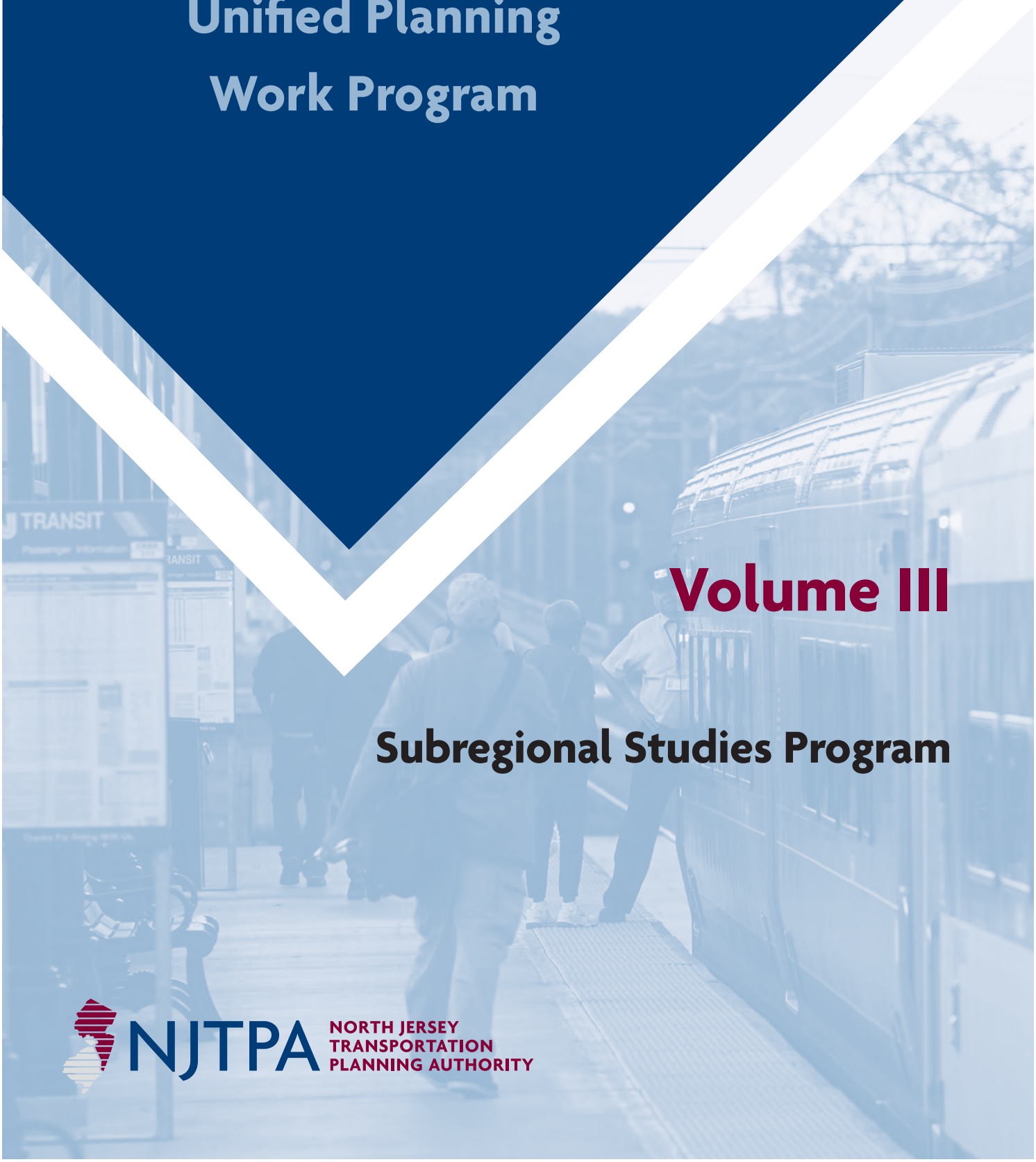
FY2018 UPWP

Unified Planning Work Program



Volume III

Subregional Studies Program

NJTPA
NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

UNIFIED PLANNING WORK PROGRAM
VOLUME III
FY 2018-FY 2019 SUBREGIONAL STUDIES PROGRAM

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PROGRAM DESCRIPTION

The Subregional Studies Program (SSP) is a critical element of the NJTPA's continuous, cooperative, and comprehensive metropolitan planning process. 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. 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), the Congestion Management Process (CMP), the Together North Jersey (TNJ) Regional Plan, and federal guidance. Studies conducted through this program refine goals and strategies developed through the metropolitan transportation planning process. Studies should be data driven and involve a transparent feedback loop with stakeholders and the public. Studies should also involve implementation agencies at the municipal, regional, and state level, and include an analysis of existing and future conditions. The study analysis should lead to the identification of potential transportation and/or transportation-related solutions for a particular system or study area.

Studies proposed through this program should focus on issues of importance to, or that impact, significant areas of the NJTPA region, especially transportation and land use issues. Alternatively, studies should have the potential to impact the transportation network (positively or negatively) beyond the borders of a specific county or municipality. Subregions are encouraged to propose studies that complement other planning work in the NJTPA region. Proposals that aim to address a perceived problem should include a transparent, rational course of action for gathering and analyzing data. Conclusions from that analysis, including the potential that critical analysis of the perceived problem may result in a finding that an assumed operational or asset deficiency may not exist as originally predicted. Issues proposed to be addressed through subregional studies should be quantifiable and 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. Studies should capitalize upon opportunities to strengthen relationships between municipalities, counties, and regional and state agencies that lead to coordinated land use planning and transportation project implementation.

Subregional studies approved under this program must be performed within a two year period, typically with an 18 month maximum duration of consultant supported effort. 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 2018 is the first year of the FY 2018 – FY 2019 SSP program cycle. Five new studies will be initiated in the FY 2018 – FY 2019 cycle as detailed in the following pages. Additionally,

Fiscal year 2018 is the second and final year of the FY 2017 – FY 2018 SSP cycle. Three studies in the FY 2017 – FY 2018 SSP cycle that began in FY 2017 will conclude in FY 2018. Descriptions for these three studies can be found in the FY 2017 UPWP Volume III Subregional Studies Program, linked here: http://www.njtpa.org/planning/upwp/njtpa_fy17_upwp_volume_iii_ssp_march2016_adopted.aspx

Solicitation for the FY 2019 – FY 2020 Subregional Studies Program cycle will occur during FY 2018 and is described in Volume I, Task 17/305 - Subregional Studies Program.

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROPOSALS
PROGRAM BUDGET

Subregion	Title	Project Cost *
New Projects FY 2018 – FY 2019		
City of Newark	Newark Downtown Circulation Improvement Study……..	$350,000
Hudson County	John F. Kennedy Boulevard Corridor Safety Study …….	$300,000
Monmouth County	Comprehensive Freight Related Transportation Study in Western Monmouth County and Southern Mercer County…….…….	$310,000
Ocean County	Ocean County Bicycle and Pedestrian Linkages from the Barnegat Branch Trail, Northern Section……..	$200,000
Somerset County	Somerset County Bicycle and Pedestrian Facilities and Trails Plan	$320,000
Subtotal – New Study Program Cost		**$1,480,000**
Continuing Projects FY 2017 – FY 2018		
City of Jersey City	Pedestrian Enhancement Plan…….	$180,000
Passaic County	Passaic County Green Infrastructure Plan……..	$300,000
Warren County	Update to the Warren County Transportation Technical Study…….	$225,000
Subtotal – Continuing Study Program Cost		**$705,000**

*all funds include 20% local match

ELIGIBLE APPLICANTS

Only NJTPA-member subregions are eligible to serve as the study lead and may 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 study, but may not serve as a study 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 study 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. Funds for the local match may come from municipal, county or state resources. Federal funds cannot be used as local match. Similarly, federally funded staff time cannot be used as local match. The award of the pass-through grant is also contingent upon a pre-award evaluation and risk assessment of the subregion, consistent with federal guidelines (2 CFR Chapter I, Chapter II, Part 200, et al.).

ELIGIBLE ACTIVITIES

Planning activities that address regional mobility and accessibility issues are eligible for the Subregional Studies Program. Activities may 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;
- Analysis and recommendations that could lead to capital improvements and/or policy changes;
- Integrating transportation and land use, including cooperative efforts between counties and municipalities to reinforce land use planning with targeted infrastructure investments; or identification of transportation financing solutions;
- Generating corridor- or site-specific planning recommendations for further development; or
- Studies that advance planning for resilience.

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 formation of a Steering Committee or a Technical Advisory Committee. These committees should consist 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.

Should an applicant to this program wish to study, through this program, potential operational or capital improvements to facilities or systems they do not own or operate, the applicant should contact NJTPA Central Staff as soon as possible, so that the NJTPA can assist in the development of the necessary relationships and appropriate scope of work to ensure a reasonable path to implementation.

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. Examples of prior studies funded through this program are at http://www.njtpa.org/Planning/Subregional-Planning/Studies.aspx. 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. Below are examples of the types of studies that are generally eligible under this program.

1. 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. Advancement of transportation-related recommendations from the TNJ Regional Plan, and from studies completed under the TNJ Local Government Capacity Grant Program, Local Demonstration Project program, and NGO Micro-Grant Program are particularly encouraged. A searchable database of TNJ Actions is available for reference at: http://togethernorthjersey.com/?page_id=24537#new-public-search-page/?page_id=24537. This includes studies supporting the linkage between transportation and the creation of vibrant places and neighborhoods that will attract and retain residents, workers and visitors; increasing access to improved health outcomes for our region's residents; access to affordable, healthy foods; and increasing public health considerations in all aspects of planning and policy-making. This advancement can consist of additional data gathering and analysis, additional public or stakeholder engagement, refinement of goals, objectives, strategies and actions, order of magnitude cost estimating, determination of responsible entities to advance implementation, and coordination with state, county, regional, and municipal partners. For example, developing a community based Health Impact Assessment (HIA) may be pursued. (For more information on HIAs: http://www.cdc.gov/healthyplaces/hia.htm) 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.

2. Safety

Subregions may conduct data-driven analysis 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 for all modes. Safety plans should seek to address the emphasis areas and priority strategies in the draft New Jersey Strategic Highway Safety Plan, available at http://www.state.nj.us/transportation/about/safety/pdf/2015strategichighwaysafetyplan.pdf. The ten emphasis areas are: Lane Departures; Drowsy and Distracted Drivers; Aggressive Driving; Intersections; Pedestrians and Bicyclists; Mature Drivers; Impaired Driving; Unbelted Vehicle Occupants; Teen Drivers; and Motorcycles.

3. 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 and bicycle and pedestrian plans through this program.

In addition, NJTPA-member cities may, through this program, conduct other planning 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 (**N.J.S.A**. 40:55D-1 et seq.) or in accordance with **N.J.S.A.** 40A:12A-1 et seq., and all other relevant municipal, county, and state laws and regulations.

4. Multimodal Corridor Studies

Subregions may conduct multi-modal corridor studies to evaluate transportation needs and opportunities that affect mobility along specific travel corridors. Generally, subregional studies focus on the road network under the subregion's jurisdiction, however, opportunities to analyze origin-destination connectivity with the NJDOT on state facilities or transit-supportive roadway improvements with NJ TRANSIT may also be suitable. Objectives may focus on network performance such as travel time reliability and roadway conditions, or more specific local issues such as pedestrian or motorist access, safety, complete streets, transit access, goods movement, intelligent transportation systems, or other relevant strategies or recommendations.

Corridor studies should include significant participation from host municipalities to explore, analyze, and recommend multi-modal solutions in context with their land use and built environment conditions. Where possible, a context sensitive focus that considers the types of places (e.g., urban, suburban, rural), populations served (e.g., disadvantaged communities) and travel needs (e.g., employment, recreational) should be incorporated. The NJTPA CMP analysis is a useful resource that can provide information about regionally recognized needs and potentially suitable recommendations. The NJTPA PRIME, a searchable database of planning recommendations (along with policy and needs connections), will also serve to support identification of recommendations.

5. 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, light rail stations, and major bus facilities 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 TNJ Regional Plan, and the Proposed New Jersey State Strategic Plan.

6. Access to Economic Development Opportunities

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 or underway or that are identified for economic development in subregional master plans or Comprehensive Economic Development Strategies (CEDS). Particular focus should be given to 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. Subregions can conduct analyses, studies, or planning efforts that would recommend transportation investments that encourage economic growth while protecting the environment. Subregions may also propose studies that increase access to opportunities for disadvantaged communities, thereby increasing their access to "Ladders of Opportunity", an FHWA priority.

7. Greenhouse Gas Emissions

Subregions may conduct an analysis, study or planning effort to develop transportation policies and strategies that will reduce or mitigate greenhouse gas emissions.

8. Resilience

Subregions may develop strategies that increase the ability of transportation infrastructure to withstand unanticipated disruptions while maintaining essential functions, and to recover quickly and effectively. These disruptions can be from natural or man-made sources, and be either intentional or accidental. Studies may identify and make recommendations for the safety of vulnerable populations, including the elderly, very young, disabled, economically vulnerable and linguistically isolated in emergency situations. Studies may identify economic impacts and should seek to quantify risks. Strategies may include capital or operational items, and may include emergency management strategies and evacuation planning.

