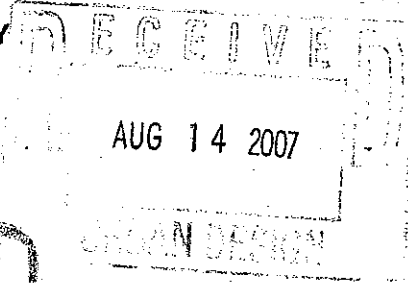




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909



August 13, 2007

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Wayne Fedora, Major Projects Engineer
Federal Highway Administration
Georgia Division
61 Forsyth Street, SW
Suite 17T100
Atlanta, Georgia 30303-3104

SUBJECT: Draft Environmental Impact Statement/Alternatives Analysis for the Northwest I-75/I-575 Corridor Project in Cobb and Cherokee Counties, Georgia
CEQ Number 20070185

Dear Mr. Fedora:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Impact Statement (EIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The Georgia Department of Transportation (GDOT) and the Federal Highway Administration (FHWA), in cooperation with the Georgia Regional Transportation Authority (GRTA) and the Federal Transit Administration (FTA), propose to make transportation improvements to I-75 and I-575 in the northwest corridor in the Atlanta metropolitan area in Cobb and Cherokee Counties, Georgia. The improvements are collectively referred to as the Northwest I-75/I-575 Corridor Project and are proposed to include the construction of high-occupancy vehicle (HOV) lanes, truck-only lanes (TOL), bus rapid transit (BRT) stations, park-and-ride facilities, and improved local and express bus service. The proposed operation of the HOV and TOL may be tolled to improve effectiveness.

The alternatives considered included the no-build alternative; an HOV/TOL alternative; an HOV/TOL/Transportation System Management alternative; an HOV/TOL/BRT alternative; and an HOV/TOL/Reduced BRT alternative. All build alternatives provide for the extension of the HOV lanes on I-75 and I-575 and the addition of TOL on I-75. No TOL are proposed on I-575. On I-75, the HOV lanes and TOL would end just north of the Hickory Grove Road crossing. On I-575, the HOV lanes would end south of the existing Sixes Road interchange. The HOV lanes would be located in the center of the roadway on both I-75 and I-575 and barrier-separated from the general-purpose lanes. The TOL would be located to the outside of the general-purpose lanes and would also be barrier-separated. The primary difference among the build alternatives is the type and level of transit improvements included, e.g., bus routes and frequencies, types of passenger facilities, location and size of park-and-ride lots, and number and types of vehicles. An overall preferred alternative was not identified.

The HOV/TOL alternative provides for only a minimum expansion of transit service in the corridor. The transit services under this alternative are similar to the no-build alternative, but with express bus routes operating in HOV lanes and only a minimal increase in the frequency of service. The HOV/TOL/TSM alternative is a lower-cost transit alternative. It includes a major expansion of express bus service operating in the HOV lanes with supporting transit facility improvements, such as park-and-ride lots and bus transfer facilities. No transit stations are included in this alternative. The HOV/TOL/BRT alternative serves the same travel markets as the HOV/TOL/TSM alternative, but with five BRT stations located at proposed special HOV interchanges on I-75. This alternative also has off-vehicle fare collection, multi-level parking structures at some BRT stations, and commuter-type transit vehicles. The HOV/TOL/Reduced BRT alternative is similar to the HOV/TOL/BRT alternative except it has only three stations along the I-75 corridor. This alternative is a reduced-cost version of the HOV/TOL/BRT alternative.

Each of the build alternatives contains options for the design and operation of the HOV/TOL system. There are three design options under consideration: 1) Inside TOL Option – location of the TOL to the inside of the roadway on I-75; 2) Allgood Flyover Option – replacement of the HOV interchange at Allgood Road with a flyover between the general-purpose lanes and the inside HOV lanes; and 3) Roswell Road Interchange Alignment Option – south of this interchange between South Marietta Parkway and Roswell Road, shift I-75 to the east to avoid a church. In addition to design options, there are two operational options under consideration: 1) High-Occupancy Toll (HOT) Lane Option – operation of the HOV lanes to allow single-occupancy vehicles (SOV) to use the HOV lanes by paying a toll; and 2) Truck-Only Toll (TOT) Lane Option – operation of the TOL as a toll facility which could be mandatory or voluntary.

Based on our review of the Draft EIS, EPA's environmental concerns are related to the following areas: the full consideration of alternatives, lack of analysis for mobile source air toxics (MSATs), noise impacts, significant impacts to low-income and minority communities, and water quality impacts.

EPA is concerned that there is not a full analysis of alternatives in Section 2. Light Rail Transit (Alternative B) was eliminated from further consideration by the Northwest Connectivity Study based on cost and cost effectiveness criteria; however there is no additional information provided on the cost and effectiveness criteria used in making this decision. It appears that light rail was eliminated early using criteria (cost) that may not have been applied consistently to the other alternatives, which subsequently have been expanded significantly since the original alternatives screening process. Without further explanation, it is difficult to understand how a light rail alternative was rejected based on cost in favor of the current EIS alternatives that range in costs from \$3.5 billion to over \$4 billion. EPA recommends that the Final EIS include additional information/analysis to justify the decision to eliminate other Study stage alternatives from a more complete evaluation in the EIS.

