicycle trips accessing the site are designed in a direct and safe manner that encourages walking and bicycling trips. Additionally, vehicle access management and driveways are designed in a way that does not inhibit bicycle and pedestrian mobility or safety.

4.3.2.4 Regional Policies and Adopted Plans

The Project is likely to promote improved regional mobility because it is located in a center or corridor where the Regional Commission, Local Government, or other government entity has an approved land use plan whereby the Project aligns with the plan's vision; or the Project has included in the proposed Site Plan components which will assist in the implementation of a transportation project currently in the Regional Transportation Plan (RTP), Transportation Improvement Program (TIP), a local TSP/OST or other adopted local or regional plan. The Project is designed to not preclude the proposed alignment or timeline of programmed transportation projects that were programmed before the Project was filed with the permitting Local Government.

4.3.2.5 Local Standards Supporting Regional Policies

The Project is located within a local jurisdiction, or other jurisdictional agencies, with adopted codes that support regionally adopted policies, or the development codes and standards do not prohibit or impede the Project from meeting the GRTA DRI review criteria.

4.3.2.6 Transportation and Traffic Analysis

The Project is reasonably anticipated to comply with planned or programmed improvements, maintain performance measures for preserving regional mobility and air quality, provide safe and efficient operations, and minimizes congestion when the proposed development or phase of development is complete. The quality of the proposed and existing infrastructure in the transportation network operates in a safe manner and adequately serves new trips generated by the Project in the Build-Out Year. The Project identifies impacts on existing or programmed infrastructure, and proposes mitigation that is feasible and within the control of the Applicant or appropriate agencies to implement.

4.3.2.7 Relationship to Existing Development and Infrastructure

The Project is not located in any area where the existing level of development and availability of infrastructure is such that the Project is reasonably anticipated to result in unplanned and poorly served development which would not otherwise occur until well-planned growth and development and adequate public facilities are available.

4.4 GRTA Review Decision

The GRTA Executive Director shall issue the Notice of Decision according to the appropriate expedited or non-expedited review schedule established in Section 4.2. The Notice of Decision shall be considered a final decision for the purposes of these GRTA DRI Review Procedures and such decision shall be

transmitted to the Regional Commission and shall constitute compliance and satisfaction of all GRTA requirements pursuant to these Procedures and Principles, O.C.G.A. § 50-32-14 and Chapter 110-12-3 of the DCA Rules. The written decision granting GRTA approval of a Request for GRTA DRI Review shall specify the development which is authorized and shall provide that the approval shall terminate and be of no further force and effect after ten (10) years unless substantial construction of the proposed DRI has been commenced.

The Notice of Decision shall include one of the following decisions:

4.4.1 Approved without Conditions

The Project is approved without conditions meaning GRTA approves the Project with no conditions attached to that particular Project regarding the use of state and federal transportation funds for providing Land Transportation Services and Access to the Project.

4.4.2 Approved with Conditions

The Project is approved with conditions meaning the conditions outlined in the Notice of Decision must be met or GRTA may prohibit the use of state and federal transportation funds for providing Land Transportation Services and Access to the Project. Conditions are based on the GRTA Review Criteria as well as GRTA analysis of the Site Plan and the applicable Transportation Study.

4.4.3 Not Approved

If the Executive Director finds that a Project does not comply with the criteria for DRI review established in Section 4.3 of these GRTA DRI Review Procedures, the Executive Director shall, on or before the scheduled Notice of Decision date:

1. Deny the request for GRTA DRI review and specify the changes necessary to the Project Plan of Development, if any, which would make the Project eligible for approval; or
2. Defer a decision on the request for GRTA DRI review provided that such deferral is agreed upon by the Regional Commission, Local Government and the Applicant for the Project.

State and/or Federal Funding Prohibition

A written decision denying a request for GRTA DRI review shall include a narrative and graphic description of the location and character of any Land Transportation Services and Access which are ineligible for state or federal funding. GRTA may, at its sole discretion, identify conditions under which eligibility for state or federal funding could be restored.

