Economic Impact Analysis of the Downtown Green Line Vision Plan and Georgia Multi-modal Passenger Terminal

Central Atlanta Progress
Atlanta Downtown Improvement District

Summary Report
Released
January 2012

Prepared for Central Atlanta Progress/Atlanta Downtown Improvement District

Prepared by

Bleakly Advisory Group, Inc.
Economic Development Research Group, Inc.
Kimley-Horn Associates, Inc.

BleaklyAdvisoryGroup

Economic Development RESEARCH GROUP

Kimley-Horn and Associates, Inc.

The research presented in this report was funded in part through a grant from the Atlanta Regional Commission's (ARC) Livable Centers Initiative (LCI) Supplemental Study program. The Atlanta Downtown Improvement District provided the required local matching funds for the ARC grant.

DEFINITIONS/ACRONYMS

The following definitions refer to acronyms which appear throughout this report.

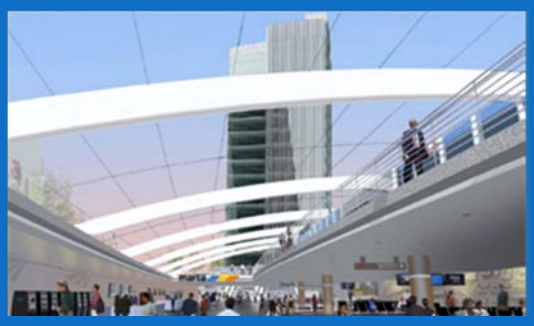
- MMPT – Multi-modal Passenger Terminal
- ARC – Atlanta Regional Commission
- ADID – Atlanta Downtown Improvement District, Inc.
- BAG – Bleakly Advisory Group, Inc.
- CAP – Central Atlanta Progress, Inc.
- DPCD – City of Atlanta Department of Planning and Community Development
- DPW – City of Atlanta Department of Public Works
- EDRG – Economic Development Research Group
- EIA – Economic Impact Analysis
- FHWA – Federal Highway Administration
- GDOT – Georgia Department of Transportation
- GRTA – Georgia Regional Transportation Authority
- GWCC – Georgia World Congress Center
- KHA – Kimley-Horn and Associates, Inc.
- MARTA – Metropolitan Atlanta Rapid Transit Authority
- MMPT Technical Committee - a committee which includes representation from GDOT, the City of Atlanta, MARTA, ARC, GRTA, and ADID. The technical committee has led the effort to further refine the operational functionality of the MMPT and develop an implementation plan for transit facility improvements.
- P3 – Public Private Partnership
- TOD – Transit Oriented Development
- TPB – Transit Planning Board, established through joint resolution of MARTA, ARC and GRTA to coordinate regional transit policy and operation.

Summary Report

A. Overview

For more than 20 years, political and business leaders in the Metro Atlanta Region have studied the possibility of developing a Multi-modal Passenger Terminal (MMPT) connecting local and intercity bus, commuter rail, light rail and high-speed intercity rail in a location of Downtown Atlanta known as "the Gulch." Although surrounded by the State Capitol, Georgia State University, Federal Buildings, CNN Center, the Georgia Dome and Centennial Olympic Park, the Gulch has for decades been largely bypassed for economic investment due in part to the existence of its rail infrastructure. The potential of the MMPT to revitalize this part of Atlanta was articulated in the 2008 "Green Line" Plan. The Green Line Plan illustrated how the MMPT's potential to create redevelopment opportunities and dramatic public spaces, coupled with the benefits of improving the region's transit infrastructure, could be the catalyst to a revitalization project of regional and statewide economic significance. The vision of the Green Line argued that the project's economic impacts would exceed and justify the public costs of building the MMPT and the associated transit systems which the terminal would serve.

Green Line Plan Illustration of the MMPT and Resulting Redevelopment Opportunities



Despite the City of Atlanta's long term interest in advancing the MMPT and the Green Line Plan, the project's economic impacts have to this point not been quantified adequately. The extensive planning to date has not included a project justification in the form of a business case made by the economic analysis of costs versus the resulting benefits from improved mobility, connectivity and joint development opportunities. The purpose of this analysis is to provide a realistic, quantified documentation of net economic benefits which could reasonably be expected to follow development of this project.

This report's title references economic impacts of implementation of the Green Line Plan and MMPT; however, the analysis actually focuses on the Green Line Plan, the MMPT plus the regional transit investments/systems serving the MMPT terminal. Early on in this effort it became obvious that accurately quantifying the economic impacts of the MMPT would not be possible

without also addressing the future transit network that would connect to the terminal. Economic impacts of the MMPT are dependent upon the regional transit network because the characteristics of that network will determine passenger volume. Higher passenger volumes through the MMPT would positively influence the value of surrounding real estate and enhance the area's competitiveness as an employment center. Similarly, higher passenger volumes would result in greater congestion relief to area highways, help to lower commuting costs and make the region more economically competitive. The nature of the transit network, the number of passengers it will serve and its benefits to commuters are obvious key factors influencing the MMPT's capacity to attract additional investment and jobs to the study area and the region.