Studies may expand on the NJTPA's 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/FHWAConceptualModel.aspx) or other adaptation studies that focus on sound planning and information to prepare for severe events. Studies to address resiliency may include, scenario modeling and planning, hazard mitigation planning, or green infrastructure planning.

9. Comprehensive Complete Streets Policy Implementation Plans

   Studies that collect data, conduct analysis, and engage municipalities and other stakeholders to develop comprehensive complete street policy implementation plans are strongly encouraged. Complete streets policies provide for the needs of all users of the street including motorists, bicyclists, pedestrians, transit vehicles and users, and freight. Policy implementation plans may include preparation of complete streets checklists to institutionalize implementation of complete streets elements at all phases of project development. Additionally, policy implementation plans may include a variety of mode specific strategies, such as identifying specific streets for on street bicycle lanes and/or corridors for off street bicycle paths, recommend updates to bicycle riding ordinances, identifying locations for bicycle parking, identifying gaps in existing pedestrian accommodations such as sidewalks and crosswalks, identifying locations for bus supportive facilities such as bus priority treatments, bus stop turnouts, extended curbs for bus platforms, and consideration of freight mobility and access to local destinations, and accommodation for loading and unloading (e.g. loading zones or alleys).

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

    Subregions may incorporate 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 to identify links between goods movement and economic development.

EMPHASIS AREAS

The following are the NJTPA Regional Transportation Plan (RTP) goals and Regional Capital Investment Strategies (RCIS), and the federal, state and regional emphasis areas and/or planning priorities. Subregional Studies must address at least one of the goals of the NJTPA RTP and one of the strategy principles outlined in the NJTPA RCIS. The RTP goals and RCIS incorporate federal and state emphasis areas. Applicants are also encouraged to address one or more of the emphasis areas or planning priorities, and are asked to identify them in their proposal, where applicable.

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.

   An updated RTP, Plan 2045, Connecting North Jersey, will be adopted by the NJTPA Board of Trustees early in FY 2018. It is anticipated that Plan 2045 will carry forward the goals and strategies in Plan 2040 and may contain additional identified needs and strategies. These can be incorporated into final study scopes of work as appropriate following the plan's adoption in early FY 2018.

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.

The RCIS will be updated concurrent with the RTP update noted above. Should this update impact a proposed study, adjustments can be made when the final scope of work is developed.

3. 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.

4. FY 2017 NJDOT MPO Transportation Priorities (Optional)

- Continue to collaborate with NJDOT in meeting US DOT's Moving Ahead for Progress in the 21st Century Act (MAP-21) requirements.
- Implement actions to collect pavement condition data at the local level and foster performance management of the non-state-owned National Highway System bridges and pavements in accordance with MAP-21 requirements.
- Coordinate with NJDOT in the development and integration of standards and measures necessary to meet a performance based approach to Asset Management and to implement the Capital Investment Strategy.
- With the updated Comprehensive Strategic Highway Safety Plan, focus on local safety planning efforts particularly relating to intersections, lane departures and pedestrians traffic.
- Improve traffic operations through Intelligent Transportation System (ITS) upgrades and enhanced coordination at the interstate, state, county and local level. Support NJDOT Traffic Operations for the Integrated Corridor Management (ICM) Study for the NJ 495 Corridor and New Jersey Northeast Corridor.
- Pursue the following congestion relief strategies:
    - Low-cost operational improvements at intersections, interchanges, and identified bottlenecks; and
    - Transportation Demand Management (TDM) to help maximize the efficiency of the existing transportation system from the demand side, encouraging greater use of alternatives to single occupant vehicles.
- In partnership with the Complete Team, institutionalize an improved process for initiating mobility improvements with an updated, coordinated and streamlined approach to developing and vetting problem statements.
- Improve primary freight corridors and hubs for more efficient access and improved system performance.
    - Coordinate with NJDOT in updating the National Highway System Intermodal Connectors
    - Pursue the advancement of the Freight Concept Development for freight projects
    - Continue to monitor federal grant programs. Develop a list of projects ready (with necessary federal approvals, local support, and environmental documents) for when grants become available.
- Maximize opportunities for Complete Streets implementation.
    - Where possible, support the collection of bicycle and pedestrian volume data on county roadways.

    - The MPOs should refine their local project prioritization process to include scoring factors that are based on potential health outcomes, safety improvements, connectivity for all modes, proximity to schools and transit stops, and other factors.

- Support implementation of enhanced problem intake process, and provide technical support to NJDOT to help improve the problem and project prioritization process.
- Implement actions to foster improved local public agency project delivery and compliance with federal regulations during project development and construction in coordination with NJDOT Division of Local Aid and the Federal Highway Administration.
- Continue to support greater coordination with other MPOs, NJDOT, transit agencies, TMAs and subregions in mobility and land use planning. This can include Regional Models of Cooperation like the Central Jersey Transportation Forum, grant or technical assistance programs to encourage vibrant, sustainable communities, and developing and maintaining data bases in support of smart growth, and other related activities.
- Work with NJDOT and other partners on risk management strategies for improving the resilience of transportation infrastructure against the impacts of extreme weather.
- Implement actions that support fairness and improved coordination of services, access and mobility for low income, minority, persons with disabilities and seniors.
- Continue to engage with the public to strengthen public confidence and participation in the planning process through the use of web tools/technology, social media, outreach, education and public forums/meetings.

5. Together North Jersey (TNJ) Regional Plan (Optional)

   TNJ was created in 2011 to help develop a broad based, inclusive sustainability plan for the NJTPA region. TNJ brought together a coalition of diverse partners – counties, municipalities, educational institutions, nonprofits, businesses and other groups — to develop the first comprehensive plan for sustainable development for the NJTPA region. The TNJ Regional Plan includes 16 focus areas, describing over 100 strategies that can be implemented to achieve the region's vision. Many are transportation related. The focus areas and strategies are listed at www.togethernorthjersey.com/actionplans. Studies should include action plans that have a direct relationship to transportation.

6. Proposed New Jersey State Strategic Plan (Optional)

   In 2012, the New Jersey Office for Planning Advocacy drafted the New Jersey Proposed 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.

SSP STUDY TIMELINE

Task/Milestone	Estimated Completion Date
Authorized Study Start Date	July 1, 2017
Kick-off Meeting with NJTPA	September 1 – October 31, 2017
Draft RFP to NJTPA	July 1 – July 31, 2017
Consultant RFP Issued	July 1 – September 30, 2017
Consultant Contract Awarded/Executed	August 1, 2017 – January 1, 2018
Kick-off Meeting with Successful Consultant	August 1, 2017 – January 1, 2018
Draft Final Report Due to TAC/SAC for Review	March 29, 2019
Final TAC/SAC meeting	April 12, 2019
Final Report due to NJTPA (This is a last review by NJTPA only)	April 30, 2019
Reconciled Final Report due to NJTPA and all final deliverables	May 31, 2019
Conclusion of Consultant Contract	June 28, 2019
Subregional Sub-Contract & Study Completion Date	June 28, 2019

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM GUIDELINES

As a federal grant program, the NJTPA is required to administer and oversee work conducted through the Subregional Studies Program (SSP) to ensure the efficient, effective, and appropriate use of federal funds. In addition, the Subregional Studies Program is a critical element of the NJTPA's continuous, cooperative, and comprehensive metropolitan planning process. 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 progress through the following schedule and adhere to the following requirements:

Grant Management Requirements

Federal funding awarded for studies 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 Subregional Pass-through Program Management and Administrative Procedures, Requirements and Allowable Expenses; NJTPA's Procedures for Procurement of Professional Services; 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 study'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. Approved 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, and a web-generated mileage calculator) 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 study 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 study 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 study 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. *Study Initiation:* Upon approval by the NJTPA Board of Trustees, NJDOT and federal sponsors, FY 2018 – FY 2019 studies will be authorized to begin July 1, 2017. The performance schedule under the SSP's subcontract shall begin on July 1, 2017 and shall end on June 30, 2019. 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 study, 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. The

project team will be comprised of the NJTPA, the subregion, and the consultant if there is consultant support.

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. Review quarterly reporting requirements.
e. 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.
f. Discuss the NJTPA's review and comment procedures.
g. Review the scope of work and schedule.
h. Discuss how the study will meet the following Environmental Justice requirements: identify and assess the transportation needs of low-income populations and minority populations; avoid recommendations that have disproportionally high and adverse effects on minority populations and low-income populations; and eliminate barriers to participation in the study process by low income populations, minority populations, and Limited-English-Proficiency persons.
i. Confirm planned Steering or Technical Advisory Committee membership. NJTPA central staff will assist subregions in identifying and inviting participation from appropriate regional and state agency representatives and will also serve on this committee.
j. Review of EGIS requirements and availability of GIS layers that identify Environmental Justice communities.

6. *Adherence to SSP Study Schedule*: The NJTPA requires that subregions adhere to the established study 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 study 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 study 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 22, 2019. 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 study'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 study 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:* The subregions must use their own documented procurement procedures that 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 RFPs 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 . The RFP should reflect the Scope of Work contained in the NJTPA FY 2018 UPWP.

9. *Request for Proposals:* The RFP shall not be issued until NJTPA staff has approved the content. NJTPA encourages subregional project managers to assemble and submit the draft RFP for review prior to the start of FY 2018. To assist consultants in developing proposals, the RFP should identify all tasks and subtasks, deliverables, and a realistic time frame for the study 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 shall be advertised on the subregion's website (where possible) and on the NJTPA website. The subregion must provide NJTPA with the final version of the RFP in PDF format.

10. *Consultant Selection*: Consultant services must be obtained through maximum free and open competition; the study 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, may include at least one other representative from the Steering Committee or Technical Advisory Committee (such as NJ TRANSIT, NJDOT, etc.). Prior to publicly distributing the RFP, the consultant selection committee must have an opportunity to review and comment on the RFP (allow a minimum of two 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 study 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 study 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. NJTPA can provide guidance on what to include in the memo upon request. 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 2018 UPWP.

14. *Contract Duration:* The consultant work should conclude on May 31, 2019, however, contracts should end on June 30, 2019. 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 study 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 Study Deliverables

17. *Interim Study Deliverables:* In addition to the final study 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 study develops. Interim deliverables should be spaced appropriately throughout the duration of the study to facilitate project management and oversight, and to identify and address gaps and/or challenges to the successful completion of the study 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 for Written/Text Deliverables:* All deliverables, including technical memoranda, outreach materials, and all other products to be disseminated to the public must be presented to the NJTPA for review and comment in electronic form in Microsoft Word or other editable format at least two (2) weeks prior to their release.

19. *NJTPA Review Process:* All written and graphic products produced by the consultant must be approved by the Subregional Project Manager and the NJTPA Project Manager. NJTPA staff will provide specific comments through the Track Changes function in Word with additional comments through e-mail. NJTPA staff strive to review and provide consolidated comments on technical memorandum within a two week timeframe. This is not always feasible, but it is a goal. Final deliverables require additional review time. NJTPA will work with subregions to discuss and address all comments. This is required for all deliverables.

20. *Required Deliverable Format for 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.

Study Conclusion/Closeout Procedures

22. *Steering Committee/TAC 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 30, 2019.

23. *Final TAC/Steering Committee 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 12, 2019 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 all final Steering Committee, TAC, stakeholder, and/or public input, are due to the NJTPA for final review and comment no later than May 31, 2019.

The final NJTPA review of all final deliverables will only occur after all review by all other agencies, committees, and stakeholders has concluded and comments have been addressed. Allow a minimum of two weeks for NJTPA review and comment on the Final Report. The Executive Summary should briefly outline the study's scope of work, the regional significance of this study, stakeholders, public outreach, methodology, relevant data, and summarize study 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 in electronic form 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. NJTPA is currently developing PRIME, a searchable online database that will make locating and analyzing study findings more efficient and more interactive. Further information will be provided on how to do this as PRIME is developed.

26. *Problem Statements:* Study recommendations can be addressed for implementation through the NJTPA Problem Definition Process, a step-wise procedure that will provide a format for how identified recommendations for projects from planning studies are reviewed, selected and prepared for advancement. Further guidance will be provided as this process is developed.

27. *Submit Final Reconciled Report to NJTPA*: Submit final reconciled report with abstract, executive summary, and NJTPA Logo and disclaimer statement on the cover. Also submit GIS files (if applicable) and PowerPoint presentation. The Final Report, reflecting all reconciled revisions, is due by June 30, 2019.

