

Unified Planning Work Program

UPWP

FY2016

**Volume III
Subregional Studies Program**



**North Jersey
Transportation
Planning
Authority, Inc.**

**UNIFIED PLANNING WORK PROGRAM
VOLUME III
FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM**

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FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM

PROGRAM DESCRIPTION

The Subregional Studies Program (SSP) is a critical element of the NJTPA's continuous, cooperative, and comprehensive metropolitan planning process. The purpose of the NJTPA's Subregional Studies Program is to provide technical and financial assistance to subregions and subregional teams, on a competitive basis, to produce studies of important regional mobility and accessibility issues. These studies produce recommendations consistent with the Regional Transportation Plan (RTP) and the goals of the Together North Jersey (TNJ) Regional Plan for Sustainable Development (RPSD). Studies conducted through this program refine goals and strategies developed through the metropolitan transportation planning process and are reflected in the RTP and the federally-mandated Congestion Management Process (CMP). These studies should be data driven, involve a transparent and accessible feedback loop with stakeholders and the public, involve implementation agencies at the municipal, regional, and state level, and include an analysis of existing and future conditions that can lead to the identification of potential transportation and/or transportation-related solutions for a particular system or study area.

Issues proposed to be addressed through subregional studies should be quantifiable; current problems should be reflected by recent and ongoing data-gathering, such as NJDOT asset management systems or alignment to the NJDOT Capital Investment Strategy. Studies should identify metrics or other performance measures that will allow the NJTPA and project sponsors to track the implementation and success of plan recommendations. Studies should provide and capitalize upon opportunities to develop and strengthen relationships between municipalities, counties, and regional and state agencies that lead to coordinated land use planning and transportation project implementation.

Subregional studies precede the Concept Development Phase and the Preliminary Engineering phase of the Transportation Improvement Program (TIP). Study recommendations should be developed to a level where they may advance to implementation phases involving appropriate implementing agencies (such as NJDOT, NJ TRANSIT, TMAs, subregions, or municipalities). Recommendations that require further development, or that require additional review through the National Environmental Policy Act (NEPA) may be eligible to graduate to the Concept Development stage.

Fiscal year 2016 is the second year of the two-year Subregional Studies Program FY 2015 – FY 2016 cycle and is the first year of the FY 2016 – FY 2017 cycle. Five projects are continuing into fiscal year 2016 as part of the NJTPA's FY 2015 – FY 2016 Subregional Studies Program. Project descriptions for these five studies can be found in the FY 2015 UPWP Volume III Subregional Study Program, linked here:

http://www.njtpa.org/Planning/UPWP/FY2015_UPWP_VOL_III_SSP_March2014_Final1.aspx

Solicitation for the FY 2017 – FY 2018 Subregional Studies Program will occur during FY 2016 and is described in Volume I, Task 16/305 - Subregional Studies Program.

**FY 2016 – FY 2017 SUBREGIONAL STUDY PROPOSALS
PROGRAM BUDGET**

New Projects FY 2016 – FY 2017

<u>Subregion</u>	<u>Title</u>	<u>Federal Share</u>	<u>Local Match</u>	<u>Total Project Cost</u>
City of Newark	Newark Downtown Circulation Improvement Study	\$280,000	\$70,000	\$350,000
Essex County	Freeway Drive and Station Area Safety and Public Realm Study	\$200,000	\$50,000	\$250,000
Monmouth County	Monmouth County Travel Demand Model	\$320,000	\$80,000	\$400,000
Somerset County	Supporting Priority Investment in Somerset County: Phase 3	\$340,000	\$85,000	<u>\$425,000</u>
Subtotal – New Projects Program Cost				\$1,425,000

Continuing Projects FY 2015 – FY 2016

<u>Subregion</u>	<u>Title</u>	<u>Federal Share</u>	<u>Local Match</u>	<u>Total Project Cost</u>
Hudson County	Update to Land Development Regulations	\$64,000	\$16,000	\$80,000
Middlesex County	Improving Transit Services and Bicycle – Pedestrian Access on the County Route 529 Corridor Study	\$120,000	\$30,000	\$150,000
Morris County	Morris County Circulation Element	\$349,600	\$87,400	\$437,500
Passaic County	Great Falls Circulation Study	\$240,000	\$60,000	\$300,000
Union County	Union County Transportation Plan	\$240,000	\$60,000	<u>\$300,000</u>
Subtotal – New Projects Program Cost				\$1,267,500

ELIGIBLE APPLICANTS

Only NJTPA-member subregions are eligible to serve as the project lead and submit proposals through this program. Proposals can be submitted by Subregions individually, or as joint lead with another Subregion. Non-member municipalities may partner with a member Subregion on a project, but may not serve as a project lead.

Solicitations for studies to be conducted through the NJTPA Subregional Studies Program are issued on an annual basis. Subregions are not eligible to serve as a project lead in consecutive annual Subregional Studies Program cycles. Subregions may serve as a project lead for only one study per program cycle. Subregions may partner with another Subregion in a non-lead role at any time.

The funding available under this solicitation will be made available through a U.S. Department of Transportation (US DOT) pass-through grant, utilizing Federal Highway Administration (FHWA) funds and/or flexed Federal Transit Administration (FTA) funds (CFDA number is 20.205). To be eligible for this program, participants must provide at least a 20% local match. The local match can include in-kind staff time and/or cash.

ELIGIBLE ACTIVITIES

Planning activities which address regional mobility and accessibility issues are eligible for the Subregional Studies Program. Activities can include such initiatives as: analyzing the performance of the transportation system (current and future); conducting preliminary needs assessments, including identification of gaps in transportation connectivity, and identification of accessibility needs related to essential services such as housing, employment, health care, schools/education, and recreation, including for traditionally underserved populations; generating corridor- or node-specific strategies and planning concepts for further development; analysis and suggestions that could lead to capital improvements and/or policy changes; integrating transportation and land use, including cooperative efforts between counties and municipalities to reinforce smart, sustainable land use planning with targeted infrastructure investments; or identification of transportation financing solutions. Studies that advance planning for climate change related adaptation and resilience, and security of transportation infrastructure are also encouraged.

The NJTPA seeks to bring together all interested parties in an inclusive metropolitan planning process that ensures that recommendations for policy or capital improvements reflect shared interests, cost effectiveness, best practices, and have the buy-in of implementing agencies. Studies require the creation of a Steering Committee or a Technical Advisory Committee, consisting of representatives from all agencies and entities identified as stakeholders or who can be reasonably expected to implement anticipated recommendations, including, but not limited to, municipalities, county departments of engineering and/or public works, the NJDOT, and NJ TRANSIT.

EXAMPLES OF ELIGIBLE PLANNING ACTIVITIES

The Subregional Studies Program provides flexibility so that subregions may pursue a variety of planning efforts that address critical regional planning needs and help implement the RTP and RPSD. Examples of prior studies funded through this program are at <http://www.njtpa.org/Planning/Subregional-Planning/Studies.aspx>. Below are examples of the types of studies that are generally eligible under this program.

1. Master Plan Activities

NJTPA-member counties may produce or update the Transportation/Mobility Element of their County Master Plan, pursuant to the County Planning Act (NJSA 40:27-1 et seq).

NJTPA-member cities may produce or update the Transportation/Mobility Circulation Element of their Municipal Master Plan, or prepare a Mobility and Community Form Element (see <http://www.state.nj.us/transportation/community/mobility/>) pursuant to the New Jersey Municipal Land Use Law (NJSA 40:55D-1 et seq). Subregions may also develop jurisdiction-wide Freight/Goods Movement plans through this program.

In addition, NJTPA-member cities may, through this program, conduct planning and other regulatory activities that facilitate a policy and regulatory environment supportive of transit-oriented and transit-supportive development, including, but not limited to, land use planning, redevelopment planning, and regulatory upgrades. All work conducted through the Subregional Studies Program must be consistent with the Municipal Land Use Law (NJSA 40:55D-1 et seq.) or the Local Redevelopment and Housing Law (NJSA 40A:12A-1 et seq.) and the Fair Housing Act (NJSA 52:27D-301 et seq.) and all other relevant municipal, county, and state laws and regulations.

2. Multimodal Corridor Studies

Subregions may conduct a multi-modal corridor study that looks at strengths, weaknesses, opportunities and threats to efficient and effective mobility through a specific travel corridor. Subregionally-sponsored studies should generally focus on the Subregion's road network, but this does not preclude limited opportunities to partner with the NJDOT on state facilities or NJ TRANSIT on current or proposed transit corridors. Corridor studies should include significant participation from host municipalities to explore, analyze, and recommend solutions to land use and built environment conditions that create or exacerbate automobile travel and congestion. Corridor studies may be comprehensive, or they can focus on a single issue, such as pedestrian or motorist safety, transit access, goods movement, congestion mitigation, intelligent transportation systems, or other relevant corridor-specific mobility issues.

3. Transit Station Area Planning

Studies that promote transit ridership and completion of major intermodal transit links (i.e. links between bus and rail) are strongly encouraged. Subregions may conduct an analysis, study, or planning effort that brings together state agencies, regional entities, transit providers, county agencies, and municipalities to facilitate or enhance mobility around fixed transit facilities, including commuter rail, PATH, and light rail stations and major bus or ferry terminals. This activity is critical in helping the region prepare for the increasing demand for transit-accessible, walkable, mixed-use communities and will advance the goals of the RTP, the RPSD, and the Draft State Strategic Plan.

4. Economic Development

Subregions may conduct an analysis, study, or planning effort that seeks to identify potential mobility improvements that would increase or improve access to locations where economic development or redevelopment is desirable, especially locations where opportunities exist for mixed-use, walkable, transit-supportive communities, redeveloped brownfields, grayfields, or underutilized or outdated suburban office campuses/parks, or freight-intensive industrial development. Pursuant to the goals of the RPSD, RTP, and the Draft State Strategic Plan, subregions can conduct analyses, studies, or planning efforts that would recommend “transportation investments [that] encourage economic growth while protecting the environment and minimizing sprawl in accordance with the state’s Smart Growth plan, Energy Master plan, and Greenhouse Gas plan.”

5. Climate Change

Subregions may conduct an analysis, study or planning effort that incorporates resilience planning into projects by adapting infrastructure to deal with the effects of climate change, particularly rising sea levels and new weather patterns; and developing transportation policies and strategies that will reduce or mitigate greenhouse gas emissions.

Studies may expand on the NJTPA’s Climate Change Vulnerability and Risk Assessment of Transportation Infrastructure, (linked here: <http://njtpa.org/Planning/Regional-Studies/Recently-Completed-Studies/Vulnerability-and-Risk-Assessment-of-NJ-Transporta/FHWACConceptualModel.aspx>), adaptation studies which focus on sound planning and information to mitigate the impacts of climate change, climate modeling scenario planning, hazard mitigation plans or green infrastructure projects such as green streets to mitigate the impacts of stormwater runoff and evacuation planning, to name a few options.

6. Resilience

Subregions may develop strategies that increase the ability of transportation infrastructure to withstand shocks while maintaining essential functions, and to recover quickly and effectively. Shocks can be from natural or man-made sources, and be either intentional or accidental. Studies may identify vulnerable populations, including the elderly, very young,

disabled, economically vulnerable and linguistically isolated. Studies may identify economic impacts. Studies should quantify risks. Strategies may include capital or operational items, and may include emergency management strategies and evacuation planning.

7. Sustainability

Subregions may conduct studies that identify priority growth and preservation areas and other transportation system investments linked to development of the built environment in a way that is economically and environmentally sustainable.

Studies supporting the linkage between transportation and public health, for example, developing a community based Health Impact Assessment (HIA), may be pursued. HIA brings potential public health impacts and considerations to the decision making process for plans, projects, and policies that fall outside the traditional public health arenas, such as transportation and land use.

Plans that would expand the highway or transit network to serve areas of the region that are environmentally protected or undeveloped or that would direct development to, or facilitate development in, areas of the region where such development would facilitate or generate significant vehicle miles traveled, are strongly discouraged.

8. Comprehensive Bicycle or Walking Policy Implementation Plans

Studies that investigate the development of pedestrian and bicycle facilities, walkable communities and other strategies to increase non-motorized travel, including development of Complete Streets policies, are strongly encouraged. Additionally, subregions are encouraged to conduct analysis, study or planning efforts that engage municipalities and other stakeholders to develop comprehensive bicycle and walking policy implementation plans. Comprehensive bicycle policy implementation plans may identify specific streets for on street bicycle lanes and/or off street bicycle paths, bicycle parking through zoning requirements and/or bike rack sponsorship programs, updates to bicycle riding ordinances, and safe cycling and driving education and enforcement campaigns. Comprehensive walking policy implementation plans may identify gaps in existing pedestrian accommodations such as sidewalks and crosswalks, updates to ordinance standards for sidewalks, and planning for StreetSmart pedestrian safety campaigns.

9. Safety

Subregions may conduct data-driven analysis, study or planning efforts that integrate the 4 E approach of engineering, education, enforcement, and emergency response recommendations to reduce the frequency and severity of crashes, pedestrians and/or bicyclists. Safety plans should seek to address the emphasis areas and priority strategies in the New Jersey Strategic Highway Safety Plan, an update of which is anticipated to be completed in December, 2014.

10. Intelligent Transportation Systems Travel Demand Management, and Multimodal Mobility:

Subregions may incorporate into studies or plans Intelligent Transportation Systems (ITS) strategies that are consistent with a regional ITS architecture, Travel Demand Management and multi-mobility strategies that serve as transportation control measures.

11. Goods Movement

Subregions may conduct studies that identify needs, opportunities and challenges related to the movement of goods into, from and through the subregion, particularly studies that advance specific goods movement strategies identified in the RTP. Studies may look at how to better connect the various modes (truck, rail, water and air) as well as identify links between goods movement and economic development.

12. Advancement of a Recommendation from a Previously-Completed Study

Subregions may choose to advance a specific recommendation from a study previously completed by the NJTPA, the subregion, or another entity. This advancement can consist of additional data gathering and analysis, additional public/stakeholder engagement and coordination with state, county, regional, and municipal partners, and elimination of unreasonable alternative solutions.

EMPHASIS AREAS

The following are regional, state and/or federal emphasis areas. Studies must address at least one NJTPA Regional Transportation Plan (RTP) goal or strategy, at least one Regional Capital Investment Strategy (RCIS) principle, and at least one goal or objective of the Regional Plan for Sustainable Development (RPSD). Applicants are encouraged to address additional emphasis areas beyond the requisite RTP, RCIS and RPSD goals, objectives, strategies and principles.

1. Regional Transportation Plan (Required)

Federal regulations require NJTPA-funded planning efforts advance the goals and strategies found in Plan 2040 the Regional Transportation Plan (RTP) for Northern New Jersey. Proposals must specifically identify how a proposed study implements the goals and strategies embodied in the RTP.

The RTP goals are as follows:

- Protect and improve the quality of natural ecosystems and the human environment.
- Provide affordable, accessible and dynamic transportation systems responsive to current and future customers.
- Retain and increase economic activity and competitiveness.
- Enhance system coordination, efficiency and intermodal connectivity.
- Maintain a safe and reliable transportation system in a state of good repair.
- Select transportation investments that support the coordination of land use with transportation systems.

2. Regional Capital Investment Strategy (Required)

Subregional studies must advance one or more of the eight Investment Principles of the NJTPA Regional Capital Investment Strategy (RCIS). More information about the RCIS, including more specific strategies to be considered when proposing subregional studies, can be found at <http://www.njtpa.org/Planning/Plan-Update-to-2040/Regional-Capital-Investment-Strategy.aspx>

The RCIS investment principles are as follows:

- **Help the Region Grow Wisely:** Transportation investments should encourage economic growth while protecting the environment and minimizing sprawl in accordance with the state's [Draft Strategic Plan] Energy Master Plan, and Greenhouse Gas Plan.
- **Make Travel Safer:** Improving safety and security should be explicitly incorporated in the planning, design and implementation of all investments.
- **Fix it First:** The existing transportation system requires large expenditures for maintenance, preservation and repair, and its stewardship should be the region's highest priority.

- **Expand Public Transit:** Investment to improve the region’s extensive transit network should be a high priority, including strategic expansions to serve new markets.
- **Improve Roads but Add Few:** Road investments should focus on making the existing system work better, and road expansion should be very limited.
- **Move Freight More Efficiently:** Investments should be made to improve the efficiency of goods movement because of its importance to the region’s economy and quality of life.
- **Manage Incidents and Apply Transportation Technology:** Investments should be made to improve information flow, operational coordination and other technological advances that can make the transportation system work smarter and more efficiently.
- **Support Walking and Bicycling:** All transportation projects should promote walking and bicycling wherever possible.

3. Regional Plan for Sustainable Development (Required)

On January 15, 2012, the NJTPA, NJ TRANSIT, The Alan M. Voorhees Transportation Center at Rutgers University, the New Jersey Office for Planning Advocacy, NJTPA subregions and core cities, and a variety of other public, institutional, and nonprofit entities began work, under the aegis of TOGETHER NORTH JERSEY, on the development of a Regional Plan for Sustainable Development (RPSD). This project is funded largely through a grant from the U.S. Department of Housing and Urban Development’s Sustainable Communities Regional Planning Grant Program.

The plan will be both “place-based” and “issue-based” and will use sustainability, transit system connectivity and Transit-Oriented Development (TOD) as the central framework for integrating plans, regulations, investments, and incentive programs at all levels of government to improve economic and environmental conditions, while promoting regional equity and resource efficiency.

The outcome of plan implementation will be a more sustainable future for the region that invests in existing communities where housing, jobs, educational, cultural, and recreational opportunities are made more easily accessible to most residents of the region by providing more transportation choices.

The goals and objectives for the RPSD are as follows:

Goal 1: Grow a Strong Regional Economy.

- Keep and create well-paying jobs.
- Ensure infrastructure (transportation, utilities, and communications) is in good repair, can support economic development and is resilient to extreme weather.
- Ensure the region’s workforce has the training and skills needed to support current and future industry needs.
- Support small businesses and entrepreneurship.

Goal 2: Create Great Places.

- Maintain or expand vibrant downtowns and “main streets.”
- Create safe, stable, resilient neighborhoods with high-quality housing options affordable to a range of incomes.
- Preserve and enhance the character of existing neighborhoods and communities.
- Make it easier and safer to walk, bike and take transit.

Goal 3: Increase Access to Opportunity.

- Connect where people live with where they need to go.
- Create inclusive, mixed-income neighborhoods.
- Maintain and improve the quality of schools.
- Improve access to community, arts, cultural and recreational resources (e.g. theaters, museums, libraries, senior centers, youth activities, and parks).
- Improve public health and access to health services.

Goal 4: Protect the Environment.

- Preserve and enhance open space, natural areas and wildlife habitat.
- Improve air quality and reduce emissions that contribute to climate change.
- Increase ability to respond to and recover from extreme weather events.
- Improve water quality and ensure adequate supply.

Goal 5: Work Together.

- Ensure broad participation in planning efforts, including populations traditionally under-represented.
- Foster collaboration among levels of government and provide a regional framework for making decisions about growth and investment.
- Respect property rights during planning and implementation

4. Federal Emphasis Areas (Optional)

US DOT FHWA and FTA

- **MAP-21 Implementation**
Transition to Performance Based Planning and Programming.
- **Models of Regional Planning Cooperation**
Promote cooperation and coordination across MPO boundaries and across State boundaries where appropriate to ensure a regional approach to transportation planning.

- **Ladders of Opportunity**

Access to essential services – as part of the transportation planning process, identify transportation connectivity gaps in access to essential services. Essential services include housing, employment, health care, schools/education, and recreation. This emphasis area could include MPO and State identification of performance measures and analytical methods to measure the transportation system’s connectivity to essential services and the use of this information to identify gaps in transportation system connectivity that preclude access of the public, including traditionally underserved populations, to essential services. It could also involve the identification of solutions to address those gaps.

MAP-21 Goals

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System
- **System Reliability** - To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practice

FHWA New Jersey Division:

- Data Integration and Coordination
- Performance Measures
- Partial Interchange Study
- Emergency Preparedness

5. New Jersey Draft State Strategic Plan (optional)

In 2012, the New Jersey Office for Planning Advocacy drafted the New Jersey Draft State Strategic Plan. This plan provides a framework for prioritization of state investment to support “sustainable economic growth; economic prosperity properly balanced with natural resource preservation and personal satisfaction with one’s physical surroundings.”

- **Goal 1: Targeted Economic Growth:** Enhance opportunities for attraction and growth of industries of statewide and regional importance.
- **Goal 2: Effective Planning for Vibrant Regions:** Guide and inform regional planning so that each region of the State can experience appropriate growth according to the desires and assets of that region.
- **Goal 3: Preservation and Enhancement of Critical State Resources:** Ensure that strategies for growth include preservation of our State's critical natural, agricultural, scenic, recreation, and historic resources, recognizing the role they play in sustaining and improving the quality of life for New Jersey residents and attracting economic growth.
- **Goal 4: Tactical Alignment of Government:** Enable effective resource allocation, coordination, cooperation and communication among those who play a role in meeting the mission of this Plan.