At this time there are several major regional transit investments in various phases of consideration, which would either connect to or be enhanced by development of the MMPT. It is likely that some of the proposed transit improvements which are dependent upon the MMPT could not be economically justified as stand-alone investments absent of their connection to the terminal. Others may still be justified but would function less effectively if the MMPT did not exist. In terms of analyzing economic impacts it is more appropriate to define the "project" as the network improvements in their entirety rather than the terminal alone. Therefore, an early and important task of the study was to develop a realistic, representative "strawman" scenario of the future transit network the

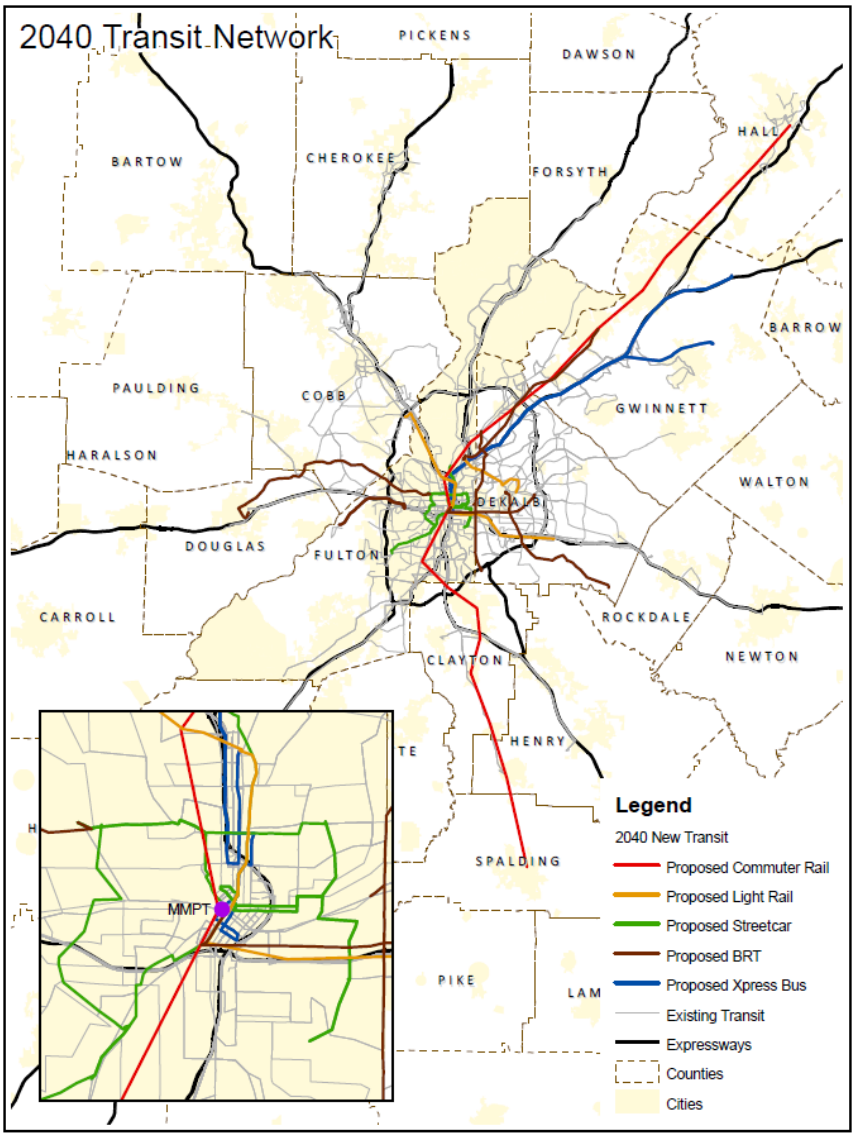


Figure I-1: Transit Network Modeled with the MMPT
Source: MMPT Technical Committee and KHA.

MMPT would serve and to "model" the economic impacts of developing that entire system. The network is illustrated in Figure I-1. The specific transit components of the network, their costs and the process used to identify them are discussed in Chapter II of the full Technical Report.

B. Scope of Work and Methodology

This report quantifies the following specific sources of economic impacts, as well as financial effects associated with development of the MMPT:

- the impacts of annual spending on construction of the MMPT, associated public amenities and future related regional public transit systems that will serve the terminal;
- the impacts resulting from the redevelopment of property surrounding the MMPT, including private commercial/office developments, investments in new public office buildings, housing, educational and institutional facilities;
- permanent employment gains resulting from future occupancy of new commercial/office space in an expanded, revitalized Downtown Atlanta;
- annual spending on the operations and maintenance of regional transit services using the MMPT;
- the economic value resulting from travel efficiency gains accruing to both transit riders and highway users as a result of reduced congestion, improved mobility and access to employment centers; and
- the resulting fiscal (revenue) impacts on the City of Atlanta and Fulton County from successful implementation of the Green Line plan and the creation of other "overbuild" opportunities associated with the MMPT.

Despite the extensive study that has been completed to date for the MMPT and the Green Line Plan, much planning is still ongoing and subject to future change. In order to develop a credible economic impact analysis for the project, the consultant team was required to define the physical attributes of the MMPT itself, the nature of future transit systems that would be served by the new terminal, the types of public improvements that would be made surrounding the terminal site, the timing of these investments and their expected total cost. The consultant team used the best available information and analysis tools to make a number of reasonable and conservative calculations to estimate economic impacts.

The study methodology consisted of the following steps/tasks:

- Identify the MMPT "Project" in terms of its components, construction costs and phasing;
- Identify and model the direct effects of transit system improvements supporting the MMPT, including their relevant capital costs and annual operations and maintenance (O&M) costs;
- Measure the direct economic value of user benefits to transit riders and congestion relief to auto travelers, including annual savings to households and businesses;
- Estimate the project's direct redevelopment impacts on Downtown Atlanta, including square footage of new development, capital investment in new construction and the industry distribution of added downtown employment;

- Define appropriate "build" scenarios and input the direct effects of those scenarios into an economic impact model;
- Forecast and report economic impacts of the defined scenarios (including multiplier effects) on the City, the Metro Atlanta Region and the State of Georgia; and
- Evaluate the regional distribution of economic impacts, the sources of those impacts and the industry sectors affected by the project.