Effect of a Determination by GRTA Not to Approve a DRI Plan of Development

In the event that GRTA denies a GRTA DRI Review Package, the denial shall constitute a denial of the DRI Plan of Development and a determination by GRTA to disallow the expenditure of state or federal funds for any Land Transportation Services and Access which are identified in the written decision of GRTA as improvements required to provide Land Transportation Service or Access to the Project. A GRTA decision to deny a DRI Plan of Development and to disallow state or federal funding of specified improvements shall continue in force and effect for a period of five (5) years after the date of the GRTA decision or such other period which is prescribed in GRTA's written decision. GRTA shall transmit written notice to each and every agency with jurisdiction over state or federal funding for Land Transportation Services. Such

notice shall include a copy of a GRTA's Notice of Decision in regard to a Project and any conditions for restoring funding eligibility.

5 Appeals, Revisions & Re-Reviews

The following appeal and revision options exist depending on who makes the request and when a request occurs during the DRI process.

5.1 Appeals

5.1.2 Applicant or Local Government Appeal During DRI Review Period

Guidelines for filing appeals

The Applicant or a local government aggrieved by a decision of the Executive Director in regard to Conditions of Approval, a denial of a DRI Plan of Development, or a requested revision to a Notice of Decision may appeal the decision to the Land Development Committee of the GRTA Board by filing a written notice of appeal with GRTA within five (5) Business Days of receipt of the notification of the Executive Director's decision. The appeal shall be submitted electronically to the GRTA Executive Director and the GRTA Board Secretary with the GRTA staff member conducting the DRI review copied. The notice of appeal shall specify the grounds for the appeal together with any analysis or argument in support of the appeal. The filing of a notice of appeal shall stay the effectiveness of any conditions attached to the decision of the Executive Director. No actions to progress the Project development shall occur during the appeal period.

Appeal Review Timeline

Upon receipt of an appeal, GRTA staff shall transmit a Notice of Appeal Review Memo to all stakeholders listed on the LOU within ten (10) Business Days of receiving the appeal noting the appellers stated reason for the appeal and the review schedule (if finalized). GRTA shall make reasonable efforts to ensure the appeal public hearing is scheduled for within sixty (60) calendar days from receipt of the appeal request. Within five (5) business days of Land Development Committee appeal meeting, GRTA staff shall send written notice to stakeholders of the final outcome of the appeal through either a revised Notice of Decision or a revised Notice of Appeal Review Memo reflecting the outcome of the appeal public hearing.

5.1.3 Land Development Committee Member Request for Land Development Committee Review of Executive Director's Decision

Any member of the Land Development Committee may, within five (5) Business Days of receipt of the written notification of the Executive Director's decision, file a written request that the Land Development Committee review the decision of the Executive Director. In such event the Land Development Committee shall review the Project pursuant to Section 5.1.4.

5.1.4 Consideration of Appeal or Request for Review

The Land Development Committee appeal public hearing shall hear the appeal in the following order:

1. A GRTA representative will provide a brief introduction describing the GRTA DRI Review Procedures, the DRI at issue, the Notice of Decision, and applicable recommendations from GRTA staff.
2. The party that filed the notice of appeal will have thirty (30) minutes to present argument in

support of the appeal.

3. A GRTA representative will have thirty (30) minutes to present argument in support of the Notice of Decision and, if applicable, any alternative recommendations.
4. Members of the Land Development Committee may ask any additional questions of the parties and other stakeholders who have made representatives available.

GRTA staff and the party that filed the appeal may mutually agree to longer time periods for presentation of argument. In addition, the Chair of the Land Development Committee may grant additional time to present argument upon written request prior to or at the hearing.

The action of the Land Development Committee to modify or reverse the Executive Director's decision shall be based solely on the information contained in the DRI Review Package, the GRTA DRI Review Procedures, and the formal GRTA review documentation and shall be considered on the basis of the same DRI Review Criteria applicable to the decision as used by the Executive Director and shall constitute final action of GRTA. Information and documents that are not contained in the DRI Review Package or the formal GRTA review documentation shall not be considered by the Land Development Committee.

5.1.5 Local Government Appeal of Notice of Decision After Review Period

The decision of GRTA to disallow state or federal funding for specified improvements shall be final unless a 3/4ths majority of the authorized membership of the governing body in which the DRI Plan of Development is located approves a resolution reversing the decision of GRTA to disallow funding within sixty (60) calendar days after transmittal of the GRTA Notice of Decision to the Local Government.

5.2 Revisions and Administrative Modifications to a Notice of Decision

All Notice of Decision revisions and administrative modifications shall be made according to the most recent version of the GRTA DRI Review Procedures, regardless of Project's Notice of Decision date.