6. NJDOT MPO Transportation Priorities (optional)

- Collaborate with NJDOT in meeting MAP-21 requirements
- Implement actions to foster Performance Management of non-state-owned NHS Bridges & Pavements
- Coordinate with NJDOT in development & integration of a Performance Based Approach to Asset Management & to implement the CIS
- Maintain a safe, efficient & reliable multi-modal transportation network, including Safe Corridors & pedestrian safety initiatives
- Leverage additional funding sources (private & public) and promote partnerships
- Improve traffic operations through ITS upgrades, and enhance coordination at the interstate, state, county & local level
- Pursue low cost operational improvements and TDM congestion relief strategies
- Institutionalize an improved process for initiating mobility improvements with an updated, coordinated and streamlined approach to developing & vetting problem statements
- Improve primary freight corridor and hubs for more efficient access
- Maximize opportunities for Complete Streets Implementation
- Support implementation of enhanced problem intake process and improved problem & project prioritization process
- Implement actions to foster improved local public agency project delivery and compliance to federal regulations
- Work with NJDOT and other partners on risk management strategies for improving the resilience of transportation infrastructure against the impacts of extreme weather

SSP PROJECT MILESTONE TIMELINE

Task/Milestone	Responsible Party	Milestone Deadline
Program Implementation		
Program Start Date	Applicants	July 1, 2015
Preliminary Kick-off with NJTPA Staff	Applicants	December 11, 2015
Begin Consultant Contract	Applicants	January 4, 2016
Draft Final Report Due to NJTPA	Applicants	March 15, 2017
Final TAC/SAC Meeting	Applicants	March 31, 2017
Final Report due to NJTPA & Conclusion of Consultant Contract	Applicants	May 31, 2017
Program End Date- Submit Final Reconciled Products and Deliverables	Applicants	June 30, 2017

SSP PROJECT REQUIREMENTS

As a federal grant program, the NJTPA is required to administer and oversee work conducted through the Subregional Studies Program to ensure the efficient, effective, and appropriate use of federal funds. In addition, the Subregional Studies Program (SSP) is a critical element of the NJTPA's continuous, cooperative, and comprehensive metropolitan planning process and products developed through this program must address issues of significance to the entire region and must be consistent with plans at the state and regional level to ensure validity and implementation.

Subregional studies should adhere to all federal and programmatic requirements:

Grant Management Requirements

Federal funding awarded for projects selected under this notice will be awarded through UPWP subcontract agreements and be made available to grantees on a reimbursable basis. A subcontract cannot be issued to the subregion until all required Pre-Award information, including the subregion's annual audit, has been received and approved by the NJTPA.

To be eligible for reimbursement, costs must be in accordance with 2 CFR Chapter I, Chapter II, Part 200, et al., Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Final Rule; the NJTPA's Administrative Procedures and Requirements for its core Subregional Transportation Planning (STP); and the following additional grant management requirements for subregional studies.

1. *Quarterly Progress Reports:* At the end of each quarter, the subregional project manager must submit to the NJTPA, with their invoices, the products and status updates for work completed within the quarter, including a comparison of actual accomplishments to the objectives of the Federal award and reasons why established goals were not met, if appropriate. Reports must be based on tasks in the original proposal/scope of work and shall note any favorable significant developments or any major issues that may impact the project's delivery or materially impair the ability to meet the objective of the Federal award. The final quarterly report shall include a summary of highlights and key recommendations resulting from the completion of the study.
2. *Invoices, Supporting Documentation:* Please note that supporting documentation for all consultant expenses to be reimbursed under this program is required for both the Prime and subconsultants. This includes and is not limited to:
 - a. Timesheets and Certified Payroll Summary (A Certified Payroll Summary must provide the following information)
 - i. Name of Employee/Classification
 - ii. Date (Payroll period covered)
 - iii. Hours (by Task)
 - iv. Hourly Rate

- v. Total Salary
 - vi. Executed certification of accuracy by authorized personnel.
- b. Direct Expense Receipts
- i. All direct expense receipts must be submitted with consultants' invoice. This includes but not limited to: Printing, Postage/Express Mail, Travel Vouchers (should detail destination and purpose of trip) with toll, transit and parking receipts, detailed hotel and lodging receipts, detailed meal and incidental receipts, and all other direct expense receipts. All travel must adhere to federal travel regulations and per diems in effect during time of travel. (Information for current POV and Per Diem Rates can be found at www.gsa.gov).
- c. Time and Effort
- i. Summary/progress report that shows % of project completed (overall and consultant effort, if applicable).
3. *DBE Participation:* Consultant contracts, if and where included in a proposal's work program, are subject to Title 49, Part 26, Code of Federal Regulations (49 CFR 26) entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs" and shall comply with the NJDOT's statewide DBE/ESBE participation goal in effect at the time of consultant solicitation. In order to increase the likelihood that the DBE/ESBE goals will be achieved, applicants should take this requirement into consideration when scoping the project and selecting portions of the work to be performed by consultants. This may include, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE/ESBE participation, even when the applicant might otherwise prefer to perform these work items with its own forces. Once the consultant contracts are awarded the subregions will be required to monitor the proposed DBE participation to insure the proposed goal is maintained as the project progresses. If any subregion is unable to achieve this goal, a formal request to waive the DBE/ESBE goal for the SSP agreement must be provided in writing and presented to the NJTPA Executive Committee for approval. Central Staff must be made aware of any concerns about not obtaining the goal, immediately.
4. *Project Initiation:* Upon approval by the NJTPA Board of Trustees, NJDOT and federal sponsors, FY 2016-FY 2017 studies will be authorized to begin July 1, 2015. The performance schedule under the SSP's subcontract shall begin on July 1, 2015 and shall end on June 30, 2017. Costs incurred prior to or after these dates will not be reimbursable or credited to the local match share under the federal grant.
5. *Preliminary Meeting with NJTPA:* The subregion's project manager shall hold a preliminary meeting with the NJTPA Central Staff who will be involved on the project, before the consultant commences work if applicable, to accomplish the following:

- a. Introduce the NJTPA project manager assigned to the study and discuss the regional importance of the study, as well as goals, objectives and anticipated products, and the role of the NJTPA on the Project Management team.
 - b. Review the roles and responsibilities of the subregional and NJTPA project managers.
 - c. Establish a regular meeting schedule independent of the quarterly report.
 - d. Schedule, if necessary, a presentation by NJTPA Finance and Administration staff covering requirements for invoicing, Cost Tracking System (CTS), etc. Training for the on-line CTS through the NJTPA's Information Technology staff is mandatory for any subregional project manager who is new to the Cost Tracking System.
 - e. Discuss the NJTPA's review and comment procedures.
 - f. Review the scope of work and project schedule.
 - g. Confirm Steering Committee membership.
 - h. Form a stakeholder/technical advisory committee (S/TAC), if necessary. The NJTPA will help subregions identify and reach out to appropriate agency representatives and will also serve on this committee.
6. *Adherence to Project Schedule:* The NJTPA requires that subregions adhere to the established project schedule and report progress in meeting the schedule in the quarterly reports. The NJTPA shall be provided immediate notice of any actual or potential condition that is delaying or threatens to delay the timely performance of the contract. NJTPA staff is available to assist where needed to ensure that the schedule is maintained. When a project misses a milestone or falls a month behind schedule, the subregion must provide the NJTPA with a corrective action plan. Additional NJTPA oversight on the project will be provided and interim progress status reports may be required from the subregions until the problem is satisfactorily resolved.
7. *Final Invoice and Local Match requirement:* All reconciled final reports, products, invoices with final release clause and supporting documentation are due by 5:00 PM on July 24, 2017. Deliverables are not considered Final, and the final invoice will not be paid, until all NJTPA edits and comments are reconciled. There is a 20% local match requirement for the Subregional Studies Program. Subregions will only be reimbursed for 80% of the project's total actual expenses. If only federal dollars are assumed for consultant costs and the match is to be met by staff time, and if the total actual staff hours for the project are lower than projected, then the subregion will not be reimbursed for the full amount of their consultant costs.

Consultant Procurement

8. *Development of Requests for Proposals/Qualifications:* The subregions must use their own documented procurement procedures which reflect applicable State and local laws and regulations, provided that the procurements conform to applicable Federal law and the standards identified in 2 CFR 200, and the NJTPA procurement policies for

professional services. The NJTPA's detailed requirements and applicable checklists for Procurement of Professional Services, including the development of RFP/Qs and current DBE/ESBE participation goal, can be found on the NJTPA's RFP webpage at: <http://www.njtpa.org/Get-Involved/RFPs/Procurement-Guidance-for-Subregions.aspx> .

9. *Request for Proposals:* The RFP/Q shall not be issued until NJTPA staff has approved the content. To assist consultants in developing proposals, the RFP/Q should identify all tasks and subtasks, deliverables, and a realistic time frame for the project to be completed, incorporating the NJTPA review and comment process outlined below. In addition to the public advertisement process checklist described in the NJTPA procedures for Procurement of Professional Services link referenced above in item 8, the RFP/Q shall be advertised on the subregion's website (where possible) and on the NJTPA website.
10. *Consultant Selection:* Consultant services must be obtained through maximum free and open competition; the project specifications must be clear and unrestrictive; and the selection process should be competitive. Subregions must develop a Consultant Selection Committee, comprised of a minimum of three people, one of which must include the NJTPA Project Manager and, where applicable, should include at least other representative from a Steering Committee (such as NJ TRANSIT, NJDOT, municipality, etc.). Prior to publicly distributing the RFP/Q, the committee must have an opportunity to review and comment on the RFP/Q (allow a minimum of 2 weeks for their review), which must include the criteria that will be used by the Consultant Selection Committee for the evaluation of each proposal. Once the proposals are received by the subregional project manager, they should be distributed to the committee for evaluation (allow a minimum of two (2) weeks for proposal scoring - additional if interviews are held). This requirement must be built into the overall project schedule.
11. *Consultant Interviews (if applicable):* It is highly recommended that interviews are held with the three highest scoring consultant team(s) prior to selecting a team. Interviews typically consist of a 15-minute presentation by the proposed consultant project manager followed by 15 minutes of questions from the consultant selection committee. It is also recommended that key members of the proposed project team, including representatives of proposed subconsultants, are present.
12. *Consultant Selection Report and Recommendation:* Once a consultant is selected by the Consultant Selection Committee and a final scope of work agreed upon, the subregional project manager shall prepare a selection report or memorandum documenting the Consultant Selection Committee's recommendation for award. The memorandum shall be submitted to the Consultant Selection Committee for their review and concurrence; and shall summarize the solicitation and selection process, including all considerations upon which the recommendations are based. A detailed checklist of consultant selection report components can be found in the Procedure for Procurement of Professional Services

linked in item 8. A decision to select the recommended consultant shall be made by the subregion's agency head or designated selection authority.

13. *Award of Consultant Contract:* Contracts shall not be awarded to consultants until the NJTPA has issued a Letter to Incur Costs to the subregion for their subregional studies program subcontract, which is contingent upon federal and NJDOT approval of the NJTPA's FY 2016 UPWP.
14. *Contract Duration:* The consultant contracts should be completed by May 31, 2017, which is one (1) month prior to the end of the federal grant period. This allows sufficient time for processing of invoices, finalization of the report and to address any issues prior to the grant deadline.
15. *Quality Control/Assurance:* The subregions must maintain oversight to ensure that their consultant performs in accordance with the terms, conditions and specifications of their contracts. The Consultant Project Manager and the Subregional Project Manager should coordinate frequently to ensure that interim and final deliverables and other products for dissemination to the public or stakeholders are of the highest quality. All written and graphic materials should be reviewed by the consultant before delivery to the subregion for accuracy, clarity, spelling, and grammar. The Subregional Project Manager shall return products to the consultant for revision, if necessary.
16. *Press Releases:* The NJTPA welcomes any opportunity to increase public awareness of our various metropolitan planning activities. The subregional project manager shall coordinate any announcement/advertisement of project milestones, such as the study's kick-off, public meeting, or public comment period, with the NJTPA Project Manager. The NJTPA Public Affairs Division can assist in developing a press release and can advertise events through our traditional and social media outlets, such as our Twitter or Facebook page. The NJTPA requires any press releases developed by a subregion concerning an NJTPA-funded study be shared with the NJTPA Project Manager a minimum of five (5) days in advance.

Development and Approval of Project Deliverables

17. *Interim Project Deliverables:* In addition to the final project deliverables, the work plans for the Subregional Studies should provide for interim deliverables, such as technical memoranda or preliminary drafts of the final technical report's chapters as the project develops. Interim deliverables should be spaced appropriately throughout the duration of the project to facilitate project management and oversight, and to identify and address gaps and/or challenges to the successful completion of the project as they arise. **The subregion retains the right to delay/refuse payment to the consultant should they be dissatisfied with inferior or unacceptable work products, especially products that have not undergone a thorough quality control/quality assurance process that includes grammar and spell-checking and verification of facts/statistics. The NJTPA should be notified as early as possible if this type of problem arises.**

18. *Required Deliverable Format: Written/Text Deliverables:* All deliverables, including technical memoranda, outreach materials, and all other products to be disseminated outside of the Project Team (Steering Committee, TAC, public, etc.), must be presented to the NJTPA for review and comment in electronic form, in Microsoft Word format. At least two (2) weeks are required for NJTPA review and comment. Products submitted to the NJTPA solely in PDF format for review/comment are unacceptable.
19. *NJTPA Review Process:* NJTPA staff will provide specific comments through the Track Changes function in Word with additional comments through e-mail. Subregions must provide the NJTPA Project Manager with an e-mail response detailing the timeframe for addressing NJTPA and Steering Committee comments to written products/deliverables and how the subregion is addressing each comment. This is required for all deliverables. All written and graphic products produced by the consultant must be approved by the Subregional Project Manager and the NJTPA Project Manager before dissemination outside the Project Team.
20. *Required Deliverable Format: GIS/Mapping:* GIS (interim and final) datasets and mapping applications are required to be developed and submitted using the metadata standards and file nomenclature documentation procedures described in the NJTPA's EGIS User Manual, specifically Appendix U3 – EGIS Quality Assurance Program. This manual can be found at <http://www.njtpa.org/Data-Maps/Maps-GIS-Data/Enterprise-GIS.aspx>. These standards are established to assist in the interagency sharing process and to create consistency in the data products published by NJTPA. For any technical questions relating to the NJTPA EGIS standards, please contact Gabrielle Fausel at gfausel@njtpa.org and copy the NJTPA Project Manager.
21. *Funding Streams:* Due to the uncertainty of whether current funding programs will be continued, studies should not identify specific funding programs to be pursued to implement recommendations. It is best to simply identify that local, state and/or federal funding streams will be pursued. Subregions are encouraged to explore multiple funding sources for projects, including local, state, federal and public-private partnerships.

Project Conclusion/Closeout Procedures

22. *Steering Committee Review:* All draft final deliverables are due to the members of the Technical Advisory and/or Steering Committee for review and comment no later than March 31, 2017. The subregion and the NJTPA must have approved these deliverables prior to their dissemination to the Steering/Technical Advisory Committees.
23. *Final TAC/Steering Meeting Deadline:* The final Steering or Technical Advisory Committee meeting for presenting the study's findings and recommendations should be held no later than April 14, 2017 to allow time for revisions to deliverables needed as a result of committee feedback.
24. *Develop Final Report, Executive Summary and PowerPoint presentation:* All final deliverables, reflecting Steering Committee/TAC input, are due to the NJTPA for final review and comment no later than April 28, 2017. Allow two to four weeks for NJTPA

review and comment on the Final Report. The Executive Summary should briefly outline the project's scope of work, the regional significance of this project, stakeholders, public outreach, methodology, relevant data, and summarize project findings, final recommendations and next steps. The PowerPoint presentation should follow the same format as the Executive Summary. All images used in PowerPoint presentation must be of print quality (minimum of 300 dpi) and provided with the final deliverables.

25. *Enter Recommendations into NJTPA PRIME System:* All identified needs and recommendations generated by these studies should be entered into the NJTPA Planning Recommendations Integration Management Engine (PRIME) by the project manager/consultant team at the completion of the final report. Further information will be provided on how to do this as PRIME is developed.
26. *Problem Statements:* All recommendations for future projects to be developed on state facilities or for which federal or state funds will likely be applied must include, as an appendix, an NJDOT Problem Statement. In general, only roads on the National Highway System are eligible for federal funding.
27. *Submit Final Reconciled Report to NJTPA:* Include on the report cover the NJTPA Logo, disclaimer statement, GIS files (if applicable), executive summary, and PowerPoint presentation. The Final Report, reflecting all reconciled revisions, is due by May 31, 2017.

FY 2016 – FY 2017 SUBREGIONAL STUDY

NEWARK DOWNTOWN CIRCULATION IMPROVEMENT STUDY

CITY OF NEWARK

Proposal Sponsor(s): City of Newark

Title of Proposed Study: Newark Downtown Circulation Improvements Study

Estimated Budget Requested (Federal and Local): \$280,000 and \$70,000 Total: \$350,000

Anticipated Study Duration: 18 Months

Executive Summary:

As New Jersey's largest city Newark functions as an employment, educational, social and cultural destination not only for Newark residents but for people throughout New Jersey and the region. During the last decade Newark has experienced significant new commercial and residential development in the downtown core. An updated and comprehensive transportation study is needed to support Newark's continued redevelopment and keep the city economically competitive. The City of Newark Downtown Circulation Improvements Study (NDCIS) will inform future land use and transportation infrastructure decisions. These decisions will support the transportation needs of all system users, from residents and commuters to pedestrians and freight traffic.

The project goals are to collect and analyze comprehensive traffic, parking and pedestrian statistics; construct a calibrated traffic model; and develop data backed recommendations to support future transportation system improvements for all modes and users.

These project goals provide a data backed basis for future transportation decisions in Newark while also achieving important connections to local and regional planning goals. The proposed study and its intended outcomes achieve goals outlined in the City of Newark Master Plan and Mobility Element, the NJTPA Regional Transportation Plan, the NJTPA Regional Capital Investment Strategy and the Regional Plan for Sustainable Development. Recognizing the connection between the goals of the city and the region builds a study that is aware of its context and is able to respond to both local and regional needs.

To complete the study the City will partner with a qualified consultant team. The consultant will be responsible for data collection, modeling, data analysis and community outreach all overseen by the project manager from the Division of Traffic and Signals. Key deliverables will include a Newark Circulation Improvements Traffic and Parking Study, a final report, existing traffic conditions and future traffic analysis and simulations, a calibrated traffic model, and recommendations for improvements to Newark's transportation network. Completion of these deliverables lays the foundation for future transportation network improvements and ensures that Newark remains a place where companies want to do business, people want to visit and residents want to live.

Study Description:

1. Purpose & Need:

The City of Newark has experienced a significant amount of new development and revitalization of the downtown core. Major projects such as Prudential Financial, the revitalization of the historic Hahne's Building, Teachers Village, NJPAC and the Prudential Center bring commuters, visitors and residents into central Newark on a daily basis. Newark's transportation network connects people to jobs, educational opportunities, entertainment and residential spaces. The transportation network allows businesses to thrive, ensuring that employees can arrive to work on time and that freight and commercial deliveries have access to regional and national roadways. A functional transportation network plays a major role when companies consider where to locate and when people decide where to live or visit. Beyond the economic benefits an improved transportation network can provide, Newark has a pressing need to improve pedestrian safety. Due to high rates of injury and fatal motor vehicle crashes involving pedestrians Newark has been designated a "focus" city by the Federal Highway Administration.

The Newark Downtown Circulation Improvements Study (NDCIS) provides the basis for future transportation network improvements supporting Newark's ability to stay economically competitive within the NJTPA region and beyond.

The NDCIS will develop the framework for improving a transportation network that supports the needs of all users. The purpose of the study is to determine, through data collection and analysis, the roadway improvements that will best support the continued economic growth of Newark's downtown core. The outputs of this Subregional Studies Proposal build directly on the overarching goals of the Newark Master Plan; economic development, healthy and safe neighborhoods, and becoming a city of choice. The Mobility Element of the Newark Master Plan develops these goals further to focus on the way in which Newark's transportation network is crucial to the land use, business and industry elements of the Master Plan. These elements rely on the transportation network for access and efficient movement of goods and people.

The current trend of development and revitalization is expected to continue requiring the need for an updated and comprehensive assessment of the current transportation network. From this traffic study the City will have the information to implement the most fiscally effective and functionally impactful traffic, transit, pedestrian, bicycle, and freight improvements. The Newark Downtown Circulation Improvements Study and the resulting transportation network improvements are vitally important to Newark's ability to remain competitive with auto oriented suburban office locations and peer cities throughout the region.

The complete streets policies of the NJDOT and the City of Newark stress the importance of interconnected multi-modal street networks that prioritize the safety of all users. Up to date traffic volume data allows the city to better meet its commitments to complete streets. Additionally, the in progress Newark Pedestrian and Bicycle Safety Action Plan will directly benefit from current traffic and pedestrian volume data. Guiding decisions related to the distribution and construction of motor vehicle, pedestrian, bicycle and transit facilities.

2. Brief Description of Project Scope:

The Newark Downtown Circulation Improvements Study will collect and analyze data on pedestrian, bicycle, motor vehicle, bus, freight, and parking volume. Major roadways, intersections, and regional connections identified below will all be analyzed as well as Penn Station circulation. The data collection portion of the NDCIS will take into account the varying modes and trip purposes made by different transportation network users. In cases where identified transportation needs do not fall under the jurisdiction of the City of Newark, such as bus routing, changes will be considered as part of a collaborative effort with the City's partners at NJ TRANSIT. Understanding how these varying modes interact with one another will ensure that Newark can provide the appropriate street treatments to accommodate all modes and ensure safety for all transportation network users.

The project boundaries, shown in Figure 1, extend from Bergen Street in the west to Route 1 and 9 in the east and north to south Interstate 280 to Interstate 78. Within these boundaries major roadways, key intersections, and key regional connection points will be modeled. These locations have been chosen because of their FHWA functional classification and their importance within Newark's transportation network. Major roadways have average daily traffic (ADT) with a level of service (LOS) 'C' or worse and are classified as principal arterials, minor arterials or collector roads. Key intersections are intersections of one or more major roadways which have an ADT with a LOS of 'C' or worse. Key regional connection points are the points where major roadways connect to the state or national highway system and serve as primary entrance and exit points for commuters.