The state and local roles in funding these capital improvements, and the portion of transit operating budgets beyond what projected fare box revenues would cover, have yet to be determined. *Therefore, any changes in taxes levied at the state or local level to cover that funding requirement will decrease the positive economic impacts estimated in this report*. The absence of specific financing assumptions also makes it very difficult to prepare a true benefit/cost analysis for the MMPT. Although there is discussion of project costs and forecasted economic benefits, this analysis does not include the calculation of a benefit/cost ratio for the MMPT as there is insufficient data to do so at this time.

C. Summary Conclusions

The following points highlight the study's major conclusions. The remainder of the executive summary explains the calculations of direct effects related to these conclusions and the full report describes the analysis methodology, data collection and assumptions used to generate these findings. **The following findings are expressed as changes from a no-build condition at the end of the forecast period (2040).** All monetary figures are expressed in 2011 dollars.

1. Transportation User Benefits

At completion, the MMPT and its related transit investments are projected to:

- Generate 22.5 million additional annual transit trips;
- Reduce annual automobile trips by 13.4 million;
- Remove 568.1 million vehicle miles from area highways;
- Reduce the time Atlanta commuters spend in automobiles by 77.6 million hours – mostly during periods of peak congestion;
- Save truckers 7.1 million hours of travel time in and through the Atlanta Region; and
- Generate annual travel cost savings of nearly $2.2 billion to Georgia residents and businesses, including total annual cost savings to businesses of $1.1 billion and trucking cost savings of nearly $280 million.

2. Redevelopment Effects

At completion, fully implementing the MMPT and associated public amenities would:

- Increase investment in Downtown Atlanta by nearly $3.1 billion;
- Attract 8.6 million SF of additional development to the study area;
- Create/house an additional 15,700 downtown jobs;
- Produce $65 million in annual city, county and school district tax collections;

- Return approximately $6 in private redevelopment investment per $1 spent to construct the MMPT and associated surrounding public spaces and road improvements.

3. Economic Impacts

Statewide economic impacts resulting from the project, including multiplier effects, are projected to:

- Support an average of 4,750 jobs/year from construction of the MMPT, transit systems and study area redevelopment investments over a near 30-year construction period;
- Increase the State's annual economic output by nearly $5.2 billion by 2040, including nearly $3.1 billion in "value added" or increase to Gross State Product; and
- Create nearly 39,800 permanent jobs following completion of the transit network and study area redevelopment.
- Of the total permanent jobs created statewide, approximately 22,100 jobs result from new employment activity locating in Downtown Atlanta, 6,100 jobs are supported by annual spending on the operations and maintenance of the regional transit system (including the MMPT) and 11,500 jobs are created as a result of annual travel cost savings to automobile and truck travelers.

Combined permanent employment and jobs supported during the construction period represent more than 44,500 net additional jobs for the Georgia economy over the 2011-2040 forecast period. Of that number, 10.7 percent of projected job impacts are supported by temporary construction activity while 89.3 percent result from permanent job creation.

As summarized in Table 1-1, the statewide economic impacts of the MMPT project, as defined and modeled in this report, are fairly evenly split between the "transit effects" of congestion relief benefits to the Metro Atlanta Region, and the "redevelopment effects" of expanding employment in Downtown Atlanta.

TABLE I-1

Distribution of Statewide Job Impacts (Including Multiplier Effects)
2040 Full-Build Scenario

Supported Jobs by Source/Type	Transit System Improvement Effects	Downtown Redevelopment Effects	Total Job Impacts
	Supported by Avg. Annual Construction Spending		
MMPT Terminal & Amenities	547		
Transit System Development	3,150		4,751
Downtown Redevelopment		1,053	10.7%
	Permanent Jobs - at Completion		
Transit System O&M Spending	6,142		39,778
System-wide travel cost benefits	11,525		89.3%
Downtown Atlanta Business Activity		22,111	
Total Job Creation	21,365	23,164	44,529
Annual Output (Billions 2011$)	$2.4	$2.8	$5.2
	47%	53%	

For example, focusing only on investment in the MMPT and the associated public transit improvements, the project:

- Has a positive economic impact on the State of Georgia of nearly $2.4 billion (representing 47 percent of total Output gained) and is responsible for nearly 21,400 jobs gained by 2040.
- The largest share of these economic impacts benefits the rest of Fulton and the suburban counties surrounding Atlanta.

Focusing only on redevelopment effects of the MMPT on Downtown Atlanta, the project:

- Has a positive economic impact on the State of nearly $2.8 billion (representing 53 percent of Total Output gained) and is responsible for nearly 23,200 of the 44,500 total jobs gained by 2040.
- Approximately 95 percent of that projected impact benefits the City of Atlanta's economy.

Additional redevelopment effects on outlying areas along the transit improvements serving the MMPT are not addressed in the scope of this analysis, but could be substantial.

D. Summary of Direct Effects

Planning for the MMPT is still conceptual and most of the transit network that would be served by the terminal does not currently exist. The first task in the analysis was therefore to define what a "build" scenario for the MMPT and supportive transit investments might look like and to contrast that forecast against a "no build condition." Although several defensible build scenarios could be easily justified for the project, the scope of this report was limited to two. The consultant team identified a "Partial-Build" and "Full-Build" development program for the MMPT and supportive public amenities in the surrounding downtown area. The alternative levels of public investment in turn impacted projections of achievable private development activity around the terminal location, resulting in two different forecasts of direct effects.