Rail transit is inherently cleaner (less emissions) and preferred by many transit riders over buses. Expanding rail service to Cobb and Cherokee Counties could increase transit ridership,

further alleviate the congestion in the I-75 corridor, and serve to eliminate air toxics emitted by transit buses and other vehicles that a rail option would remove from the road. In light of this, EPA recommends consideration for design of the preferred alternative to allow for upgrade to rail modes in the future when air quality considerations, energy costs, capacity needs, etc. may warrant it. Further, EPA recommends that the Final EIS discuss design alternatives or operating options that include BRT operating in its own dedicated HOV lane to provide a level of transit service that is of a higher quality than enhanced bus service. The operational objective of such a system should be to approach the service quality of rail transit. The Atlanta Regional Commission describes BRT in its transportation planning documents as "running in its own lane along an interstate or major road." The BRT alternatives in the Draft EIS currently do not fully meet this objective.

The discussion of MSATs in the Draft EIS and in the air quality technical report presents information that does not coincide with the opinions of many air quality professionals, academics, and the editorial boards of scholarly journals. Air toxics impacts for a project of this magnitude should be evaluated based on emissions, dispersion modeling, and screening level risk assessment in locations where people work and reside. The evaluation should include a detailed discussion of the evidence concerning near-roadway health impacts and the potential for such impacts during and following completion of this project. Our specific recommendations include: 1) quantifying the construction and operational emissions for MSATs, 2) conducting dispersion modeling of the most significant MSATs, and 3) identifying hotspots and appropriate avoidance, minimization, and/or mitigation opportunities.

The Draft EIS describes nearly 1,100 properties that would be adversely affected by noise impacts from all of the build alternatives. Therefore, mitigation measures will be vitally important to address these significant impacts. EPA recommends that the Final EIS include a detailed discussion of potential noise mitigation options, including proposed noise walls, the impacts (and properties) that would be mitigated through their installation, and the specific reasons why certain barriers were not advanced. Given the magnitude of noise impacts from this project, EPA suggests GDOT and FHWA consider flexibility in the application of the criteria to determine barrier cost-effectiveness as part of potential context sensitive solutions to mitigate these impacts. EPA also recommends that GDOT coordinate with affected communities where noise walls have been determined feasible to discuss potential visual and aesthetic mitigation measures regarding any noise walls.

EPA has several concerns about the potential impacts to low-income and minority communities from this project. A substantial number of residential displacements would occur from this project, and approximately 93 percent of all residential displacements would occur in minority and low-income communities. Many potentially displaced households would have considerable difficulty finding similar cost replacement housing. In addition, apartments and mobile homes would be acquired that are a substantial portion of the residential neighborhoods. These effects would alter the community cohesion, size and social fabric of these neighborhoods. Based on the magnitude of impacts described in the Draft EIS, all alternatives would clearly result in disproportionate impacts to low-income and minority populations. To mitigate for these adverse community impacts, EPA strongly recommends development of a comprehensive

mitigation and enhancement plan for these neighborhoods to address displacement concerns and preserve the cohesiveness of these communities. EPA recommends that the plan include commitments to continue working with these communities to assist with relocation and redevelopment activities associated with BRT station area development. The plan should also identify the extent to which toll revenues and toll discounts will be used to improve mobility and equity for disadvantaged populations.

EPA has concerns about degradation of water quality in various waterways from erosion, siltation and other pollutants associated with road construction, long-term operations, and direct and indirect development associated with the proposed BRT stations and other transit facilities, including parking lots. The various project alternatives have the potential to impact several streams which appear on Georgia Environmental Protection Division's 2006 303(d) list of impaired waterbodies from several different pollutants and sources. The project should add significantly to the amount of impervious pavement surfaces in the study area. Many studies have shown that imperviousness in watersheds is one of the greatest factors contributing to the decline of aquatic species and overall water quality. To assist in the long-term reduction of pollutant loadings to impaired surface water resources and other waterbodies, EPA recommends that all stormwater runoff from the proposed roadway be collected and treated before being discharged to surface waters. Furthermore, EPA suggests employing the use of Low Impact Development (LID) practices in the preliminary engineering and design of the roadway, bus stations and other support facilities.

We rate this document EC - 2 (Environmental Concerns-with more information requested). Enclosed is a summary of definitions for EPA ratings. Also enclosed are specific review comments which provide greater detail regarding the environmental concerns, additional information requested, and EPA recommendations to address these concerns. We appreciate the opportunity to review the proposed action. Please contact Ben West at (404) 562-9643 if you want to discuss our comments.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures

cc: Glenn Bowman - Georgia Department of Transportation

U.S. ENVIRONMENTAL PROTECTION AGENCY ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- **LO (Lack of Objections):** The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.
- **EC (Environmental Concerns):** The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.
- **EO (Environmental Objections):** The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:
 1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
 2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;
 3. Where there is a violation of an EPA policy declaration;
 4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
 5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.
- **EU (Environmentally Unsatisfactory):** The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:
 1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;
 2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
 3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

- **1 (Adequate):** The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.
- **2 (Insufficient Information):** The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.
- **3 (Inadequate):** The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.

**Draft Environmental Impact Statement/Alternatives Analysis for the
Northwest I-75/I-575 Corridor Project in Cobb and Cherokee Counties, Georgia**

SPECIFIC EPA REVIEW COMMENTS

Page S-18, Table S-2 (Summary of Environmental Impacts – Air Quality) – This table describes only criteria pollutants in its summary of air quality impacts. A recent study identified hundreds of toxics in vehicle exhaust. The impact of such air toxics on the people living and working near the road should be evaluated and disclosed as part of the Final EIS for this project. It is especially important, given the magnitude of this project and the number of active lanes that will result, for GDOT and FHWA to develop a detailed emissions inventory for the road segments, estimate concentrations at various distances from the road segments (e.g., 100, 300, 500, and 1000 feet), apply toxicity values for the chemicals involved, and estimate the potential cancer risks and noncancer hazards associated with the fully operating freeway. Additionally, the potential impacts associated with the construction activities should be evaluated. Mitigation alternatives for both construction and operational phases of the project should be discussed and preferred options identified.