Major east west roadways include:

Principal Arterials

- South Orange Avenue
- Springfield Avenue
- Market Street
- Raymond Boulevard
- Ferry Street
- Central Avenue
- Clinton Avenue

Major north-south roadways include:

Principal Arterials

- McCarter Highway
- Broad Street
- Elizabeth Avenue
- Frelinghuysen Avenue

Minor Arterials

- Bergen Street
- Jackson Street Bridge
- Mulberry Street
- Norfolk Street
- Irvine Turner Boulevard

Collector Roads

- Washington Street
- University Avenue
- Dr. Martin Luther King Jr. Boulevard

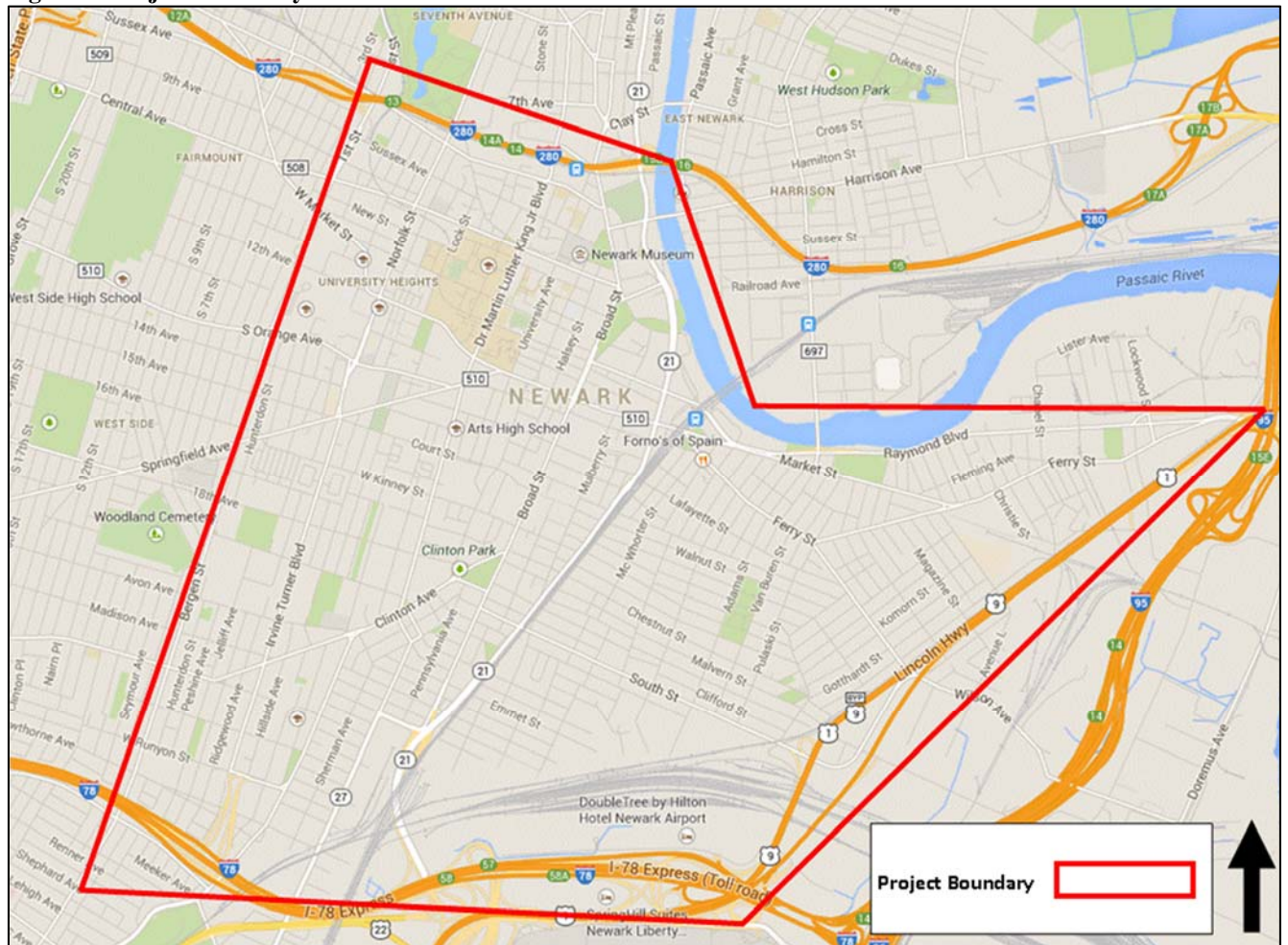
Key intersections include:

- McCarter Highway and Raymond Boulevard
- McCarter Highway and Market Street
- Broad Street and Market Street
- First Street and Central Avenue
- Dr. Martin Luther King Jr. Boulevard and Springfield Avenue
- Dr. Martin Luther King Jr. Boulevard and Clinton Avenue
- Broad Street and Raymond Boulevard
- Broad Street and Central Avenue
- Springfield Avenue and Norfolk Street
- Springfield Avenue and Bergen Street

Key regional connection points:

- Broad Street and I-78 and Route 22
- Raymond Boulevard and I-95 and Route 1 and 9
- Jackson Street Bridge access to Harrison
- McCarter Highway and I-280
- First Street and I-280

Figure 1. Project Boundary



Source: Google Maps, 2014

3. Goals & Objectives:

The NDCIS study has three goals, which will contribute to the advancement of other city and regional goals. Goal one is to collect and analyze comprehensive traffic and pedestrian statistics. The consultant will be responsible for collecting all data. Traffic and freight statistics will be collected through traffic counts and field observations. Pedestrian statistics will be collected through field observations and targeted surveying assessing travel patterns. Transit ridership data will also be utilized in the study. This data will be acquired from existing and future NJ TRANSIT reports and will include ridership numbers and bus frequency and volume. Parking data will be acquired from relevant sources and will include public, Newark Parking Authority, and private lots. All lot operators are required to keep records of parking space quantity; this data will be available for the consultant to procure. When possible the consultant should use relevant existing data from the appropriate agencies such as the City of Newark, NJ TRANSIT, and Newark Parking Authority. City of Newark data may include video from 40 cctv traffic cameras, 12 radio detection cameras, various site plan applications, various traffic

signal studies from site plan applications, traffic signal timings, traffic signal striping plans, and existing Synchro models.

Goal two is to use the collected statistics to construct a calibrated traffic model. The consultant will be responsible for model software acquisition and the creation of the model. The model will be used to identify roadway and signal improvements which will benefit motor vehicle, freight, bus, pedestrian and bicycle traffic.

Goal three is to develop data backed recommendations to support future transportation system improvements for all modes and users. The consultant will be responsible for developing and proposing relevant recommendations based on model outcomes. The City of Newark will review and provide comments throughout the development process to ensure legitimate needs will be met with realistic solutions. These recommendations will lead to circulation improvements within the downtown core of Newark, circulation and movement improvements to and from Penn Station and Broad Street Station and more effective regional connections for those commuting to and from Newark. As described in section 2 some improvements such as bus routing will require the City of Newark to work across agencies with partners at NJ TRANSIT, NJDOT, or Essex County to successfully implement improvements.

4. Integration with Metropolitan Planning Process:

The Newark Downtown Circulation Improvements Study contributes to several regional goals including goals identified in the NJTPA Regional Transportation Plan (RTP), the RTP's Regional Capital Investment Strategy (RCIS), Together North Jersey's Regional Plan for Sustainable Development, MAP-21 goals, and NJDOT MPO Transportation Priorities. NDCIS connections to transportation goals identified in the (RTP) include maintain a safe and reliable transportation system in a state of good repair, retain and increase economic activity and competitiveness, and enhance system coordination, efficiency and intermodal connectivity. The data collected and traffic models created will provide the City of Newark with crucial information needed to make the right roadway improvement decisions. Improved signalization, signage upgrades, intersection modifications, lane and shoulder adjustments, restriping and other traffic flow improvements which will result from the project directly address the RTP's need to improve the operation of roadways, intersections and interchanges. Similarly, analyzing parking demand, freight traffic and on street truck unloading in Newark will result in better land use and roadway access decisions responding to the RTP's need to manage roadway access.

The NDCIS addresses investment principals of RTP's RCIS including improve roads but add few and move freight more efficiently. This project seeks to make improvements that strengthen parallel routes and network redundancy within Newark. The Port of NY & NJ is the third largest in the country with a significant portion of the port located within Newark's border. Improvement to the transportation network, especially connections to regional roadways, will encourage future development within this sector.

The NDCIS addresses several, Regional Plan for Sustainable Development goals including grow a strong regional economy and create great places. The goal of growing a strong regional economy includes ensuring that infrastructure, including transportation infrastructure, is in

good repair and can support economic development. Easing congestion and strengthening network connections appeals to employers across industries from freight and shipping companies at the Port of NY & NJ to white collar employers such as Prudential. The goal of creating great places includes maintaining vibrant downtowns and main streets; and making it easier to walk, bike and take transit. Newark's need to improve pedestrian safety directly relates to this goal. NDCIS recommendations that improve safety and connections for pedestrian and bicyclist will make it easier for these users to connect with transit and encourage more vibrant pedestrian corridors as safety improves.

MAP-21 goals of improving system reliability of the surface transportation system, improving the national freight network, and supporting regional economic development will be achieved through the results of the NDCIS. Recommendations as part of the NDCIS will directly inform future improvements to the reliability and quality of the surface transportation system. These improvements in turn will improve freight connections which will support economic development both within Newark and throughout the region

Finally, the NDCIS connects to NJDOT MPO Transportation Priorities which include maintaining a safe, efficient and reliable multi-modal transportation network, including Safe Corridor and pedestrian safety initiatives; improving traffic operation through ITS upgrades, and enhance coordination at the interstate, state, county and local level; pursue low cost operation improvements and TDM congestion relief strategies; and improve primary freight corridor and hubs for more efficient access. Recommendations based off of the results of the model to be developed will address each of these goals, many of which connect to other regional goals outlined above.

The NDCIS also connects to several completed and ongoing City of Newark planning initiatives such as, the NJTPA funded Newark Master Plan Mobility Element and the in progress Newark Pedestrian Safety Action Plan. The Newark Master Plan Mobility Element has several objectives which are consistent with the goals and intended outcomes of the NDCIS. These include: local accessibility, pedestrian, and bikes; regional connectivity; traffic circulation; safety; freight; and parking. The NDCIS supports the objectives of the NJTPA funded City of Newark Master Plan Mobility Element by providing data, a model and recommendations of how these objectives can best be achieved. Anticipated outcomes of the NDCIS which are consistent with the Mobility Element include:

- Improvement of vehicular circulation and accessibility within the city
- Enhancement of the pedestrian and bicycle network
- Improvement of local and regional access to and from employment centers
- Utilization of transportation demand management strategies and adaptive traffic signal systems
- Encourage the use of transit and reduce reliance on automobile use through parking management strategies
- Improve safety for all modes
- Improve roadway constraints which hinder freight movement and the growth of the port, airport and industrial areas

The Newark Pedestrian Safety Action Plan is collecting pedestrian and vehicle crash statistics and developing a framework for increasing pedestrian safety through targeted enforcement and engineering improvements at dangerous intersections to be coupled with the NJTPA's Street Smart Pedestrian Education Campaign. The Pedestrian Safety Action Plan will work closely with city, business, and neighborhood stakeholders and this input will compliment and inform the NDCIS's own outreach efforts and recommendations.

5. Regional Significance/Impact:

The goals of the Newark Downtown Circulation Improvements Study will have regional impacts that extend beyond project or city boundaries. The transportation system improvements that the NDCIS study will directly support ensure that Newark continues its steady population and employment growth and remains economically competitive regionally and nationally. Three major employment centers, University Heights, Newark's Central Business District, and Port Newark, are located within the bounds of the study area but have an economic impact throughout New Jersey. These centers rely on a functional transportation system to move goods and people in and out of Newark on a daily basis.

University Heights includes Rutgers Newark, NJIT, Essex County Community College, Berkeley College, Seton Hall and *University of Medicine and Dentistry of New Jersey* now *Rutgers Biomedical and Health Sciences (RBHS)*. These six institutions educate students who go onto employment opportunities across the region, keeping New Jersey's educational investments within the state. Additionally, these institutions serve as employment centers themselves, employing professors, medical professionals, and support staff.

Newark's central business district employs New Jersey residents from across the region in white collar and service sector occupations. Strengthening connections to the downtown supports the economic prosperity of the entire North Jersey region as it will spur continued business growth and remain an attractive employment center. The central business district is the point of confluence for commuters of all modes. Two regional rail stations, Newark Penn Station and Broad Street Station, are within the central business district. These stations along with bus and light rail transit and automobile commuters generate significant amounts of vehicle and pedestrian traffic and congestion, especially during peak hours.

Port Newark is the third largest port in America and an important point of distribution for many materials and consumer goods. Materials received at the port are shipped to warehouses throughout New Jersey for manufacture or distribution. Port Newark provides an important source of blue collar jobs in freight, warehousing and manufacturing. Strengthening connections between the port and regional access points encourages further economic growth within the port and region-wide. A responsive and efficient transportation system supports employees across industries from education to service, medical, and freight. Ensuring that Newark remains well connected to the regional highway network and provides adequate circulation within its borders is crucial to continued business development and growth.

In addition to the important function Newark plays as a major employment center, entertainment and cultural destinations located within Newark also serve regional populations. The Prudential Center, NJ Performing Arts Center, Newark Museum and other smaller venues

bring thousands of people into Newark from elsewhere in the region. Major events bring in large traffic and transit volumes. Circulation and parking recommendations developed as part of the NDCIS study will address these issues and lead to an improved transportation experience for event visitors. This includes entering and exiting the city, accessing parking and the experience visitors have while as pedestrians before and after their event. Improving congestion issues and the pedestrian experience will create a more enjoyable experience for visitors encouraging repeated visits.

Newark occupies an important role as an economic, cultural and entertainment center within northern New Jersey and an improved transportation network will directly benefit a wide variety of industries. As described in section 4, *Integration with Metropolitan Planning Process*, the results of this project also link to many regional goals of the NJTPA, the State of New Jersey, and federal government. Improving roadway operations, managing roadway access, strengthening parallel routes and redundancy, and strengthening pedestrian connections and access to transit are all regional goals that require a foundation of traffic data, models and recommendations. The NDCIS study provides the cornerstone upon which future Newark and regional transportation system improvements will be built. NJTPA support for Newark's NDCIS study insures that Newark will have the data and recommendations necessary to secure future funding to achieve regional goals.

6. Anticipated Methodology:

Data Collection

The scope of work for the data collection portion of the project will include conducting traffic counts along major corridors and intersections identified in section 2, *Brief Description of Project Scope*. Counts will include vehicles, trucks and pedestrians. The data will be collected through a combination of field observations and use of automated traffic counters such as the NC200 traffic counter. Counts of vehicles, truck and pedestrians will be separated to ensure that the study accurately reflects the needs of all roadway users in Newark and properly accounts for all modes. To understand potential future parking needs or surpluses, parking inventory and volumes will also be acquired from public, Newark Parking Authority, and private parking lot operators. These entities are required to maintain records of parking space quantity; this data will be available for the consultant to procure. Additionally, parking usage will be collected via survey. Data collection will consist of the collection of peak hour work day volumes of through and turn movements at major roadways, key intersections, and key regional connection points. Peak hours are defined as 6:30am – 9:00am and 3:30pm – 6:30pm. In addition to peak hour data, traffic volume and movement data will also be collected during major Prudential Center or NJPAC events. Data collection during these yet to be determined events will include pre-game, during-game, and post-game volumes and parking statistics. The traffic volume and movement data from the base year will be composited with volumes projected from the planning development using standard ITE trip generation formulas. The data collection portion of the NDCIS survey will result in two outcomes. It will provide an up to date picture of traffic, parking and pedestrian volume and movement both within the study area and at regional connection points. Relevant and up to date data will then inform the construction of a mesoscopic transportation model.

Transportation Modeling

The transportation modeling portion of the project will consist of two traffic modeling software packages, CUBE Voyager and Synchro. The CUBE Voyager model will be used first to determine trip assignments and travel patterns for the study area. The CUBE model utilizes origin-destination matrices to model existing traffic conditions throughout the roadway network. From this existing conditions base point future development and traffic growth is added which results in projected future traffic volumes. Once the CUBE Voyager modeling work is completed the output will be transferred to the Synchro model using a conversion spreadsheet. The role of the Synchro model is to provide operational characteristics such as LOS and intersection specific information such as signal timings and lane geometries. The two models both excel at different modeling functions and when taken together will allow the city to review a comprehensive package of improvements. The CUBE model allows for the removal or change of roadway links, the Synchro model provides information on intersection specific improvements such as additional lanes, traffic signals, and timing changes.

The consultant will be responsible for acquisition of the modeling software and construction of the model with input and guidance provided by the City of Newark. Once the model is in place the City of Newark will be responsible for future maintenance and operations. The modeling software and final model outputs and recommendations will be owned by the City of Newark. As part of their proposal submission, each consultant will be required to outline a model maintenance plan in their contract application submission. This plan will allow the City of Newark to keep its model up-to-date as roadway and intersection improvements are implemented. The roadway network of the model will include all the streets within the study area as well as all major access points. Geometric data to build the network may be derived from existing data sources such as a GIS platform or NJDOT straight line diagram.

The transportation models will analyze the impacts of roadway alterations in Newark's downtown core, the impacts of altering the primary corridors leading into downtown Newark, impacts of increasing capacity on parallel routes, and an analysis of traffic circulation issues throughout the downtown core and around Penn Station. The model will assign trip origins and destinations to internal and external nodes in and around the study area and to parking lot locations within the study area. It will analyze intersection and link volumes in the downtown and surrounding areas. The analysis of the model outputs, current and future development and review of best practices, using examples from peer cities, will generate recommendations on how to improve and calm traffic and circulation, increase access to parking, and provide safer streets for drivers, pedestrians, transit users and bicyclists.

The mesoscopic model will provide the following outcomes: A 2016 Base Year Scenario; Build-out Year 2025 AM; Build-out Year 2025 PM; and Build-out Year 2025 Event. These build out year models will be used to determine the impacts of new developments and roadway improvements and will form the basis of future transportation improvement recommendations.

7. Quantified Needs (MAP-21):

The first goal of the NDCIS is to collect traffic count and modal shift data. This data will support the development of a mesoscopic traffic model which will identify quantifiable transportation system needs throughout the study area. This approach to developing future

transportation improvements adheres to MAP-21's performance-based funding and decision making program. Data is at the core of the success of the NDCIS study, the City of Newark acknowledges that the best recommendations and consequently the best transportation system improvements can only come from reliable data sources. Data based study outcomes directly relate to MAP-21's goals of improving system reliability and improving freight movement and economic vitality.

8. Identification of potential Environmental Justice issues:

2008 – 2012 American Community Survey 5-Year Estimates found that 27% of Newarkers relied on public transportation for their journey to work and 8% of Newarkers walked for their journey to work. Both of these rates are substantially higher than the national average. These higher rates of walking and transit use may be driven in part by Newark's average household income and racial makeup. Newark's average household income, \$34,387, falls below national and New Jersey state averages, \$53,046 and \$71,637 respectively. Newark is also majority minority with 52% black and 33% Hispanic residents. These demographics represent groups that utilize transit at higher than average rates and have historically been marginalized in their ability to access transit options that are affordable and fairly distributed.

Newarkers reliance on walking and transit makes pedestrian and bicycle safety an important component of the NDCIS and an important environmental justice issue that the study will address. The City of Newark is currently developing a Pedestrian and Bicycle Safety Action Plan and has undergone several road safety audits with the assistance of Rutgers Center of Advanced Infrastructure and Transportation (CAIT). This prior pedestrian and bicycle safety planning work will inform and help to guide data collection and recommendations developed as part of the NDCIS.

In addition to improved pedestrian safety, transportation network improvements will serve to increase access and network redundancy. Equal and affordable access to employment opportunities can be a financial burden for some minority communities. As a city with above average concentrations of minority groups and below average household income transportation equality and access is an important issue for many citizens. Network redundancy means more transit options, more safe bike and pedestrian corridors, and reduced traffic congestion all which will facilitate faster and safer connections to employment centers.

9. Outreach methodology:

A minimum of four public meetings will be held during the course of the project. These meetings will be a time to gather community input and feedback related to recommendations being developed as part of the modeling portion of the project. Meetings may include traditional presentations and audience feedback opportunities, town hall style meetings, and more immersive data gathering exercises such as charrettes. In addition to traditional outreach methods, new technologies may be used to reach different demographic groups throughout Newark. Crowdsourcing using web or mobile phone based mapping and surveys can connect to segments of Newark's population that may be unable or unwilling to attending traditional community meetings. Efforts will be made to connect with historically underrepresented communities and major community stakeholders. Community input from the ongoing

Pedestrian Safety Action Plan community meeting will also be considered as these two projects share overlapping goals and objectives.

Four meetings with local officials and individual stakeholder groups will also be held. These meetings will ensure that stakeholder groups and relevant officials are informed of the potential project impacts and outcomes and are able to submit concerns and organization needs for consideration in the overall project process. Meetings will be scheduled before the major project tasks of data collection, modeling, analysis and the final report. Meeting ahead of major tasks will allow stakeholders and officials to add their voice and particular needs to the task process resulting in a final product that better reflects the needs of the Newark community. Potential stakeholder groups and local officials may include building owner associations, business groups, neighborhood associations, Newark Parking Authority, business improvement districts, and relevant City of Newark Departments.