5.2.1 Request for Revision to a Notice of Decision

Revision Submittal Requirements

Any request to revise a previously issued Notice of Decision for which the appeal period has closed must be submitted to GRTA by the permitting Local Government. GRTA may also initiate the process to revise a Notice of Decision. Subsequent information may be submitted by any party. It is the responsibility of the Local Government to notify the Applicant of DRI revision requests.

NOD Revision Package

When requesting a revised Notice of Decision, the Local Government shall submit the following required items, known as the NOD Revision Package:

1. A revision request letter identifying the condition(s) for which the revision is sought, as well as the Project name and number assigned by DCA from the original DRI review period; and,
2. New site plan identifying change proposed and any necessary revised transportation analysis; and,
3. Purpose of the revision request, such as a hardship; and,
4. Any mitigation proposed to allow for the revision, if applicable; and,

5. Suggested wording for the replacement condition; and,
6. Information pertaining to policies, rules, guidelines, etc. of the Local Government as they pertain to the request and comments relating to the revision request; and,
7. Copy of the original NOD and any subsequent revisions.

NOD Revision Review Timeline – GRTA Completeness Determination

Within seven (7) Business Days of receipt of the NOD Revision Package, GRTA staff shall certify in writing to the Local Government and Applicant, when applicable, that (1) the NOD Revision Package is complete, or (2) the NOD Revision Package is not complete; in which case GRTA shall identify, with specificity, any deficiencies.

NOD Revision Review Timeline – GRTA Staff Recommendations Report

GRTA staff shall prepare a Staff Recommendations Report in regard to the proposed revision to the GRTA NOD based on analysis from the prior review and additional information submitted per the revision request no later than ten (10) Business Days after GRTA staff certified in writing that the NOD Revision Package is complete.

NOD Revision Review Timeline – Notice of Decision

Within eight (8) Business Days of receipt of a copy of the Staff Recommendations Report for the revision request, the Executive Director shall consider the staff determination, as contained in the Staff Recommendations Report and shall determine whether the proposed revision(s) comply with the DRI Review Criteria (Section 4.3) and should be approved per the request, approved with modifications to the request, or denied.

NOD Revision Evaluation

GRTA shall consult the Staff Recommendations Report, Transportation Study, the Site Plan and the Review Criteria (Section 4) in evaluating the NOD revision request. The Executive Director may approve a revision request when there is a need for clarification concerning a prior condition of the NOD, when a substantial change in the Plan of Development has necessitated modifications, or when the revision allows the Project to meet the original intent of the prior decision, which may include the use of mitigation measures that were not proposed in the original review. The Applicant or a local government aggrieved by a decision of the Executive Director may appeal the revised Notice of Decision according to Section 5.1.2. If a Local Government approval action is needed for the Project undergoing a revised Notice of Decision, the Local Government shall not take action on the project until after the revised Notice of Decision process concludes.

Revision Request Land Development Committee

The Executive Director, at his or her discretion, may refer the request for revision to the Land Development Committee.

NOD Revision Request Timeline: 25 BUSINESS DAYS

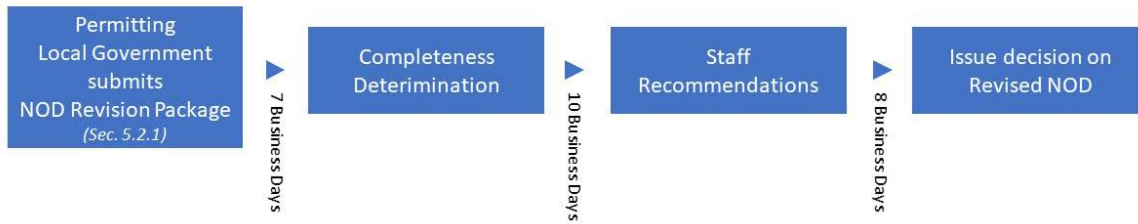


Figure 3 NOD Revision Request Timeline

5.2.2 Administrative Modifications to a Notice of Decision

Notices of Decision may be modified and reissued by GRTA for changes that are not substantive such as to fix typographical errors, provide additional clarification to Conditions of Approval, or any other reason that does not fundamentally change the substance of the NOD. These modifications shall be considered administrative modifications. Administrative modification requests must be submitted to GRTA staff electronically. If a request for an administrative modification is submitted, GRTA staff shall respond within seven (7) Business Days with a revised Notice of Decision or an explanation of why the revision was not made.