Modeling the direct effects of the transit network to be served by the MMPT was an extensive task because it required running computer models of the entire regional transit network. Available study resources allowed for only one regional transit simulation to be run for the project. The build scenario for transit improvements was developed in consultation with the MMPT Technical Committee. The Atlanta Regional Commission (ARC) then ran a simulation of the network impacts through its regional Transportation Demand Model. The direct effects of those simulations were reported as changes to the no-build condition. Outputs included changes in transit trips and travel times, shifts in automobile and truck trips and resulting travel time (congestion relief) savings to auto and truck travelers. These outputs were converted to monetary values by EDR Group in order to calculate the direct effects of transportation user benefits on commuters and businesses.

Estimated direct effects of the two build scenarios for the 2020 and 2040 snapshot years are summarized in the following tables. A summary of major findings and conclusions drawn from analysis of the data is also presented.

1. Direct Construction Effects

The MMPT and related investments of the Green Line plan are modeled in phases from 2017 through 2030. Table I-2 summarizes the Full-Build program, which envisions a 600,000 SF multi-modal facility, 12 to 14 acres of new public parks/open space, road/bridge access improvements to the new terminal and regional investments in new bus and rail systems serving the MMPT. Total construction costs for the Full Build network exceed $6.2 billion in 2011 dollars and operation and maintenance costs total approximately $220 million per year once the network is fully operational. The Partial Build scenario (not shown) reduces the total program costs for the MMPT and related amenities from $516 million estimated in Table I-2, to $320.2 million by reducing the cost and scope of terminal and parks construction.

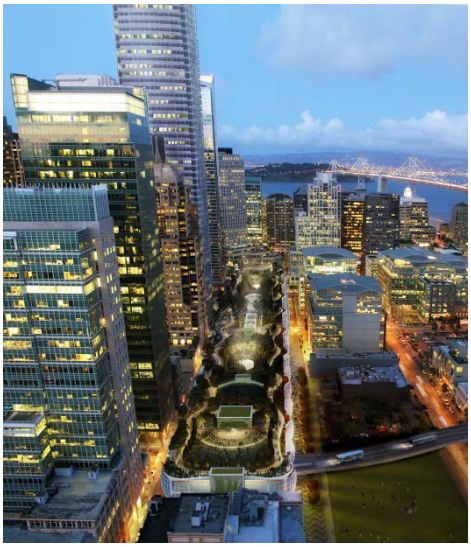


TABLE I-2

Estimated Total Full-Build Construction and O&M Costs By Phase: MMPT and Supportive Transit Investments

Cost Component (Millions 2011$)	2011-2020	2020-2040	TOTAL COST
MMPT Terminal & Parking (All Phases)	$ 80.0	$ 270.0	$ 350.0
Roads	$ 24.6	$ 13.4	$ 38.0
Parks	$ -	$ 128.2	$ 128.2
Regional Transit System Improvements	$ 337.3	$ 5,360.3	$ 5,697.7
Subtotal: Capital Costs:	**$ 441.9**	**$ 5,771.9**	**$ 6,213.8**
Annual Operations and Maintenance	$ 13.8	$ 219.9	

(Above) Total estimated costs of MMPT, Downtown amenities and access improvements to the terminal, plus transit network construction and annual O&M costs as assembled by the consultant team. The MMPT/Green Line is comparable in size and cost to San Francisco's Transbay Terminal Project (Left).

The total construction cost estimates in Table I-2 include property (right-of-way) acquisition, as well as transit vehicles and equipment. Because rail cars and buses are not manufactured in Georgia, the capital costs associated with acquiring rolling stock are not expected to positively impact the State's economy. Similarly, land purchases for right-of-way are a "transfer effect" and will not directly impact the economy in the same way as hard and soft costs for engineering/design and construction. Therefore, costs shown in Table I-2 are adjusted downward when inputted into the economic impact model, so as to focus only on the portion of capital costs that will impact the regional and state economy.

2. Direct Travel Savings Effects

The transit network modeled in this analysis to be developed with the MMPT is projected to generate 22.5 million additional transit trips by 2040, generating annual travel cost savings of nearly $2.2 billion in 2011 dollars. Table I-3 shows the regional distribution of this potential $2.2 billion in annual direct transportation user savings compared to the No Build condition. These savings are distributed (1) between automobiles and trucks and (2) for travel within the City of Atlanta, the rest of Fulton County, the rest of the 20-County Metro Atlanta region and the rest of Georgia. The table further distinguishes the source of these user benefits between vehicle operating costs and the

value of passenger time saved due to the congestion relief benefits of the project. "Transit fares" paid by transit riders are inputted as negative numbers in order to properly account for reported savings to auto and truck drivers as net benefits to the region. As shown, the vast majority of estimated transit network savings ($1.75 billion) benefit suburban commuters. These benefits result from the origin-destination trip patterns and trip volumes that characterize the Metro Atlanta region, as reflected in the travel demand model used by the ARC.