FY 2018 – FY 2019 SUBREGIONAL STUDY

NEWARK DOWNTOWN CIRCULATION IMPROVEMENT STUDY

CITY OF NEWARK

Proposal Sponsor: 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 Together North Jersey Regional Plan. 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

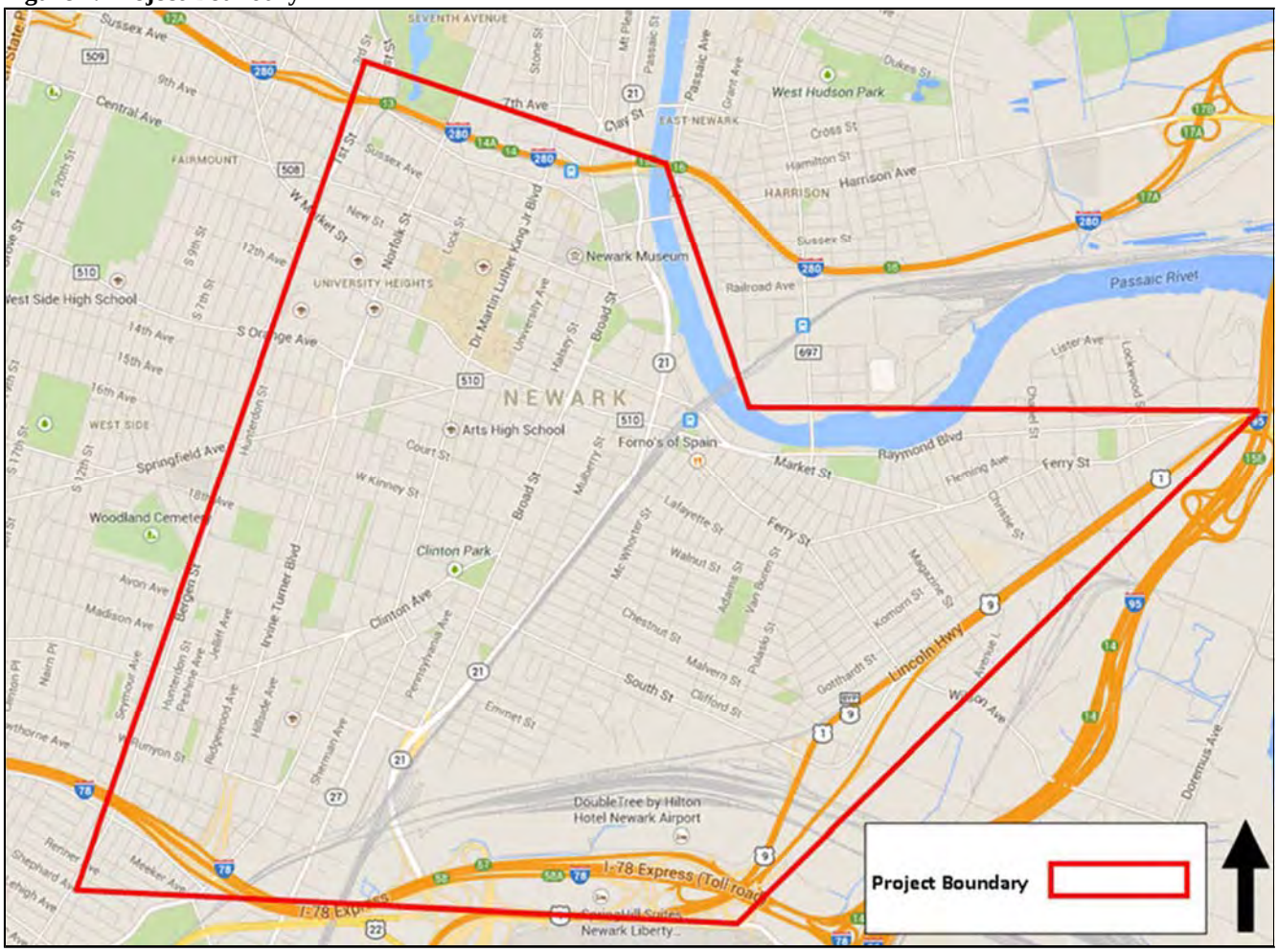
Key intersections include:

- 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, 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 Together North Jersey Regional Plan 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

Kimberly Singleton will act as the project manager. Ms. Singleton 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

- 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).

Contact Information:

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FY 2018 - FY 2019 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%

This estimated budget is based upon projected costs to perform the work program for FY 2018-2019 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:	$	280,000.00	**Local Match:**	$	70,000.00	**Total:** $ 350,000.00

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM
CITY OF NEWARK
NEWARK DOWNTOWN CIRCULATION IMPROVEMENTS STUDY
STAFFING PLAN

Project Task Budget

	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
Task	**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** *(based on total work hours for the year)*	**Total Estimated Hours for Study**
Beth Tanzosh - Supervising Transportation Planner	7%	257.6225
Uzoma G. Anukwe - Principal Transportation Planner	5%	180
Juan Feijoo - Traffic Engineer	4%	150
Sing Wong - Traffic Engineer	13%	470
Issac Ojedea - Traffic Engineer	7%	265
Kimberly Singleton - Manager	6%	215
TOTAL	**5%**	**1,538**

FY 2018 – FY 2019 SUBREGIONAL STUDY

JOHN F. KENNEDY BOULEVARD CORRIDOR SAFETY STUDY

HUDSON COUNTY

Proposal Sponsor(s):Hudson County

Partner Counties or Municipalities: Bayonne, Guttenberg, Jersey City, North Bergen, Union City and West New York

Title of Proposed Study: John F. Kennedy Boulevard Corridor Safety Study

Estimated Budget Requested ($ Federal/$ Local): $300,000 ($240,000/$60,000)

Anticipated Study Duration (Overall and Consultant Durations): 12 months

I. Project Management

A. Subregional Project Manager name and title: Byron Nicholas, AICP, Assistant Planner, Hudson County Division of Planning

B. Identification of agencies and municipalities from which letters of support and active participation are required: Hudson County Division of Engineering, Roads, Parks, and other divisions as needed, the Mayors Offices of Bayonne, Guttenberg, Jersey City, North Bergen, Union City and West New York.

II. Study Scope of Work

A. Needs, Goals and Objectives

1. Addressing a Regional Need

Hudson County's unique characteristics, including its congested local roads and extensive public transportation network, pose both opportunities and challenges in terms of circulation. The 2015 ACS 5-year estimates indicate that 41.6% of workers in Hudson County use public transportation for commuting compared to just over 11% of workers statewide. In addition, 9% of workers either walk or bicycle to work. One quarter of households do not own a vehicle, and another 41% have access to only one car. The ability for both pedestrians and automobiles to navigate the county's roadway network harmoniously is vital.

The County is working to implement its complete streets policy (ordinance #278-5-2012) and has identified John F. Kennedy Boulevard, which will be referred to as JFK Boulevard throughout this proposal, as a key corridor to apply complete streets principles. Major streetscape improvements along this corridor will help to ensure the safety of all modes for all transportation users. JFK Boulevard is an active corridor which runs the length of the county, with a variety of transportation users including private cars, trucks, buses, jitneys, pedestrians, and bicyclists.

Regional Destinations

JFK Boulevard, spanning from the Bergen County border in the north to Staten Island via the Bayonne Bridge in the south, provides a connection for Hudson County within the greater New York and New Jersey region. The Boulevard provides access to regional transportation routes, including NJ-495 and the Lincoln Tunnel, NJ-139 and the Holland Tunnel, U.S. 1&9, Interstate 78, NJ-440, and the Bayonne Bridge. JFK Boulevard provides access within the county to numerous destinations and amenities. Multiple County parks, including James J. Braddock Park, Lincoln Park, Mercer Park, and Stephen R. Gregg Park, abut the Boulevard. Other community facilities, including Hudson County Community College, St. Peters University, New Jersey City University, North Bergen Town Hall and Police Department, as well as several fire stations, are on the Boulevard.

Journal Square is a regional shopping/dining destination through which JFK Boulevard corridor traverses. While historically the central hub of the county, major residential and office projects are underway as part of a redevelopment plan for Journal Square. These projects are expected to bring thousands of new residents to the area. The Hudson-Bergen Light Rail and the Port Authority Trans-Hudson provides accessibility to other areas Hudson County and New York City. JFK Boulevard hosts a number of NJ TRANSIT bus lines and jitney services that operate between Hudson County, northern New Jersey, and Port Authority Bus Terminal. These routes serve both local and regional transit users and provide access for commuting and other destinations.

This study will identify both physical and policy-based solutions for safer, viable streets for particular intersections of concern along the JFK Boulevard corridor. The extent of the study area will comprise the length of JFK Boulevard (County Road 501) and will incorporate and incorporate the recommendations of the previous RSA as well as any future recommendations resulting from additional RSA's along the corridor. Rutgers University's Center for Advanced Infrastructure and Transportation's previously conducted Road Safety Audits (RSAs) between Communipaw Avenue and Montgomery Street, and from Sip Avenue to St. Paul's Avenue. Additionally, the County's Office of Engineering has submitted an RSA application for John F. Kennedy Boulevard between 43rd Street to 52nd Street in North Bergen/Union City. Please see attachment #1 for the proposed study area map.

There is a high concern for traffic incidents along the corridor. Applying Complete Streets principles along the JFK Boulevard would not only enhance the safety for pedestrians at intersections but would increase their level of comfort in the pedestrian realm. The areas of greatest conflict will be identified through this study. The issues will be analyzed and a set of recommendations will be developed. This study will seek to improve traffic flow through the applicability of best practices for traffic calming and other appropriate measures.

In the 2016 update to the Hudson County Land Development Regulations, which identifies street typologies for the County roads, JFK Boulevard has been designated multiple street typologies throughout the 15 mile route. JFK Boulevard features the following typologies: Residential Boulevard, Scenic Boulevard, Mixed Urban Boulevard, and Downtown Avenue. This study would help further the implementation of the recommended transportation policies for these typologies. JFK Boulevard is an important thruway for both residents and visitors. However, the Boulevard is

lined with both businesses and residences, creating an environment more akin to that of a local residential street in some areas, although it maintains four travel lanes throughout its length. With that in mind, the Boulevard should be treated according to local conditions in order to ensure compatibility with the variety of uses along any given stretch of the corridor as well as the varying users of the roadway. Due to the width of the Boulevard and the fact that it is the primary north-south roadway in Hudson County, it is often used as a thru-route to quickly travel from one destination to the next. The street should therefore be accessible and safe for residents and business owners, who use the Boulevard to work, live and play. The County has identified the need to upgrade the roadway to accommodate both motorized and non-motorized users while considering safety and efficiency on an equal basis.

The elevation of the roadway protects it from storm surge and flooding, and provides a safe north-south route during emergencies. As Hudson County's dense population and coastal location make the county vulnerable to severe weather events, it is important to examine the JFK Boulevard's resiliency to severe weather and function during emergencies.

The JFK Boulevard Corridor Safety Study will address several needs of Hudson County, which includes improving safety and access for all transportation modes, and addressing the needs of vulnerable populations – i.e. the elderly, the young and the disabled - through improving the street-crossing experience and reducing pedestrian and vehicular traffic conflicts.

Ultimately, the study will seek ways to make the corridor more inclusive and universal for all users. The implementation of complete streets, enhanced safety for multiple modes, identification of areas with high rates of incidents, and development of physical and policy based solutions will address problem areas and promote active living.

To address the corridor's safety issues and identify applicable streetscape improvements to enhance a greater quality of life the study will address the following regional planning goals and investment principles:

- Maintain a safe and reliable transportation system in a state of good repair. (Regional Transportation Plan (RTP) Goal)
- Provide affordable, accessible and dynamic transportation systems responsive to current and future customers. (RTP Goal)
- Enhance system coordination, efficiency and intermodal connectivity. (RTP Goal)
- Select transportation investments that support the coordination of land use with transportation systems. (RTP Goal)
- Connect people and places with safe, convenient, and reliable transportation. (Together North Jersey Focus Area 7)

- Make Travel Safer: Improving safety and security should be explicitly incorporated in the planning, design and implementation of all investments. (Regional Capital Investment Strategy (RCIS) principle)

- 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. (RCIS principle)

- Improve Roads but Add Few: Road investments should focus on making the existing system work better, and the road expansion should be very limited. (RCIS principle)

- 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. (RCIS principle)

- Support Walking and Bicycling: All transportation projects should promote walking and bicycling wherever possible. (RCIS principle)

2. Subregional Need

According to the New Jersey State Police Fatal Accident Statistics, eight fatalities occurred on JFK Boulevard in 2016, which was the most in the last decade. This rise in incidents clearly demonstrates a public hazard, and the need to make safety a priority along the JFK Boulevard corridor. Addressing safety along JFK Boulevard will help to prevent incidents and protect all pedestrians, especially the most vulnerable such as the elderly, disabled, and school children.

Many areas within the County have high rates of public transit users. According to the 2015 American Community Survey 5-year estimates, 22.7% of commuters in Bayonne, nearly half in Jersey City, approximately one-third of the North Bergen commuting population, and 41.6% of the Union City commuting population take public transit to work. These commuters are pedestrians at some time in their commute to work and are vulnerable to crashes with cars, trucks, buses and other motorized forms of transportation. Without adequate infrastructure for safety, accessibility and mobility, this particular area within the county is expected to experience high levels of crash related injuries and fatalities. Although the county has a median income for residents of $59,741, according to the 2015 ACS 5-Year Estimates, this study will take into consideration the needs the 15% of the population that lives below the poverty level, as well as users of the corridor who live outside of the study area. The study will also consider the needs of the 44% of the county populations considered minority. The study will incorporate several other current initiatives that will impact the JFK Boulevard, including the following:

The "Street Smart" Pedestrian Safety Education and Enforcement Campaign

The "Street Smart" Pedestrian Safety Education and Enforcement Campaign, managed by NJTPA, is a collaborative effort between public, private, and non-profit organizations aimed at

educating pedestrians and motorists, changing pedestrian and motorist behavior, and increasing enforcement of pedestrian safety laws in order to reduce the incidence of pedestrian injuries and fatalities. Sections of JFK Boulevard were targeted by the campaign in 2013 and 2014. Strategies such as signage, social media, and enforcement tactics were found to be effective. These efforts should be expanded throughout the study area. Further information on the Street Smart campaign can be found at http://bestreetsmartnj.org/ .