10. Interim and final deliverables:

The project will produce the following deliverables:

- Final Report
 - Executive summary and conclusions
 - Newark Circulation Improvements Traffic and Parking Study
 - Identification of critical intersections and corridors in need of improvement or upgrade
 - Comprehensive multi-modal recommendations for vehicle, freight, pedestrian, and bicycle improvements
 - Implementation Plan
- Final calibrated traffic models and GIS layers
- Existing traffic conditions and future traffic analysis and simulations

11. Identify agencies and municipalities from which letters of support and active participation are required for implementation:

The Division of Traffic and Signals will select a well-qualified consultant to conduct the data gathering and analysis as well as the modeling exercises. The selected firm will work closely with a Steering Advisory Committee (SAC) whose role will be to oversee the development of a cohesive strategic plan to address the role of Parking Service and multi-modal transportation options in the Newark Downtown Area. The consultant will lead at least three Steering Advisory Committee meetings which will provide members with an overview of progress to date, outstanding issues, and an opportunity to provide feedback. The tasks of the SAC will be as follows:

- Provide guidance during the data collection, modeling, analysis and final reporting tasks
- Review all consultant work products

The Steering Advisory Committee will consist of:

- Newark Downtown District

- Ironbound Business Improvement District
- New Jersey Transit
- New Jersey Department of Transportation
- Port Authority of New York and New Jersey
- Staff from the City of Newark Department of Engineering
- City of Newark Department of Housing and Economic Development,
- NJTPA
- Essex County Department of Public Works
- Newark Parking Authority
- The City of Newark Mayor's Office
- Newark City Planning Department
- The Prudential Center
- New Jersey Institute of Technology
- Rutgers University
- Rutgers Biomedical and Health Sciences (RBHS) formerly UMDNJ
- Seton Hall
- Essex County Community College
- Berkeley College
- Blue Cross Blue Shield
- Other business leaders within the Downtown District

12. Related prior work and funding sources:

- The City of Newark funded a Newark Circulation Improvements Study (Traffic and Parking Study) in 2004-2005;
- New Jersey Transit funded a Newark Penn Station Circulation Improvements Study in 2009;
- Newark Master Plan and Mobility Element, 2012;
- Pedestrian and Bicycle Safety Action Plan, in progress

13. Anticipated future work and funding source(s):

- Newark light rail extension from Broad Street to Newark Airport – State, Federal, and FTA funding
- Intersection and roadway improvements throughout the study area – State and Federal funding
- Streetscape improvements and improved pedestrian and bicycle facilities throughout the study area – State and Federal funding
- Construction of a parking depot/ consolidation of surface parking – Private funds

Work Plan:

Task 1: Project Management

Jack Nata, Manager, City of Newark Department of Engineering, Division of Traffic and Signals will act as the project manager. Mr. Nata will oversee formation of the Steering Advisory

Committee, the creation and advertisement of the RFP, selection of the consultant, and daily consultant and staff operations. Under Mr. Nata's supervision, the Division of Traffic and Signals staff will be responsible for all quarterly reporting, consultant management, and fiscal management. To promote close coordination and communication within the team, Mr. Nata and other Division of Traffic and Signals and City of Newark staff will meet with the consultant project staff for bi-weekly coordination meetings. At these meetings project updates, significant information, and future actions will be discussed. All significant completed and future action items will be documented and submitted as part of the quarterly report and distributed to relevant team members for implementation.

The selected consultant will be required to have a project manager who holds a New Jersey Professional Planner or Engineer license. Responsibilities of the project manager include keeping the consultant team within budget and within schedule, ensuring the team adheres to the scope of work, and acting as the primary point of contact between the consultant team and the City of Newark project manager. The consultant-side project manager will provide bi-weekly updates to the project manager in the form of in person meetings or phone meetings. The consultant-side project manager will be required to provide the City with a Project Management Plan as well as monthly invoices and written progress reports.

Deliverables:

- Submission of quarterly reports

City Responsibility

- Submission of quarterly reports
- Manage project progress throughout all tasks

Consultant Responsibility

- Management of daily tasks including data collection, creation of transportation model, analysis and formulation of recommendations
- Provide bi-weekly updates to City of Newark project manager and staff
- Provide City of Newark with monthly invoices and written progress reports

Task 2: Public Outreach and Interagency Coordination

The success of the Newark Downtown Circulation Improvements Study requires a robust and comprehensive outreach plan. The consultant, in partnership with the Division of Traffic and Signals, will be responsible for conducting outreach efforts. Outreach will consist of four public meetings scheduled to take place before each project milestone. The milestones are data collection, creation of a transportation planning model, analysis, and the final report. Scheduling public meetings before each milestone will allow the consultant team to gather public input before beginning each task. As milestones progress the meetings will also be an opportunity to share project progress with members of the public. Public outreach meetings will include a feedback component such as a survey, charrette or some other method of collecting and quantifying public opinions and views.

In addition to working with members of the public, the consultant and lead project manager will form a Steering Advisory Committee (SAC), coordinate with parking lot owners and downtown businesses, and meet and collaborate with relevant governmental agencies a minimum a four times. Essex County and NJDOT both have roads in the study area which will be affected. Similarly, NJ TRANSIT operates buses, commuter rail and subway service within the study area, all of which could be impacted by the final recommendations of the project. The City of Newark maintains collaborative relationships with each of these agencies. Building on these interagency connections the city and consultant team will meet with representatives from each of these agencies throughout the project process to ensure that all effected parties are aware of the project scope and contribute to any proposed roadway or transit service changes. Clear communication of project scope and anticipated outcomes is essential to the future implementation project recommendations.

Deliverables:

- Formation of a Steering Advisory Committee
- Identification and inclusion of relevant stakeholders, governmental agencies and officials
- Four (4) public meetings
 - Meeting 1: held prior to data collection task to gather input for community identified roadways and intersections of concern.
 - Meeting 2: held after data collection prior to commencement of model task. Share results of data collection and planned model outcomes.
 - Meeting 3: held after completion of model task and prior to analysis task. Share results of model, gather community input to assist in the development of recommendations.
 - Meeting 4: held after analysis task and prior to completion of final report task. Share results of the analysis and proposed recommendations. Gather community input into relevance of recommendations, this feedback will inform the final report.
- Four (4) Steering Advisory Committee meetings
 - Meeting 1: the project will be presented to the SAC, scope of work will be presented, and overview of expectations from stakeholders and the SAC
 - Meeting 2: held prior to the data collection task. Provide guidance for the data collection, modeling and analysis tasks.
 - Meeting 3: held after completion of data collection, modeling and analysis tasks. Review all consultant work, recommend changes or improvements as necessary.
 - Meeting 4: provide guidance for final report task.
- Four (4) meetings with relevant stakeholders such as business owners, associations, governmental agencies and officials
 - Meeting 1: held prior to data collection task to gather input.
 - Meeting 2: held after data collection prior to commencement of model task.
 - Meeting 3: held after completion of model task and prior to analysis task.
 - Meeting 4: held after analysis task and prior to completion of final report task.

City Responsibility

- Play a supporting role at meetings. Assist where necessary.

Consultant Responsibility

- Plan, coordinate, advertise and run all scheduled meetings with the public, Steering Advisory Committee and stakeholders and governmental agencies.

Task 3: Data Collection

The consultant will be responsible for all data collection and acquisition, when possible the consultant should use relevant existing data from the appropriate agencies. Data to be collected will include traffic and freight statistics to be collected through traffic counts and field observations. Pedestrian statistics will be collected through field observations and targeted surveying assessing travel patterns. Transit ridership data will be acquired from existing and future NJ TRANSIT reports, and will include ridership numbers and bus frequency and volume. Parking data will be acquired from relevant sources and will include public, Newark Parking Authority, and private lots, all of which are required to keep records of parking space quantity. When possible the consultant should use relevant existing data from the appropriate agencies such as the City of Newark, NJ TRANSIT, and Newark Parking Authority. Data will be collected during AM and PM peak hours as well as during major events. The City will provide any available existing data and resources to assist with this task. Available City of Newark data includes video from 40 cctv traffic cameras, 12 radio detection cameras, various site plan applications, various traffic signal studies from site plan applications, traffic signal timings, traffic signal striping plans, and existing Synchro models.

Deliverables:

- Technical memorandum summarizing all data collected including source or collection method

City Responsibility

- Provide consultant with all relevant existing data as outlined above.
- Assist with in the field data collection and/ or collection of data via cctv traffic cameras where necessary or possible

Consultant Responsibility

- Collect or acquire all necessary data as specified by meetings, field research and consultation with City of Newark Division of Traffic and Signals staff
- Provide the City of Newark with a technical memorandum summarizing the results of all data collected

Task 4: Transportation Planning Model

The purpose of completing the transportation planning model task is exploration of future build out scenarios. Models provide visual insights and allow for many possible future scenarios to be examined. The mesoscopic traffic model will be completed by the consultant. The consultant will be responsible for procuring the appropriate software as specified above, CUBE Voyager and Synchro, and delivering final ownership of the software and model to the city. The specific software packages used, including possible updates to software already owned by the city, will be part of the proposal criteria to be reviewed and approved by the traffic engineers of the Division

of Traffic and Signals. As part of the modeling task, consultants will be required to submit a model maintenance plan which will accommodate future transportation network updates. The mesoscopic model will provide the following outcomes: a 2016 base year AM, PM, and event scenario; transportation planning tools entitled Build-out Year 2026 AM; Build-out Year 2026 PM; and Build-out Year 2026 Event. The 10 year build-out year horizon was deemed appropriate due to current ongoing developments and anticipated future developments. These build out year models will be used to determine the impacts of new developments and roadway improvements and will form the basis of future transportation improvement recommendations. Future and in-progress developments that will be included into the model and analysis include Hahne's Building, Prudential Financial, Teachers Village, Cablevision, Rutgers conversion of the former law building on Washington Square to student dorms, Springfield Market Place, and 3654 Rector. Along with these known developments it is anticipated that several more residential developments within the study area will emerge in time to be included in the circulation study. All known developments and anticipated future developments have completion dates that are within the build-out year of 2026.

Model Maintenance Work Plan:

- City of Newark Traffic Engineering staff will collaborate with the consultant on the creation of the model to understand not only the results but the mechanisms which control model functions
- The consultant will pay for and provide training relevant to model functions, inputs, outputs and updates
- Citilabs (CUBE) and Trafficware (Synchro) both offer technical support, online trainings and in person trainings. City of Newark traffic engineering staff will enroll in a minimum of one course for each software package either online or in person depending on availability and relevance

Deliverables:

- Acquire Synchro and CUBE Voyager transportation modeling software to build model
- Technical memorandum summarizing all modifications made to the transportation models, including trip generation and mode assignment assumptions, and a summary of each of the build-out year scenarios
- All GIS, metadata and other files related to the creation of the models
- Maps and other visual model outputs
Detailed summary of base year and each build out year scenario

City Responsibility

- Collaborate with the consultant on the creation of the model to understand not only the results but the mechanisms which control model functions
- Traffic engineering staff will enroll in a minimum of one course for each software package either online or in person depending on availability and relevance
- City of Newark Staff will review all consultant modeling providing comments and changes where necessary.

Consultant Responsibility

- Technical memorandum summarizing all modifications made to the transportation models, including trip generation and mode assignment assumptions, and a summary of each of the build-out year scenarios
- Provide the City of Newark with all GIS, metadata, model outputs and other files related to the creation of the models
- Provide the City of Newark with maps and other visual model outputs
- Provide City of Newark staff with relevant training in modeling software including model functions, inputs, outputs and updates
- Acquire Synchro and CUBE Voyager transportation modeling software to build model

Task 5: Analysis

Using the data collected, as well as the results of the transportation planning model, Newark's current and future downtown transportation condition will be analyzed.

A capacity analysis will be used to determine the impacts of new development on roadway improvements. The capacity analysis will include a base year model as well as future build and no build scenarios. Attention will be paid to major freight routes and access points and will attempt to mitigate negative externalities on the larger Newark transportation network.

Parking supply and demand analysis will be used to identify the location and concentration of any parking surpluses, identify areas of high parking occupancy, project future parking demands and parking sufficiency using 5 and 10 year horizons. The parking analysis will be constrained to the CBD. The intent is to quantify on and off street parking volumes. Recommendations for on street, public and private parking will inform the study in several ways. Matching parking price and availability with demand reduces congestion and discourages drivers cruising for parking. Recommending the correct level of off street parking informs future development decisions regarding land use and parking requirements. Objectives include:

- Collection of on and off street parking inventory and occupancy in the CBD
- Analysis of parking prices in relation to supply and demand
- Future parking demand projections, 5 and 10 year horizons

A circulation analysis will determine how traffic and pedestrians move throughout Newark. This analysis will evaluate the impact of pedestrian phase of signal timing on vehicular circulation, and examine ways to optimize both efficiency and pedestrian safety at signalized intersections. This analysis will pay particular attention to the area surrounding Penn Station as well as movements to and from primary access points.

Event analysis will take into consideration that Newark is home to many major attractions which draw visitors from throughout the region. These visitors arrive both by motor vehicle as well as transit. To enhance visitor experience, it is crucial to understand how major events generate traffic and pedestrian volumes as well as parking demand.

Deliverables:

- Technical memorandum summarizing;

- Roadway capacity analysis with recommendations for future build out scenarios
- Parking supply and demand analysis with recommendations for future parking needs City Responsibility
- Manage analysis process, provide consultant with feedback and comments, approve the final recommendations

Consultant Responsibility

- Provide the City of Newark with a technical memorandum consisting of objectives and deliverables listed above

Task 6: Final Report, Executive Summary and Implementation Matrix

The final report will contain the results of all the data collection, traffic modeling and analysis efforts. The report will provide recommendations for future roadway and pedestrian facility improvements. All raw data will be provided as well as any GIS maps including meta data. The report will be completed by the consultant and approved by the lead project manager before submission to NJTPA. The report will meet all NJTPA requirements. A draft document will be provided to the Division of Traffic and Signals with sufficient time for review by the Steering Advisory Committee, the lead project manager, and other relevant city agencies.

Deliverables:

- Draft Final Report and revisions, incorporating the City of Newark’s comments
 - Executive summary and conclusions
 - Newark Circulation Improvements Traffic and Parking Study
 - Identification of critical intersections and corridors in need of improvement or upgrade
 - Comprehensive multi-modal recommendations for vehicle, freight, pedestrian, and bicycle circulation and safety improvements
 - Implementation Plan
- Final calibrated traffic models and GIS layers
- Existing traffic conditions and future traffic analysis and simulations

City Responsibility

- Manage final report creation throughout. Provide feedback and comments throughout the process.
- Approve and submit final report to NJTPA

Consultant Responsibility

- Provide the City of Newark with the final report as specified in deliverables
- Provide the City of Newark with the final calibrated traffic models and GIS layers (All consultant GIS products will follow the procedures described in the NJTPA’s EGIS User Manual, specifically Appendix U3 – EGIS Quality Assurance Program. This manual can be found on the NJTPA website.)

- All identified needs and recommendations generated by the study should be entered into the NJTPA Planning Recommendations Integration Management Engine (PR!ME) by the consultant at the completion of the final report. Further information will be provided on how to do this as PR!ME is developed.
- Provide the City of Newark with existing traffic conditions and future traffic analysis and simulations

Project Schedule:

It is anticipated that this study will be completed within 18 months of its commencement, with 17 months of consultant support (see attached, detailed Project Schedule).

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FY 2016 - FY 2017 SUBREGIONAL STUDY PROGRAM						
CITY OF NEWARK						
NEWARK DOWNTOWN CIRCULATION IMPROVEMENTS STUDY						
BUDGET PLAN						
				PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	DIRECT COSTS - PERSONNEL SERVICES					
	1. SALARIES			\$ 63,050.00		
	2. FRINGE BENEFITS	0%		\$ -		
	3. LEAVE ADDITIVE	0%		\$ -		
			SUBTOTAL	\$ 63,050.00		
PART II	DIRECT NON-LABOR COSTS					
	1. SUPPLIES			\$ 3,000.00		
	2. TRAVEL			\$ -		
	3. PRINTING & REPRODUCTION			\$ 3,500.00		
	4. TELEPHONE			\$ -		
	5. POSTAGE			\$ 450.00		
	6. CONFERENCE/TRAINING			\$ -		
	7. OTHER (SPECIFY)			\$ -		
			SUBTOTAL	\$ 6,950.00		
PART III:	INDIRECT COSTS					
	INDIRECT COST ALLOCATION	0%		\$ -		
			SUBTOTAL	\$ -		
PART IV:	CONSULTANT COSTS					
	CONSULTANT			\$ 280,000.00		
			SUBTOTAL	\$ 280,000.00		
			TOTAL PROGRAM BUDGET	\$ 350,000.00	80%	20%
<p>This estimated budget is based upon projected costs to perform the work program for FY 2016-2017 as outlined in the Subregional Studies Agreement. Changes within or between Parts I, II, III & IV will be authorized upon written recommendation of the Program Director and approved by the NJTPA.</p>						
FUNDING SOURCES:						
	Federal Share:	\$ 280,000.00	Local Match:	\$ 70,000.00	Total:	\$ 350,000.00

**FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM
CITY OF NEWARK
NEWARK DOWNTOWN CIRCULATION IMPROVEMENTS STUDY
STAFFING PLAN**

Project Task Budget

Task	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
	Subregional Staff Hours	Direct Labor Costs	Direct Non- Labor Costs	Indirect Costs	Costs	Consultant Hours	Consultant Costs	Total Costs	% of Total Budget
Task 1 - Project Management	315	\$ 15,142.95	\$ 1,310.64	\$ -	\$ 16,453.59	450	\$ 49,550.00	\$ 66,003.59	19%
Task 2 - Public Outreach & Inter-Agency Coordination	148	\$ 5,868.80	\$ 954.60	\$ -	\$ 6,823.40	375	\$ 41,250.00	\$ 48,073.40	14%
Task 3 - Data Collection	255	\$ 9,993.35	\$ 1,093.87	\$ -	\$ 11,087.22	400	\$ 44,000.00	\$ 55,087.22	16%
Task 4 - Transportation Planning Model	390	\$ 15,239.00	\$ 1,423.00	\$ -	\$ 16,662.00	500	\$ 55,000.00	\$ 71,662.00	20%
Task 5 - Analysis	200	\$ 7,799.20	\$ 1,093.99	\$ -	\$ 8,893.19	420	\$ 46,200.00	\$ 55,093.19	16%
Task 6 - Final Report	230	\$ 9,006.70	\$ 1,073.89	\$ -	\$ 10,080.59	400	\$ 44,000.00	\$ 54,080.59	15%
TOTAL	1,538	\$ 63,050.00	\$ 6,950.00	\$ -	\$ 70,000.00	2,545	\$ 280,000.00	\$ 350,000.00	100%

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study <i>(based on total work hours for the year)</i>	Total Estimated Hours for Study
Beth Tanzosh - Supervising Transportation Planner	7%	257.6225
Principal Transportation Planner	5%	180
Juan Feijoo - Traffic Engineer	4%	150
Sing Wong - Traffic Engineer	13%	470
Issac Ojeda - Traffic Engineer	7%	265
Jack Nata - Manager	6%	215
TOTAL	5%	1,538

FY 2016 – FY 2017 SUBREGIONAL STUDY

**ESSEX COUNTY FREEWAY DRIVE AND STATION AREA SAFETY AND PUBLIC
REALM STUDY**

ESSEX COUNTY

Proposal Sponsor(s): Essex County Department of Public Works

Title of Proposed Study: Essex County Freeway Drive and Station Area Safety and Public Realm Study

Estimated Budget Requested (Consultant/In-House and \$ Federal/\$ Local):
\$250,000 Total (\$200,000 Federal /\$50,000 Essex County)

Anticipated Study Duration: 15 months

Executive Summary:

The study is designed to address access and circulation issues in Orange and East Orange, and around the East Orange, Brick Church and Orange train stations. Route 280, Freeway Drive East and West, and the NJT elevated rail line have divided Orange and East Orange. Access across these facilities is unsafe and difficult. These conditions are affecting the area's ability to take advantage of the transit access to Manhattan and the Hudson River Waterfront. This study will create short, medium and long term mobility improvement recommendations for the study area in order to reestablish proper access connections compatible with the surrounding urban communities, and improve the public realm around the train stations to encourage more transit supportive development.

Study Description:

Purpose & Need: The study area for this project stretches approximately two miles along Freeway Drive East and West (NJDOT owned) and Route 280 (NJDOT owned) from Lincoln Avenue (owned by Orange) to Munn Avenue (owned by East Orange). Please refer to the attached maps that depict limits of the roadway agencies jurisdictional limits. The project area also includes the areas surrounding the three NJ TRANSIT commuter rail stations within this stretch; the East Orange/Civic Plaza Station (all streets at East Orange Station area are owned by East Orange), the Brick Church Station (all streets at Brick Church Station area are owned by East Orange), and the Orange/Tony Galento Plaza Station (all streets at Orange Station area are owned by Orange). This study will not include an evaluation of Route 280, but of the surrounding area.

The purpose of the project is to develop a vision and a series of recommendations to improve mobility and to reestablish community connections, which were lost after the construction of Rt. 280 and the adjacent Freeway Drives during the 1950's. The design and construction of Rt. 280, Freeway Drive East and West, and the bridges over Route 280 neglected pedestrian access and the necessary connectivity to the NJ TRANSIT stations, resulting today in underutilized rail stations and inadequate facilities for pedestrians and bicyclists. Despite the densely developed residential and commercial areas north and south of the roadways, and the heavy pedestrian traffic in the area, the roadways are regarded as difficult for pedestrians and bicyclists to use.

Freeway Drive East and Freeway Drive West lack ADA compliant curb ramps at most intersections, and where ramps do exist, street pavement has sunken to a level where the ramps are unusable. Sidewalks and curbs are cracked or have missing chunks of cement, and there is

substantial weed overgrowth along the roadways. In addition, there are typically several pedestrian-vehicle collisions per year, and, since 2003, more than 44 pedestrians have been injured and four have been killed while crossing the Freeway Drives.

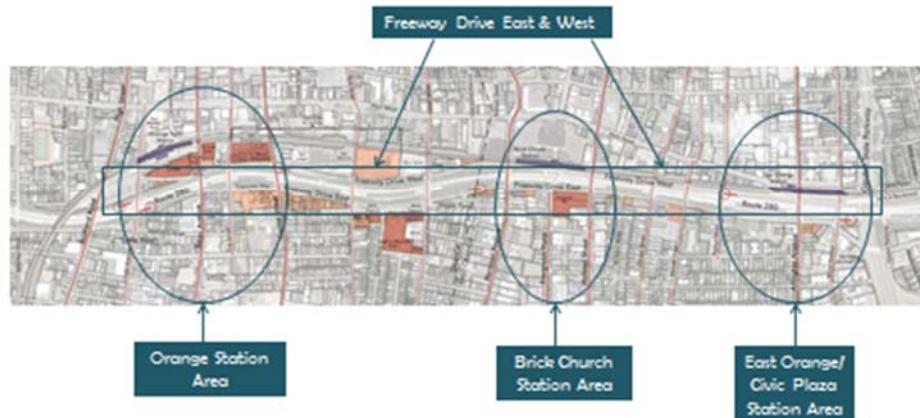
Approved redevelopment plans exist for much of the area surrounding the stations, and some redevelopment has already started to occur. However, there has been a lack of or little improvement to the public realm in these areas. This study will be looking to identify needed accessibility improvements for the areas surrounding the new development sites that are within the study limits. The goal is to establish a vision for what these areas should look like in the future, both individually and as a collection of public spaces that inter-relate to each other.