Page S-21, Section S.7 (Evaluation of Alternatives) – EPA has concerns related to the selection of the preferred transit alternative. This section identifies the HOV/TOL/BRT alternative as the preferred transit alternative, because it is the most effective of the transit alternatives considered in the Draft EIS. However, this alternative is contingent on approval by FTA's New Starts program rating process, which presumably occurs after the Record of Decision for this EIS. The Draft EIS suggests that if this alternative receives an unfavorable rating from FTA, then a decision would be made to select one of the other transit build alternatives or perhaps an alternative without transit improvements. This approach concerns EPA, particularly the option of advancing the project without any expanded transit elements. Are there other options for continuing with the preferred transit alternative (HOV/TOL/BRT) utilizing other sources of funding rather than solely relying on FTA New Starts funds? In addition, what public process will be followed to reevaluate the impacts of this decision, specifically to solicit input from the public and other agencies on a different direction? It is recommended that the Final EIS identify a process involving selection of a new preferred alternative if an unfavorable rating is returned from FTA.

Page 1-13, Section 1.4.1.4 (Trucks and Heavy-Duty Vehicles) – This section provides some information related to the use of project roadways by trucks and heavy-duty vehicles. Truck volumes are reported to be highest during midday and not during peak periods, but there is no specific information on actual volumes or percentage of overall traffic. Therefore, EPA recommends that the Final EIS include a table identifying the current and 2030 (no build) truck volumes and percentage of traffic that utilizes I-75, I-575 and other major roadways in the study area. This should be split out by roadway segment (similar to other traffic tables) and discriminate between peak and off-peak periods for trucks since they are not the same as for vehicular traffic.

Page 2-18, Section 2.3.1.2 (Northwest Connectivity Study – Selection of Locally Preferred Transit Alternative) – This section discusses the Northwest Connectivity Study, the relationship of this study to the current EIS, and selection of a locally preferred transit alternative. EPA has concerns about the analysis of alternatives described in this section, particularly related to appropriate comparisons and selection of the preferred alternative. The Draft EIS notes that among candidate Alternatives A, B, and C, no “fatal flaw” existed. Furthermore, the Draft EIS states that, “Alternative B, Light Rail Transit, was found to have the highest cost because of the additional rail systems elements, such as electrification and signaling... After consideration of the results of the evaluation and review of public comment, GRTA eliminated Alternative B, Light Rail Transit, from further consideration based on cost and cost effectiveness. Alternative B was also determined to be unaffordable.” No further detail is provided. From this discussion, it appears that light rail was eliminated early using criteria (cost) that may not have been applied to the other alternatives, which include adding multiple lanes that require reconstruction of numerous bridges. Without further explanation, it is difficult to understand how a light rail alternative was rejected based on cost in favor of the current EIS alternatives that range in costs from \$3.5 billion to over \$4 billion.

Since cost was such an important consideration in which alternatives were carried forward and because some highly significant costs seem to have been identified following the initial elimination of several alternatives, more detail is warranted to explain which costs were considered for each of the original alternatives prior to the screening of these alternatives by GRTA and others. EPA recommends that the Final EIS include a detailed discussion of the following:

- What costs were considered in the evaluation of each of the alternatives (e.g., construction costs, operation and maintenance costs, fuel costs for vehicles that will use the highway, replacement costs, and over what lifetime were these costs considered)?
- What potential sources of revenue were considered for construction and operation of each alternative that might have affected the cost comparisons among the original alternatives?
- Since the study was completed prior to the recent significant increase in petroleum prices, how would these increases affect: Operational costs of buses? Likelihood of vehicle drivers to move to transit for commuting?
- What criteria were utilized to determine unacceptable costs and appropriate cost-effectiveness? This should also discuss how the inclusion of all relevant costs might have affected the selection of a locally preferred alternative if they were appropriately considered in the original comparative analysis.

Without this additional information, the Draft EIS does not appropriately justify the decision to eliminate other scoping stage alternatives from more complete evaluation.

Rail transit is inherently cleaner (less emissions) and preferred by many transit riders over buses. Expanding rail service to Cobb and Cherokee Counties could increase transit ridership, further alleviate the congestion in the I-75 corridor, and serve to eliminate air toxics emitted by transit buses and other vehicles that a rail option would remove from the road. In light of this, EPA recommends consideration for design of the preferred alternative to allow for upgrade to rail modes in the future when air quality considerations, energy costs, capacity needs, etc. may

warrant it. Further, EPA recommends that the Final EIS discuss design alternatives or operating options that include BRT operating in its own dedicated HOV lane to provide a level of transit service that is of a higher quality than enhanced bus service. The operational objective of such a system should be to approach the service quality of rail transit. The Atlanta Regional Commission describes BRT in its transportation planning documents as “running in its own lane along an interstate or major road.” The BRT alternatives in the Draft EIS currently do not fully meet this objective.

Page 2-32, Section 2.4.1.2 (Transit Services) – The Draft EIS does not mention the GRTA-Cherokee County Area Transportation System (CATS) Express Route 490 from Canton-Woodstock to Midtown-Downtown Atlanta as an existing transit service. Does the traffic modeling include this service as well as the van pools that CATS offers? This transit and carpool service, as well as any future expansion of transit to Cherokee County that would utilize the I-75/I-575 HOV lanes, should be described and included in the traffic analysis in the Final EIS.