Safe Routes to School Program

The New Jersey Department of Transportation partnered with the Hudson TMA to administer Safe Routes to School programs in Hudson County. Safe Routes to School utilizes federal, state and local efforts to encourage children, including those with disabilities, to walk and bicycle to school and educate them about road safety. There are more than fifteen schools located along the length of JFK Boulevard, and students use the Boulevard as a main route to travel to and from their school. The safety and accessibility of students is of primary concern when considering the function and operation of the Boulevard.

Historic Districts

JFK Boulevard runs through the heart of the recently designated West Bergen-East Lincoln Park Historic District in Jersey City. Design guidelines will be set in place by the Jersey City Historic Preservation Commission to maintain the historic character and aesthetic of the historic properties within the District. As a primary artery of the District, the design standards of JFK Boulevard should be compatible with the surrounding historic context of this historic district, and that of any future historic districts which may be designated along the corridor.

Bike Share

Biking is becoming increasingly popular to use as a commuting mode of transportation and leisure. Bike share companies are debuting services throughout the county. Citi Bike has implemented service throughout Jersey City and has placed multiple bike stations close to JFK Boulevard. Several other municipalities, including Bayonne, Guttenberg, Union City, and West New York, are exploring bike share implementation as well. This bicycle traffic will have an impact on the overall traffic on JFK Boulevard. This study will therefore look at accommodating the safety and accessibility of these users.

B. Methodology: The following is a description of the Tasks for this study.

Task 1: Project Management

Description:

The County's Project Manager will manage daily activities of this study and will serve as the liaison between the Consultant, staff from the Division of Roads and Public Property, Engineering, Parks, and the North Jersey Transportation Planning Authority (NJTPA). The County's Project Manager will serve as a liaison between the consultant and members of a Technical Advisory

Committee (TAC) and the general public. The Project Manager will be tasked to manage the consultant selection process, prepare and submit quarterly reports, and process consultant invoices.

The consultant shall be prepared to submit monthly progress reports and invoices that are up to the standards set forth by the NJTPA to the County's project manager. In addition, the consultant shall be available to discuss project status on a bi-weekly basis with Hudson County and NJTPA Project Manager (either in person or via conference call) to ensure the project remains on track and within budget. A minimum of three (3) face to face meetings shall be held throughout the project, at the County's offices, to discuss the project including a project kickoff meeting with the County, NJTPA staff and other agencies as necessary.

The consultant shall assign a qualified individual to serve as the project manager for this consultant effort. The County's project manager will be responsible for ensuring the successful completion of all consultant tasks, on time and within budget. Throughout the duration of the study, Hudson County, the TAC, the selected consultant, and the general public will work collaboratively to develop the final product.

Deliverables:

- Monthly progress meetings including a minimum of three (3) face to face progress meetings,
- Monthly written progress status reports.
- Monthly invoices and quarterly NJTPA Progress Reports.

Task 2: Assess and Quantify Needs

a) Outreach and Partnerships

Description: The process shall be transparent, allowing for maximum communication between Hudson County, the TAC and the general public. To facilitate the dissemination of information, the consultant shall provide information to be posted on the Division of Planning's website regarding report updates, meeting announcements, meeting minutes and handouts, draft and final work products, and contact information. Questions and comments regarding updates can be addressed to County planning staff.

Throughout the course of the project, the consultant will hold at least two well-advertised (in both English and Spanish) public meetings at a location within the study area: one to introduce the study and one to present the final recommendations. The meetings will be accessible and encourage all members of the public to participate. The location of the meetings will be accessible by public transportation, and they will occur during evening hours to allow for working populations to attend. Staff will attend public events throughout the County to flyer and/or table in order to reach a wider span of population. All public outreach materials will be published in English/Spanish.

Public meeting materials and content must be approved by the County of Hudson prior to dissemination, and review time must be built into the consultant schedule. Additional outreach shall be done through social media outlets, such as: Twitter, Facebook and/or LinkedIn.

Prior to the kick-off meeting with the Technical Advisory Committee (TAC), the Hudson County staff will coordinate and lead one-on-one meetings with representatives from Bayonne, Guttenberg, Jersey City, North Bergen, Union City and West New York to explain the project's objectives, timeline and overall goals. The purpose of these one-on-one meetings will be to inform stakeholders about the project early in the planning process and to obtain input that may shape the structure and outcomes of the walkability workshops, data collection and findings.

Surveys, social media, and other creative methods will also be used as additional public outreach tools to collect information from residents, commuters, visitors and business owners who frequent the study area.

A Technical Advisory Committee (TAC) shall be convened, which will be comprised of but not limited to representatives from:

- The County of Hudson, including the Sheriff's Office, Planning Division, Roads Division and Engineering Division
- NJTPA
- Hudson TMA
- Hudson County Chamber of Commerce
- NJDOT
- NJ TRANSIT, including Hudson County Transcend (Community Paratransit)
- Jitney Bus Service Providers
- NJ Bicycle and Pedestrian Resource Center
- Community groups, such as BikeJC or Safe Streets JC
- Bayonne, Guttenberg, Jersey City, North Bergen, Union City, and West New York Local Law Enforcement, elected officials or their representatives, and other municipal representatives as appropriate.
- St. Peters University and New Jersey City University
- The Street Smart Campaign leadership

The TAC will also include a government official as a representative from each of the municipalities included in the study area. The TAC will serve as a resource for the selected consultant, review all consultant work products, and guide the project. The TAC will meet a minimum of three times, either in person or electronically, over the course of the project. The County's project manager will be responsible for scheduling and notifying the TAC of meetings, and preparing meeting agendas. The consultant shall prepare the presentation material, write the meeting minutes and be prepared to participate in each TAC meeting.

b) Visioning and Goal Setting

Description: As part of the visioning and goal setting component, there will be four main goals and several objectives to be confirmed for the study. The goals and objectives will be discussed and refined through the first TAC and public meetings by public participation methods such as charrettes. In addition to coordinating with other organizations, the consultants shall coordinate with the Pedestrian Safety Education and Enforcement Campaign leadership for goal setting. Ultimately, the TAC will plan the structure of the first public meeting which will take the form of a design charrette to effectively collect input from residents and stakeholders relating to the following goals:

1. Improve travel safety for all users, and especially for pedestrians and bicyclists of all ages and abilities.

2. Improve the efficiency of movement for all users.

3. Identify short-term and long-term physical and policy-based recommendations to address pedestrian safety needs, based on new urbanism principles for the JFK Boulevard corridor as appropriate.

4. Identify low-income populations and minority populations in the study area and develop recommendations that consider the needs of these populations.

   Additionally, recommendations proposed for the County roads will be developed to educate users of all modes of transportation to be aware and cognizant of the needs of other types of users. Users of all modes of transportation should be aware of the rules of the road to ultimately avoid potential conflicting interactions with one another. Finally, the study will identify enforcement needs with respect to travel safety and congestion mitigation.

Deliverables:

- Preparation of invitations, presentation materials and minutes for three Technical Advisory Committee meetings.
- Survey and other innovative outreach mechanisms used for public outreach, project dissemination (in both English and Spanish) via County website, and social media outreach.
- Presentation slides and other meeting materials for and minutes from public meetings.
- Draft and final Technical Memorandum #1 summarizing the outreach process and input received. Send to relevant parties including NJTPA for comment, and comments addressed.

Task 3: Collect Data and Conduct Analysis

Description: The purpose of this task is to evaluate crash data, demographics, traffic information and other data in order to identify priority locations for pedestrian safety

improvements. Potential strategies and policies to improve safety will be initially looked at under this task, with an emphasis on proven safety countermeasures and improvements that enhance the multi-modal travel experience.

Primary Activities:

1. Collect and analyze crash data for JFK Boulevard.

2. Collect and analyze general multi-modal travel patterns along JFK Boulevard, including public transportation routes.

3. Review previous planning studies and documents to identify best practices, and incorporate recommendations for improvements relevant to the study area.

4. Evaluate quantitative data throughout the study area and inventory existing conditions for all modes.

5. Identify four nodal areas of focus with high incidents of traffic and pedestrian conflict within the study area.

6. Identify and examine case-studies with similar road typologies that can provide example recommendations for this study.

7. Conduct one walkability workshop in each of the identified nodal areas of concern to cover each of the study area's sub-areas, as defined below.

8. Incorporate qualitative data through surveys and interviews from residents, commuters, visitors and business owners who frequent the study area that was collected under Task 2.

9. Provide two (2) technical memorandums for data collection, walkability workshops and updates NJTPA, County staff and TAC members to review.

The consultant will collect and review existing data and documents to gain understanding and provide an overview of the existing conditions. This will include:

- Safety guidance documents from AASHTO and FHWA, including those related to proven safety countermeasures.
- Crash data
- Bus routes and stops
- The North Hudson County Bicycle & Pedestrian Study: Final Report (2005)
- The Hudson County Jitney Study (NJTPA)
- The Bayonne/Greenville/Journal Square Bus Rapid Transit Study
- 2016 Land Development Regulations
- Hudson County Master Plan Re-examination Report 2016
- Master Plans and Zoning Ordinances for all municipalities in the study area

(pertaining to the JFK Boulevard area)
- Any prior and current Road Safety Audits in the Study Area and
- other information as appropriate

Additionally, the consultants shall be familiar with the following resources and utilize them to inform any recommendations for the corridor:

- American Planning Association's Smart Growth Codes (2003)
- Passaic County's Transportation Element of the Passaic County Master Plan (October 2012)
- National Complete Streets Coalition's "10 Elements That Should Appear In A Comprehensive Complete Streets Policy Document"
- NJ Municipal Land Use Law
- NJ County Planning Act
- NJ Best Management Practices
- 5- Year Strategic Plan- NJDOT Bicycle and Pedestrian Resource Center
- ANJEC Storm water Regulations
- NJTPA's Regional Transportation Plan (Plan 2045) & Regional Capital Investment Strategy
- Manual for Uniform Traffic Control Devices (MUTCD)
- National Association of City Transportation Officials (NACTO) Urban Street Design Guide

The consultant shall meet with staff from Hudson County at the beginning of the project to obtain data and information that has previously been collected. The consultant will maintain an open dialogue with the County and TAC members throughout the project.

The consultant shall conduct research and field work throughout the study area. This includes analyzing existing census and other data (to address the environmental justice component of the study), and conducting vehicular and pedestrian traffic counts and data on vehicular turning movements. Quantitative data through crash statistics and qualitative data through interviews and surveys should identify which areas are most unsafe.

Defining the Focus Areas

The consultant will identify four nodal areas of concern with high incidences of traffic and pedestrian conflict. Quantitative data through crash data and traffic counts, and qualitative data through interviews and surveys should identify which areas are most unsafe. The areas of concerns will be primary nodes where multiple major road corridors, travel routes, and transportation modes converge. The identified nodal areas of concern will include one identified area within each of the following sub-regions:

- Bayonne
- Jersey City (excluding RSA study areas)
- North Bergen/Union City (excluding RSA study area)

- North Bergen/ West New York/Guttenberg

The identified nodal areas of concern will be the locations of the walkability workshops, and will be comprehensively analyzed within the final study.

A primary source of qualitative data will be the Walkable Communities Workshops, the locations of which will be determined based on the analysis and identification of intersections with high incident rates within the respective sub-regions. The consultant shall conduct the walkability workshops with the TAC members to identify current and potential streetscape and roadway dilemmas within the nodal areas of focus. Ultimately this collection of data shall inform physical and policy-based safety enhancement recommendations for users within the study area.

The consultant shall also be prepared to discuss the data collected at the walkability workshops, as well as for the charrettes and other public engagement methods employed during the public meetings.

The walkability workshops shall be well advertised and inclusive to members of the public, neighborhood associations, concerned citizens, elected officials, law enforcement officials, local government representatives and professionals.

The structure of the walkability workshops will include TAC members and other invited guests. The walkability workshop has three parts: A meeting prior to the walkability component to will allow constituents the opportunity to obtain descriptive information on the study area and learn more about site-based walkability design. The workshop participants will then go out into the field to identify and analyze safety issues and concerns, areas for improvements, and potential areas of interest. Lastly, the participants will reconvene to discuss and review the qualitative data collected in the field to generate recommendations throughout the study area.

Deliverables:

- Data files and technical memorandum #2 that summarizes the data collection effort and the results of the quantitative analysis. Any GIS data that is collected and used for this task must be submitted to the NJTPA using the NJTPA E-GIS standards for naming conventions and metadata.
- Prepare for and conduct four Walkability Workshops. Summary reports for each walkability workshop (potentially with examples of potential design treatments for the locations).
- Technical memorandum #3 summarizing qualitative data and identifying areas with most potential risks for crashes and potential recommendations based on the walkability workshops.

Task 4: Prepare Study Recommendations and Final Report

Description: The purpose of this task is to develop recommendations and a draft and revised final report that incorporates qualitative and quantitative data and analysis. Where possible, include recommendations for storm water retention opportunities within roadway improvements.

Primary Activities:

1. Propose physical safety improvements and policy-based streetscape improvement recommendations.

2. Incorporate elements of the Hudson County Complete Streets policy with an emphasis on pedestrian circulation and safety.