An administrative modification does not require stakeholders to submit additional information. The administrative modification also does not require that GRTA staff notify all Project stakeholders or that GRTA staff issue a new Staff Recommendations Report. The Executive Director shall sign the administratively modified Notice of Decision.

5.3 Project Changes after Notice of Decision Issuance

5.3.1 DRI Review if Proposed Project is Revised Below DRI Criteria Thresholds

If the local permitting review process results in a Project falling below the applicable Regional Commission's DRI thresholds for the applicable land use and Project location, then the Notice of Decision is no longer attached to the Project if:

- The Local Government submits to GRTA a final permitted Site Plan showing the Project has dropped below the threshold, and
- The Regional Commission has provided GRTA written confirmation that the Project no longer meets DRI thresholds.

Should an Applicant later revise the Plan of Development such that the Project again meets the DRI thresholds, the Local Government shall coordinate with the Regional Commission and GRTA to determine if a new review is needed based on if significant Plan of Development changes are proposed. If a new review does not occur, GRTA may still determine a revised NOD is necessary to account for Plan of Development changes.

5.3.2 DRI Review and Updated DRI Thresholds

If a Regional Commission or DCA change their respective DRI threshold criteria after the GRTA review process has ended resulting in a Project no longer qualifying as DRI, the Notice of Decision shall remain in effect. However, if no action has been taken on the Project and a new triggering action or permit is filed with the Local Government due to the old action or permit expiring, then the Project's DRI determination

shall be decided under the new DRI thresholds.

5.3.2 DRI Re-Reviews

If an Applicant has not generated substantial construction on a Project after substantial time has passed and the Applicant returns to the Local Government for a DRI triggering permit or action, the Applicant shall coordinate with the applicable Regional Commission to determine if a new DRI review is needed. Regional Commissions may determine additional factors that warrant a re-review per their governing DRI rules and regulations. If a new review is conducted, the new Notice of Decision shall supersede the prior Notice of Decision. If the Regional Commission determines a new review is not needed, the Notice of Decision will remain in effect unless GRTA determines a revision is needed based on substantial time having passed or changes to the Plan of Development.

5.3.3 Change in Permitting Local Government

If the Project is seeking a new DRI triggering action and the permitting Local Government has changed since the previous DRI review was completed (e.g., annexation or an unincorporated portion of a county becoming a city), then the new permitting Local Government may determine how to address the existing NOD.

If substantial time has not passed and the revised site plan has not changed substantially, the new Local Government may accept the existing conditions of approval. In such a case, GRTA will issue an administrative modification updating the Notice of Decision to change the Local Government.

If substantial time has not passed, the new permitting Local Government may request a revised NOD for revisions to specific conditions of the NOD. Request for revisions to conditions shall follow Section 5.2.1.

If substantial time has passed, GRTA will coordinate with the Regional Commission to determine if a new DRI review is required.

6 Monitoring and Enforcement

6.1 Monitoring Funding Agency Actions

GRTA monitors the expenditure of state and federal funds for Land Transportation Services and Access improvements and may take any and all authorized steps necessary to ensure that state or federal funding is not used in violation of any GRTA decision.

6.2 Periodic Review and Repeal of Funding Prohibition

GRTA, may at its sole discretion, undertake to review a GRTA decision to disallow state or federal funding for a particular Land Transportation Service or Access improvement and repeal such funding prohibition if GRTA determines that regional mobility and air quality objectives would be best served by a repeal of the prohibition. Either the GRTA Land Development Committee or the GRTA Executive Director may request that repeal be placed on the agenda of the next available Land Development Committee meeting. The Land Development Committee shall decide by majority vote whether or not to repeal the prohibition.

6.2.1 Existing State or Federal Funding Commitments.

The denial of a DRI Plan of Development shall not prohibit the expenditure of federal or state funds on any phase of a Project to create Land Transportation Services or Access if, at the time of such denial, such phase:

- A. Is programmed in the current year of the approved Transportation Improvement Program; and
- B. Is the subject of an executed project agreement between the United States Department of Transportation and any agency, authority, or instrumentality of the State of Georgia or an executed local government project agreement between any agency, authority, or instrumentality of the State of Georgia and a political subdivision of the State; and
- C. Has already resulted in the expenditure of federal or state right-of-way acquisition or construction funds, exclusive of any funds spent for early acquisition pursuant to the provisions of 23 C.F.R. § 710.501, for protective buying or hardship acquisition pursuant to the provisions of 23 C.F.R. § 710.503, or for advance construction pursuant to the provisions of 23 U.S.C. § 115.