The study area was recently examined by Together North Jersey in one its first Local Demonstration Projects in 2012-13 and the NJ TRANSIT study, the Inner M & E, in 2012. One of the outcomes of the Local Demonstration Project was the formation of the Urban Essex Coalition, and the coalition will have an important advisory role in this study. That study looked at the issues affecting the communities along this stretch of the Morris and Essex Line, and concluded that a corridor-wide approach to addressing these issues would be more effective than evaluating each area separately. While each area has a distinctive set of current conditions, issues and potential solutions, a corridor-wide approach will result in local area solutions that integrate well into a single vision for the corridor. A discussion of each of the sub-areas follows.

The purpose of this plan is to develop a comprehensive vision for Freeway Drive and the areas surrounding the three adjacent stations in East Orange and Orange; the East Orange Station, the Brick Church Station and the Orange Station. The study area for this project stretches approximately two miles along Freeway Drive East and West and Route 280 from Lincoln Avenue in Orange to Munn Avenue in East Orange. The project area also includes the areas surrounding the three commuter rail stations within this stretch: the East Orange/Civic Plaza Station, the Brick Church Station, and the Orange/Tony Galento Plaza Station. The boundaries at each of these stations are:

- East Orange Station – South Walnut Street on the west, Chestnut Street on the south, Munn Street on the east, and William Street on the south.
- Brick Church Station – Oakwood Avenue on the west, William Street on the north, Halsted Street on the east, and Central Avenue on the south.
- Scotland Road on the west, the north side of Main Street on the north, South Church Street on the east, and Central Avenue on the south.

East Orange/Orange Station Areas and Freeway Drive



The plan should create recommendations for the Freeway Drives, the bridges going over Route 280 as well as improved access to the NJ TRANSIT stations. These recommendations should support the individual needs for each of the three station areas, especially connecting the station with the surrounding blocks, particularly the neighborhoods on the south side of Route 280 and Freeway Drive East and West. The recommendations should also address the primary concern in the study area, which is the safety of pedestrian and bicyclists that cross Freeway Drive and Route 280 at all of the crossings within the study area. NJDOT, Essex County and the City of Orange each have a Complete Streets policy in place, so the results of this study will support those policies.

Goals & Objectives:

- **Goal 1** - To create a safe environment in the study area for pedestrians and bicyclists.
- **Goal 2** - To recommend transportation improvements along Freeway Drive East and West based on the identity and vision for the roadway that will be decided during the study process. This new vision would also look to move vehicles efficiently in a traffic calmed environment.
- **Goal 3** - To provide better connections for pedestrians, bicyclists, and disabled between the rail stations and the surrounding communities.
- **Goal 4** - To create a new identity and vision for each of the three station areas that will build upon its unique characteristics and the tremendous access to the region's employment centers, and to include the public in the creation of this vision.

Integration with Metropolitan Planning Process:

Listed below are all of the emphasis areas this study would address, including emphasis areas from NJTPA's Regional Transportation Plan, Regional Capital Investment Strategy, the Regional Plan for Sustainable Development, Federal Emphasis Areas, New Jersey Draft State Strategic Plan, and NJDOT MPO Transportation Priorities.

- ***NJTPA Regional Transportation Plan***

- The study will identify strategies for strengthening the economic competitiveness of East Orange and Orange by creating a transit-supportive, pedestrian friendly attractive area. This would make the area more attractive for businesses to locate and a safe, more pleasant place for customers to visit. The study will also recommend improvements that will create better access to regional employment centers such as Downtown Newark, the Hudson River Waterfront, and Midtown and Lower Manhattan.
- The study will enhance the intermodal connectivity in the study area by improving access to the train stations and providing better connectivity between rail, bus and pedestrians.
- The study will recommend improvements that will make Freeway Drive East and West more safe for hundreds of commuters, senior citizens, students, and employees that cross it each day to access the rail stations, the commercial centers on Main Street, schools, and jobs.
- The study will identify strategies for strengthening the connections between the area's densely developed neighborhoods and commercial areas, and the bus and rail stations.

- ***Regional Capital Investment Strategy***

- ***Help the Region Grow Wisely*** by encouraging population, employment and economic growth in areas already developed and already well served by existing transportation infrastructure, especially established rail and bus transit systems.
- ***Make Travel Safer*** by improving conditions on and around Freeway Drive to reduce crashes between vehicles and pedestrians, by lowering speeds, improving traffic flows, and identifying pedestrian safety projects.
- ***Expand Public Transit*** by make existing rail and bus services more accessible from surrounding communities, more safe to walk to them, and more efficient transfers between modes.
- ***Improve Roads but add Few*** by greatly enhancing Freeways Drive East and West and the bridges over Route 280 for vehicles and pedestrians.
- ***Support Walking and Bicycling*** by auditing current conditions in the study area and identifying the most appropriate strategies for addressing weaknesses in the pedestrian and bicycle systems.

- **Regional Plan for Sustainable Development** – The plan will support the following Goals from the Regional Plan for Sustainable development:
 - **Grow a Strong Regional Economy** by greatly improving connections between the study area and regional employment centers in Downtown Newark, the Hudson River Waterfront, and the Manhattan Central Business District. Improved access will encourage more growth in those centers, and will encourage workers to locate in housing in the study area. Also, the study will identify strategies for economic growth in the study area’s local economy by making the commercial areas more attractive to business and customers.
 - **Create Great Places** by creating a transit supportive communities surrounding the three train stations and connecting those hubs into the existing commercial areas surrounding the stations on Main Street, and South Essex Avenue. The vision will include strategies for strengthening the area, providing opportunities for growth and job creation, and making the area more safe, accessible and pedestrian and bike friendly.
 - **Increase Access to Opportunities** by greatly improving access to rail and bus services connecting the study area to major regional employment centers in Downtown Newark, the Hudson River Waterfront and Midtown and Lower Manhattan.
 - **Work Together** by building upon the success during TNJ Local Demonstration Project, which brought together a broad range of stakeholders in Newark, East Orange and Orange to prepare the strategic plan, then created the Urban Essex Coalition for Smart Growth. The Coalition, which continues to grow, includes the three cities, universities and public, private and non-profits groups, residents, and houses of worship with an interest in seeing the area developed as a national model for smart growth.

- **Federal Emphasis Areas:**
 - **USDOT, FHWA and FTA**
 - **Models of Regional Cooperation** – The Urban Essex Coalition is a model of regional cooperation in New Jersey. The Coalition is breaking new ground in New Jersey by advancing regional needs in this transportation corridor by bringing together all of the interests to plan and implement transportation improvements. The Coalition is the mechanism for bringing the members together to address regional needs.
 - **Ladders of Opportunity** – The study will address gaps in the area’s local and regional transportation system. Improved ADA and pedestrian and bike access to rail and bus services will make it easier for residents to access jobs, recreation, education, health services, and entertainment services in the area served by the rail and bus lines.

➤ **MAP-21 Goals**

- **Safety** is the most important issue – how to make Freeway Drive East and West and the bridges over Route 280 more safe for pedestrians and bicyclists. The immediate area contains many attractions – rail stations, bus stops, municipal services, schools, jobs, restaurants, and shopping and other commercial services. Crashes involving pedestrians are high and the number of fatalities is a major concern. This has been documented by the NJTPA, and has been acknowledged by NJDOT.

➤ **New Jersey Draft State Strategic Plan**

- **Goals 1 – Targeted Economic Growth** – The study will identify strategies for strengthening the study areas commercial and retail centers, especially retail and commercial space near the stations and to increase employment in the area.
- **Goal 2 – Effective Planning for Vibrant Regions** – The study will result in a plan that outlines strategies and projects that will create vibrant, transit supportive development around the three stations. Each area has significant challenges facing it. However, there is strong interest by developers to initiate projects in the area. This planning study will evaluate the public realm that connects all of these development sites to make sure the area functions as a great public area.
- **Goal 3- Preservation and Enhancement of Critical State Resources.** The historic station buildings need rehabilitation. The study will strengthen the areas surrounding the stations, encouraging economically feasible new uses to restore and maintain them. The area also contains many historic buildings, including libraries, house of worship, municipal and civic buildings, as well as urban and suburban historic residential areas that paved the way for the 20th Century development of Essex County. A priority of this planning study will be to use these historic structures, and the history they represent to build new exciting identities and identities for the area.
- **Goal 4 – Tactical Alignment of Government** – The study area covers a wide area that includes many levels of government, including state agencies, and municipal and county governments. It also includes numerous non-profits, universities and other organizations that have a stake in redevelopment. This work will be carefully coordinated with these and others through the Urban Essex Coalition, whose expanding membership includes all of these stakeholders.

➤ **NJDOT MPO Transportation Priorities**

- ***Collaborate with NJDOT*** - NJDOT's Route 280 and Freeway Drive East and West are at the heart of this study area. All of the planning will be carefully coordinated with them to ensure that acceptable problem statements are produced, and result in recommendations that they can implement.
- ***Maintain a safe, efficient & reliable multi-modal transportation network, including Safe Corridors, and pedestrian safety initiatives*** -
While the overall goal of this study is to create a new vision and identity for the study area, the first goal is to establish safe and efficient pedestrian facilities in the study area, especially access to the three stations, the commercial areas on Main Street, and most important, along Freeway Drive East and West and on the bridges over Route 280.
- ***Promote Partnerships*** – The need for this study is being advanced through Essex County in partnership with the Urban Essex Coalition for Smart Growth, which is an organization promoting partnership between more than two dozen organizations and individuals that want to see the study area redevelop as a transit supportive, pedestrian – oriented area.
- ***Improve Traffic Operations*** – One of the main goals of this study is to improve traffic operations along Freeway Drive East and West, so it functions better with the high levels of pedestrian activity in the area. Strategies could include lowering the speed limit from 40 mph to 25 mph, reducing the number of traffic lanes from three in each direction to two, establishing a parking lane along each of the Freeway Drives, and retiming the traffic signals to support more time for pedestrians, and to support slower speed limits.
- ***Improving the approach to developing a problem statement for the study area*** – The problem statement for this area has been created by Essex County in partnership with the Urban Essex Coalition for Smart Growth. This coordination will establish a problem statement early on in the process so there is less potential for disagreement later. This will create a smoother, quicker, more efficient planning and implementation process.
- ***Maximize Opportunities for Complete Streets*** – NJDOT, Essex County and the City of Orange have adopted Complete Streets policies. The intent of this project is to define what Complete Streets would look like in the multi-modal study area, especially on Freeway Drive East and West and on the bridges over Route 280, and to establish a process for implementing it.

Regional Significance/Impact:

The proposed study will support NJTPA's regional goals by (see above for more detail about each of these):

- Encouraging safe areas pedestrians and bicyclist – reducing the number of crashes, injuries and fatalities.
- Encouraging multi- modal transportation, especially rail, bus, pedestrian and bicycle by creating safer more efficient connections between modes.
- Supporting transit use by providing better and safer connections between rail and bus services and surrounding neighborhoods.
- Supporting a better balance between land use policies and transportation initiatives by developing a comprehensive vision for the study area that would include the role of each transportation mode and recommendation for surrounding land uses to support those modes.
- Encouraging the implementation of Complete Streets on state and local roads.
- Supporting initiatives that will grow the local economy in the study area by strengthening the transportation connections, especially for pedestrians and bicyclists between Main Street and other local commercial districts and surrounding neighborhoods.
- Supporting regional economic growth by encouraging more transit supportive housing near rail and bus services that provide access to regional employment centers.
- Support the creation of partnerships between all stakeholders to plan for and implement transportation and land use solutions by including all members of the Urban Essex Coalition and other public stakeholders in the planning process.

Anticipated Methodology:

The study will consist of the following tasks:

- **Task 1 – Involve the Public**
- **Task 2 – Project Management**
- **Task 3 – Data Collection and Literature**
- **Task 4 - Create an Identity for the Streets and Public Spaces in Study Area**
- **Task 5 - Recommend Mobility and Access in the Study Area**
 - **Task 5A – Improvements that Enhance Access to and Within the Station**
 - **Task 5 B – Improved Connectivity between the Communities North and South of Route 280 and Freeway Drive East and West**
- **Task 6 – Final Report**

Quantified Needs (MAP-21):

The analysis in this study will depend heavily on data, including traffic and pedestrian counts at select locations, and the number of crashes in the study area. Much of this has been collected by others, including NJTPA, and the cities of East Orange and Orange. Some new data will have to be collected to fill in gaps and update data where necessary. The study will also rely on transit ridership counts and when available existing surveys of origins and destinations of the transit riders.

Identification of Potential Environmental Justice Issues:

The study area is largely populated by EJ low income and minority target populations. The study will be looking to improve the areas, making them safer, pedestrian and bike friendly, and easing the access to rail and bus transit services. These will be big improvements for the people living and working in the area. No negative impacts to these target populations are expected.

Outreach Methodology:

The first task of the study is to develop a unique well defined program for including the public. This would build upon the ambitious and widespread program initiated in the TNJ Local Demonstration Project. That program reached beyond traditional stakeholders to include community organizations, houses of worship and other groups with deep ties in the area. The Program would include a broad range of techniques including, but not limited to, public meetings, a web site, social media and outreach to identified groups and individuals in the study area. The program will include a schedule for how each technique will be used to coincide with elements of the project work program.

Interim and Final Deliverables:

- Task 1 - A public involvement plan
- Task 2 – Project Management Plan
 - ✓ Identify members of the Project Steering Committee and convene and support four meetings of the Steering Committee.
 - ✓ a project management plan, including project schedule,
 - ✓ a project kick-off meeting with CONSULTANT and the County of Essex,
 - ✓ Monthly project management meetings excluding telephone and email updates that may be required.
 - ✓ Continuous updating of the project schedule.
 - ✓ Preparation and submittal of monthly reports and invoices.
- Task 3 – Data Collection and Literature Search
 - ✓ A technical memorandum identifying existing obstacles and opportunities from the literature review, and the results of any new data collected in this task.
- Task 4 – Create Identity for Study Area
 - ✓ A technical memorandum documenting the public exercises, what came out of them, the overall identity being recommended for each area, and a strategy for creating it.

- Task 5- Recommend Mobility and Access Improvements for the Study Area
 - ✓ The results of the audit of the areas' transportation network, recommendations for improving the network, include concept drawings for each location where improvements are needed and costs and potential funding sources for implementation. The report should also include any counts that were taken during the audit.
 - ✓ A technical memo on the methodology and results of any spreadsheet based modeling or sketch level modeling
 - ✓ A technical memorandum documenting the impacts that Route 280 and Freeway Drive have on the study area and recommendations for addressing them.
- Task 6 – Draft and Final Report
 - ✓ A final Report
 - ✓ A summary easy-to-read plan for distribution to the public

Identify agencies and municipalities from which letters of support and active participation are required for implementation:

- ✓ NJDOT
- ✓ NJ TRANSIT
- ✓ City of East Orange
- ✓ City of Orange
- ✓ County of Essex

Related prior work and funding sources:

- ✓ Together North Jersey completed the Urban Essex Coalition Strategic Plan in 2013. That plan described the corridor, recommended the creation of the Coalition, and made some recommendation from changing the visons for Freeway Drive and the station areas.
- ✓ The Muirs-Berkeley Area Redevelopment Plan – March 2014
- ✓ 20/30 Evergreen Redevelopment Plan in the Transit Village Overlay – June 1997
- ✓ The Evergreen Square District Redevelopment Plan – June 2012
- ✓ Lower Main Street Redevelopment Plan – April 2004
- ✓ Lower Main Street Phase II Redevelopment Plan – April 2004
- ✓ North Walnut Street Redevelopment Plan – December 2003
- ✓ Central Orange Redevelopment Plan - November 2003

- ✓ Heart of Orange Neighborhood Plan – April 2010
- ✓ Reock Street Redevelopment Plan – December 2011
- ✓ Traffic Impact Study for Tony Galento Plaza – April 2011
- ✓ City of East Orange Walkable Community Workshop – 2011
- ✓ Freeway Drive Traffic Study and Safety Evaluation – 2011
- ✓ These were funding with a variety of federal, state and local sources.

Anticipated future work and funding source(s):

- a. Upon completion of this study the stakeholders will work to identify potential funding sources for design and construction of the recommendations. Since the project's recommendations will affect state and local roads funding sources will vary. Possible sources could include USDOT, State sources, local capital programs and possible joint ventures with private sources.

Work Plan:

- **Task 1 –Public and Stakeholder Involvement** – A key part of this project is to actively involve the public in each step in the creation of the area’s vision. The public will play a big role in creating a vision for the area and to identify issues that should be addressed in this study. There are many segments of the public to consider, including residents, business owners, employees, developers, shoppers, and all other groups using the area. The consultant will create and implement a program for involving the public through the entire study. The program should include, but not necessarily be limited to, a minimum of two public open houses and two public information sessions, a minimum of 10 individual meetings with key stakeholders, including a minimum of three presentations to municipal and county officials, an interactive web site, and social media. The County’s project manager will lead the outreach activities with the support of the CONSULTANT. The CONSULTANT will provide all support activities for each outreach mechanism, including staffing and preparing for public meetings, preparation of meeting material, preparation of meeting minutes, attending the individual meetings, creating and maintaining the web site, and overseeing all the social media activities.

The CONSULTANT will create a Project Steering Committee with representatives of key interests in the study area, including the two municipalities, County of Essex, and key members of the Urban Essex Coalition for Smart Growth, and representatives from NJ TRANSIT and NJDOT. The Steering Committee’s role will be advisory, providing advice to the County’s project manager and the CONSULTANT on a regular basis. Also, the Steering Committee will include all of the jurisdictions that will be responsible for implementing the study’s recommendations. This will ensure that all of the jurisdictional agencies are included in developing the recommendations. The CONSULTANT and the project manager will work together to develop a roster of and convene the Steering Committee.

Product: The CONSULTANT shall provide a plan for involving the public – approved by the project manager - meeting minutes, meeting materials, and maintenance of the web site. The CONSULTANT shall identify members of the Project Steering Committee and convene and support four meetings of the Steering Committee. In addition, the County will lead the outreach activities with the support of the CONSULTANT implementing a program that includes the following:

- b. A minimum of two public open houses and two public information sessions*
 - c. A minimum of 10 individual meetings with key stakeholders, including a minimum of three presentations to municipal and county officials*
 - d. An interactive website and social media*
- **Task 2 – Project Management** – The CONSULTANT, in conjunction with the County’s project manager, will create a plan for managing the project to ensure it’s done on time and within budget. The project management plan will include development and adherence to a project schedule, approximately of 15 months in duration, as well as schedule for meeting with the project manager and Steering Committee at key points in the study.

The County will manage the day to day activities of this study. These activities include, but are not limited to, the consultant selection process, contract negotiations and processing of consultant invoices. Other county work associated with this task will include the preparation and submission of the quarterly invoices and progress reports and any other documentation required by the North Jersey Transportation Planning Authority.

Product –

- ✓ *a project management plan, including project schedule,*
 - ✓ *a project kick-off meeting with CONSULTANT , the County of Essex, and NJTPA,*
 - ✓ *Bi-weekly project management meetings, with agenda and meeting minutes, excluding telephone and email updates that may be required.*
 - ✓ *Continuous updating of the project schedule.*
 - ✓ *The County will prepare and submit eight (8) quarterly reports, invoices and all other documentation required by the North Jersey Transportation Planning Authority.*
- **Task 3 – Data Collection and Literature Review** – the CONSULTANT will review all existing reports, plans, policies, guidelines, and studies, including but not limited to the list below. The CONSULTANT, in consultation with the project manager, will analyze and identify information that is beneficial to the advancement of the plan.
 - Together North Jersey Urban Essex Coalition Strategic Plan – 2013.
 - The Muirs-Berkeley Area Redevelopment Plan – March 2014
 - 20/30 Evergreen Redevelopment Plan in the Transit Village Overlay – June 1997
 - The Evergreen Square District Redevelopment Plan – June 2012
 - Lower Main Street Redevelopment Plan – April 2004
 - Lower Main Street Phase II Redevelopment Plan – April 2004
 - North Walnut Street Redevelopment Plan – December 2003

- Central Orange Redevelopment Plan - November 2003
- Heart of Orange Neighborhood Plan – April 2010
- Reock Street Redevelopment Plan – December 2011
- Traffic Impact Study for Tony Galento Plaza – April 2011
- City of East Orange Walkable Community Workshop – 2011
- Freeway Drive Traffic Study and Safety Evaluation – September 2011
- Essex County Comprehensive Transportation Plan 2014
- Essex County Complete Streets Implementation Plan - 2014

The CONSULTANT will undertake an audit of the areas’ pedestrian and bicycle network. The CONSULTANT will also collect any new data that will be needed to complete this study, including rail ridership counts and surveys, pedestrian counts, and traffic counts and crash data. This data will help direct the analytical tasks in this study. The consultant shall conduct sufficient traffic counts to support analysis to any changes to traffic circulation. Pedestrian counts shall be conducted at all crosswalks within the study area leading to the train stations, or crossing Freeway Drive. Counts would be taken during one peak travel hour only.

Deliverable: The CONSULTANT will produce a technical memorandum summarizing all data collected, the results of the audit of the transportation network, and identifying existing obstacles and opportunities from the literature review.

- **Task 4 - Create an Identity for the Streets and Public Spaces in Study Area -** Undertake a “placemaking” exercise to define the area in a way the area’s identity becomes more familiar and well known. The area’s identity should reflect the area’s many assets, including its history and historic buildings, arts and culture, the train stations, the commercial and retail areas, the Cicely Tyson School, the Civic buildings, potential redevelopment areas, and any important assets uncovered during the public outreach. This will be done by the consultant conducting a charrette or other equivalent mechanism approved by the county.