3. Identify opportunities to promote multi-modal safety improvements and more efficiently facilitate regional linkages.

4. Identify public and private funding opportunities.

5. Provide a draft report for NJTPA, County staff and TAC members to review.

6. Provide a final report and executive summary that incorporates comments and includes short-term and long-term physical improvements and policy-based recommendations. The final report should also include summaries from the walkability workshops.

7. A written supplement that records and responds to public comments.

The consultant will prepare a draft of the final report and executive summary for review by staff from Hudson County, NJTPA, and the TAC. Public comments shall be recorded in a separate written supplement. The consultant will revise the draft final report per received comments from the public, the TAC, Hudson County, and the NJTPA, where appropriate. Hudson County and the NJTPA shall make a final consensus determination as whether or not to make revisions to the report based upon the comments received.

In addition to the previously mentioned methodology of the study, the draft report shall include site-specific physical improvement and policy recommendations for each walkability workshop location and other areas of need. The study's recommendations shall focus on the necessary road safety improvements in the JFK Boulevard study area and ultimately provide physical improvements and policy-based recommendations.

The recommendations shall result from the analysis of accumulated data, including input from the walkability workshops, best practices, interviews and public meetings.

In addition, the draft report shall also include an implementation matrix that identifies strategies and actions, timeframe, potential short term and long term funding sources, and potential implementing agencies. The implementation matrix may include departmental budgeting, capital improvement monies and state and federal funding opportunities.

The consultant will provide copies of the draft report to the Division of Planning and County Engineering staff, the TAC, and NJTPA for review. The Division of Planning staff will guide the consultants in revising the draft report to incorporate the comments.

The consultant will prepare the final report and executive summary. The consultant shall provide both hardcopies and digital copies of the final report to the project manager for distribution. All graphics and materials shall be appropriately sized to avoid an unnecessarily large file size for the final report.

The consultant will develop a PowerPoint Presentation and conduct presentations of the Final Report to the Hudson County Planning Board and/or municipal planning boards upon request.

Deliverables:

- Draft final report in editable format, including recommendations and public comment, and summaries of the walkability workshops. Revised Final report and executive summary that addresses comments as appropriate.
- Twenty (20) hardcopies and an electronic version for distribution and a PowerPoint presentation and script following the same structure as the executive summary will be provided.
- All final GIS data that is collected and used for the study must be submitted to the NJTPA using the NJTPA E-GIS standards for naming conventions and metadata.

A. Environmental Justice

Special attention will be given to environmental justice. The public outreach component would aim to include low-income and minority populations in the forefront of discussions. Information regarding public meetings will be available in both English and Spanish to accommodate the region's large Latino population.

The county has a poverty rate of approximately 15%, with even higher rates among minorities. Proposed recommendations in this region would directly benefit these populations, who are less likely to have access to a car. Environmental justice populations in the study area will be identified, and their transportation needs and utilization of the JFK Boulevard study area will be assessed. Based on qualitative and quantitative data, recommendations for infrastructure and safety improvements will be developed with particular focus on environmental justice populations. These recommendations will ensure that the streetscape provides safe, convenient and efficient means of access for all users, especially the most vulnerable.

Recommendations for street improvements and infrastructure will aim to make the streets more accessible for people with disabilities and the elderly with mobility impairments. These recommendations will adhere to the Americans with Disabilities Act (ADA).

B. Study Partnerships

The study will utilize resources from the multiple government agencies and organizations affiliated with the project. Local knowledge from municipal police departments and government agencies will be accessible through TAC meetings, individual discussions, and walkability workshops. Public input will also be essential, and key stakeholders will be identified to assist with reaching a broad base of the public for their input. Input from these groups will provide much of the qualitative data needed for the study. The consultants will conduct the data analysis, and will obtain crash data from NJDOT, which will be crucial to the study's quantitative component.

III. Related Prior Work and Future Work

Prior studies in the region have set a precedent for this proposal. The North Hudson County Bicycle and Pedestrian Study completed in 2005 has identified and prioritized "hot spots" in need of safety enhancements. Although the previous study identifies particular areas of interest as problematic, this study will focus more specifically on JFK Boulevard and advance more comprehensive solutions.

As previously mentioned, the extent of the study area will comprise the length of JFK Boulevard (County Road 501) excluding areas previously covered by Rutgers University's Center for Advanced Infrastructure and Transportation's Road Safety Audit: between Communipaw Avenue and Montgomery Street, and Sip Avenue to St. Paul's Avenue. Additionally, the County's Office of Engineering has submitted an RSA application for John F. Kennedy Blvd between 43rd Street to 52nd Street in North Bergen/Union City. If the proposed RSA is accepted and completed prior to the conclusion of this prospective study, the consultants must review and concur with the recommendations from the RSA.

In addition, the 2016 update to the Hudson County Land Development Regulations, which identifies street typologies for the County roads, including the designation of multiple typologies for different sections of JFK Boulevard. This study would help further the implementation of the recommended transportation policies for these typologies.

IV. Attachments (refer to the checklist)

- SSP FY18-FY19 Study Schedule
- Budget Plan
- Staffing Plan
- Subregional Project Manager's Resume
- Study Area Map

Contact Information:

Subregional Project Manager Name: Byron A. Nicholas, AICP
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Subregional Chief Financial Officer Name: Cheryl G. Fuller, CPA,
Title: Director, Department of Finance and Administration
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FY 2018 - FY 2019 SUBREGIONAL STUDIES PROGRAM

Hudson County

John F. Kennedy Blvd. Cooridor Safety Study

BUDGET PLAN

				PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	**DIRECT COSTS - PERSONNEL SERVICES**					
	1. SALARIES		$	27,224.34		
	2. FRINGE BENEFITS	55.686%	$	15,160.20		
		SUBTOTAL	**$**	**42,384.53**		
PART II:	**DIRECT NON-LABOR COSTS**					
	1. SUPPLIES		$	54.69		
	2. TRAVEL		$	200.00		
	3. PRINTING & REPRODUCTION		$	2,337.39		
	4. TELEPHONE		$	-		
	5. POSTAGE		$	50.00		
	6. CONFERENCE/TRAINING		$	-		
	7. OTHER (SPECIFY)		$	-		
		SUBTOTAL	**$**	**2,642.08**		
PART III:	**INDIRECT COSTS**					
	INDIRECT COST ALLOCATION	55%	$	14,973.38		
		SUBTOTAL	**$**	**14,973.38**		
PART IV:	**CONSULTANT COSTS**					
	CONSULTANT		$	240,000.00		
		SUBTOTAL	**$**	**240,000.00**		
		TOTAL PROGRAM BUDGET	**$**	**300,000.00**	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2018-FY 2019 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: $ 240,000.00 **Local Match:** $ 60,000.00 **Total:** $ 300,000.00

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM
Hudson County
John F. Kennedy Blvd. Cooridor Safety Study
STAFFING PLAN

Project Task Budget

	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
Task	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	122	$ 5,943.69	$ 258.06	$ 2,099.76	$ 8,301.51	75	$ 21,000.00	$ 29,301.51	10%
Task 2 - Needs Assement Public Outreach & Inter-Agency Coordination	143	$ 6,695.31	$ 542.53	$ 2,365.28	$ 9,603.13	200	$ 52,000.00	$ 61,603.13	21%
Task 3 - Data Collection, Analysis, and Quantification of Need	241	$ 11,996.23	$ 872.83	$ 4,237.96	$ 17,117.76	250	$ 82,000.00	$ 99,107.02	33%
Task 4 - Draft Report: Recommendations and Implementation	162	$ 8,109.41	$ 666.16	$ 2,864.85	$ 11,640.43	225	$ 64,000.00	$ 75,640.43	25%
Task 5 - Final Report	187	$ 9,639.89	$ 302.50	$ 3,405.53	$ 13,347.92	75	$ 21,000.00	$ 34,347.92	11%
TOTAL	**855**	**$ 42,384.53**	**$ 2,642.08**	**$ 14,973.38**	**$ 60,000.00**	**825**	**$ 240,000.00**	**$ 300,000.00**	**100%**

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study *(based on total work hours for the year)*	Total Estimated Hours for Study
Megan Massey, Principal Transportation Planner	0%	0
Massiel Ferrara, Planning Director	4%	128
Francesca Giarratana, Principal Planner	5%	188
Byron Nicholas, Assistant Planner	10%	364
Kevin Force, Assistant Planner	3%	102.5
Jason Bottcher, GIS Specialist	2%	72
TOTAL	**4%**	**855**

FY 2018 – FY 2019 SUBREGIONAL STUDY

COMPREHENSIVE FREIGHT RELATED TRANSPORTATION STUDY IN WESTERN MONMOUTH COUNTY AND SOUTHERN MERCER COUNTY

MONMOUTH COUNTY

Proposal Sponsor(s): Monmouth County Division of Engineering and Traffic Safety

Partner Counties or Municipalities: Mercer County, Borough of Allentown, Townships of Robbinsville and Upper Freehold

Title of Proposed Study: Comprehensive Freight Related Transportation Study in Western Monmouth County and Southern Mercer County

Estimated Budget Requested (Consultant/In-House and $ Federal/$ Local): $310,000

Anticipated Study Duration (Overall and Consultant Durations): Consultant Duration – 12 months

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I. Project Management

A. Subregional Project Manager name and title:

Daria Jakimowska, P.E., Chief Engineer, Traffic Design

B. Identification of agencies and municipalities from which letters of support and active participation are required:

- Monmouth County, NJ – Division of Engineering & Traffic Safety and Division of Planning
- Borough of Allentown, Monmouth County, NJ
- Robbinsville Township, Mercer County, NJ
- Upper Freehold Township, Monmouth County, NJ
- Mercer County

II. Study Scope of Work

The County of Monmouth is seeking consultant services for conducting a comprehensive freight related transportation planning study in the western most portion of the county encompassing the communities of Allentown Borough, Upper Freehold Township, and the neighboring community of Robbinsville Township in Mercer County. The purpose of this study is to better understand freight related travel needs in this area and to provide County planners, engineers and policy makers with a comprehensive approach to truck routing and other strategies to meet freight related travel needs in ways that are compatible with other traveler's needs in this area.

A. Needs, Goals and Objectives

As Monmouth County enters an era of redevelopment, revitalization, and rediscovery with the recent adoption of the Monmouth County Master Plan, it is crucial now to address critical

capacity issues for freight routes to ensure freight related transportation is safely and efficiently interacting with local automobile traffic. These may be along state, county and local rail, and roadways. This study will focus on truck routes and trucking needs, although rail routes, and their role in the multi-modal freight network of this area will be considered as part of a long term strategy for accommodating and managing freight traffic in the area.

This western portion of the Monmouth County's Panhandle Region consists of a variety of land uses ranging from historically significant villages such as Allentown to expansive rural farmland in Upper Freehold to busy industrial complexes in Robbinsville. The Township of Upper Freehold shares a border with Robbinsville along Monmouth County CR 539 which provides access to residential communities in Upper Freehold and to industrial – commercial developments housing various businesses such as Matrix Business Park 7A located in Robbinsville with KTR Urban Renewal II, LLC (Amazon), Project Liberty, Mercedez Benz, McMaster-Carr, and Ritchie & Page. The growth of warehousing businesses in the area has led to a significant increase in daily truck trips in the area, which increases dramatically during the annual holiday season. This results in additional congestion, increased delays and traffic collisions, noise and air pollution, and a general decrease in quality of life for local residents, as well as a decrease in efficiency in the movement of goods.

The Borough of Allentown is particularly impacted by freight related truck traffic in the area. Allentown has one of the largest contiguous State and National Register Historical Districts in New Jersey. The historic district is comprised of 221 structures, many of which were built before 1860, a mill, millpond, Doctor's Creek and its tributaries. This small residential community covering 0.63 square miles has a population of approximately 1,800 people. The Borough is located near the New Jersey Turnpike and Interstate 195, and is encompassed by Upper Freehold on all sides with the exception of its northern border which it shares with Robbinsville in Mercer County. Allentown's transportation roadway network is based on four (4) narrow, county roads with no shoulders that are remnants of the colonial era. They are CR 28, CR 524, CR 526, and CR 539. These roads carry both regional and local traffic, including through truck traffic, commuters, visitors, local residents, emergency vehicles, school buses and farm vehicles. These three 500 series roadways are within close proximity to the Turnpike, and I-195, creating convenient connecting routes through Allentown for freight traffic bound for Ocean County to the south, Mercer County to the north, Middlesex County to the west, and Monmouth County's shore communities to the east. Through truck traffic threatens the safety of the residents, undermines the historical integrity of structures, damages roadways, increases noise and air pollution and is a detriment to the local economy. This study will include recommendations for alternative routing for trucks not destined for Allentown.

The issue of heavy truck traffic travelling through downtown Allentown and Upper Freehold, and commuter traffic destined for large industrial complexes in Robbinsville and elsewhere, has become an important concern. A comprehensive approach is needed to understand and to address multiple regional issues related to transportation infrastructure improvements, farmland preservation , agricultural business and tourism, the inclusion of various modes of transportation such as bikes and horseback riding, along with a myriad other capital improvement projects. However, competing needs of the surrounding local communities have not provided for a realistic opportunity to develop a comprehensive transportation plan for this area. This study

effort will bring the local communities together with a common purpose and the potential for mutually beneficial outcomes.