The expenditure of federal or state funds on any phase of a Project to create Land Transportation Services and Access not meeting the requirements in this section shall be prohibited as a result of GRTA's denial of a DRI Plan of Development.

7 Appendices

7.1 GRTA DRI Site Plan Requirements

A digital Site Plan (pdf format) shall be provided that meets GRTA DRI Site Plan Requirements. At the Methodology Meeting or in the Letter of Understanding, GRTA may request that a paper copy of the Site Plan accompany the digital copy. The GRTA DRI Site Plan Requirements include the specific information that the Applicant should include on the Site Plan that is submitted as a part of the DRI Review Package. GRTA and the Applicant will agree in writing to any modifications or additions to the following list of items prior to the Applicant submitting the DRI Review Package. GRTA may determine the DRI Review Package to be incomplete if any of these items are not included.

- **General Information**
 - DRI Number
 - Project name
 - Location map showing relationship of Project to adjacent roads
 - Drawing scale indicated and drawn at a minimum of 200:1 scale
 - North arrow
 - Traffic consultant / site planner contact information
 - Client contact information
 - Date of the drawing including revision dates
 - Jurisdictional boundaries

- **Property information**
 - Site acreage
 - All property lines around the perimeter of the Project Site
 - All property lines internal to the site, including those related to new subdivisions
 - All property lines, uses, zoning and ownership of parcels adjacent to the Project Site
 - All right of way lines for roads adjacent to the Project Site

- **Natural features**
 - Water features on site including Jurisdictional Waters of the U.S. (streams and wetlands)
 - Topographic lines with a 5' maximum interval (grey and/or thin lines)

- **Location, size, and character of the proposed development including:**
 - Building footprints and square footage excluding footprints and square footage for single family detached and single family attached housing
 - Total number of residential units and square footage of non-residential development
 - Uses of all existing and proposed buildings on site, including future uses of existing buildings where applicable
 - Number of stories in excess of one for each building on Project Site
 - A delineation of phases if applicable
 - A calculation of density in gross residential units per acre and in a floor area ratio for all other uses.
 - Location and size of existing or proposed preserved open space and dedicated park space

- **Transportation infrastructure**
 - Traffic signalization, proposed and existing

- Right of way width, number of through and turn lanes on existing and proposed public and private roads
- The number and location of parking spaces to be provided, and minimum and maximum Local Government parking requirements for the proposed Project
- The number and location of any proposed shared parking with existing development or existing parking facilities
- The number and location of proposed car share spaces and vanpool spaces
- The location of dedicated loading or pick-up / drop-off areas for ride-hailing, moving trucks, package delivery, and/or other Heavy Vehicle deliveries
- The location, size and character of all Project Site Access locations
- The designation of any restricted driveways (eg. Heavy Vehicle only driveways)
- Access points along opposing road frontages
- Road names including state and federal route numbers
- Any existing, planned, proposed, or programmed sidewalks and greenways, as well as any sidewalks and greenways where the alignment is reasonably well known. The Site Plan shall include the width for all sidewalks and greenways.
- Labeling of medians, sidewalks, bike lanes and trails, existing and proposed
- Location of on-site and site adjacent transit stops and amenities
- Naming convention for all proposed roads and driveways (eg. Road A, Road B, and Road C or Driveway 1, Driveway 2, and Driveway 3) to match analysis report
- The location and accommodations for Heavy Vehicle staging and overflow
- When programmed projects are adjacent to or intersect a Project, include the programmed project on the Site Plan using scale and dimensions that approximate the approved transportation project design
- If the Local Government or GDOT standards require a turn lane for a Project driveway, include the turn lane on the Site Plan per the ordinance standards

7.2 Methodology Resources

TABLE 1- STUDY NETWORK DETERMINATION EXAMPLE

Proposed Project: 1,000 single-family dwelling units

Trip Generation, per ITE: 8,622 trip ends per day

Study area road network assumptions:

Roadway A – 4 lane undivided urban roadway with turn lanes– 1 signal per mile – 4 LD-1

Roadway B – 4 lane divided urban roadway with turn lanes– 2 signals per mile – 4LD-2

Roadway C – 2 lane undivided unsignalized roadway without turn lanes – 2L -0

Roadway D – 2 lane divided – 1.5 signals per mile with turn lanes – 2L-1

Level of Service Standards:

Roadway A is a protected high-capacity corridor, with a LOS Standard of C

Roadway B is a typical urban facility, with a LOS Standard of D

Roadway C is a typical urban facility, with a LOS Standard of D

Roadway D is in a LOS maintenance area with a LOS Standard of E

Traffic Distribution:

Shown in Example table.