Page 2-49, Section 2.4.2.2 (Transit Services) – The Draft EIS states that, “No express bus service would operate on I-575.” This statement does not recognize the GRTA/CATS service to Cherokee County as described previously. This section (including appropriate figures) should be corrected in the Final EIS to address this issue.

Page 2-53, Section 2.4.3.2 (Transit Services) – This section notes that passengers would be able to transfer to and from the MARTA rail system from the BRT routes at any of the rail stations free of charge. This same language is not included in the description of transit services for the other alternatives (HOV/TOL, HOV/TOL/BRT, and HOV/TOL/Reduced BRT). Would MARTA passengers who wanted to use the systems serving Cobb and Cherokee Counties be allowed free access to those systems as they depart the MARTA rail system? The connectivity of the various transit systems should be fully explained in the Final EIS.

Pages 2-68 and 2-69, Section 2.5.2 (Capital Cost Estimates Results) – Given the magnitude of this project, EPA recommends additional break-out of the capital costs for this project using the highway and transit system improvement categories described in Section 5.1.1. This additional information would serve to explain some of the differences in the costs for the various alternatives. For example, why is the HOV/TOL/TSM alternative more costly than the HOV/TOL/Reduced BRT alternative when there is no station construction costs included in the TSM alternative?

On a related subject, there is currently no discussion in the Draft EIS of the toll financing elements of the project. EPA recommends inclusion of a section in the Final EIS that discusses the various toll aspects of the project. This should address issues such as: 1) what is the current estimate of the cost of the HOT/TOT tolls to the traveling public; 2) how will these toll monies be used; 3) how long will these tolls be in place; and 4) what is the difference in toll revenue if these tolls are voluntary versus mandatory?

Page 3-61, Section 3.9.1.3 (Mobile Source Air Toxics) – EPA recommends that the Final EIS acknowledge and cite the new Mobile Source Air Toxics (MSAT) rule and remove references to

21 total and 6 “priority” MSATs. This information is outdated as of the final MSAT rule, published February 26, 2007. The rule identifies air toxics emitted by mobile sources, though no formal “MSAT list” exists. The rule does identify MSATs that are a risk to drivers in the 1999 National Air Toxics Assessment and of which mobile sources are significant sources. This list includes benzene, 1,3-butadiene, acrolein, diesel particulate matter, naphthalene, formaldehyde, and polycyclic organic matter (POM), but is not a “priority” list of MSATs. Chapter 1 of the MSAT rule may be referenced for detail.

Page 3-62, Section 3.9.2.2 (Monitored Air Quality) – EPA recommends that the Final EIS include a map of the locations of ambient air monitors. The Draft EIS does not address existing levels of air toxics in the area. This section notes that the DNR monitors “criteria and non-criteria air pollutants.” This section and Table 3-20 should be expanded in the Final EIS to report the annual averages and locations of air toxics concentrations measured through these monitors.

Page 3-77, Section 3.12.1 (Surface Waters and Riverine Systems) – This section discusses the major streams and other waterbodies in the project area. Four waterbodies are identified. Based on a review of the latest State of Georgia 303(d) list (2006), there are a number of listed impaired waterbodies in the project area that are not identified in this section. EPA recommends coordinating with the Georgia Environmental Protection Division (EPD) to ensure that this list is complete to have an accurate discussion in the Final EIS of impaired waterbodies that may be potentially affected by this project.

Page 4-11, Section 4.3.1.1 (Traffic Volumes – Freeway Mainline) – This section states that, “...traffic volumes in the general-purpose lanes on freeways would increase under the HOT Lane Option because of the shifting of HOV 2+ vehicles from the HOV lanes to the general-purpose lanes.” This doesn’t match the numbers included in Table 4-7, which shows higher traffic volumes in the general purpose lanes under the build alternatives as compared to the HOT lane option. This should be corrected either in the text or the table and explained in the Final EIS.

As currently described, EPA does not support the parameters for operation of the proposed HOT lanes. Under the HOT lane option, the eligibility requirement for traveling in the HOV lanes is assumed to be HOV 3+; whereas they are currently proposed as HOV 2+ for all other HOV build alternatives. As described above, this results in shifting the HOV 2+ carpools to the general-purpose lanes on I-75 and a similar increase in traffic in the general-purpose lanes on I-575. The Draft EIS also states that, “The higher volume of traffic in the general-purpose lanes would divert heavy-duty trucks from the freeways to major arterials.” Taken together, these statements suggest that the HOT lane option is at odds with many of the purpose and need statements for the overall project. The HOT lane option will create more congestion in the general-purpose lanes, not allow maximum use of the HOV lanes by dedicated carpools (HOV 2+), and will create a negative impact on surrounding arterials (and communities) by diverting through truck traffic onto these already crowded facilities.

Page 4-30, Section 4.3.5.3 (Freeway Truck-Only Lanes) – Similar to previous comments, EPA recommends that the Final EIS include a table identifying the future 2030 truck volumes and

percentage of traffic that utilizes I-75, I-575 and other major roadways in the study area for each of the build alternatives, including the TOT option. What effect will the TOT option have on the distribution of truck volumes in the truck lanes versus the general purpose lanes? This should also be split out by roadway segment (similar to other traffic tables) and discriminate between peak and off-peak periods for trucks. What will be the extent of truck traffic that would be diverted to major arterials as described in Section 4.3.1.1? This information is critical for the purposes of completing updated air quality and noise impacts assessment and should be split out and reported directly.