This effort will provide decision makers with a Transportation Plan that addresses freight related transportation and community needs in the study area, and identifies ways to best operate and coordinate freight transportation solutions taking into consideration the complexities of the study area including a historic district and its mix of commercial, residential, industrial, agricultural and recreational land uses. This may incorporate recommendations from, or to, the individual Complete Streets policies of Mercer and Monmouth Counties, and Robbinsville Township.

1. Addressing a Regional Need

The most western part of Monmouth County is a unique place in that its geography, population, and economy present the widest possible variety of needs that requires a truly comprehensive planning approach. Due to the configuration of the roadway network and the diverse land use within a small area, growing automobile and freight travel have become the dominant means of transportation directly affecting millions of people that either live in or are passing through the area. The number and intensity of vehicular travel have been consistently increasing along with freight traffic associated with the surrounding areas economic growth; however, the secondary roadway system was not designed or intended to support this type or amount of regional traffic. Drivers seeking alternate routes to avoid congestion and delays cut through the local communities not intended to handle such volumes of traffic. This cause and effect increases the number and frequency of traffic collisions and creates real physical nuisances affecting the quality of life of local residents in the forms of noise, air pollution, and vibration. In addition, the outdated guide sign system along I-195 does not coincide with the transportation needs of the area and directs traffic through the residential areas, further exacerbating the issue.

As congestion increases and ability to add capacity decreases, the prudent approach for the County is to create a Comprehensive Freight Transportation Plan that will consider appropriate transportation solutions within the context of the Historic District and the surrounding mix of residential, industrial, commercial, and agricultural land uses. This approach would not only benefit Allentown, Upper Freehold, and Robbinsville but other surrounding communities in both the NJTPA and DVRPC regions due to the amount of trips western Monmouth County generates and receives daily from commuters and visitors to/from these subregions. Once a plan is developed it will provide the County with a guide for future studies, highlight an array of potential mitigation strategies for future development in the area, as well as provide for the selection and prioritization of necessary capital improvement projects to implement the action plan.

> The study addresses the freight related aspects of seven of the eight MAP-21 Planning Factors, which the FAST Act builds on, as listed in the Regional Transportation Plan for North Jersey, *Plan 2040*.

1. The study will seek to support the economic vitality of the metropolitan area by improving the efficiency of goods movement, the productivity of the businesses operating in the study area, and their global competitiveness.
2. The study will seek to make recommendations for increasing the safety of the transportation system for motorized and non-motorized users.
4. The study will seek to make recommendations to increase the accessibility and mobility of freight.
5. The study will seek to make recommendations that will protect and enhance the environment by reducing noise and air pollution in the study area, improve the quality of life for people living, working, and playing in the study area.
6. The study will seek to make recommendations to enhance the integration and connectivity of the transportation system across and between modes, for freight in order to mitigate the deleterious effects of freight related transportation in the study area.
7. The study will seek to make recommendations for efficient system management and operation of the transportation facilities in order to mitigate the deleterious effects of freight related transportation in the study area.
8. The study will seek to make recommendations emphasizing the preservation of the existing transportation system by protecting it from the deleterious effects of truck traffic.

While the study is not a capital investment, any recommendations it may make for capital investment will address the Regional Capital Investment Strategy with regards to six of the eight Investment Principals.

1. The study will seek to make recommendations that may **Help Northern New Jersey Grow Wisely** by encouraging the economic growth already taking place in the study area while protecting the environment from increased noise pollution, and localized air pollution from freight related transportation in residential and downtown areas.
2. The study will seek to make recommendations that may **Make Travel Safer** by improving safety for all travelers in the study area.
3. The study will seek to make recommendations that coincide with a policy of **Fix It First** with recommendations that preserve the existing roadways by protecting them from the deleterious effects of freight related transportation.
4. The study will seek to make recommendations that **Improve Roads but Add Few** by better directing freight related traffic through the study area, improving conditions on existing roads.
5. The study will seek to make recommendations that **Move Freight More Efficiently** by better directing freight related traffic through the study area.
6. The study will seek to make recommendations that **Support Walking and Bicycling**, as well as other non-motorized modes by better directing freight traffic through the study area.

The study will also seek to support recommendations in the text of *Plan 2040* that relate to the economy (pg 30), coordinating land use and transportation (pg 32), and air quality (pg 34). The study will also seek to support recommendations that reduce traffic congestion that “regularly hampers the movement of people and goods” (pg 39). While the goods handling facilities in the

study area are located in Mercer County, their economic effects are felt by businesses and employees on both sides of the county border.

The study will also seek to make recommendations to improve the safety of all users, including non-motorized users as discussed in *Plan 2040* (pages 43-45), and in the State Strategic Highway Safety Plan. The Heavy Vehicles Safety Emphasis Area states, "**Improve access between the state highway network** and truck generators (distribution centers, major retailers, and inter-modal terminals) to reduce interactions between heavy trucks and passenger vehicles and provide more direct access to highways." pg 2-26) This item coincides directly with recommendations that this study will seek to make.

Finally, a federal priority as communicated in the most recent notice of Federal Emphasis Areas, this study will work across regional borders and may yield insights into developing effective models of regional cooperation, and is a good example of planning at the edge of counties, regions, and municipalities.

2. Subregional Need

Regional traffic including through truck traffic traveling in downtown Allentown and Upper Freehold and traffic destined to a large industrial complexes in the area has a negative impact on quality of life of the local residents, inconveniences visitors traveling in the area which are faced with traffic safety concerns, congestion, and delays.

The plan will provide for maintaining the integrity of the Allentown historic district, address congestion and safety issues, and improve the quality of life by diverting regional traffic to more appropriate state and major county roadways. This will be done while providing opportunities for economic growth and an increasing opportunities for other non-motorized modes of transportation in the residential and recreational areas of the western part of Monmouth County.

3. Study Goals and Objectives

The goals of the Comprehensive Freight Related Transportation Study in Western Monmouth County and Southern Mercer County are to:

- Evaluate the existing transportation facilities used for regional and local travel in the study area related to freight travel needs, recommend improvements to existing facilities and routing, to address congestion, safety, multi-modal mobility, accessibility, traffic operations, and impacts of regional traffic on local communities.
- Avoid recommendations that cause a disproportionate burden on environmental justice communities.

The main tasks and objectives of this study are to:

- ✓ Define study area
- ✓ Review all existing studies, data, and statistics relevant to this study
- ✓ Consider of the effects of freight transportation in the study area.

- ✓ Collect and evaluate traffic data (ADT, turning movements, vehicle classification, OD study, and crash history, LOS & capacity analyses) at key locations within the study area utilizing the newly created Monmouth County Travel Demand Model, the NJTPA NJRTM-E and other resources.
- ✓ Evaluate transportation facilities, operations and network data regarding critical infrastructure links and travel routes pertinent to regional and local heavy truck travel including peak seasonal and emergency management travel needs.
- ✓ Establish a comprehensive understanding of the inter-relationship of freight related transportation facilities and services and their capacity and performance limitations for regional and local travel times including seasonal and emergency management travel time periods.
- ✓ Evaluate a range of transportation demand management (TDM), Transportation System Management (TSM), intelligent transportation system (ITS) and other strategies and measures for their applicability to through truck traffic and other peak travel demands under planning, engineering and emergency management needs and perspectives.
- ✓ Develop a series of recommendations that can be advanced by NJDOT, the New Jersey Turnpike Authority, Mercer County, Monmouth County, Meadowlink TMA and other TMAs, State and local police departments and local municipalities and/or private parties.
- ✓ Define short, interim, and long term time-frames, preliminary cost estimates, and potential implementing agencies for these recommendations as an implementation strategy to advance projects in a prioritized manner.
- ✓ Conduct outreach to the local officials, the business community and other stakeholders throughout the study incorporating innovative techniques to ensure that the interests of stakeholders are considered in study recommendations. Special effort will be made to ensure engagement of environmental justice communities in the study process.

B. Methodology

This project will consider best practices and include recommendations on how to implement them in Monmouth County. In order to do this an Advisory Committee (AC) of experts and stakeholders will be assembled. The AC will review work and provide input to support the project managers from both the County and consultant. Public and stakeholder input will be sought throughout the project.

Task 1: Project Management

Daria Jakimowska from the Engineering and Traffic Safety Division 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.

The County Project Manager (CPM) will:

- Serve as the central point of contact for the county on all matters relating to the project.
- Monitor, evaluate and where necessary, guide the consultant's work efforts throughout the duration of the study.
- Coordinate resources needed for and/or directly perform county work tasks.
- Arrange public and community outreach tasks to be performed by the county and consultant.
- Perform all administration tasks relating to review and approval of consultant invoicing in accordance with County and federal requirements, monitoring of contract conformity, and where necessary, serve as a locally-based advisor for consultant on technical and community issues as well as alternative sources of information and data.
- Organize the formation of and coordinate the operations of the project Advisory Committee that includes public and private sector stakeholders.

The consultant will:

- Be responsible for performing the work tasks specified in the final agreed upon scope of work described in the Request for Proposal *Scope of Work Description of Work Program* based on the Objectives spelled out above and in accordance with the work program spelled out below.
- Perform project management and quality assurance including coordination of all sub-consultant activities and overall project administration, as well as all financial reports and invoice preparation. Quality assurance includes an independent technical review of all project deliverables and all documentation.
- Provide a monthly progress statement indicating recent work and pending deliverables both from the consultant and Monmouth County.
- Provide to the County all documentation, including financial and progress reports, as required by the NJTPA.

Task 1 Deliverables:

- Prepare and submit quarterly reports and other documentation required by the NJTPA
- Prepare a request for proposals in conformance with the approved work program.
- Procure a consultant in conformance with all applicable requirements.
- Prepare and submit monthly progress reports and invoices, and regularly maintain a detailed progress schedule.
- Prepare meeting agendas, handouts, presentations and minutes of project management and Advisory Committee meetings.
- Hold bi-weekly (at a minimum) project management calls, as well as a project kick-off meeting and up to three (3) project team meetings as needed.

Task 2: Needs Assessment

Outreach and Partnerships

Public outreach will be an important and ongoing component through the duration of this study. As part of this effort three public meetings will be held to determine the concerns and goals that communities have in regards to regional and local freight related transportation, including current heavy truck travel, and planned and potential future development of the vacant land. The first meeting will be a kickoff to the study seeking input from the public regarding current conditions of the freight related transportation system in the immediate area and their needs and suggestions, the second will inform the public of current progress and preliminary recommendations while seeking feedback and the third meeting will present the results of the final analysis. Also, the meetings will be used to inform the public of the analysis and seek input on how freight related development (cargo trip generating changes in land use) in the area is perceived by the local communities. Special effort will be made to ensure engagement of environmental justice communities in the study process. Scheduling, attendance, meeting advertisement, meeting material preparation, and meeting documentation shall be the responsibility of the consultant.

In order to properly understand the needs of the local business community, four to six interviews will be conducted with key freight industry leaders in order to accommodate their needs in the study's recommendations.

The study team will convene an Advisory Committee (AC) made up of transportation providers, municipal planners, local historic preservation district members and staff, local law enforcement, municipal engineers and officials, bike/ped advocates, NJTPA, Meadowlink, NJDOT, and NJ TRANSIT, and others as identified by the county and the consultant, as well as participation from the Monmouth County Transportation Council, and other stakeholders from the communities in the study area. The AC will exchange ideas on how land development, freight development and freight related transportation can be done effectively and benefit local communities. This AC will meet three times: the first will be a roundtable discussion on the goals of this study and the role and future of goods movement in Monmouth County, the second will update committee members on the progress of the study, and the third will be the presentation of the final report. Scheduling and attendance shall be the responsibility of the consultant. The Advisory Committee will provide a work-group setting in which the technical team can learn about relevant local issues and concerns; discuss specific recommendations, and establish appropriate methods and approaches to advancing the recommendations. The consultant will conduct the three meetings of the AC in an interactive format that encourages discussion and comments.

The public will be addressed through a survey, public information sessions, and appropriate social media activity using existing channels. A consultant developed and implemented survey will be conducted among the residents and business in the area to obtain their opinions regarding current roadway and safety conditions as well their suggestion regarding the future of the study area. Three public information sessions will be held in an interactive format at which the public will be provided an opportunity to review findings in an interactive format that encourages discussion and comments. The first meeting will be to discuss current freight related

transportation system conditions and deficiencies, the second study recommendations, and the third will discuss advancing the study's recommendations. The Monmouth County Transportation Council (MCTC), the citizen's advisory committee to the Monmouth County Planning Board, will be given the opportunity to participate at the public meetings, and will receive regular updates and presentations on project activities and progress at their regularly scheduled meetings.

The items in this task will be part of a written public outreach plan developed by the consultant.

Below are agencies whose active participation will greatly benefit the study. The County and consultants will conduct outreach to introduce them to the study and to engage them in active ways throughout the study's process.

- Delaware Valley Regional Planning Commission
- NJ Department of Transportation
- NJ Turnpike Authority
- NJ TRANSIT
- Trucking and Warehouse industry representatives
- Others as identified by the County and consultant team

Visioning and Goal Setting

The purpose of visioning and goal setting is to work with local residents, businesses, and elected officials, as well as freight related industries in the area, county planners and engineers, and agency personnel to better understand and integrate each stakeholder's needs and concerns related to freight related travel. It is anticipated that this process will explore issues such as the possibility of diverting through freight traffic away from Allentown to preserve the Historic District, creating well defined routes for regional travel, improving safety and multi-modal mobility, and accessibility; and supporting growth areas and livable communities; and local and regional economic development. In addition to utilizing information from other *Task 2* efforts, this will be accomplished through conducting four (4) focus groups; one each with local freight industry leaders, downtown business leaders, local residents, and area law enforcement.