Product –

- ✓ *The consultant will produce a technical memorandum documenting the public outreach efforts’ street and public space branding/identity exercises and the recommendations which best promote the goals of the plan.*
 - ✓ *The consultant will lead one public participatory placemaking exercise, such as a public charrette or other equivalent activity.*
- **Task 5 - Recommend Mobility and Access Improvements in the Study Area**
 - **Task 5A – Improvements that Enhance Access to and within the Station Areas -** An important goal of this study is create better connections within the study area, better connections from the study area to surrounding communities, and to make the study area safer for the many pedestrians and bicyclists that travel in the area. There is heavy pedestrian traffic partially due to the low car ownership rates in the area, the train stations, the many retail centers, schools, and the civic buildings such as the Municipal

Building the municipal courts and the public library. The CONSULTANT will prepare a series of recommendations for addressing shortfalls in the network that improve access to and within the area and reduces safety concerns. The recommendations should include cost estimates for implementing them. The audit should include a review of all facilities in the study area, especially those that provide access to the station, the two schools, surrounding retail areas – Main Street and South Essex. Also, the audit should include the collection and analysis of necessary traffic, pedestrian and bicycle counts, as needed to support the recommendations. The recommendations should include concept drawings that are realistically feasible, and are applicable to the locations where improvements are needed, and preliminary cost estimates.

If any new recommendation for roadway improvement is proposed that changes the roadway capacity or circulation pattern that was not previously analyzed for traffic impacts, a minimum of a spreadsheet based model or sketch level model will be undertaken by the consultant to demonstrate that no detrimental effects would occur upon implementation of the proposed improvement.

Product – The consultant shall provide the following products:

- ✓ *A technical memo containing recommendations for improving the network, include concept drawings for each location where improvements are needed and costs and potential funding sources for implementation.*
 - ✓ *The report should also include any counts or relevant data that is collected during the audit.*
 - ✓ *A technical memo on the methodology and results of any spreadsheet based modeling or sketch level modeling.*
-
- **Task 5 B – Improved Connectivity between the Communities North and South of Route 280 and Freeway Drive East and West** - While this task involves recommending improvements to the area’s transportation networks, it’s a separate task because it is so important to the area. Route 280 and Freeway Drive create an enormous physical, visual and psychological gap right through the middle of the study area. Combined with the elevated NJ TRANSIT rail line, the separation significantly affects the area’s public spaces. It functions as several separate areas rather than an integrated community. It also creates unsafe conditions for pedestrians trying to cross through the area. The CONSULTANT will evaluate the effects that Route 280 and Freeway Drive have on the study area, and recommend strategies for addressing them. It’s expected that the recommendations could include a broad range of strategies including simple improvements like improved crosswalks to more substantial recommendations. The recommendation should be presented in a way that recognizes financial and engineering constraint but allows for a long term substantial improvement of the area. Recently finalized traffic engineering studies are available for the development of recommendations.

Product – The consultant shall provide a technical memorandum documenting the impacts that Route 280 and Freeway Drive have on the study area and recommendations for addressing them.

- **Task 6 – Final Report – The CONSULTANT will prepare a final report documenting Tasks 1 through 6 and all the input derived throughout the study.** The final report will outline the proposed improvements for the study area, document all the work that was done, and recommend strategies for addressing the area’s issues. The final report should include detailed steps that should be taken over the next five to ten years to improve the area. The final plan will also include recommended changes to the transportation elements of each of the master plans of Orange and East Orange. The final report should also include text that can be used to create a problem statements that either identified transportation facility owner can use to advance projects.

Product –

- ✓ *The CONSULTANT will prepare a draft final report to be reviewed by the project manager, the Steering Committee, NJTPA, and other stakeholders. The report will include an executive summary, introduction, discussion of study methodology and findings and recommendations.*
- ✓ *The CONSULTANT will revise the draft final report and prepare a final report.*
- ✓ *The CONSULTANT will deliver 20 hard copies and a digital copy of the final report.*
- ✓ *The CONSULTANT will provide digital copies of all presentation materials developed during the project; the final report will follow NJTPA reporting guidelines. All data, including images, raw data from surveys, derived GIS layers, will be provided to Essex County.*

All consultant GIS products will follow the procedures described in the NJTPA’s EGIS User Manual, specifically Appendix U3 – EGIS Quality Assurance Program. This manual can be found on the NJTPA website.

All identified needs and recommendations generated by the study should be entered into the NJTPA Planning Recommendations Integration Management Engine (PR!ME) by the consultant at the completion of the final report. Further information will be provided on how to do this as PR!ME is developed.

- ✓ *The CONSULTANT will also prepare a short, reader-friendly synopsis of the plan for wider public distribution that is easy for the general public to understand.*
- ✓ *The CONSULTANT will deliver 100 copies of the summary plan and one digital copy.*

Project Schedule:

It is anticipated that this study will be completed within 15 months of its commencement, with 15 months of consultant support (see attached, detailed Project Schedule).

Contact Information:

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**FY 2016 - FY 2017 SUBREGIONAL STUDY PROGRAM
ESSEX COUNTY
ESSEX COUNTY FREEWAY DRIVE & STATION AREA SAFETY & PUBLIC REALM STUDY
BUDGET PLAN**

			PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	DIRECT COSTS - PERSONNEL SERVICES				
	1. SALARIES		\$ 29,907		
	2. FRINGE BENEFITS	45%	\$ 13,493		
	3. LEAVE ADDITIVE	22%	\$ 6,600		
	SUBTOTAL		\$ 50,000		
PART II	DIRECT NON-LABOR COSTS				
	1. SUPPLIES		\$ -		
	2. TRAVEL		\$ -		
	3. PRINTING & REPRODUCTION		\$ -		
	4. TELEPHONE		\$ -		
	5. POSTAGE		\$ -		
	6. CONFERENCE/TRAINING		\$ -		
	7. OTHER (SPECIFY)		\$ -		
	SUBTOTAL		\$ -		
PART III:	INDIRECT COSTS				
	INDIRECT COST ALLOCATION		\$ -		
	SUBTOTAL		\$ -		
PART IV:	CONSULTANT COSTS				
	CONSULTANT		\$ 200,000		
	SUBTOTAL		\$ 200,000		
	TOTAL PROGRAM BUDGET		\$ 250,000	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2016-FY 2017 as outlined in the Subregional Studies Agreement. Changes within or between Parts I, II, III & IV will be authorized upon written recommendation of the Program Director and approved by the NJTPA.

FUNDING SOURCES:

Federal Share:	\$ 200,000	Local Match:	\$ 50,000	Total:	\$ 250,000
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**FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM
ESSEX COUNTY
ESSEX COUNTY FREEWAY DRIVE & STATION AREA SAFETY & PUBLIC REALM STUDY
STAFFING PLAN**

Project Task Budget

Task	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
	Subregional Staff Hours	Direct Labor Costs	Direct Non-Labor Costs	Indirect Costs	Costs	Consultant Hours	Consultant Costs	Total Costs	% of Total Budget
Task 1 - Involve the Public	120	\$ 7,523	\$ -	\$ -	\$ 7,523	90	\$ 15,750	\$ 23,273	9%
Task 2 - Project Management	110	\$ 7,013	\$ -	\$ -	\$ 7,013	85	\$ 14,850	\$ 21,863	9%
Task 3- Data Collection & Literature Review	100	\$ 6,198	\$ -	\$ -	\$ 6,198	100	\$ 17,500	\$ 23,698	9%
Task 4. Identity Creation	115	\$ 7,271	\$ -	\$ -	\$ 7,271	163	\$ 28,525	\$ 35,796	14%
Task 5.A - Station Access Recommendations	115	\$ 7,271	\$ -	\$ -	\$ 7,271	300	\$ 52,500	\$ 59,771	24%
Task 5 B - Rt. 280 /Freeway Drive Access Recommendations	110	\$ 7,018	\$ -	\$ -	\$ 7,018	300	\$ 52,500	\$ 59,518	24%
Task 6- Final Report	121	\$ 7,706	\$ -	\$ -	\$ 7,706	105	\$ 18,375	\$ 26,081	10%
TOTAL	791	\$ 50,000	\$ -	\$ -	\$ 50,000	1,143	\$ 200,000	\$ 250,000	100%

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study <i>(based on total work hours for the year)</i>	Total Estimated Hours for Study
David Antonio, Supervising Planner	7%	275
Nick Bonavita, Planning Aide	7%	275
Sara Pena, Planning Aide	6%	241
TOTAL	6%	791

FY 2016 – FY 2017 SUBREGIONAL STUDY

MONMOUTH COUNTY TRAVEL DEMAND MODEL

MONMOUTH COUNTY

Proposal Sponsor(s): Monmouth County Division of Planning

Title of Proposed Study: Monmouth County Travel Demand Model

Estimated Budget Requested (Consultant/In-House and \$ Federal/\$ Local): \$400,000
(Consultant, Federal \$320,000/Local \$80,000)

Anticipated Study Duration: 24 Months

Executive Summary:

Monmouth County is transitioning from an era of suburbanization and expansion to one of population stabilization (2000 population: 617,127; 2010 population: 629,384) and a focus on sustainability. The vision statement in the current update to the County Master Plan refers to this as a “new era of redevelopment, revitalization, and rediscovery.” To that end, Monmouth County seeks to develop a Travel Demand Model (TDM) that will, among other things, be instrumental in identifying and prioritizing capital improvement projects. The Monmouth County TDM will build upon the Ocean County TDM to create a joint TDM.

Further, Monmouth County feels that a joint TDM that encompasses both Monmouth and Ocean Counties would serve to best accommodate both counties by taking a regional approach to TDM development. Monmouth and Ocean share some similar characteristics with regards to the seasonal nature of the travel demand placed on the region, making a joint TDM effort a logical approach. A joint TDM moves the NJTPA region closer to some specific Goals and Objectives outlined in the Regional Plan for Sustainable Development.

NJTPA’s existing TDM, North Jersey Regional Transportation Model-Enhanced (NJRTM-E), provides a regional tool but is not refined enough to serve at the County level. The joint Monmouth and Ocean TDM would build on NJRTM-E, utilizing the same software to refine the model down to incorporate all County-level and critical local-level roads. Once the TDM is established and validated, this project will also allow for training courses and manuals for County personnel as well as an initial subscription to the necessary software (CUBE Base and Cube Voyager as used by NJRTM-E). The County has also identified potential funds for maintenance of a subscription to Cube software beyond the scope of this particular project; the County’s goal is to utilize and maintain the TDM in the long term in order to achieve the following objectives:

- Provide information to help with identifying and prioritizing capital improvement projects
- Strengthen NJTPA’s regional NJRTM-E model
- Model impacts of proposed development and redevelopment projects on the existing transportation network

- Confirm findings established in developer traffic studies
- Evaluate impacts of proposed land use modifications
- Provide useful ongoing input into the Monmouth County Master Plan

Study Description:

1. Purpose & Need:

As Monmouth County enters an era of redevelopment, revitalization, and rediscovery it will be crucial to undertake any future planning and engineering projects armed with the most accurate and advanced information possible. There are numerous factors unique to the County that make the development of an effective TDM prudent:

- presence of a population of commuters (93,614) who work in New York City and northern New Jersey; this represents 31% of Monmouth County's 300,000 workers
- a road network that includes 1,000 lane miles of County roads and 980 bridges (not all bridges are along County roadways)
- access to the NJ TRANSIT North Jersey Coast line, which averages 10,000 boardings per average weekday at the 14 stops in Monmouth County
- increasing ridership on commuter and local NJ TRANSIT bus network
- two ferry providers (NY Waterway and Seastreak) whose facilities are operating at or over capacity
- various seasonal destinations: shore area, high end shopping outlets, a vibrant and busy Monmouth Park System, Allaire State Park, Monmouth Park Race Track, Great Adventure, and more
- major redevelopment efforts, including Fort Monmouth

Rather than focusing solely on a Monmouth County TDM, however, a more regional approach better fits the purposes of this project. As such, a joint effort between Monmouth and Ocean Counties will be the scope of this effort. A partnership with Ocean County will allow Monmouth to develop an effective TDM that truly considers the unique seasonal nature of the region and best serves the goals and objectives of the Subregional Studies Program.

2. Brief Description of Project Scope:

Monmouth County seeks to use this opportunity to fund a consultant-aided effort to develop a regional TDM that can be tailored specifically to meet the shore region's needs. This effort will seek to build upon and refine NJRTM-E down to a level that is validated at the Monmouth and Ocean County level. Once that is accomplished this project will also have programmed into it the following:

- Initial cost of software purchase
- At least one software training session for relevant staff
- any traffic counts necessary to incorporate into the model

Building on NJRTM-E will benefit Monmouth County, Ocean County, and the entirety of the NJTPA region; once the model is developed it can be used by NJTPA and its subregions to analyze projects that are regional in scope. Once completed, this model can allow Monmouth County and Ocean County to work together in planning for their specific region, and potentially be used in conjunction with those from other subregions to the benefit of the entire NJTPA region.

3. Goals & Objectives:

Goal: To have, at the conclusion of this effort, an operating TDM that is tailored to Monmouth County's and Ocean County's needs, and which can be implemented to help plan more efficiently at both local and regional levels.

Objective: Consider all modes of transportation.

Objective: Consider existing conditions and be able to accurately as possible forecast future conditions and their impacts on the proposed infrastructure improvements.

Objective: Develop a model that can be acclimated to different conditions (peak summer travel vs. winter conditions, etc.).

4. Integration with Metropolitan Planning Process:

The Monmouth and Ocean Counties TDM would build on NJTPA's existing NJRTM-E model, using the same software. Once completed the model would interface with NJRTM-E, as well as those other subregions that have developed county-level or city-level TDMs.

The objectives stated above in the executive summary directly address the targeted roadway strategies identified in page 54 of NJTPA's Regional Transportation Plan (RTP):

Improve Operation of Roadways, Intersections, and Interchanges: This can include signalization, signage upgrades, intersection geometry modifications, lane and shoulder widening, channelization, restriping, and new turning or acceleration/deceleration lanes, full grade separation, or roundabouts.

Address critical "missing links" in the transportation system that benefit travelers and freight and reduce congestion and air pollution.

Manage Roadway Access: Improving the location, spacing and design/operation of driveways, median openings and street connections, and coordinated planning of adjacent land uses as called for in the state Highway Access Code.

Implement Intelligent Transportation Systems and Incident Management: Technological improvements can be used to improve traffic flow, lessen the impacts of incidents such as vehicle breakdowns or crashes, and provide real time information to help drivers speed their trips by changing routes or modes in response to congestion or incidents.

5. Regional Significance/Impact:

Development of a joint TDM for Monmouth and Ocean Counties will allow for a more informed foundation on which to base future planning and engineering efforts and greater efficiency in the use of the existing network countywide and beyond the TDM study area as well as select and prioritize locations requiring improvements, and determine/predict the effectiveness of those proposed improvements.

A joint TDM clearly moves the NJTPA region closer to some specific Goals and Objectives outlined in the Regional Plan for Sustainable Development:

- **Goal 1: Grow a Strong Regional Economy**
 - *Ensure infrastructure (transportation, utilities, and communications) is in good repair, can support economic development and is resilient to extreme weather.*

The TDM will ensure that the transportation infrastructure is in good repair by providing data on changes in traffic patterns as a result of capital projects, by modeling impacts of proposed development and redevelopment, and by assisting in the evaluation of impacts of proposed land use modifications.

- **Goal 3: Increase Access to Opportunity.**
 - *Connect where people live with where they need to go.*

It is anticipated that the TDM will allow for an improved understanding of the behaviors of the transportation network. This knowledge will allow planners and engineers to make the transportation network operate more efficiently, which will be to the benefit of users of all modes of transportation.

- **Goal 4: Protect the Environment.**
 - *Improve air quality and reduce emissions that contribute to climate change.*
 - *Increase ability to respond to and recover from extreme weather events.*

The TDM will empower both Counties to better plan for emergency events that may require detours, evacuations, and recover efforts.

- **Goal 5: Work Together.**
 - *Foster collaboration among levels of government and provide a regional framework for making decisions about growth and investment.*

A joint TDM between Monmouth and Ocean Counties represents a collaborative effort between two subregions with similar characteristics unique to the NJTPA region. The data generated by the TDM will be available for incorporation into NJTPA's models and planning processes.

6. Anticipated Methodology:

This project will consider best practices and how to implement them in Monmouth and Ocean Counties. Ocean County is currently in development of a County-wide TDM. The data and expertise accrued as that project (anticipated completion date Spring 2015) will help to serve as a foundation for the development of the Monmouth and Ocean Counties TDM. Ocean County's experience in developing a TDM (which is state of the art and interfaces directly with NJRTM-E) will serve as guidance for each step of the project. It is anticipated that this project will be executed over five tasks:

- **Task 1: Project Management**
Anthony Gamallo will serve as Project Manager for Monmouth County for the duration of this effort. Monmouth County will coordinate meetings, develop schedules in coordination with NJTPA, maintain clear contact with the consultant to ensure the project is on schedule and within budget, and provide all required financial reports for NJTPA.
- **Task 2: Develop TDM**
The consultant shall work to develop the smaller Traffic Analysis Zones (TAZ) required to develop the model. The model will interface directly with NJTPA's existing NJRTM-E model.
- **Task 3: Data Collection**
The consultant will access prior traffic count data accumulated by Monmouth County, as well as all data accumulated in the development of the Ocean County TDM. Monmouth County will provide 20-30 new traffic counts, as well as all relevant prior studies and plans.
- **Task 4: Model Validation**
Validation of the model will be achieved by comparing actual observed data against results produced by the TDM. Data provided by both Counties in Task 3 will provide the basis for the analysis carried out in this task. While Ocean County will be involved throughout each step of the process, it is anticipated that this is the task that will most heavily lean on their experience and require their guidance.
- **Task 5: Software Purchase, Training, and Manual**
Upon validation of the TDM, rigorous training will be provided to select staff over several sessions. The required software will be purchased, and a manual specific to this project will be developed for use by staff.

7. Quantified Needs (MAP-21):

The needs for the Monmouth Travel Demand Model include:

- Gaining a better understanding of travel patterns throughout the County

- As funding opportunities become scarcer, planners and engineers need this tool to be able to maximize the functionality of the existing network
- Gaining a better understanding of where service levels need to be improved
- Empowering the County to plan for a more efficient use of all modes of the transportation network, which would have a positive effect on members of every demographic and socioeconomic group

Data will be collected to help identify potential solutions. A list of the data to be quantified during this project includes, but will not be limited to:

- County traffic counts and other applicable road data
- TAZ household characteristics and employment information
- NJ TRANSIT ridership
- Ferry ridership
- NJTPA's 2040 Forecast
- 2010 Census data
- Trip interchanges between major areas
- Aggregate volume-to-count ratio
- Volume-to count by roadway type
- Screenline analysis
- Comparisons with travel patterns from the latest NJTPA Household Survey and Census Journey to Work data
- Average speed by roadway type and area type
- Average trip length

8. Identification of potential Environmental Justice issues:

As the TDM is used to ascertain more efficient route possibilities, construction detour scenarios, and emergency situations, the resulting data could lead to less VMT, shorter construction delays/detours, and a generally more efficient use of the transportation network.

9. Outreach methodology:

The County anticipates discussing this project at every stage at public meetings of the Monmouth County Planning Board and Monmouth County Transportation Council, appropriate Ocean County boards and councils, as well as through scheduled Technical Advisory Committee (TAC) meetings.

A TAC of experts and stakeholders will be assembled. The TAC will oversee work and provide input to support the project managers from both the County and consultant. Members of the TAC may represent, but are not limited to, the following organizations:

NJTPA
NJ TRANSIT

NJ Department of Transportation
Meadowlink Transportation Management Association
NY Waterway
Seastreak Ferry
Academy Bus
Ocean County Planning and Engineering Staff
Monmouth County Planning and Engineering Staff

10. Interim and final deliverables:

The consultant will produce the following deliverables:

- Project schedule
- Bi-weekly (at minimum) conference call between Monmouth County Project Manager and Consultant Project Manager (at minimum)
- Meeting agendas, handouts, presentations, and minutes
- Monthly progress reports, schedule updates, and corresponding invoices
- Final progress report and invoice with release clause to be submitted 30 days from close of project
- Development of the TDM component
- Technical Memorandum detailing the design of the TDM
- Technical memorandum documenting and synthesizing all traffic count data acquired, as well as a database with all relevant supporting data
- TDM Validation
- Technical Memorandum fully outlining validation and testing process
- Purchase of one license each of Cube Base and Cube Voyager
- On-site training for appropriate staff
- Software training manual (tailored specifically for using software with TDM)

11. Identify agencies and municipalities from which letters of support and active participation are required for implementation:

List includes but is not limited to: NJ TRANSIT, NJ Department of Transportation, Academy Bus, NY Waterway, Seastreak

12. Related prior work and funding sources:

Monmouth County is currently updating its Master Plan; the update will be concluded by the time this particular project kicks off. Along with the Master Plan there are numerous regional and corridor studies from which this project will draw information. Previous projects which may be drawn upon for this effort will include but not be limited to:

- Monmouth County Master Plan
- Ocean County Travel Demand Model
- All relevant documents used in development of Ocean County TDM
- Monmouth County Road Plan

- Monmouth County Bicycle Map
- Monmouth County Bus Rapid Transit Feasibility Study
- Monmouth County Coastal Evacuation Routes Study
- Western Monmouth County Route 537 Corridor Study
- Coastal Monmouth Plan
- Bayshore Region Plan
- Panhandle Region Plan
- Traffic counts performed by Monmouth County within the past 5 years

13. Anticipated future work and funding source(s):

Monmouth County and Ocean County anticipate using this TDM as a tool that will be used to achieve the following objectives:

- Identify and prioritize capital improvement projects
- Strengthen NJTPA's regional NJRTM-E model
- Model impacts of proposed development and redevelopment projects on the existing regional transportation network
- Confirm findings established in developer traffic studies
- Evaluate impacts of proposed land use modifications
- Provide useful ongoing input into the Monmouth County Master Plan

Work Plan:

Task 1: Project Management

A clear and efficient line of communication shall exist between the consultant and the Project Manager throughout the duration of this project.