Presumptive Impact/Significance Threshold:

Project traffic >7% of facility capacity will be on study area network for further analysis.

Roadway Segment	Facility Type	Facility LOS Standard	Facility Service Volume @ Standard (vpd)	Adjusted Facility Service Volume @ Standard (vpd)*	Project Traffic Distribution	Project Trips Assigned	% Service Volume Consumed	Presumptive Impact (>7%)?
Roadway A	4LD-1	C	33,200	31,540	30%	2,587	8.2%	Yes
Roadway A	4LD-1	C	33,200	31,540	25%	2,156	6.8%	No
Roadway A	4LD-1	C	33,200	31,540	18%	1,552	4.9%	No
Roadway B	4LD-2	D	33,500	33,500	35%	3,018	9.0%	Yes
Roadway B	4LD-2	D	33,500	33,500	25%	2,156	6.4%	No
Roadway B	4LD-2	D	33,500	33,500	17%	1,466	4.4%	No
Roadway C	2L-0	D	24,800	24,800	15%	1,293	5.2%	No
Roadway C	2L-0	D	24,800	24,800	12%	1,035	4.2%	No
Roadway C	2L-0	D	24,800	24,800	10%	862	3.5%	No
Roadway D	2L-1	E	16,600	17,430	20%	1,724	9.9%	Yes
Roadway D	2L-1	E	16,600	17,430	15%	1,293	7.4%	Yes
Roadway D	2L-1	E	16,600	17,430	5%	431	2.5%	No

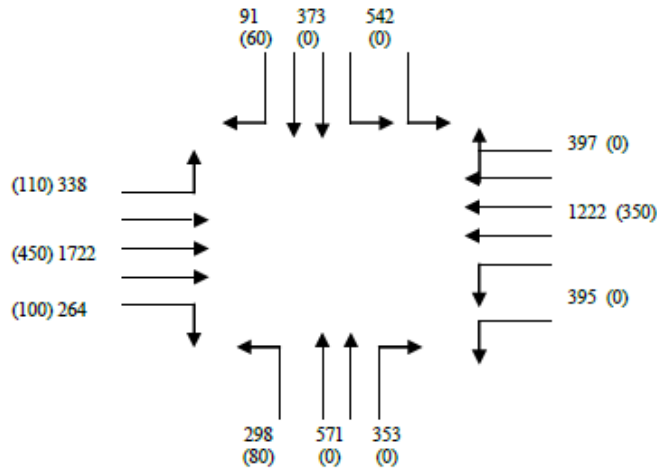
*Left-turn lane and divided roadway adjustments from Table 5-4