Page 4-33, Section 4.3.5.5 (Arterial Intersections – Allgood Road Flyover Option Analysis) – EPA supports development of an HOV interchange at Allgood Road to maintain adequate access to the HOV system and avoid the additional expense and impacts of the Allgood Flyover Option. There is virtually no difference in traffic volumes between this design option and the build alternatives with the Allgood HOV interchange. An exception is the impact of the redistribution of traffic associated with the Flyover Option, which would result in deteriorated conditions at other HOV ramp intersections. An important objective of the overall project should be to maintain a high level of service at the HOV interchanges. In addition, it would appear that an HOV interchange could potentially be upgraded to a BRT station at some time in the future, when conditions warrant it. There are a number of low-income and minority communities in the vicinity of this interchange that could presumably benefit from improved HOV/BRT access at this location. EPA suggests that the Final EIS identify the extent of outreach within these neighborhoods to address the issue of concern from nearby residents.

Page 4-42, Section 4.4 (Corridor Transit System Impacts) – It is difficult to determine the extent of transit improvements (new and expanded routes) for each alternative from the Draft EIS. Section 2 contains a graphical depiction of the proposed alternative transit routes with some explanation in the text. Section 3 contains two tables (3-16 and 3-17) that depict current bus route operating characteristics. However, there are not similar tables for the alternatives to show the proposed changes. Therefore, EPA recommends that the Final EIS include two additional tables in Section 4.4, similar to Tables 3-16 and 3-17, which show the expanded local and express routes and their operating characteristics.

Pages 4-54 and 4-55, Section 4.4.6 (Bus Volumes and Impacts in Midtown and Downtown) – EPA has concerns about traffic and other impacts associated with significantly increased bus operations in midtown and downtown Atlanta. The Draft EIS does not include a thorough analysis of traffic impacts from the additional buses that would be operating on already congested streets in these areas. In addition, the Draft EIS states that, “GRTA is continuing to coordinate the design of the improvements and mitigation of any impacts from operation of buses into the MARTA Arts Center Station with MARTA, the City of Atlanta, and with the affected community.” [from Section 2.3.4.9] Is the expansion of the Arts Center station included in the Draft EIS? How about expansion of the Civic Center, Perimeter Center or other MARTA stations to accommodate the additional buses and increased MARTA ridership? EPA recommends that the Final EIS analyze not only the impacts of these new buses and routes, but also the cumulative impacts of all the additional buses that will be utilizing these streets in the future as part of the regional bus rapid transit plan.

Page 5-28, Section 5.6 (Environmental Justice) – Executive Order 12898 on Environmental Justice (EJ) addresses disproportionate and adverse impacts of federal actions on minority and low-income populations. EPA has several concerns about the potential impacts to low-income and minority communities from this project. A substantial number of residential displacements would occur from this project, and approximately 93 percent of all residential displacements would occur in minority and low-income communities. The Draft EIS states that, “Many potentially displaced households would have considerable difficulty finding similar cost replacement single-family housing...It will likely be difficult for those in the lowest income brackets to find suitable and affordable rental housing in Cobb County.” Apartments and mobile homes would be acquired that are a substantial portion of the residential neighborhoods. These effects would alter the community cohesion, size and social fabric of these neighborhoods. Key activity and community centers would also be displaced as a result of the project, such as the neighborhood clubhouse, tennis courts, swimming pool, and the Gospel Light Community Church.

Based on the magnitude of EJ impacts described in the Draft EIS, all alternatives would clearly result in disproportionate impacts to low-income and minority populations. However, the BRT alternatives impact significantly greater numbers of residential EJ communities. To mitigate for these adverse community impacts, EPA strongly recommends development of a comprehensive mitigation and enhancement plan for these neighborhoods to address displacement concerns and preserve the cohesiveness of these communities. A few measures are described in the Draft EIS mostly dealing with outreach and consultation with neighborhood advisory groups. The Final EIS should include specific commitments beyond coordination, such as displacement assistance, replacement housing, updated community infrastructure and similar facilities. This could also include additional measures to minimize the impacts of relocation, such as providing translation services, transportation to visit potential replacement housing, and/or extra relocation specialists to work with these communities, etc.

There are significant concentrations of minority and low-income residents in the vicinity of the proposed Franklin Road and Marietta BRT stations. The widening of I-75 in this area, construction of the BRT stations, and the indirect land use change in the vicinity of these stations described in the Draft EIS have the potential to both positively and negatively impact these communities. Station area development has the potential to comprehensively restructure entire neighborhoods and communities in the vicinity. The Draft EIS identifies significant outreach and station planning activities that have occurred as a result of project planning. EPA recommends that the overall mitigation and enhancement plan include commitments to continue working with these communities to assist with relocation and redevelopment activities. This type of coordination could take several years to develop and gain support from the affected communities. There are numerous examples of success stories associated with projects of this magnitude, but these require innovative use of program resources and a commitment of time from agency representatives, community leaders, and residents.

Page 5-34, Section 5.6.3.3 (Potential Effects of Tolling on Disadvantaged Populations) – The Draft EIS discusses the extent to which tolling associated with the HOT lane option would

disproportionately effect low-income and minority populations. Based on the analysis, for those who are low-income or transit-dependent, HOT lanes would not be a benefit, and mandatory tolling would result in disproportionate adverse effects on these populations. The EIS discussed the need to consider expenditure of toll revenues to improve equity and mobility for disadvantaged populations. EPA recommends that the overall EJ/community mitigation and enhancement plan also include mitigation measures to address these toll-related impacts, such as providing toll discounts for low-income, disabled, and elderly persons.

Page 5-53, Section 5.11.1.1 (Pollutants for Analysis) – The reference to “six priority mobile source air toxics” is outdated as of the final MSAT rule, published February 26, 2007, as noted previously. This should be corrected in the Final EIS.