Shortly after the consultant is selected, a kickoff meeting shall be held at the Monmouth County Division of Planning. At this kickoff meeting the consultant shall provide a comprehensive project schedule clearly denoting when all meetings and deliverables will be produced. This schedule shall be reviewed and updated regularly throughout the course of the project.

Coordination of meetings and development of all materials for them shall be the responsibility of the consultant. These materials include but are not limited to meeting agendas, Power Point presentations, handouts, and minutes. In addition, the consultant's project manager shall be available to discuss the project bi-weekly via conference call. The purpose of this call shall be to keep the Project Manager updated and assist with keeping the project focused, on budget, and on schedule.

The consultant shall provide a monthly progress report and progress schedule indicating percentage of work completed; these shall coincide with a monthly invoice. Progress reports shall include all ongoing and completed tasks, percentage of work completed (total and by task), deliverables completed in the prior month and to be performed in the next billing period, meetings, actions required by the Counties, and status of schedule and budget.

The consultant will familiarize themselves with NJRTM-E and Ocean County's recently completed Travel Demand Model in order to build off these existing conditions in the Monmouth model.

Ocean County and the consultant will collaborate throughout the project as necessary.

Anticipated Deliverables -

- The County Project Manager and the Consultant will participate in bi-weekly (at minimum) conference calls
- The County Project Manager and the Consultant will provide monthly progress reports, schedule updates, and corresponding invoices
- Consultant will manage project schedule
- Consultant will provide meeting agendas, handouts, presentations, and minutes
- Consultant will provide final progress report and invoice with release clause to be submitted 30 days from close of project

Task 2: Develop County-level TDM

The TDM shall build upon and refine NJRTM-E, NJTPA's existing TDM, down to the Monmouth and Ocean County level. The TDM will be built using Ocean County's newly completed TDM as a base, and thus will directly interface with NJRTM-E such that the TDM can incorporate regional considerations, factor in those areas immediately bordering Monmouth and Ocean, take into account seasonal considerations, etc.

Like NJRTM-E, the TDM shall be the standard four step model:

- Trip generation
- Trip distribution
- Mode choice
- Trip assignment

Smaller Traffic Analysis Zones (TAZ) will be developed in order to go beyond the existing NJRTM-E model to include all county-level and important local-level roads in Monmouth and Ocean into the TDM. In addition, consultant will check transit network for completeness and create a finer highway network within Monmouth County.

Anticipated Deliverables – The consultant shall provide the following deliverables:

- Development of the TDM component
- Technical Memorandum detailing the design of the TDM

Task 3: Data Collection

The consultant shall have access to all available traffic counts conducted by Monmouth County within the last 5 years. The consultant shall also have access to all relevant corridor and regional studies conducted by Monmouth County. The consultant shall obtain relevant traffic count data from NJDOT and the 53 municipalities within Monmouth County. Based on this data the consultant shall recommend 20-30 locations where Monmouth County shall carry out any additional needed traffic and turning movement counts.

The consultant will perform similar data collection in Ocean County, using the newly completed Ocean County TDM as the base for all work. No new traffic counts will be needed in Ocean County.

Anticipated Deliverables – The consultant shall provide the following product:

- A technical memorandum documenting and synthesizing all traffic count data acquired, as well as a database with all relevant supporting data

Task 4: Model Validation

Initially as part of this task, the consultant shall generate a database of existing observed traffic volumes and patterns throughout the County. It is during this task in particular that the previously validated Ocean County TDM will be integral to this project. The validation processes used to develop the Ocean County TDM will be consistent with those used to validate this bi-County TDM. In addition, the seasonality adjustment component that was developed for the Ocean County TDM will be incorporated in this model. This database shall be comprised of data collected from sources including but not limited to:

- County traffic counts and other applicable road data
- TAZ household characteristics and employment information
- NJ TRANSIT ridership
- Ferry ridership
- NJTPA's 2040 Forecast
- 2010 Census
- Academy Bus ridership

The consultant shall then review the model estimates for the data listed above. Validation checks shall be conducted for all of the following:

- Trip interchanges between major areas
- Aggregate volume-to-count ratio
- Volume-to count by roadway type
- Screenline analysis
- Comparisons with travel patterns from the latest NJTPA Household Survey and Census Journey to Work data
- Average speed by roadway type and area type

- Average trip length

This process shall be conducted for each of the four components of the TDM:

- Trip generation
- Trip distribution
- Mode choice
- Trip assignment

Where significant variation exists between the actual observed travel data and the estimated (by the TDM) travel data, the consultant shall make the necessary refinements to the model parameters (network coding, socioeconomic data, etc.) until the model estimates are accurate and the TDM can be considered “validated”.

After the TDM is validated, the consultant shall conduct sensitivity checks to test the TDM’s elasticity to potential changes. Examples of these changes would include, but are not limited to, changes in transit fares, parking rates, service frequency, etc. The goal of this test is to ensure that the TDM will provide a reasonable response when transportation system, political, or socioeconomic changes are introduced.

Once the TDM has been deemed by all parties to be validated, and the sensitivity checks have been performed, the consultant shall prepare a technical memorandum detailing the work and results generated during Task 4. It shall include a comprehensive account of the development, validation, and testing of the TDM.

Anticipated Deliverables – The consultant shall provide the following deliverables:

- TDM Validation
- Technical Memorandum fully outlining validation and testing process

Task 5: Software Purchase, Training, and Manual

The consultant shall purchase one license each of Cube Base and Cube Voyager. Ongoing, rigorous training shall be provided for three (3) Monmouth County staff. Training shall focus mainly on network coding and data requirements, with hands-on sessions during which staff can gain valuable practice with the software. Staff will also be trained on operation of the model, conducting trial runs incorporating various potential real-world scenarios, etc. A training manual will be developed that fully explains the breadth of the software’s features and how to specifically apply them while analyzing the TDM.

Anticipated Deliverables – The consultant shall provide the following deliverables:

- Purchase of one license each of Cube Base and Cube Voyager
- On-site training for Monmouth County staff
- Software training manual (tailored specifically for using software with TDM)

Project Schedule:

It is anticipated that this study will be completed within 24 months of its commencement, with 19 months of consultant support (see attached, detailed Project Schedule).

Contact Information:

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**FY 2016 - FY 2017 SUBREGIONAL STUDY PROGRAM
MONMOUTH COUNTY
MONMOUTH COUNTY TRAVEL DEMAND MODEL
BUDGET PLAN**

			PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	DIRECT COSTS - PERSONNEL SERVICES				
	1. SALARIES		\$ 55,090		
	2. FRINGE BENEFITS	54.011%	\$ 29,755		
	3. LEAVE ADDITIVE	20%	\$ 11,018		
		SUBTOTAL	\$ 95,863		
PART II	DIRECT NON-LABOR COSTS				
	1. SUPPLIES		\$ -		
	2. TRAVEL		\$ -		
	3. PRINTING & REPRODUCTION		\$ -		
	4. TELEPHONE		\$ -		
	5. POSTAGE		\$ -		
	6. CONFERENCE/TRAINING		\$ -		
	7. TRAFFIC COUNT RELATED EQUIPMENT		\$ 30,432		
		SUBTOTAL	\$ 30,432		
PART III:	INDIRECT COSTS				
	INDIRECT COST ALLOCATION	0%	\$ -		
		SUBTOTAL	\$ -		
PART IV:	CONSULTANT COSTS				
	CONSULTANT		\$ 273,705		
		SUBTOTAL	\$ 273,705		
	TOTAL PROGRAM BUDGET		\$ 400,000	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2016-FY 2017 as outlined in the Subregional Studies Agreement. Changes within or between Parts I, II, III & IV will be authorized upon written recommendation of the Program Director and approved by the NJTPA.

FUNDING SOURCES:

Federal Share:	\$ 320,000	Local Match:	\$ 80,000	Total:	\$ 400,000
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**FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM
MONMOUTH COUNTY
MONMOUTH COUNTY TRAVEL DEMAND MODEL
STAFFING PLAN**

Project Task Budget

Task	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
	Subregional Staff Hours	Direct Labor Costs	Direct Non-Labor Costs	Indirect Costs	Costs	Consultant Hours	Consultant Costs	Total Costs	% of Total Budget
Task 1 - Project Management	75	\$ 3,997	\$ 2,583	\$ -	\$ 6,580	275	\$ 27,371	\$ 33,951	8%
Task 2 - Develop County-level TDM	50	\$ 3,762	\$ 7,071	\$ -	\$ 10,833	825	\$ 82,112	\$ 92,945	23%
Task 3 - Data Collection	1,270	\$ 79,246	\$ 9,906	\$ -	\$ 89,153	410	\$ 41,056	\$ 130,208	33%
Task 4 - Model Validation	50	\$ 3,762	\$ 7,071	\$ -	\$ 10,833	825	\$ 82,112	\$ 92,945	23%
Task 5 - Software Purchase, Training, and Manual	75	\$ 5,095	\$ 3,800	\$ -	\$ 8,895	410	\$ 41,056	\$ 49,951	12%
TOTAL	1,520	\$ 95,863	\$ 30,432	\$ -	\$ 126,295	\$ 2,745	\$ 273,705	\$ 400,000	100%

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study <i>(based on total work hours for the year)</i>	Total Estimated Hours for Study
Anthony Gamallo, Senior Planner	5%	200
Daria Jakimowska, Chief Engineer	3%	100
Traffic Enumerator	23%	820
Traffic Director	8%	280
Traffic Safety Staff	3%	120
TOTAL	5%	1,520

FY 2016 – FY 2017 SUBREGIONAL STUDY

SUPPORTING PRIORITY INVESTMENT IN SOMERSET COUNTY: PHASE 3

SOMERSET COUNTY

Proposal Sponsor: Somerset County

Title of Proposed Study: Supporting Priority Investment in Somerset County: Phase 3

Estimated Budget Requested: \$340,000 (Consultant) and \$85,000 (Local) Total: \$425,000

Anticipated Study Duration (22 months overall 18 months consultant)

Executive Summary

The proposed Supporting Priority Investment in Somerset County: Phase 3 Study supports the implementation of the Somerset County Investment Framework that was developed by Somerset County with input from our twenty one municipalities, the Somerset County Business Partnership and various other stakeholders. The County Investment Framework Map was adopted as part of the Somerset County Master Plan in April of 2014.

The County Investment Framework was advanced by a Together North Jersey Local Government Capacity Grant entitled Supporting Priority Investment in Somerset County Phase 1. This effort produced a series of technical memorandums that analyzed all twenty-four Priority Growth Areas in the County. This information is supporting the County's current Sub-regional Studies project: Supporting Priority Investment in Somerset County Phase 2. The current Phase 2 Study is developing criteria using the data gathered in Phase 1 to rank all twenty four PGIAs and select the top seven PGIAs. A framework plan for each of the seven selected PGIAs will be developed and will outline recommendations for transportation and infrastructure improvements as well as land use changes.

The proposed Supporting Priority Investment is Somerset County Phase 3 study will complete the development of framework plans for the remaining seventeen (17) PGIA's using the same process that was developed and undertaken for the top seven (7) PGIA's in the previous study. Somerset County will then have an understanding of where the best development opportunities exist within the twenty-four(24) PGIA's which will allow the county to partner with the state and local governments in making targeted infrastructure improvements that will help facilitate (re)development opportunities that will result in a more diverse, stronger and sustainable economy in Somerset County.

Study Description

1. Purpose and Need:

Over the past several years, Somerset County has created and began to implement a County Investment Framework to identify areas where local, county and State and Federal investment can promote growth and economic development and to identify areas where preservation should occur. The County Investment Framework was adopted as part of the County's Master Plan in 2014. This effort combined with the County's work with the business sector to develop a County Comprehensive Economic Development Strategy (CEDS) along with the Together North Jersey effort to create a state wide CEDS demonstrates the County's desire to maximize the benefits that accumulate when investment in development and infrastructure improvements are made in a coordinated manner.

The Phase Three of the Supporting Priority Investment in Somerset County study will complete the analysis of the remaining seventeen (17) Priority Growth Investment Areas (PGIAs) that were not able to be addressed in the Phase 2 Study. The Phase 2 analysis process and data collected will be used in Phase 3 to complete work on the 17 remaining PGIA's. Some data collected in Phase 2 may need to be refreshed but overall, developing new datasets will not be necessary in the Phase 3 study. The remaining 17 PGIA's are located across Somerset County and share equal importance to Somerset County. Each PGIA to be analyzed will be reviewed at the beginning of the study with each municipality to insure their continued support prior to any work being performed. By completing the analysis of the remaining PGIAs, the County will have a complete picture of the potential growth and economic development opportunities in the County. This information will inform future planning studies as well as future investment decisions with our municipalities, the County, the State and the private sector to efficiently coordinate infrastructure improvements with potential redevelopment opportunities within the PGIAs.

The Phase 3 study builds off of several previous studies that were funded by the North Jersey Transportation Planning Authority and Together North Jersey. All of these previous studies support the work being undertaken in the proposed Phase 3 Study.

The County Investment Framework was used to guide the award winning FY2012-FY2013 Sub-regional Study entitled "Supporting Priority Investment in Somerset County through Access and Mobility Improvements Study." This sub-regional study identified and ranked fifty individual sites in the Investment Framework's Priority Growth Investment Areas and worked with each municipality to develop a framework plan for land use and transportation improvements in order to facilitate reuse/redevelopment for the selected seven sites.

The Somerset County Investment framework was further advanced through the partnership between Together North Jersey, NJTPA and Somerset County through a grant from the Local Government Capacity Grant Program for the Supporting Priority Investment in Somerset County Phase 1 Study. This consultant driven study produced ten technical memorandums that detail the existing conditions and trends impacting the twenty-four Priority Growth Investment Areas. The technical memorandums include: an improvement to land value analysis, a socio-economic analysis, a workforce and labor market analysis, a PGIA business and industry inventory, an industry cluster analysis, a base line existing land use conditions analysis, a regional infrastructure

analysis, an assessment of current land use policies and regulations, an identification of areas within PGIA's suitable for multi-family housing opportunities and build-out analysis for PGIA's. The Supporting Priority Investment in Somerset County Phase 1 Local Government Capacity Grant study will be completed in December 2014.

The information developed during the Phase 1 Study is being used to advance our current sub-regional studies project: Supporting Priority Investment in Somerset County Phase 2 Study. The Phase 2 Study will build on the results of the Phase 1 Study and will undertake a detailed analysis for the seven PGIAs that will be selected from the original twenty-four PGIAs. The study will identify detailed recommendations for transportation improvements, infrastructure investments and land use and zoning changes that advance the goals of the County's Investment Framework, the County's CEDS as well as the State Strategic Plan goals and objectives to promote smart growth and economic development. This infrastructure assessment will look at current and future capacity issues for various infrastructure systems such as transportation, sewer, water, electric, gas and telecommunications. An implementation matrix for various transportation improvements, land use and zoning changes, infrastructure improvements and other policy changes will be developed.

The projected costs and allocation of funds for the Phase 3 Study budget were based on the County's experience from the current Phase 2 Study. Using the funding allocations from the current consultant's work program, the County determined the amount of funding allocated for the analysis of the PGIAs and the development of framework plans for the seven study areas in the Phase 2 study and used these figures to develop the funding allocations to undertake the work for seventeen (17) sites. The funding levels proposed for this study will allow us to analyze and develop framework plans for all of the remaining seventeen (17) PGIAs.

2. *Brief Project Description of Project Scope:* The Supporting Priority Investment in Somerset County: Phase 3 Study proposes to conduct a thorough analysis of future growth potential alternatives for the seventeen (17) Priority Growth Investment Areas (PGIAs) that were not examined in the Phase 2 Study. An infrastructure assessment for each PGIA will be developed. A detailed analysis for each of the seventeen PGIAs will be conducted and recommendations for transportation, infrastructure and land use and zoning changes that advance the County's Investment Framework, Plan 2040 and the Regional Plan for Sustainable Development will be identified. An implementation matrix for various transportation improvements (including problem statements), land use and zoning changes, infrastructure improvements and other policy changes will be developed. This matrix will be guided by the results of the public outreach efforts as well as the market trends analysis.

3. *Goals and Objectives:* The goals of this study are to: 1) Build upon and refine the Priority Investment Framework analysis developed as part of the Local Government Capacity Grant Study and the current Supporting Priority Investment in Somerset County Phase 2 Sub-regional Study; 2) Support the implementation of the Regional Plan for Sustainable Development; Plan 2040 and the County Comprehensive Economic Development Strategy; 3) Identify local and regional

transportation improvements that will advance local and regional targeted growth initiatives; 4) promote the connection between transportation and land use planning and develop an implementation plan to advance the study's recommendations.

4. *Integration with Metropolitan Planning Process:* The Supporting Priority Investment in Somerset County: Phase 3 Study will promote the following goals from Plan 2040:

- Provide affordable, accessible and dynamic transportation systems responsive to current and future customers
- Retain and increase economic activity and competitiveness
- Enhance system coordination, efficiency and intermodal connectivity
- Select transportation investments that support the coordination of land use with transportation systems

The Supporting Priority Investment in Somerset County: Phase 3 Study will also advance the RCIS investment principals, specifically:

- Help the Region Grow Wisely – The Corridor Study will look to promote growth with the PGIAs.

Recommendations from the Supporting Priority Investment in Somerset County: Phase 3 Study will promote the following goals from the RPSD:

- Goal 1: Grow a Strong Regional Economy - The study will recommend improvements which maintain the existing system and promote and focus redevelopment within the PGIAs. It will also recommend multimodal improvements to the study area to encourage alternative forms of transportation.
- Create Great Places- The study will recommend improvements which maintain the existing system and promote and focus redevelopment within the various neighborhoods that exist in the PGIAs. It will also recommend multimodal improvements to the study area to encourage alternative forms of transportation.

5. *Regional Significance/Impact:* This study will further many of the NJTPA's Regional Transportation Plan 2040 goals of promoting smart growth and economic development. It also supports the NJTPA's work to develop the Regional Plan for Sustainable Development. The successful implementation of the various PGIA (re)development plans will create opportunities for economic development, job creation and for a more diverse and sustainable county economy. In addition, many of the potential projects are located in already developed PGIA areas or areas designated for growth. Completion of redevelopment projects will add new residents and jobs in areas that are served or could be serviced by existing or new public transit service. By ensuring growth occurs in the proper areas more trips can occur using existing public transit, pedestrian and bicycle infrastructure resulting in less dependence on the automobile. This will result in a reduction in the number of vehicle miles traveled while helping the region reduce its greenhouse gas emissions and its carbon footprint.

6. Anticipated Methodology: The project is anticipated to include the following tasks:

Project Management: County Staff will manage the day to day activities of the consultant team and prepare the various reporting documents as required by the NJTPA.

Public Involvement: A Study Advisory Committee will be formed to meet during the project and public meetings will be held to guide the study and inform its progress.

Data Collection: The market assessment work from Phase 2 will be reexamined to ensure the most up to date information is being used. Data that was collected in Phases 1 and 2 will be reviewed and refreshed only as necessary. No new data sets are anticipated to be needed but some of the existing data sets may require updated data to replace data that is several years old. PGIA boundaries may change slightly, but all PGIA boundaries have been developed in conjunction with the municipality that the PGIA is located. The boundaries represent boundaries that make sense and were agreed to by each individual municipality and therefore little modification is anticipated since they were developed to meet each towns planning vision for that area. It is anticipated that a mechanism will be developed to track investment in PGIA's including private, public and P3 public-private partnerships that offer opportunities in funding of infrastructure or other improvements within any of the 24 PGIA's.

Analysis of the Priority Growth Investment Areas: 17 PGIAs will be examined and the following assessments will be performed: development of future growth scenarios, an infrastructure assessment, detailed land use conditions assessments and a mobility assessment.

Conceptual Plans and Recommendations for Each PGIA: Detailed conceptual area plans and recommendations for each PGIA will be developed.

Recommendations and Conclusions: A draft and final Report will be developed. The Final report will contain a summary of the potential projects and land use changes and will include a matrix identifying each recommendation along with an order of magnitude cost, timeframe to implementation and lead agency.

7. Quantified Needs: (MAP21): The data gathered in the previous Phases 1 and 2 of the Supporting Priority Investment in Somerset County Studies, the Somerset County Comprehensive Economic Development Plan as well as recently adopted Somerset County Investment Framework demonstrates the need to address the reposition and reuse of commercial properties is critical. The County has very high vacancy rates in the office and retail markets, which has negative effects on the County's economic health. The Phase 1 Study also identified congestion hotspots and infrastructure needs in the County. The County's Investment Framework highlights the County's economic development needs as well as environmental needs. These needs coincide with many of the MAP-21 Goals such as Congestion Reduction, Freight Movement and economic vitality, Infrastructure Condition, System Reliability and Environmental Sustainability.

8. Identification of Potential Environmental Justice Issues: Any potential environmental justice issues will be identified as part of the project outreach process, including any areas which may be adversely affected by recommendations of the study.

9. Outreach Methodology: Public outreach will include the formation of a Study Advisory Committee to guide the progress of the study as well as public meetings and focus groups to inform the public and obtain feedback from different segments of the community.

10. Interim and Final Deliverables: The anticipated deliverables for the project include a draft and final report including transportation and land use recommendations and an implementation matrix. The final report will include the following sections: Executive Summary, Public Outreach, Market Trends Analysis, Analysis of 17 PGIA's, Development of Framework Plans and Recommendations for each PGIA and the Implementation matrix.

11. Identify Agencies and municipalities from which letters of support and active participation are required for implementation: NJ Transit, NJDOT, NJDEP, Office of Planning Advocacy, Somerset County, 21 municipalities, business partners and communities of concern. Municipalities that have PGIA's in Somerset County are Bedminster Township, Warren Township, Bound Brook Borough, Branchburg Township, Bridgewater Township, Raritan Borough, Somerville Borough, Franklin Township, Green Brook Township, Hillsborough Township, Manville Borough, North Plainfield Borough and Watchung Borough.