TABLE I-3

Estimated Annual Value of Travel Cost Savings to Passenger Vehicles and Trucks: MMPT and Associated Network Transit Investments (millions 2011$)

Travel Type	Cost Type	City of Atlanta	Rest of Fulton County	Rest of Metro	Rest of Georgia	Project Totals
Passenger	Vehicle Operating Cost	$ 25.8	$ 40.4	$ 298.8	$ 1.9	$ 366.9
	Passenger Time Cost	$ 160.1	$ 136.2	$ 1,255.5	$ 20.2	$ 1,572.0
	Transit Fare	$ (11.9)	$ (1.4)	$ (25.9)	$ -	$ (39.2)
	Total Passenger Savings	**$ 174.0**	**$ 175.2**	**$ 1,528.4**	**$ 22.2**	**$ 1,899.7**
Truck	Vehicle Operating Cost	$ (2.0)	$ 13.1	$ 49.3	$ 1.4	$ 61.9
	Truck Driver Time Cost	$ 11.1	$ 24.3	$ 142.2	$ 0.1	$ 177.7
	Freight Time Cost	$ 2.4	$ 5.3	$ 32.7	$ 0.0	$ 40.4
	Total Truck Savings	**$ 11.5**	**$ 42.8**	**$ 224.2**	**$ 1.5**	**$ 279.9**
Total Travel Cost Savings		**$ 185.5**	**$ 217.9**	**$ 1,752.6**	**$ 23.7**	**$ 2,179.7**

3. Downtown Atlanta Redevelopment Effects

The public investment in the MMPT is expected to effectively "channel" economic growth to the center city. Some of this growth may have been anticipated for the larger region, or other parts of Georgia (hence a shift or relocation of jobs), but the balance of the growth represents a new influx of jobs to Georgia and the region. The direct effects of the proposed MMPT investment on Downtown Atlanta were estimated within a 123.7-acre study area immediately surrounding the likely terminal location. (Characteristics of the study area addressed in this report are detailed in Chapter III of the full Techical Report.)

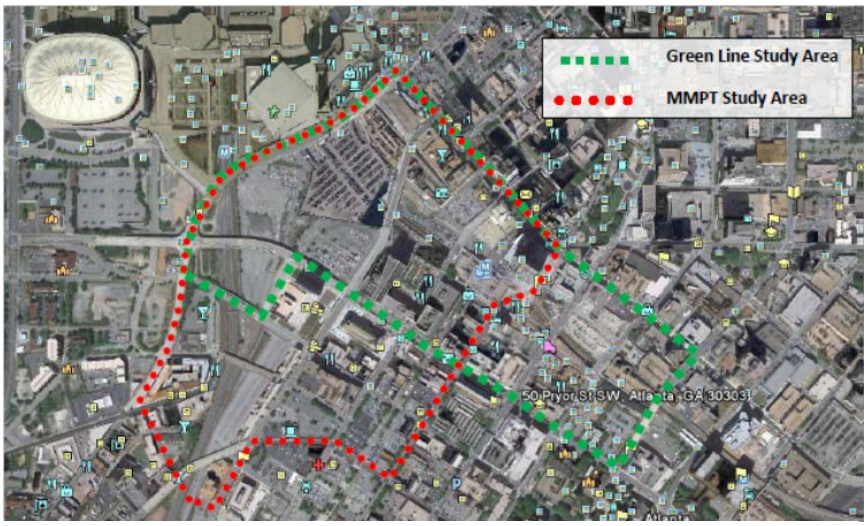


Figure I-2: The study area defined for this analysis is a composite of the original Green Line plan plus the area selected by the multi-agency effort to advance conceptual planning and design for the terminal.

The consultant team estimates that the vast majority of direct redevelopment impacts that may be stimulated by public investment in the MMPT will occur within this area surrounding the likely terminal location. This area is large enough to encompass all overbuild sites created as part of the master development plan for the terminal, plus nearby redevelopment sites which are either within a short walk of the terminal or will abut new public amenities created with the project. Yet as also shown in Table I-3, commuters in outlying metro-area communities will receive significant travel user benefits from investment in the overall transit network. The economic value of those benefits could stimulate additional direct effects and private-sector investment at other locations along the transit network. Estimating additional direct effects in locations outside of the study area identified in Figure 1-2 is beyond the scope of this analysis.

This study area currently contains approximately 8.1 million SF of existing buildings and parking structures. Approximately 52 acres do not contain any buildings and as many as 84 acres could potentially be redeveloped over a 30-year forecast period. Approximately 40 acres and 6.5 million SF of existing buildings have comparatively high values and are expected to remain "as is" throughout the forecast.

Based on an inventory and analysis of this real estate, the consultant team estimates that the study area possesses the physical potential to support a build-out density of 19.6 million SF of total buildings and structures, including 6.5 million SF of existing improvements, 10.98 million SF of new buildings (including the MMPT Terminal) and 2.1 million SF of additional parking structures. Office, retail and residential uses comprise the bulk of the redevelopment potential around the MMPT, plus for new hotels, expansion of the GSU campus and other institutional investment.

After estimating the study area's total achievable density at build-out, the consultant team then estimated the 30-year direct effects of implementing the two build scenarios versus future study area conditions without the MMPT and its associated public amenities. Although neither scenario achieves build-out by 2040, both are expected to dramatically increase the rate of study area development over the forecast period.