Page 5-54, Section 5.11.1.2 (Regional Emissions Analysis and Transportation Conformity) – This section states that, “...the project is part of an approved conforming TIP.” Based on our review of the latest, approved TIP, the projects listed do not include the truck-only toll elements of the proposed action, as well as the other design options being considered for this project, most notably the tolling options for the HOV lanes and TOL. Therefore, it should be confirmed prior to the approval of the Final EIS that the preferred alternative, including specific design considerations, is included in the most recent air quality conformity analysis for the 20-county Atlanta, 8-hour ozone nonattainment area and for the 22-county, particulate matter (PM) 2.5 nonattainment area.

This section also states that, “Though the conformity analysis conducted by the ARC determined that the project conforms to the air quality goals of the area, a project level regional analysis was conducted to highlight the project's impact on regional air quality levels. The regional analysis utilizes VMT and VHT within the region, with corresponding emissions factors for VOC, NO_x, CO, PM₁₀ and PM_{2.5} from USEPA's latest emission factor program, to determine daily ‘pollutant burden’ levels under each alternative.”

These statements are confusing and may indicate to the public that project-level conformity requirements were completed for this project as a part of this alternative analysis. Since this analysis does not relate to meeting the project-level conformity requirements, it is suggested that this discussion be removed from this section. At a minimum, if the discussion remains, it should be clarified that this analysis does not meet the requirements for project-level conformity. In EPA's March 10, 2006, final rule for project-level PM_{2.5} hotspot requirements we make clear that there are currently no quantitative tools appropriate to analyze project level emissions. If the discussion remains in this section, it should also be clarified that once a selected alternative is identified, the project sponsor will engage in the interagency consultation process to show compliance with the project-level conformity requirements. Section 5.11.1.3 sums up the process that must be engaged in accurately.

Page 5-55, Section 5.11.1.4 (Mobile Source Air Toxics) – The Draft EIS generally follows the February 2006 FHWA MSAT interim guidance which describes how to assess MSAT impacts for transportation projects during the NEPA process. While there are positive elements to this guidance, especially the willingness to acknowledge potential MSAT concerns, EPA continues to

disagree with major elements of this approach nationally. For projects of this type, i.e. those with large potential impacts in an already highly impacted area, EPA generally recommends a higher level of analysis than what is found in the Draft EIS. EPA does not agree with the statement that, "...currently available technical tools do not have the ability to predict project-specific health impacts of the emission changes associated with the No-Build Alternative and the build alternatives." There are a number of available technical tools that allow for comparisons among alternatives of the location-specific project-level risk estimates of mobile source air toxics. EPA recommends that this section be rewritten to convey the generally understood practices among air quality and risk assessment professionals.^{1,2,3,4,5}

Page 5-56, Section 5.11.1.5 (Microscale Air Quality Analysis – Vehicular Emissions) – It is unclear if road dust emissions were included as a component of vehicular emissions presented in this section. This should be clarified in the Final EIS. If these emissions were not included, EPA recommends that the impact analyses be reconsidered and results presented using emission factors from EPA's AP-42 emission factor database (<http://www.epa.gov/ttn/chief/ap42/index.html> -- Chapter 13).

Pages 5-60 and 5-61, Section 5.11.2.3 (Mobile Source Air Toxics) – EPA recommends a number of clarifications or correction of several items in this section in the Final EIS to provide reliable information on which defensible decisions can be made related to the analysis of MSATs for this project:

- Page 5-60 – The Draft EIS states that, "...the EMIT model was used to calculate annual MSAT pollutant burdens in tons per year for each of the build alternatives." Are the congested speeds and other inputs used in the EMIT model consistent with the other emissions and traffic analyses in the Draft EIS? Particularly under congested conditions, predicted speeds can be a substantial determinant of emissions. The Final EIS should address the extent to which the air toxics and criteria pollutant analyses use assumptions that are consistent with other emissions and traffic analyses throughout the Draft EIS.
- Page 5-60 – This section also states that, "The result of this analysis however should however (sic) do not enable us to predict project-specific health impacts of the emission changes associated with the project alternatives." This statement is inconsistent with widely-accepted professional standards of practice published by air quality and risk assessment professionals.^{1,3}
- Page 5-61 – The "Emissions" bullet states that, "The USEPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of a highway project." This comment applies only to MOBILE6.2's emission factor for PM and pollutants linked to PM via the "ADDITIONAL HAPS" command. MOBILE6.2's PM emission factors are not sensitive to speed, so any increase in traffic volume results in increased emissions. The comment does not apply to emission factors for any other pollutant, including MSATs. Its contextually broad application here is also in contravention of the recent National Cooperative Highway Research Program (NCHRP) report on air toxic, which discusses the uses and limitations of MOBILE6.2 from the perspective of air quality and risk assessment experts.³

- Page 5-61 – “Dispersion” Bullet – The statements in this bullet mischaracterize the purpose of dispersion modeling. The purpose of model development was not NAAQS compliance *per se*. Though early applications involved CO, toxic air pollutants from mobile sources have been modeled with Gaussian models since the 1970s or earlier.⁶ Furthermore, EPA’s 2005 revision of the *Guideline on Air Quality Models* (Appendix W to 40 CFR Part 51) states that CALINE-3 may be used to model primary pollutants. As previously noted, numerous professional and peer-reviewed publications indicate that dispersion models are appropriate for exposure assessment. Lastly, the models’ use in routinely-published air quality and public health studies suggests that this description of dispersion model performance is in contravention of academic views of the peer reviewers and editorial boards of scholarly journals.⁷
- Page 5-61 – “Exposure Levels and Health Effects” Bullet – The statements in this bullet do not reflect the current risk assessment professional and scientific practice. Modeling and screening level risk assessments are used to help compare options under consideration.