TABLE 2

Generalized Annual Average Daily Volumes for Use in GRTA's DRI Review												
State Two-Way Arterials						Freeways						
Unsignalized (Uninterrupted Flow)						Group I (w/in urban area 500,000+ w/in 5 miles of CBD)						
Lanes		Level of Service				Lanes		Level of Service				
/Divided		A	B	C	D	E	A	B	C	D	E	
2/undivided		8,900	13,900	18,900	24,800	33,100	4	21,200	34,300	51,500	66,200	81,700
4/divided		21,500	35,800	50,100	60,100	71,600	6	32,600	52,700	79,000	101,600	125,400
6/divided		32,200	53,700	75,200	90,200	107,400	8	44,500	71,800	107,800	138,600	171,100
							10	55,600	89,800	134,700	173,200	213,800
							12	65,200	105,400	158,100	203,200	250,900
Interrupted Flow						Group II (w/in urban area 500,000+ not included in Group I)						
Class I (> 2 signalized intersections per mile)						Lanes		Level of Service				
/Divided		A**	B	C	D***	E***	A	B	C	D	E	
2/undivided		N/A	10,800	15,600	16,600	16,600	4	20,900	32,800	49,200	62,600	74,500
4/divided		N/A	23,500	33,200	35,000	35,000	6	32,100	50,400	75,600	96,200	114,500
6/divided		N/A	35,800	49,900	52,500	52,500	8	43,800	68,800	103,200	131,300	156,300
8/divided		N/A	45,300	61,400	64,400	64,400	10	54,700	86,000	129,000	164,200	195,400
							12	64,100	100,800	151,200	192,400	229,100
Class II (2-4.5 signalized intersections per mile)						Non-State Roadways (Major City/County Roads)						
Lanes		Level of Service				Lanes		Level of Service				
/Divided		A**	B**	C	D	E	A**	B**	C	D	E	
2/undivided		N/A	N/A	9,900	14,900	16,200	2/undivided	N/A	N/A	8,600	14,600	16,000
4/divided		N/A	N/A	22,900	32,500	34,300	4/divided	N/A	N/A	19,800	31,700	33,900
6/divided		N/A	N/A	35,500	48,900	51,700	6/divided	N/A	N/A	30,800	47,800	51,000
8/divided		N/A	N/A	44,700	60,100	63,400						
Class III (> 4.5 signalized intersections per mile but not in CBD)						Other Signalized Roadways (Signalized Intersection Analysis)						
Lanes		Level of Service				Lanes		Level of Service				
/Divided		A**	B**	C	D	E	A**	B**	C	D	E	
2/undivided		N/A	N/A	3,300	12,100	15,800	2/undivided	N/A	N/A	4,800	10,900	11,900
4/divided		N/A	N/A	7,800	27,800	33,600	4/divided	N/A	N/A	11,600	23,800	25,400
6/divided		N/A	N/A	12,100	43,300	50,500						
8/divided		N/A	N/A	15,300	54,200	62,100						
Class IV (> 4.5 signalized intersections per mile within CBD)						Adjustments (Divided/Undivided)						
Lanes		Level of Service				(Alter corresponding two-way volumes by indicated percentage)						
/Divided		A**	B**	C	D	E	Left Turn		Adjustment			
2/undivided		N/A	N/A	3,700	13,800	15,300	Lanes	Median	Bays	Factor		
4/divided		N/A	N/A	8,900	29,900	32,600	2	divided	Yes	+5%		
6/divided		N/A	N/A	14,000	45,500	49,000	2	undivided	No	-20%		
8/divided		N/A	N/A	17,500	56,200	60,100	Multi	undivided	Yes	-5%		
							Multi	undivided	No	-25%		
<p>* This table is based on the 1997 Highway Capacity Manual and data generated by the Florida DOT. For the purposes of GRTA review this table can be used for Level of Service Analysis in Section 2.2.</p> <p>** Cannot be achieved.</p> <p>*** Volumes are comparable because intersection capacities have been reached.</p>						One-Way						
						(Alter corresponding two-way volumes by indicated percentage)						
						One-Way	Equivalent	Adjustment				
Lanes	2-Way Lanes	Factor										
2	4	-40%										
3	6	-40%										
4	8	-40%										
5	8	-25%										
<p>SOURCE: The Florida Department of Transportation, Systems Planning Office, 605 Suwannee Street - Mail Station # 19, Tallahassee, Florida, 32399-0450 September 1998 - www.dot.state.fl.us/planning</p> <p><<<The assumptions made in the development of this table appear in the 1998 Level of Service Handbook published by Florida DOT.>>></p>												

TABLE 3 - SAMPLE SIGNALIZED INTERSECTION ANALYSIS

Intersection Geometry and Volumes:



Where:

- The number not in parentheses represents total traffic, and
- The number in parentheses represents project traffic only
- Arrows indicate number of lanes for each movement
- All left turns are made from exclusive lanes

Proportionate Share Calculation (all data obtained from HCS worksheets):

Step 1: Determine critical movements (from HCS Capacity Analysis Worksheet):

Step 2: Develop adjusted project traffic volumes

Step 3: Calculate total adjusted project volumes for critical movements

Step 4: Calculate total capacity for critical movements

Step 5: Calculate capacity consumed by project

Critical Movement	(A) Total Traffic	(B) Project Traffic	(C) Adjusted Flow Rate	(D) Adjustment Factor {C/A}	(E) Adjusted Project Traffic {A*D}	(F) Movement Capacity
Eastbound through	1,722	450	1,813	1.05	473	1,810
Westbound left	395	0	416	1.05	0	465
Northbound through	571	0	601	1.05	0	670
Southbound left	542	0	571	1.05	0	633
TOTALS					473	3,578

Step 5:

Total adjusted project traffic: 473

Total capacity: 3,578

Capacity Consumed: 13.2%