TABLE I-4

Summary Comparison of 2040 Forecast Conditions: No-Build vs. Full-Build Scenario

Indicator	Comparison of 2040 Conditions		Difference	% Change
	No Build	Full Build		
Total Buildings/Structures (SF)	**10,176,166**	**18,772,770**	**8,596,604**	**84.5%**
Developed Office Space (SF)	5,620,059	8,639,440	3,019,381	53.7%
Developed Retail Space (SF)	875,557	1,476,776	601,218	68.7%
Residential SF (Including Student Housing)	1,346,605	3,321,950	1,975,345	146.7%
Permanent On-Site Employment (Jobs)	30,565	46,229	15,664	51.2%
Average Annual Construction Employment	177	1,101	923	521.5%
Total 30-Year Investment ($Billions)	$ 0.6	$ 3.6	$ 3.1	521.5%
Annual Local Tax Collections	$ 13,826,366	$ 78,964,580	$ 65,138,215	471.1%
2040 Study Area FAR	1.9	3.5	1.6	84.5%

The net differences in year 2040 study area conditions between the No-Build and Full-Build Scenarios are summarized across a number of different variables in Table I-4.[1] Compared to the 2040 No-Build condition, the direct effects of fully implementing the MMPT and amenity program are projected to increase development within the study area by nearly 8.6 million SF (84 percent), including both commercial and residential uses. This growth also represents an approximate 130 percent net increase over existing buildings and structures within the area, achieved over 30 years.

The estimated net difference in direct jobs is nearly 15,700 or 51 percent higher than the 2040 No-Build condition. The estimated total of 46,200 direct jobs located within the study area by 2040 also represents a 68 percent increase over the estimated 27,450 jobs that currently exist in this same area. The amount of future investment required to construct this incremental development totals $3.1 billion and is more than 5 times the amount of future construction spending forecasted under the No-Build Scenario.

The direct study area construction and employment effects under the Full-Build Scenario do not attempt to distinguish between future growth that can be attributed to the MMPT's competitive benefits to the Georgia economy, versus relocation effects on jobs that would have otherwise located elsewhere in the region. The netting out of relocation effects is addressed during the process of forecasting total economic impacts.

F. Economic Impacts

Direct effects were then inputted into the TREDIS (Transportation Economic Development Information System) economic impact model in order to estimate the total economic impacts (including secondary and induced impacts or "multiplier effects") associated with the two build scenarios. The main model outputs reported in this analysis are total Economic Output, Value Added (Gross Regional Product) and Employment.[2] Although TREDIS has the capability to measure impacts over a time series, to simplify the presentation this report focuses on the two "snapshot years" of 2020 and 2040. The following tables report direct effects and economic impacts for the Full Build and Partial Build Scenarios in 2020 and in 2040.

Total economic impacts are also "distributed" in two ways. The first distribution is by the area or region benefitting, i.e. the City of Atlanta, the Metro Atlanta Region and the State of Georgia. The second distribution is by the generator of the economic impact, i.e. construction spending, user benefits, downtown Atlanta redevelopment, etc. This effort is intended to segment and distinguish economic impacts of the MMPT/transit investment, from the economic impacts associated with revitalizing Downtown Atlanta.

Economic impacts refer to *changes* in a region's level of business activity and household income due to some investment or policy event compared to a ***base case*** or "No-Build" condition. These

[1] Partial-Build Scenario results are not reported in this table but generally fall in the 80-85 percent range of Full-Build impacts shown.
[2] See Chapter IV in the full report for more detailed discussion of these concepts.

changes or impacts also refer to the same point or interval of time. Business activity, for example, is expressed as *annual sales.* Supporting each dollar of sales are *jobs* with individual employers. Job impacts are associated with a labor income impact. The *local portion* of the annual sales impact is called ***value-added*** or ***gross regional product***. Economic impacts are timed as *direct* (originating from the alternate investment over what would have occurred in the base case). The ripple-effect consequences on the economy are termed *multiplier effects* and are comprised of *indirect* and *induced impacts*. The sum of the *direct*, *indirect, and induced impacts equals the total impact* in a specific point in time.

After quantifying direct effects, the consultant team calculated the *total* economic impacts that result from those direct impacts using the EDR-TREDIS model. The TREDIS Model measured total economic impacts from both the transportation system changes and from the contingent development (in the study area) considered as part of the build scenarios. Because neighboring regions interact through commuting and business-to-business transactions, a project centered in the study area can exert spillover effects on the City of Atlanta, the rest of the Metro Atlanta Region and even elsewhere in the State of Georgia.

Tables I-5 and I-6 summarize the regional distribution of employment, output and value added impacts for the 2020 and 2040 forecast years under each build Scenario. The progressively larger geographies are inclusive of the smaller ones. (In other words, Metro Atlanta impacts include the City of Atlanta and statewide totals include Metro Atlanta.) Focusing on annual job impacts (direct or total) the tables show that positive economic impacts occur at all levels of geography - city, regional and statewide.

TABLE I-5

Summary Comparison of 2020 Forecast Conditions by Scenario and Region

2020 FORECAST CONDITIONS: PARTIAL-BUILD SCENARIO

Average Annual Impact by Region	Direct Effects			Total Effects		
	Output (2011$)	Value-added (2011$)	Jobs	OUTPUT (2011$)	Value-added (2011$)	Jobs
City of Atlanta	$ 315,697,432	$ 201,768,384	2,361	$ 511,322,139	$ 321,068,780	3,621
Metro Atlanta Region (20 Counties)	$ 283,419,708	$ 176,977,103	2,358	$ 531,621,862	$ 325,465,317	4,293
State of Georgia	$ 258,271,416	$ 160,245,939	2,208	$ 484,929,534	$ 295,281,137	4,122

2020 FORECAST CONDITIONS: FULL-BUILD SCENARIO

Average Annual Impact by Region	Direct Effects			Total Effects		
	Output (2011$)	Value-added (2011$)	Jobs	OUTPUT (2011$)	Value-added (2011$)	Jobs
City of Atlanta	$ 470,174,733	$ 299,894,117	3,501	$ 756,246,871	$ 474,455,625	5,332
Metro Atlanta Region (20 Counties)	$ 404,251,735	$ 251,402,571	3,348	$ 755,703,466	$ 459,819,882	6,112
State of Georgia	$ 371,736,146	$ 251,402,571	3,155	$ 689,610,067	$ 417,558,058	5,847