Page 5-64, Section 5.11.3 (Conformity Analysis) – EPA recommends that this section also include a discussion to address our previous comments on transportation conformity from Section 5.11.1.2. In addition, the section states that, “Microscale analyses were conducted to demonstrate that it would not cause or exacerbate a violation of the NAAQS.” EPA recommends that this should be clarified as a reference to CO only. As implied in the subsequent paragraph, the microscale analysis (i.e., hotspot) for PM_{2.5} has not been completed as of yet, and interagency consultation will determine what is necessary to draw the conclusion as to whether this project may or may not cause or exacerbate a violation of the PM_{2.5} air quality standard.

Page 5-65, Section 5.11.4 (Mitigation Measures) – This section discusses mitigation measures to reduce air quality impacts. The text states that the project is not expected to cause or exacerbate a violation of the current NAAQS, but that all measures to reduce emissions should be considered. The only mitigation measure listed in the text is that diesel buses should be clean diesel or alternate fueled vehicles. These as well as many other alternatives should be implemented to promote fewer air emissions. A few other possibilities among the many that could be considered include the following:

- Allow trucks in the TOT lane to pass with reduced or no toll if they are retrofitted diesels.
- Allow hybrid vehicles to travel in the HOV lanes without toll
- Promote truck stop electrification along the I-75 corridor in order to reduce diesel emissions associated with idling.
- Install light rail rather than using buses on I-75 in order to remove thousands of vehicles from the road altogether.
- Establish policies that all construction equipment shall operate on a minimum of B20 fuel. These policies will help decrease the emissions from construction-related activities that will occur during crucial air quality periods. EPA recommends that this should be done prior to the letting of construction contracts in order for these potential costs to be included in bid specifications (at current rates B20 is cheaper than ULSD in some areas).
- Develop construction bid specifications that require contractors to use diesel equipment that

meets a minimum Tier 2 designation or retrofit existing equipment to achieve a minimum of 20 percent reduction in PM_{2.5} emissions.

EPA recommends the following websites for further examples of mitigation measures:

<http://www.epa.gov/smartway> (SmartWay Transport Partnership)

<http://www.southeastdiesel.org/index.html> (Southeast Diesel Collaborative)

Page 5-66, Section 5.12.1.1 (Noise Impact Assessment Methodology – FHWA Methodology) –

This section identifies “one existing noise barrier” in the study area. EPA recommends that the Final EIS include a map depicting all the existing noise barriers, as well as the proposed noise barriers described in Section 5.12.5.1. It is also unclear if the noise impacts assessment modeled the elevated portions of the project. EPA recommends that the Final EIS discuss whether or not these portions were included in the analysis and the extent to which any proposed noise walls in these areas would effectively mitigate noise impacts from elevated sections, including the stations.

Page 5-68, Section 5.12.3 (Noise Analysis Results) – Table 5-23 identifies the approximate

number of properties with noise impacts associated with each of the build alternatives and two of the design options (Roswell Road Interchange and Allgood Flyover). Absent from this table is an analysis of the potential noise impacts associated with the other design option that constructs the TOL to the inside of the roadway on I-75, instead of split to the outside. This design option would seem to be a viable alternative to minimize noise impacts to sensitive receptors located in proximity to the right-of-way (ROW). EPA recommends that the Final EIS analyze this design option, similar to what has been done for the other options.

Page 5-72, Section 5.12.5.1 (Evaluation of Alternative Abatement Measures) – The Draft EIS

describes nearly 1,100 properties that would be adversely affected by noise impacts from all of the build alternatives. There is virtually no difference in noise impacts between the alternatives. Therefore, mitigation measures will be vitally important to address these significant impacts. EPA considers shifting of the TOL to the center of the ROW as a potential mitigation measure that should be fully addressed in the Final EIS, as described previously. In addition, the Draft EIS identified 23 proposed noise wall locations along I-75 and I-575 as potential noise abatement measures. However, only 12 were determined to be “cost effective.” There is no explanation of the extent to which these 12 noise barriers mitigate impacts to the nearly 1,100 impacted properties and why the other barriers were deemed to not be cost effective. EPA recommends that the Final EIS include a detailed discussion and break-out of all proposed noise walls, the impacts (and properties) that would be mitigated through their installation, and the specific reasons why certain barriers were not advanced. Given the magnitude of noise impacts from this project, EPA suggests GDOT and FHWA consider flexibility in the application of the criteria to determine barrier cost-effectiveness as part of potential context sensitive solutions to mitigate these impacts. EPA recommends that GDOT coordinate with affected communities where noise walls have been determined feasible to discuss potential visual and aesthetic mitigation measures regarding any noise walls.

Page 5-72, Section 5.12.5.2 (Mitigation of Transit Noise Impacts) – Severe transit noise impacts are predicted in the area of four receptors and less severe noise impacts at three other sites. The Draft EIS references a list of practical noise mitigation measures that could be considered, but none are specifically identified for the project. EPA recommends that the Final EIS include a specific list of measures to mitigate for the transit-related noise impacts associated with the preferred alternative.

Page 5-78, Section 5.14.2 (Surface Waters and Riverine Systems) – EPA has concerns about degradation of water quality in various waterways from erosion, siltation and other pollutants associated with road construction, long-term operations, and direct and indirect development associated with the proposed BRT stations and other transit facilities, including parking lots. The Code of Federal Regulations Title 40, Section 230(c) prohibits discharges that cause or contribute to significant degradation of waters of the United States. Significant degradation can include individual or cumulative impacts to human health and welfare; fish and wildlife; ecosystem diversity, productivity, and stability; and recreational, aesthetic, or economic values.