12. Related Prior Work and Funding Sources: County Comprehensive Economic Development Strategy (CEDS); Supporting Priority Investment in Somerset County Phase 2, FY14-15 SSP; Supporting Priority Investment in Somerset County Phase 1, Local Government Capacity Grant; Using Access and Mobility Improvements to Support Redevelopment Opportunities in Somerset County, FY12-13 SSP; Update of Somerset County Circulation Element, FY10-11 SSP; Easton Avenue Corridor Study (with Middlesex County), FY10-11 SSP; Route 202 Corridor Assessment and Multi-modal Mobility Plan (with Hunterdon County), FY08-09 SSP; Regional Center Bicycle, Pedestrian and Greenways Plan, FY08-09 SSP; Advancing Intermodal Freight Opportunities within Central Somerset County, FY06-07 SSP; West Trenton Station Area Design Study, FY06-07 SSP; I287 Mobility Plan (with Middlesex County), FY04-05 SSP; Transit Oriented Development Opportunities in Somerset County, FY2004-05 SSP and LDP Route 202 Project with Hunterdon County.

13. Anticipated Future Work and Funding Source(s): Recommendations resulting from this study will be advanced through a variety of funding sources including State, Federal, and County Capital Funds or through NJTPA programs such as the Local Safety Program and the Local Capital Project Delivery Program.

Work Plan

This study will build off work completed by the Somerset County Planning Division, work completed as part of the RPSD Local Government Capacity Grant phase 1 and the Supporting Priority Investment in Somerset County Phase 2 studies. PGIA's not analyzed as part of the phase

2 Sub-regional Study will be analyzed in this study. All work and information gathered as part of the phase 2 study will be used to inform the proposed study.

The study will span twenty two (22) months, 18 of which will require consultant involvement.

Task One: Project Management

Somerset County will manage the day to day activities of this study. These activities include the consultant selection process, contract administration and processing of consultant invoices. Other work associated with this task will include the preparation and submission of the quarterly reports and any other documentation required by the North Jersey Transportation Planning Authority.

The consultant shall also designate a project manager who will be responsible for managing the day to day activities of the consultant team and will serve as the primary source of contact with Somerset County. The consultant project manager shall establish an effective means of coordinating and reporting its activities with the County throughout the course of the project to ensure an expeditious exchange of information, and shall be responsible for the preparation and submission of progress meeting agendas and minutes, and monthly progress reports, and invoices. A detailed project schedule (Gantt Chart) shall be submitted at the kick-off meeting for the County's review and approval, and reviewed regularly during the course of the project to ensure the timely completion of the project.

Anticipated Deliverable Description: Somerset County will prepare and submit quarterly reports and any other documentation required by the North Jersey Transportation Planning Authority. The consultant project manager shall prepare and submit monthly progress reports and invoices, progress meeting agendas and minutes, and a detailed progress schedule to be maintained on a regular basis.

Task Two: Public Outreach and Interagency Coordination

Study Advisory Committee

Somerset County and the consultant team shall create a study advisory committee (SAC) to oversee and direct this study. This group shall consist of representatives of groups including the Somerset County Planning Board and Division, Somerset Engineering Division, Somerset County Business Partnership, NJDOT, NJTPA, NJ TRANSIT, NJ Office of Planning Advocacy and RideWise of Raritan Valley TMA. Municipal officials and private sector businesses may also be asked to participate on the SAC, as well as, commercial real estate brokers. Also, during Task Five of this project, municipal representatives may be invited to join the SAC.

The responsibilities of the SAC shall include, but not be limited to:

- Review and provide feedback to the consultant on draft and final project interim reports and documents throughout the study.
- Identify stakeholders, community groups and partners associated with community outreach and participation for various public participation activities. Special consideration will be given

to ensure the commitment and involvement of interested parties familiar with County's transportation network, environmental issues and land use patterns.

- Develop, guide and participate in community involvement activities.
- Review and provide input on the data collection, public outreach, development of improvements and recommended implementation strategies for the study.
- Review the final recommended projects and strategies.
- Ensure that the final report clearly identifies the implementation priorities along with agencies responsible for each project hand-off.

Public Outreach Activities

The consultant shall draft and implement a community involvement strategy, which shall be reviewed and approved by the SAC. The community involvement strategy shall include, but shall not be limited to the following activities:

Focus Groups/Interview Sessions

Up to three (3) focus group/interview sessions shall be held by the consultant with municipal representatives, residents, business leaders, and civic and planning organizations to identify early on the transportation and land use issues and possible strategies to advance the Priority Growth Investment Framework and RPSD efforts in Somerset County. Potential participants include municipal and county elected officials, NJDOT, NJ Transit, NJTPA, RideWise, representatives from land use, transportation, environmental planning and community organizations, commercial real estate brokers and economic development professionals. There will be a strong effort to engage the commercial real estate community in the study. Input from this group will be critical in the development of the market trends analysis as well as future growth scenarios.

Municipal Meetings

During the course of the study there will be an ongoing series of meetings/conference calls with all of the municipalities participating in this study. The intent of these meetings is to ensure open communication and close collaboration between the County, the 13 PGIA towns and the consultant team. These meetings will review current planning activities underway in each community, review and discuss the draft work products and recommended improvements. Up to thirty four (34) municipal meetings will be held (two per PGIA), with consultant participation anticipated at up to seventeen (17) of these meetings. The Consultant Team shall budget to prepare meeting materials and to have a representative participate at 17 of these municipal meetings/conference calls.

At the municipal meetings, the consultant and County Staff will seek municipal input on potential issues and strategies and review draft work products. The meetings will be conducted as face to face meetings, conference calls or webcast meetings. Based on the PGIA under consideration, there may be as little as one meeting with the municipality or up to three meetings based upon the complexity of the site, the amount of changes needed to the draft plans requested by the municipality and other potential factors. Meetings for multiple PGIA's in a given municipality will be combined wherever possible.

Stakeholder Meetings

In addition to stakeholder representation on the SAC and/or participation in various interview and focus group sessions and public meetings, the results of the study will be presented at regularly scheduled meetings of various stakeholder groups such as the Somerset County Planning Board, the Business Partnership of Somerset County, Somerset County Governing Officials Association, RideWise of Raritan Valley, the RPSD Standing Committees and the planning boards and governing bodies of the various municipalities. Study updates to groups with regularly scheduled meetings will be handled by the County Planning staff. Copies of the draft and final report and other related documents will be provided to stakeholder groups to gain feedback, develop a consensus on the prioritized recommendations of the study and increase awareness and support for its recommendations. The consultant shall support these activities by providing project information and materials as needed.

Public Officials Briefings and Public Meetings

Throughout the study there will be opportunities for public input to guide the development of recommendations for the various phases of the study. The County will attempt to hold all of the public meetings in a transit accessible facility. It is envisioned that two (2) public meetings shall be held during the course of this study.

At the kickoff meeting, the consultant shall introduce the project to the all of the public officials and general public and solicit input to identify transportation and related issues for each of the PGIA have to be considered for analysis during the study.

At the second public meeting, the results of the detailed planning analysis, sketch plans and recommended improvements for the 17 PGIA's will be presented. Any specific land use and zoning recommendations for use by the municipalities to support their redevelopment planning efforts will also be presented.

Media Relations

Press releases, cable TV and radio announcements, feature articles, press briefings, and interviews will be provided to all major local newspapers and media outlets. County Planning Staff will work with the County Public Information Officer in preparing and distributing press related materials and scheduling events. The consultant shall support these activities by providing project information and materials as needed.

Project Newsletters

The consultant will develop three (3) project newsletters during the course of the study. The consultant will develop the format and content of these newsletters. The project newsletters will be designed to be distributed electronically and in print. The County will assist in the development of the newsletters' content and will be responsible for printing and distributing the newsletters. The newsletters will be used to inform the various stakeholders about the study's objectives and the status of the project. The first newsletter will provide an overview of the study and describe how the various stakeholders can become involved. The second newsletter

will give an overview of the proposed study recommendations and the final newsletter will outline the final report's recommendations. The newsletter will be distributed in print and electronically to the County's various distribution lists and by the Somerset County Business Partnership. The newsletter will be made available at municipal buildings and libraries as well as being posted to the County's web-site.

Project Webpage

The consultant, working with the County and the SAC, will develop materials to post to the Somerset County Planning Division's current webpage. The existing webpage will have a section regarding this study and will be used to solicit comments on draft documents and materials during the public involvement process.

Anticipated Deliverable Description: The consultant shall conduct three (3) interview sessions/focus groups, and provide summaries of each meeting as well as provide an overall summary of the findings and recommendations from the focus groups/interview process. Thirty-four (34) municipal coordination meetings/conference calls will be held at which consultant participation will be required at seventeen (17) of them. The consultant shall participate in two (2) public meetings and prepare the necessary materials for these meetings. The consultant shall present the final report at a regularly scheduled County Planning Board Meeting. Summaries of the public meetings shall be prepared by the consultant. Somerset County and consultant will develop three (3) project newsletters during the course of the project.

Five (5) meetings of the SAC are anticipated, at which consultant participation shall be required. The schedule of meetings and distribution of meeting notices and associated materials to committee members will be handled by County Planning Board Staff. Summaries of the SAC meetings shall be prepared by the consultant. The mailing list of stakeholders, community groups, and partners will be prepared and maintained by the County Board Planning Staff. Planning staff will handle posting of meeting materials on the Somerset County Planning Division web site. The consultant shall be responsible for preparing PowerPoint presentations and preparing all meeting materials, attending meetings and making presentations as appropriate, and preparing minutes.

Task Three: Data Collection and Analysis

Review of State Agency Priorities

The consultant will meet with various State Agencies to identify opportunities for enhanced coordination, priority permitting, state funding assistance and incentives. Any plans, programs or initiatives from such agencies including but not limited to NJDEP, NJDOT, NJ TRANSIT, NJDCA and Housing and Mortgage Finance Agency. Working together, the County and the consultant team will identify any new State Agency plans, programs or initiatives that should be examined. The consultant shall produce a report that details what opportunities exist for enhanced coordination with the state and what types of assistance are available to the County and municipalities to advance the County's Priority Investment Framework. Any Areas where State Agency plans, programs or initiatives or State policies are in conflict with the County's Priority Investment Framework will also be noted.

Anticipated Deliverable Description: The consultant shall produce a report that details what opportunities exist for enhanced coordination with state agencies and what types of funding assistance are available to the County and municipalities to advance the County's Priority Investment Framework.

Market Trends Analysis

Working with the County staff, the consultant team will review the market trends analysis that was prepared for the various PGIA types and regional innovation clusters in the Phase 2 study. This market analysis examined current real estate trends in the regional, county and local markets and characterized the market factors for each PGIA, including future market trends. The consultant team also examined current rental rates, occupancy levels, building age and layout as well as other factors as well as examined what types of uses or industries/sectors of the economy that are growing and declining. Market absorption rates for various uses and missing supportive and underrepresented market sectors was also identified and examined. All of this information was used to characterize the current and future market trends for each PGIA and targeted growth area.

Due to the nature of data collected and used to perform the market trends analysis some data (such as vacancy rates of types of property, labor and industry analysis or the real estate analysis) may have to be refreshed for the Phase 3 study. The county and consultant will develop a checklist that notes which data sets have been updated since the Phase 2 study and a recommendation on which data sets should be updated by the consultant who will conduct the analysis for the 17 PGIA's. County staff and the consultant will review the Phase 2 data and analysis and recommend if any data should be refreshed or updated to the most current data year available. Also the county and consultant will examine and recommend changing the emerging trends if it is deemed necessary. The data sets and the emerging trends will be only updated if more recent data is available that may change some of the identified emerging trends identified in the Phase 2 study.

Anticipated Deliverable Description: The consultant team shall prepare a Market Trends Analysis for each PGIA updating data and analysis as agreed upon with the county project manager. In addition, develop a matrix of data used and year of data and whether or not it was updated for this study. This technical memorandum will detail the market conditions for each of these areas and be used to inform the work in tasks four and five.

Task Four: Analysis of the 17 PGIA's

The consultant will perform detailed analysis for the 17 remaining PGIA's. The following analyses will be undertaken for each PGIA: future potential growth scenarios, infrastructure assessments, detailed land use conditions assessment and a multi-modal mobility assessment. The consultant shall develop up to three growth scenarios for each PGIA. Working with each

municipality changes in land uses, density, and potential transit oriented development will be explored as part of the future growth potential scenarios work.

During the infrastructure assessment analysis, the consultant team, with county support, will examine the current state of infrastructure within each PGIA, what the current capacity is, determine if it can support the current projected growth, and determine what additional infrastructure would be needed based upon the future growth scenarios developed during this task. The following types of infrastructure will be analyzed: transportation, water supply systems, waste water systems, electric and natural gas systems and telecommunications systems based on available infrastructure data from the various utilities.

The consultant working with the county and the municipalities will perform a detailed land use condition assessment of each PGIA. This will include characterizing existing land use patterns and identifying potential development/redevelopment sites including underutilized sites. The building stock will also be examined to determine if there are potential sites where buildings could be retrofitted to meet current market demands. An example of this would be the retrofitting of an older single use corporate campus to accommodate multiple tenants.

A detailed multi-modal mobility assessment would be performed for each of the seventeen (17) PGIA's by the consultant team with county staff support. Existing conditions such as typical sections, pavement conditions, transit stops, pedestrian facilities and gaps, drainage and culvert problems, vehicular and pedestrians/bicycle safety issues, traffic signals, traffic control and signage, and planned transportation improvements will be documented and analyzed by the consultant team with county staff assistance. Potential transit needs would also be examined as well bicycle and pedestrian needs. As part of this work, the consultant team, with support from the county, will also determine what multi-modal transportation improvements would be needed to support the future growth scenarios developed during this task.

Somerset County will conduct the environmental screening consistent with NEPA's ecosystem level screening process. This environmental work will be performed by county engineering and planning staff. The results of the environmental scan will identify potential environmental issues and ensure that any recommendations will be feasible. Somerset County will consult the SAC for guidance during the analysis.

Anticipated Deliverable Description: The consultant, with county input, will prepare a technical memorandum detailing the results of the analyses of future growth potential scenarios, infrastructure assessments, detailed land use conditions assessment, multi-modal mobility assessment and the findings from the environmental scan.

Task Five: Development of Framework Plans and Recommendations for PGIA

Working with the County, the SAC and representatives and business interests in each municipality that the PGIA's are located in, the consultant team will develop framework plans with detailed recommendations on land use changes, transportation improvements and packages of infrastructure improvements for each of the 17 PGIA's. Based upon the results of Task Four, the

consultant team will develop packages of infrastructure improvements that will support implementation of land use framework plans for each PGIA. Meetings with the municipalities will be held as necessary to ensure that there is buy in and local support for the framework plans. Based upon input and feedback from the municipalities, the plans will be revised to reflect local needs. Municipal representatives may be invited to join the SAC during this part of the study.

In order to ensure that planned transportation and other infrastructure improvements are reinforced by the local planning and zoning policies of the various PGIA's, the consultant will review the land use and circulation elements and zoning ordinances of each community. Any proposed changes to land use plans and zoning regulations necessary to implement one of the future growth scenarios developed in Task Four will be developed by the consultant team. The consultant will also suggest necessary changes to these plans and ordinances to ensure that they support transit and alternative modes for transportation and examine adjustments to the existing land use plans. Infrastructure improvements needed to support the current as of right development as well as additional infrastructure improvements to accommodate a future growth scenario also will be identified by the consultant. Packages of recommended transportation infrastructure improvements and transit services to support current land uses and future growth will be developed by the consultant. Cost estimates and sketch level plans based on available aeriels and existing mapping shall be developed for the identified improvements. Improvements will be of a multi-modal nature and include bicycle, pedestrian, and transit as well as roadway improvements.

This will help to ensure that the potential development does not exceed the capacity of the transportation and other infrastructure systems and maximizes the benefits of the transportation investment. Any recommendations for updates to the municipal master plans and zoning ordinances will be developed for each of the PGIA's.

Anticipated Deliverable Description: The consultant team will develop a technical memorandum containing framework plans with detailed recommendations on land use changes, transportation improvements and packages of infrastructure improvements for each of the 17 PGIA's. Each PGIA's plan will be written to be able used as stand-alone documents as well a section of the overall report.

Task Six: Final Report, Executive Summary and Implementation Matrix

The consultant will prepare the final report which will be comprised of the following sections: an Executive Summary, Public Outreach Process, Review of State Agency Priorities, Programs and Initiatives, Market Trends Analysis, Development of Framework Plans and Recommendations and the Implementation Matrix. The matrix will include a methodology to track PGIA's. The draft and final document will be based on the results of the previous tasks. The implementation section will identify existing county, state and federal transportation funding resources available to advance recommendations within the report.

The final report shall be presented for adoption by County staff and the consultant at a regularly scheduled County Planning Board Meeting. In addition to providing electronic and CD copies of the final report to municipal officials and stakeholders, the final report will be distributed to the County Board of Chosen Freeholders, members of the SAC, stakeholders group and members of

civic groups. The report will also be provided to municipalities and be made available to members of the public via electronic download from the County Planning Board web site.

Anticipated Deliverable Description: The consultant working with the SAC will prepare the Supporting Priority Investment in Somerset County: Phase 3 Final Report, which will contain an Executive Summary, Public Outreach Process, Review of State Agency Priorities, Programs and Initiatives, Market Trends Analysis, Development of Framework Plans, Recommendations and the Implementation Matrix. Problems statements will also be developed by the consultant. A PowerPoint Presentation summary the study will also be developed by the consultant team.

All consultant GIS products will follow the procedures described in the NJTPA's EGIS User Manual, specifically Appendix U3 – EGIS Quality Assurance Program. This manual can be found on the NJTPA website.

All identified needs and recommendations generated by the study should be entered into the NJTPA Planning Recommendations Integration Management Engine (PR!ME) by the consultant at the completion of the final report. Further information will be provided on how to do this as PR!ME is developed.

Project Schedule: It is anticipated that this study will be completed within 22 months of its commencement, with 18 months of consultant support (see attached, detailed Project Schedule).

Contact Information:

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**FY 2016 - FY 2017 SUBREGIONAL STUDY PROGRAM
SOMERSET COUNTY
SUPPORTING PRIORITY INVESTMENT IN SOMERSET COUNTY PHASE 3
BUDGET PLAN**

			PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	DIRECT COSTS - PERSONNEL SERVICES				
	1. SALARIES		\$ 85,000		
	2. FRINGE BENEFITS	0%	\$ -		
	3. LEAVE ADDITIVE	0%	\$ -		
	SUBTOTAL		\$ 85,000		
PART II	DIRECT NON-LABOR COSTS				
	1. SUPPLIES		\$ -		
	2. TRAVEL		\$ -		
	3. PRINTING & REPRODUCTION		\$ -		
	4. TELEPHONE		\$ -		
	5. POSTAGE		\$ -		
	6. CONFERENCE/TRAINING		\$ -		
	7. OTHER (SPECIFY)		\$ -		
	SUBTOTAL		\$ -		
PART III:	INDIRECT COSTS				
	INDIRECT COST ALLOCATION	0%	\$ -		
	SUBTOTAL		\$ -		
PART IV:	CONSULTANT COSTS				
	CONSULTANT		\$ 340,000		
	SUBTOTAL		\$ 340,000		
	TOTAL PROGRAM BUDGET		\$ 425,000	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2016-FY 2017 as outlined in the Subregional Studies Agreement. Changes within or between Parts I, II, III & IV will be authorized upon written recommendation of the Program Director and approved by the NJTPA.

FUNDING SOURCES:

Federal Share:	\$ 340,000	Local Match:	\$ 85,000	Total:	\$ 425,000
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**FY 2016 – FY 2017 SUBREGIONAL STUDIES PROGRAM
SOMERSET COUNTY
SUPPORTING PRIORITY INVESTMENT IN SOMERSET COUNTY PHASE 3
STAFFING PLAN**

Project Task Budget

Task	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
	Subregional Staff Hours	Direct Labor Costs	Direct Non-Labor Costs	Indirect Costs	Costs	Consultant Hours	Consultant Costs	Total Costs	% of Total Budget
Task 1 - Project Management	208	\$ 7,034	\$ -	\$ -	\$ 7,034	\$ 50	\$ 10,000	\$ 17,034	4%
Task 2 - Public Outreach & Inter-Agency Coordination	466	\$ 17,788	\$ -	\$ -	\$ 17,788	\$ 260	\$ 75,000	\$ 92,788	22%
Task 3 - Data Collection and Analysis	141	\$ 6,022	\$ -	\$ -	\$ 6,022	\$ 190	\$ 20,000	\$ 26,022	6%
Task 4 - Analysis of 17 Study Pilot/Areas Corridors	614	\$ 24,060	\$ -	\$ -	\$ 24,060	\$ 850	\$ 85,000	\$ 109,060	26%
Task 5 - Development of Framework Plans/Recommendations	490	\$ 20,067	\$ -	\$ -	\$ 20,067	\$ 850	\$ 123,000	\$ 143,067	34%
Task 6 - Final Report, Executive Summary and Implementation Matrix	265	\$ 10,029	\$ -	\$ -	\$ 10,029	\$ 350	\$ 27,000	\$ 37,029	9%
TOTAL	2,184	\$ 85,000	\$ -	\$ -	\$ 85,000	\$ 2,550	\$ 340,000	\$ 425,000	100%

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study <i>(based on total work hours for the year)</i>	Total Estimated Hours for Study
Walter Lane, Planning Director	9%	331
Laurette Kratina, Chief Strategic Planner	9%	323
Kenneth Wedeen, Principal Planner	15%	562
Andrew Phillips, GIS	1%	20
Joseph Fishinger, County Traffic Engineer	6%	249
Tara Kenyon, Principal Planner	8%	300
Andras Holzmann, Planner	8%	299
Cindy Mellusi, Office Manager	3%	100
TOTAL	7%	2,184