Table I-5 indicates that 2020 economic impacts are comparatively modest, showing the potential addition of 4,122 jobs (partial-build) to 5,847 jobs (full-build) statewide by 2020. This can be expected given that development of initial phases is not projected to commence until after 2015 and the transit network serving the MMPT remains limited through 2020. The data also show that

economic impacts to the Metro Atlanta Region marginally exceed those to the state of Georgia as a whole. This changing magnitude of impacts moving across 'economic boundaries' reflects (a) the elements of the industry-mix and scale of the employment base in each area, hence (b) the strength of the multiplier responses from direct to total impacts, and (c) explicit allocations of some of the direct effects of the overall investment.

In this case, the analysis allocates a significant amount of capital spending on the transit network and private sector redevelopment around the MMPT. In addition to bringing net new growth to the region though reducing commuting costs and enhancing its economic competitiveness, this investment is also likely to have the effect of redirecting the locations of future economic growth toward the improvements. This is due to the "redistributive effects" of transit investments – which make locations served by transit more valuable or competitive, compared to other market area locations which remain unchanged. The regional allocation of economic impacts accounts for the possibility that Metro Atlanta will capture a marginally increased share of future statewide employment growth in comparison to the No-Build condition.

By 2040, the economic impacts resulting from the project are substantially greater, adding roughly 44,500 jobs and nearly $5.2 billion in output to the Georgia economy (including multiplier effects) under the Full-Build Scenario. Approximately 60 percent of statewide impacts are captured by the City of Atlanta. By the conclusion of the forecast, partial-build impacts run approximately 84 percent of the full-build condition for most variables. Because 2020 impacts are relatively modest and the differences in the two build scenarios are consistent, the remainder of this executive summary focuses only on 2040 Full-Build condition. [3]

TABLE I-6

Summary Comparison of 2040 Forecast Conditions by Scenario and Region

2040 FORECAST CONDITIONS: PARTIAL-BUILD SCENARIO

Average Annual Impact by Region	Direct Effects			Total Effects		
	Output (2011$)	Value-added (2011$)	Jobs	OUTPUT (2011$)	Value-added (2011$)	Jobs
City of Atlanta	$ 1,682,634,421	$ 1,137,664,281	12,635	$ 2,765,898,467	$ 1,795,230,535	19,612
Metro Atlanta Region (20 Counties)	$ 1,695,180,688	$ 1,094,424,876	15,543	$ 4,500,794,473	$ 2,693,109,357	37,832
State of Georgia	$ 1,537,107,659	$ 989,258,858	14,601	$ 4,268,768,395	$ 2,542,835,344	37,187

2040 FORECAST CONDITIONS: FULL-BUILD SCENARIO

Average Annual Impact by Region	Direct Effects			Total Effects		
	Output (2011$)	Value-added (2011$)	Jobs	OUTPUT (2011$)	Value-added (2011$)	Jobs
City of Atlanta	$ 2,356,002,512	$ 1,563,683,530	17,391	$ 3,846,544,763	$ 2,469,087,069	26,888
Metro Atlanta Region (20 Counties)	$ 2,209,722,456	$ 1,407,995,417	19,589	$ 5,470,906,815	$ 3,269,443,821	45,506
State of Georgia	$ 2,026,282,832	$ 1,285,952,999	18,496	$ 5,170,829,013	$ 3,076,745,835	44,529

Table 1-7 shows the 2040 Full-Build impacts on the City of Atlanta, the Metro Atlanta region and State of Georgia, distributed by six different sources of impact, (a) real estate redevelopment effects within the study area, (b) construction of the MMPT and its downtown amenities, (c)

[3] Detailed 2020 and partial-build forecast results are presented in Chapter IV.

construction of the remainder of the regional transit network outside of the study area, (d) annual spending on the operation and maintenance of the regional transit network, (e) the effects of permanent job creation within expanded commercial/office space inventories in the study area and (f) the economic value of travel cost savings to transit riders, highway commuters and Georgia businesses. (See Figure I-3 for additional explanatory notes.) As expected, the table shows that the MMPT's redevelopment impacts on the study area and its capacity to serve as a catalyst to attract new downtown commercial/office tenants are the most important generators of positive economic impacts on the City. Conversely, construction spending on the entire regional transit network, lower travel costs for suburban commuters and congestion relief benefits to businesses are the most important generators of positive economic impacts to the region as a whole and to the statewide economy.

TABLE I-7

Estimated 2040 Full-Build Forecast Conditions by Region and Sources of Economic Impacts

CITY OF ATLANTA

Average Annual Impact	Direct Effects			Total Economic Impacts		
	Output (2011$)	Value-added (2011$)	Jobs	Output (2011$)	Value-added (2011$)	Jobs
City of Atlanta				$ 2,752,107,249		23,164
Redevelopment Phase	$ 76,261,409	$ 32,709,476	592	$ 112,753,205	$ 55,674,536	855
MMPT Development Phase	$ 38,069,461	$ 18,108,647	325	$ 56,355,253	$ 29,551,321	452
Transit O&M Spending	$ 36,174,207	$ 21,194,250	567	$ 63,717,897	$ 38,395,245	754
Permanent Jobs_2040	$ 2,177,241,475	$ 1,479,907,931	15,663	$ 3,473,579,871	$ 2,268,504,417	23,726
Travel User Benefits_2040	$ -	$ -	-	$ 87,000,000	$ 50,000,000	689
Transit Capital Investment	$ 28,255,961	$ 11,763,226	245	$ 53,138,538	$ 26,961,551	412
Grand Total	**$ 2,356,002,512**	**$ 1,563,683,530**	**17,391**	**$ 3,846,544,763**	**$ 2,469,087,069**	**26,888**