The various project alternatives have the potential to impact several streams which appear on Georgia Environmental Protection Division's 2006 303(d) list of impaired waterbodies from several different pollutants and sources. These are not currently identified in the Draft EIS and should be identified in the Final EIS. In addition, the project should add significantly to the amount of impervious pavement surfaces in the study area. Many studies have shown that imperviousness in watersheds is one of the greatest factors contributing to the decline of aquatic species and overall water quality. EPA recommends that the Final EIS also identify the extent of impervious surfaces that would be required as part of the overall project.

Page 5-82, Section 5.14.6 (Mitigation Measures) – The Draft EIS identifies some standard erosion control measures that would be applied during the construction phase of the project. Mitigation measures related to protection of water quality should be tailored depending on the condition of the specific water resource as well as the severity of the potential impacts. EPA also recommends that additional mitigation measures include monitoring commitments to ensure that water quality and in-stream habitat are fully protected. Stormwater controls should be monitored periodically for the duration of construction and maintained to help ensure success (e.g., silt fences emptied and hay bales replaced). This section also suggests that bottomless culverts and bridges over stream crossings would be considered. EPA supports the use of these structures to minimize impacts of the project to all designated 100-year floodplains and to aquatic species and their habitat in the same waterbodies.

In this section, the Draft EIS does not identify any mitigation measures related to long-term stormwater management associated with the entire project, including the transit elements. To further assist in the long-term reduction of pollutant loadings to impaired surface water resources and other waterbodies in the project area, EPA recommends that all stormwater runoff from the proposed roadway be collected and treated before being discharged to surface waters. Furthermore, EPA suggests employing the use of Low Impact Development (LID) practices in the preliminary engineering and design of the roadway, bus stations and other support facilities. LID practices are designed to replicate pre-development hydrologic characteristics and prevent an

increase in pollutant loads above pre-development conditions. LID utilizes existing site characteristics to infiltrate, evaporate, and retain increased runoff volumes resulting from site development. GDOT should, at a minimum, integrate stormwater control features on surface parking lots so that the large impervious features do not add to stormwater problems in the community. The use of LID activities such as pervious parking lots, stormwater ponds (or other retention devices), and stream buffers should be used to maintain hydrographic conditions and prevent further deterioration of environmental quality, including downstream aquatic and riparian habitats. In addition, we recommend that LID facilities be planted with native vegetation and clustered in areas where they will provide optimum filtration. Undisturbed buffers should be preserved and maintained that can provide urban wildlife habitats. Information on low-impact development can be obtained from: www.lowimpactdevelopment.org.

Page 5-93, Section 5.17.12 (Construction Impacts – Air) – There is currently no discussion of the potential for construction-related MSAT emission impacts (see previous comments related to MSATs). Another potential construction-related mitigation measure is to identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means to minimize impacts to these populations. For example, locate construction equipment and staging zones away from these sensitive receptors.

Page 5-129, Table 5-39 (Summary of Potential Environmental Impacts and Mitigation Measures – Air Quality) – The table suggests that only buses used under the BRT alternatives should be clean diesel or alternative fuel vehicles. EPA supports this mitigation measure and recommends that this measure also apply to the HOV/TOL and HOV/TOL/TSM alternatives.

Detailed Comment References

- ¹ 40 CFR Part 51, Appendix W. Guideline on Air Quality Models. EPA Office of Air Quality Planning and Standards, 2005. [Online at <http://www.epa.gov/scram001>]
- ² Jungers, B.D.; Kear, T.; Eisinger, D.; Niemeier, D. (2006). *A survey of air quality dispersion models for project-level conformity analysis*. University of California Davis – Caltrans Air Quality Projects. [Online at <http://aqp.engr.ucdavis.edu/>]
- ³ Carr, E.L.; Ernst, D.A.; Rosenbaum, A.; Glass, G.; Hartley, S. (2007). *Analyzing, documenting, and communicating the impacts of mobile source air toxic emissions in the NEPA process*. Report prepared for National Cooperative Highway Research Program Project 25-25. [Online at [http://www.trb.org/NotesDocs/25-25\(18\)_FR.pdf](http://www.trb.org/NotesDocs/25-25(18)_FR.pdf)]
- ⁴ Van Atten, C.; Brauer, M.; Funk, T.; Gilbert, N.L.; Graham, G.; Kaden, D.; Miller, P.J.; Bracho, L.R.; Wheeler, A.; White, R.H. (2004). *Honing the methods: assessing population exposures to motor vehicle exhaust*. Report prepared for the North American Commission for Environmental Cooperation. [Online at http://www.cec.org/files/pdf/POLLUTANTS/Honing-the-Methods_en.pdf]
- ⁵ Ontario Ministry of the Environment. (2005). *Air dispersion modelling guidance for Ontario*. Version 1.0 PIBS #5165e. [Online at <http://www.ene.gov.on.ca/envision/gp/5165e.pdf>]
- ⁶ Ingalls, M; Garbe, R.J. (1982). Ambient pollution concentrations from mobile sources in microscale situations. SAE Technical Paper series 820787.
- ⁷ Zhang, K.M.; Wexler, A.S.; Niemeier, D.A.; Zhu, Y.F.; Hinds, W.C.; Sioutas, C. (2005). *Evolution of particle number distribution near roadways. Part III: Traffic analysis and on-road size resolved particulate emission factors*. Atmos Environ 39: 4155-4166.