METRO ATLANTA (20-COUNTY) REGION

Average Annual Impact	Direct Effects			Total Economic Impacts		
	Output (2011$)	Value-added (2011$)	Jobs	Output (2011$)	Value-added (2011$)	Jobs
Total Metro Atlanta Region (20 Counties)						
REDEVELOPMENT Phase	$ 76,261,409	$ 32,709,476	592	$ 131,564,237	$ 66,379,944	1,011
MMPT Development Phase	$ 38,069,461	$ 18,108,647	325	$ 65,495,311	$ 34,801,169	529
Transit O&M Spending	$ 219,952,747	$ 129,003,288	3,704	$ 443,596,080	$ 268,095,586	5,387
Permanent Jobs_2040	$ 1,725,256,144	$ 1,164,316,222	13,697	$ 3,122,520,504	$ 1,981,414,823	24,634
Travel User Benefits_2040	$ -	$ -	-	$ 1,386,393,563	$ 749,967,532	11,409
Transit Capital Investment	$ 150,182,696	$ 63,857,784	1,271	$ 321,337,120	$ 168,784,766	2,535
Grand Total	**$ 2,209,722,456**	**$ 1,407,995,417**	**19,589**	**$ 5,470,906,815**	**$ 3,269,443,821**	**45,506**

STATE OF GEORGIA

Average Annual Impact	Direct Effects			Total Economic Impacts		
	Output (2011$)	Value-added (2011$)	Jobs	Output (2011$)	Value-added (2011$)	Jobs
Statewide						
Redevelopment Phase	$ 76,261,409	$ 32,709,476	592	$ 134,914,446	$ 67,516,891	1,053
MMPT Development Phase	$ 38,069,461	$ 18,108,647	325	$ 66,737,500	$ 35,192,338	547
Transit O&M Spending	$ 219,952,747	$ 129,003,288	3,704	$ 547,935,358	$ 331,649,479	6,142
Permanent Jobs_2040	$ 1,541,816,520	$ 1,042,273,804	12,604	$ 2,617,192,803	$ 1,666,816,286	22,111
Travel User Benefits_2040	$ -	$ -	-	$ 1,397,628,690	$ 755,872,999	11,525
Transit Capital Investment	$ 150,182,696	$ 63,857,784	1,271	$ 406,420,216	$ 219,697,841	3,150
Grand Total	**$ 2,026,282,832**	**$ 1,285,952,999**	**18,496**	**$ 5,170,829,013**	**$ 3,076,745,835**	**44,529**

Figure I-3: Explanatory notes to Table 1-7.

[1] **Redevelopment Phase**: The average annual economic impacts and job creation resulting from construction spending on redevelopment activity (ie. buildings and parking structures) surrounding the MMPT, throughout the forecast period.

[2] **MMPT Development Phase**: The average annual economic impacts and job creation resulting from construction spending on the MMPT itself and associated public improvements.

[3] **Transit O&M Spending**: The annual average economic impacts and job creation resulting from the operation and maintenance of transit systems serving the MMPT.

[4] **Permanent Jobs-2040**: Year 2040 economic impacts and job creation resulting from the occupancy of redeveloped office, retail and public buildings developedwithin the MMPT Study Area, at build out.

[5] **Travel User Benefits - 2040**: Year 2040 economic impacts and job creation resulting from travel user benefits created by investment in the MMPT and new transit systems serving the terminal, at build out.

[6] **Transit Capital Investment**: The annual average economic impacts and job creation resulting from construction spending on public transit systems serving the MMPT.

[7] The first three columns represent the Direct Effects of items 1 through 6, in 2011$.

[8] The second three columns represent the Direct + Multiplier Effects of items 1 through 6, in 2011$.

[9] **Output** is the measure of the total value of goods and services produced within each region specified.

[10] **Value added** is the difference between total annual sales of indistries within each region and the total cost of goods and services purchased to produce those sales.

[11] Economic impacts measured for the Metro Atlanta Region are included within the State of Georgia totals and City of Atlanta impacts are included within the MetroAtlanta totals. Differences in impacts among regions account for the possibility that not all job creation associated with the MMPT would be net new to the Stateand that some portion may have otherwise located elsewhere within the State or Region.

Source: EDR Group using the TREDIS Model.

The impact forecasts appearing in Table 1-7 are shown **net of** possible displacement effects due to the relocation of future investment to take advantage of the user benefits created by the proposed project. For most economic analysis of transit-related developments, these types of relocation or "redistributive" effects are inherently viewed as positive. Attracting nearly $3.1 billion in future investment to an area which has under-performed economically over the past three decades, while at the same guiding the future direction of growth toward an expanded transit infrastructure, can be reasonably viewed as preferable to encouraging a more decentralized growth pattern.

However, simply shifting the geographic location of future job growth is different from generating **net** new economic impacts. "Generative" impacts enhance a region's economic competitiveness and its ability to attract jobs which may not occur otherwise. In order to account for the probability that a percentage of the MMPT's economic impacts may not be net new to Metro Atlanta or the State of Georgia, the consultant team therefore made adjustments to net out "redistributive" effects and focus on net economic gains only. Further explanation of these concepts and the specific adjustments reflected in Table I-7 appears in the full Technical Report.