Data Collection and Review, Quantification of Need

This part of this study will call for the collection of data on the existing roadway network and current transportation trends with a focus on the freight travel in the study area to establish a relevant set of existing conditions. Vehicle collision statistics, traffic counts, and other existing data will allow identification of travel trends, patterns and traffic circulation including traffic and/or collisions hot spots. Data collection and quantification of need will be followed in *Task 3* with analysis of the data collected.

All agencies having jurisdiction within the study area will be asked to provide any information they have available regarding the roadways and their assets, local master plans, zoning, active subdivision and site plan applications including those that are approved but not built, existing planning initiatives that may affect this study, and existing Complete Street policies and implementation plans under their respective jurisdictions. Collected information will be

reviewed, inventoried and mapped as appropriate. A select number of Automatic Traffic Recording Count locations in Mercer and Monmouth County will be identified to update the existing traffic counts information available from various sources in the study area in an effort to determine the actual truck traffic along roadways within the study area roadway network. Origin – destination data for freight traffic will be collected from various sources if available and supplemented with additional data collection along selected routes. As part of this effort, within the study area, the existing transportation management systems (ITS, incident management, etc.) will be inventoried. Also, crash history and vehicle collision statistics will be obtained from NJ Plan4Safety and Police Departments for evaluation to determine any patterns in location, type, vehicle classification, time of day, week and month. This information combined with traffic counts and vehicle classification, traffic generators and attractions along with truck origin-destination study will allow identification of travel trends, patterns and traffic circulation including traffic and/or collisions hot spots.

Past studies and improvement projects will be reviewed as part of this task. These include:

- Allentown Regional Transportation Summary Report 1992,rev. 1999, 2008
- Allentown Easterly Bypass – constructed in 2004
- Allentown Westerly Bypass – 2003 and 2012
- High Street Travel Patterns Analysis – regional perspective 2006
- The Intersection Improvements at County Road 539 (Allentown-Davis Station/Forked River Road) and Sharon Station Road In the Township of Upper Freehold – completed in 2007
- Improvements to CR 539 associated with Matrix commercial development in Robbinsville, Mercer County – phased in approach – completed in 2014
- Proposed Intersection Improvements at C.R. 28 (Old York Road/South Main Street) and Ellisdale Road / New Road Township of Upper Freehold & Borough of Allentown – under design phase
- Historic Streetscape Improvement Project Phase I (along CR 524), Village Center, Borough of Allentown – completed 2015
- Reconstruction of Bridge U-12 on CR524 on Allentown completed 2015
- Design of Roadway Improvements for Sharon Station Road from County Route 539 (Allentown-Davis Station Road) to County Route 526 (Allentown-Red Valley Road) and the Reconstruction of Bridges U-34, U-35, and U-94,Township of Upper Freehold, Monmouth County –under design phase – awaiting DEP permits
- Signing and Striping Improvements along CR 526 (Church St) Borough between county border with Mercer County and CR 524 (Main St) in the Borough Allentown
- On-going collaborative efforts between Allentown, Upper Freehold Robbinsville, Mercer County, Monmouth County, NJDOT and Amazon to address seasonal traffic congestion along county and local roadways associated with Amazon/Matrix 7A Business Park development
- Panhandle Region Plan, 2011
- Monmouth County Master Plan, 2016

Deliverables for Task 2:

- Development and execution of a written public outreach plan that includes the following:
    - Three (3) meetings for the Public, including associated media such as photos, PowerPoints, and/or videos, and meeting minutes.
    - Implementation and analysis of a survey of local residents and businesses.
    - Conduct four to six (4-6) interviews with freight industry leaders, with documentation.
    - Development, management, and engagement of an Advisory Committee scheduled to meet three (3) times, including the visioning sessions.
    - Regular updates delivered to the Monmouth County Transportation Council (MCTC).
    - Development of a public facing project website, and utilization of existing appropriate social media channels.
    - Technical memorandum detailing the process, including a list of actual goals and objectives.
    - Conduct four focus groups:
        - Local freight business leaders
        - Downtown business leaders
        - Local Residents
        - Area law enforcement
    - All meeting scheduling, attendance, documentation, invitation and advertising, meeting preparation, and meeting documentation shall be the responsibility of the consultant with the exception of the MCTC.
- Technical memorandum detailing existing conditions for further analysis, including but not limited to:
    - Policy Documents
        - Complete Streets policies
        - County master plans
        - Municipal master plans
        - Prior and future work plans (listed in narrative and Section III)
    - Land Use and Transportation
        - Land use, including a focus on freight related uses
        - Infrastructure inventory, including but not limited to capacities, weight limits, clearances, turning radii, non-motorized user facilities, multi-modal facilities, and signals.
        - Crash data, with a focus on truck related incidents
        - Management systems inventory (ITS, incident management plans, etc.)
        - Traffic counts (existing)
    - Freight Industry and Goods Movement
        - Identification of freight related growth areas
        - Origin/destination inventory of freight traffic at the area and regional level
        - Wayfinding system inventory
        - Congestion data
    - Demographics

- Report on Census and American Community Survey Data, including journey to work, community demographics, and details related to the identification of EJ communities

Task 3: Data Analysis and Mapping

This task will determine actual travel patterns for various modes of transportation and type of travel utilizing the existing roadway network in the study area based on findings of the analyzed data collected in Task 2 including traffic counts, traffic classification, crash statistics, origin-destination study for truck traffic, and other traffic data. The existing and future Level of Service and Capacity of the existing roadway network selected key locations will be determined. Demand on the existing roadway network will be evaluated to establish heavy truck routes, identify missing links for truck traffic, identify congested locations for trucks, determine which elements of the Complete Street Policies could be integrated into the existing and revised roadway network, and examine other measures to alleviate heavy truck traffic form the residential areas within the study area. This task will also include an analysis of the effectiveness and appropriateness of the existing wayfinding system.

As part of this effort the identified existing transportation management systems will be assessed for their effectiveness in meeting current and future freight related transportation needs in the study area. In addition other strategies and measures for freight transportation management will be evaluated as to their applicability in the study area.

Finally, the crash prone locations, congested locations for trucks, missing links, locations identified for potential truck and other safety related improvements including transportation management systems will be mapped.

Deliverables for Task 3:

- A technical memorandum that includes but is not limited to the following:
  - Mapping of data collected in *Task 2* including, but not limited to:
    - Land use, including a focus on freight related uses
    - Infrastructure inventory, including but not limited to capacities, weight limits, clearances, turning radii, non-motorized user facilities, multi-modal facilities, and signals
    - Crash data, with a focus on truck related incidents
    - Identification of freight related growth areas
    - Origin/destination inventory of freight traffic
    - Wayfinding system inventory
    - Census and American Community Survey Data, including journey to work, community demographics, and details related to the identification of EJ communities
  - Identification and mapping of commercial truck generating growth areas based on analysis of existing land use, master plans and zoning ordinances
  - Analysis of regional and study area truck origin and destination data, including select link analysis for sensitive areas

- Crash analyses report and a map depicting crash prone locations within the study area, with a focus on truck related crashes
- Report and map describing actual travel patterns for various modes of transportation and type of travel including graphics, tables and graphs
- Level of Service and capacity analysis for existing and future conditions for truck routes.
- Transportation Management Systems Analysis including an evaluation of existing management systems (ITS, incident management, etc.…) and other systems not present for their applicability potential related to this study
- Complete Streets policy incorporation analysis
- Existing freight wayfinding system analysis
- Review of all existing data and information relative to the study area, including a review of roadway capacities and capabilities, and already identified preferred truck routes.
- Classification of roadways in the study area network, and development of a map depicting this information.
- Infrastructure analysis, including but not limited to capacities, weight limits, clearances, turning radii, non-motorized user facilities, multi-modal facilities, and signals.

Task 4: Study Findings and Recommendations

Description: Generate a draft report incorporating the study findings captured in Technical Memoranda with respect to all conducted analysis and evaluations of collected data, as well as solicited input and feedback from local officials, stakeholders and general public. The report will also provide a number of recommendations to better manage and as appropriate divert truck traffic from local roads and inadequate county roadways in residential areas, improve existing and future safety, traffic operations, multi-modal mobility and accessibility in order to support and interconnect growth areas and livable communities, preserve the historic district, and to support local and regional economic development.

Deliverables for Task 4: A draft report that includes the following:

- Freight Transportation Infrastructure recommendations, including identification of locations that would benefit from heavy truck related recommendations, identification of missing links for trucks, and recommendations for a range of feasible improvements
- Freight Related Transportation Management Systems recommendations
- Freight Related Signage and wayfinding recommendations
- Matrix of interim, short, medium, and long term time-frame and preliminary cost estimates for freight related recommendations for submission to NJTPA, DVRPC, and other relevant agencies for potential funding
- Suggested selection of proposed recommendations for advancement by various agencies in a prioritized manner
- Production of maps depicting recommendations and expected future conditions

Task 5: Final Report

Description: The final report shall be based on the results of all previous tasks and will include the following sections: Executive Summary, a summary of transportation travel including freight related circulation/patterns in the study area, safety, the role of the existing infrastructure versus roadways classification, an analysis of land uses and goods related land development opportunities, an infrastructure assessment, and a series of freight movement improvement project recommendations based on the input and feedback from the TAC, Stakeholders and the public.

Deliverables for Task 5: The following products will be delivered as part of the project:

- Resource list of studies, data, and statistics used for Final Report
- Selection of proposed recommendations for advancement by various agencies and a map depicting same
- Matrix of a short, interim, and long term time-frame and preliminary cost estimates for these recommendations as a mechanism to advance projects to the NJTPA, DVRCP, and/or other relevant agencies in a prioritized manner.
- Problem Statement for NJDOT infrastructure improvements
- Final Report that merges information from all listed deliverables above
- Electronic Copies on CD for all deliverables
- Summary Power Point Presentation of the project

The report shall also identify existing State and Federal funding resources available that will assist in advancing the recommendations of the report. The Final report will incorporate Technical Memorandum #1 and #2 and all documentation developed/prepared during the project in the Appendices.

C. Environmental Justice

The Consultant will assess potential socio-economic impacts, environmental justice, land use and community impact concerns that may influence the project decision making. The latest available US Census tract data will be utilized to identify and evaluate any potential environmental justice concerns in accordance with Executive Order 12898. Environmental justice communities will be identified early in the project to ensure the adequate public outreach to these communities. Findings of the assessment and actual impacts associated with the project will be summarized in the Final Project Report.

D. Study Partnerships

The County will partner with NJTPA, DVRPC, NJDOT, NJ TRANSIT and NJ Turnpike Authority to obtain technical support and relevant information in the areas of their jurisdiction including potential funding opportunities for additional studies, and advancement of the study recommendations.

III. Related Prior Work and Future Work

Past studies and improvement projects:

- Allentown Regional Transportation Summary Report 1992,rev. 1999, 2008
- Allentown Easterly Bypass – constructed in 2004
- Allentown Westerly Bypass – 2003 and 2012
- High Street Travel Patterns Analysis – regional perspective 2006
- The Intersection Improvements at County Road 539 (Allentown-Davis Station/Forked River Road) and Sharon Station Road In the Township of Upper Freehold – completed in 2007
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- On-going collaborative efforts between Allentown, Upper Freehold Robbinsville, Mercer County, Monmouth County, NJDOT and Amazon to address seasonal traffic congestion along county and local roadways associated with Amazon/Matrix 7A Business Park development
- Panhandle Region Plan, 2011
- Monmouth County Master Plan, 2016

Future Work

- Assessment and design of future improvements to CR 539

Contact Information:

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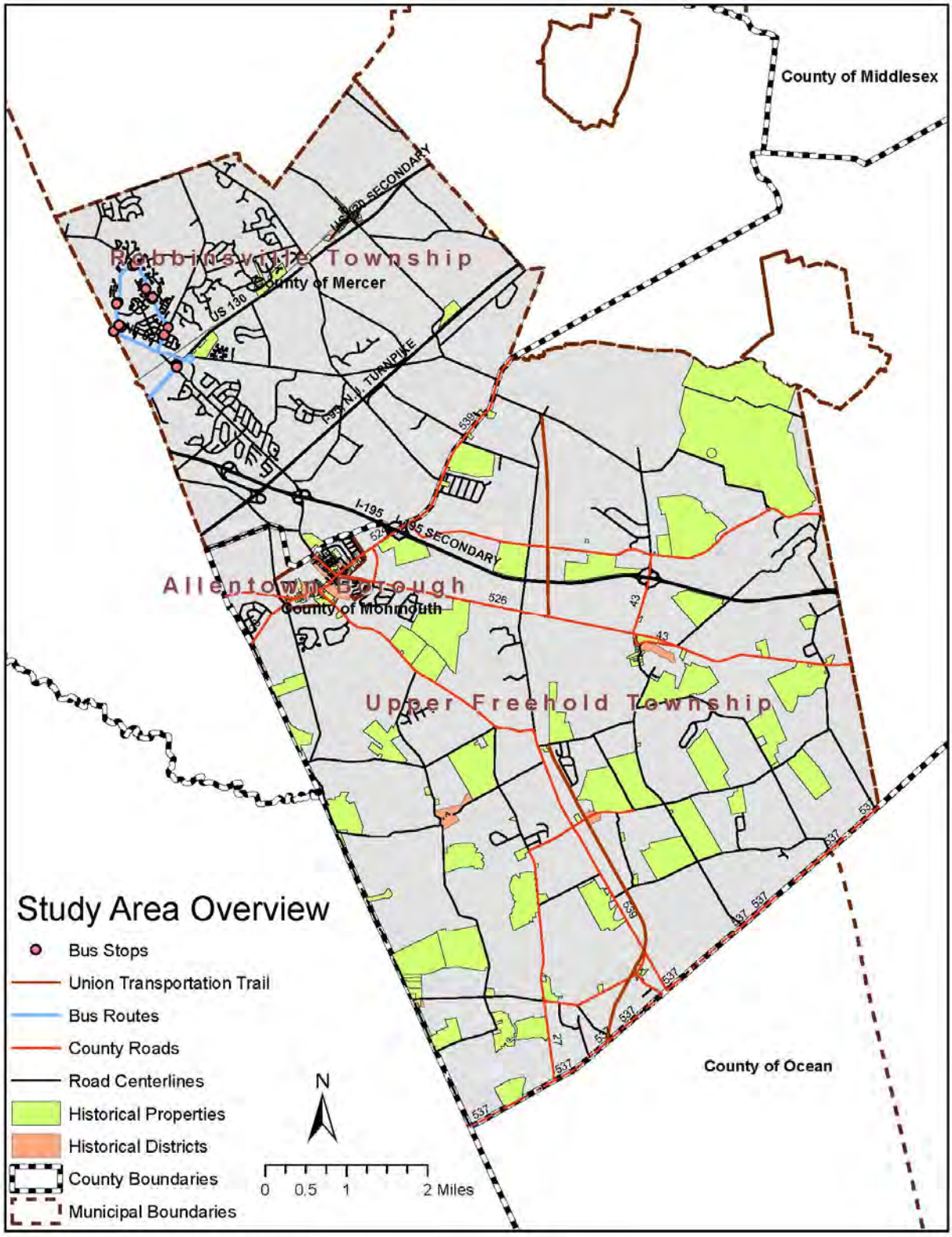
Telephone: (732) 431-7391
Fax: (732) 409-4824
E-mail: Craig.Marshall@co.monmouth.nj.us


County of Middlesex
Robbinsville Township
County of Mercer
US 130
NJ TURNPIKE
I-195
I-195 SECONDARY
Allentown Borough
County of Monmouth
Upper Freehold Township
County of Ocean
Study Area Overview
Bus Stops
Union Transportation Trail
Bus Routes
County Roads
Road Centerlines
Historical Properties
Historical Districts
County Boundaries
Municipal Boundaries
N
0 0.5 1 2 Miles

FY 2018 - FY 2019 SUBREGIONAL STUDY PROGRAM

MONMOUTH COUNTY

Regional Comprehensive Transportation Study in Western Monmouth County and southern Mercer County area

BUDGET PLAN

				PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	**DIRECT COSTS - PERSONNEL SERVICES**					
	1. SALARIES		$	29,683.00		
	2. FRINGE BENEFITS	51.800%	$	15,375.79		
	3. LEAVE ADDITIVE	22%	$	6,441.21		
		SUBTOTAL	**$**	**51,500.00**		
PART II	**DIRECT NON-LABOR COSTS**					
	1. SUPPLIES		$	-		
	2. TRAVEL		$	-		
	3. PRINTING & REPRODUCTION		$	-		
	4. TELEPHONE		$	-		
	5. POSTAGE		$	-		
	6. CONFERENCE/TRAINING		$	-		
	0		$	-		
		SUBTOTAL	**$**	**-**		
PART III:	**INDIRECT COSTS**					
	INDIRECT COST ALLOCATION	0%	$	-		
		SUBTOTAL	**$**	**-**		
PART IV:	**CONSULTANT COSTS**					
	CONSULTANT		$	258,500.00		
		SUBTOTAL	**$**	**258,500.00**		
		TOTAL PROGRAM BUDGET	**$**	**310,000.00**	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2018-FY 2019 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: $ 248,000.00 **Local Match:** $ 62,000.00 **Total:** $ 310,000.00

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM
MONMOUTH COUNTY
Regional Comprehensive Transportation Study in Western Monmouth County and southern Mercer County area
STAFFING PLAN

Project Task Budget

	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
Task	**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	130	$ 13,598.41	$ -	$ -	$ 13,598.41	250	$ 20,500.00	$ 34,098.41	11%
Task 2 -Needs Assessment	134	$ 10,073.05	$ -	$ -	$ 10,073.05	825	$ 82,500.00	$ 92,573.05	30%
Task 3 - Data Alanysis and Mapping	176	$ 14,513.74	$ -	$ -	$ 14,513.74	495	$ 49,500.00	$ 64,013.74	21%
Task 4 - Study Findings and Recommendations	75	$ 6,228.09	$ -	$ -	$ 6,228.09	650	$ 65,000.00	$ 71,228.09	23%
Task 5 - Final Report and Final Deliverables	75	$ 7,086.71	$ -	$ -	$ 7,086.71	410	$ 41,000.00	$ 48,086.71	16%
TOTAL	**590**	**$ 51,500.00**	**$ -**	**$ -**	**$ 51,500.00**	**2,630**	**$ 258,500.00**	**$ 310,000.00**	**100%**

Subregional Staff Plan

Personnel (Name & Title)	**Estimated % of Time Needed for Study** *(based on total work hours for the year)*	**Total Estimated Hours for Study**
Daria Jakimowska, Chief Engineer	7%	303
Vince Cardone, Principal Engineer, Trafic	4%	163
Denise Brooker, Principal Enigneer, Traffic	1%	40
David Schmetterer, Principal Planner	1%	38
James Bonanno, Assistant Planner	1%	46
TOTAL	**3%**	**590**

FY 2018 – FY 2019 SUBREGIONAL STUDY

OCEAN COUNTY BICYCLE AND PEDESTRIAN LINKAGES FROM THE BARNEGAT BRANCH TRAIL, NORTHERN SECTION

OCEAN COUNTY

Proposal Sponsor: ***Ocean County Department of Planning, Ocean County New Jersey***

Partner Counties or Municipalities: ***Toms River Township, South Toms River Borough, Beachwood Borough, Berkeley Township***

Title of Proposed Study: ***Ocean County Bicycle and Pedestrian Linkages from the Barnegat Branch Trail, Northern Section***

Estimated Budget Requested (Consultant/In-House and $ Federal/$ Local): ***Federal/consultant ($160,000) + in kind match ($40,000) = $200,000 total***

Anticipated Study Duration (Overall and Consultant Durations): ***Consultant: 12 months with option to extend to 18 months as needed / 2 years total***

I. Project Management

C. Subregional Project Manager name and title:
David J. McKeon, Ocean County Planning Director

D. Study Partnerships:
Primary Partner Municipalities:
Beachwood Borough
Berkeley Township
South Toms River Borough
Toms River Township

Internal County Partners:
Ocean County Engineering Department
Ocean County Parks and Recreation Department

Other:
NJDOT (Routes 9 and 166)
NJ TRANSIT (Access to Bus Terminal)

II. Study Scope of Work

Overview:
The Barnegat Branch Trail (BBT) is a rail to trail under development which, when complete, will be a 15.6-mile bike and pedestrian trail from Barnegat Township to downtown Toms River. The BBT concept was originally identified in the 1988 Ocean County Comprehensive Master Plan. A

Concept Plan was completed in 2007 and highlighted the importance of this corridor for not only recreation, but also, once completed, as a safe bicycle and pedestrian corridor.

Currently, Ocean County owns all the sections within Barnegat, Ocean and Berkeley Townships. Lacey Township owns the full length of the former railroad property, and has given the County a construction easement over the property for the development of the trail. Additionally, the section in Beachwood Borough was developed as a municipal trail years ago by the Borough. South Toms River has recently received a Transportation Alternative Program grant for the acquisition of an easement over the old alignment of the railroad, which will enable the County to continue the trail as an off-road path that leads to the Toms River Bus Depot and the downtown.

Of the proposed 15.6 miles, there are 10.75 miles constructed including the 1 mile Beachwood municipal trail. This includes 7 contiguous miles completed from the southern terminus at Burr Street in Barnegat to Lacey Road in Lacey Township. This section of the trail is seeing significant use. There is another 2.75 miles completed in Berkeley Township which runs from Dudley Park at Cedar Creek, a Township park, north to Hickory Lane. The Beachwood Borough municipal trail is approximately 1 mile along the former alignment of the Center New Jersey Railroad, as well as a spur which connects to the Beachwood Elementary School.

Once completed, the regional BBT will facilitate alternative modes of transportation and can provide linkages to community facilities for users of all ages and abilities. Each of the communities that the trail runs through has its own characteristics and facilities which will be impacted by the regional trail.

This study will evaluate the impacts and study appropriate access to areas of interest. It will determine the linkages that may need to be developed between local residential areas, schools, public/community buildings, parks, recreation, public spaces, employment, and to transportation, such as the NJ TRANSIT Park & Ride bus terminal and bus stops.

Note: See Figure 1 for an overview map of the Barnegat Branch Trail. A full size 24x36” map will be included in the submission as well.

A. Needs, Goals and Objectives

1. Addressing a Regional Need

The BBT parallels the high traffic Route 9 and Route 166 state highways which do not provide for adequate bicycle and pedestrian facilities. The connections that can be made by this trail allow for alternative modes of transportation, which is available to a broader range of users, while increasing safety to these users.

Through the promotion of bicycle and pedestrian mobility this study seeks to further the goals of the *Regional Transportation Plan (RTP):*

- Provide affordable, accessible and dynamic transportation systems responsive to current and future customers;

- Enhance systems coordination, efficiency and intermodal connectivity;
- Select transportation investments that support the coordination of land use with transportation systems.

This project provides opportunities to expand the project in the future to connect to the non-vehicular circulation network. The Study would meet principles in the *Regional Capital Investment Strategy (RCIS),* including but not limited to:

- Help the region grow wisely;
- Make travel safer;
- Support walking and bicycling.

As detailed below, the Study would also meet the USDOT FHWA/FHA "Ladders of Opportunity" goal, the NJDOT MPO Transportation Priorities goals, and would address the required Environmental Justice program element.

2. Subregional Need

Ocean County is primarily a suburban/rural County with a burgeoning residential population, particularly in the northern portion of the County. Toms River is the County seat, housing County Government offices, the County Courthouse, and the headquarters branch of the award-winning Ocean County Library.

According to Census 2000 and the 2015 Annual Population Estimate, the County's population increased by 15% from 510,916 to 588,721 (+77,805) between 2000 and 2015, making it the fastest growing County and the second highest in percentage growth. The Study Area will include the townships and boroughs that include the northern section of the Barnegat Branch Trail: Berkeley Township, Beachwood Borough, South Toms River Borough and Toms River Township. Collectively these four municipalities, out of the total 33 municipalities, account for approximately 25% of the County's population, 22% of the County's children aged 5-17 and 28% of the County's "active" senior population (60-79). [1]

a. The County and its municipalities have a large inventory of parks and desirable destinations, however, adequate pedestrian / bicycle access to those points to and from the BBT and the residential areas are lacking, particularly in the more densely developed northern municipalities. A system of safe linkages, both on and off road, would provide a number of important benefits in addition to safe access. These benefits include attracting young families and professionals, promoting outdoor fitness, facilitating safe bicycle commuting, and enhancing the overall quality of life in the County. A significant need of the region is to reduce the amount of traffic congestion on the County's major state and county roads, many of which are at or over capacity. Encouraging non-vehicular transportation would also reduce additional negative impacts, such as greenhouse gas emissions, carbon footprint and vehicle crashes.

[1] U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates by Census Subdivision, December 2015.

As the Study Area has two major roads running in the north-south direction. These include US Route 9, which is classified as an arterial road, although it is only 1 lane in each direction within the area. Route 9 merges with the Garden State Parkway within the Study Area and State Route 166 begins north into Beachwood Borough.

While current traffic counts are not available in this stretch, at peak times, the highway appears to be operating at capacity. By encouraging bicycle commuting, this could take some cars off the road to reduce congestion. This could include school and township employees, who may live and work in the area and for short shopping trips.

The anticipated evaluation will include the highways of US Route 9 and State Route 166, which parallel the BBT, as well as a number of County and local roads, which make up each community's transportation network. The TAC and the Consultant will examine the best routes to provide for safe access to destinations from the BBT. In addition, opportunities exist for off road routes through publicly held lands, including the NJ Pulverizing property in Berkeley Township, which will be acquired by end of calendar year 2016 by the County. This property could provide additional opportunities for connections from the Barnegat Branch Trail to other destinations, within Berkeley Township and Beachwood Borough, such as the Beachwood Elementary School and local residential and commercial areas.

b. The proposed Town Center development in Berkeley Township would include shopping / commercial destinations and could provide additional connections.

c. In addition to a need for recreational bicycle and pedestrian facilities for fun and fitness, there is also a need for safe access to destinations for bicycle commuting to destinations such as jobs and shopping. As some areas in the study area are predominantly low-income, providing safe access for residents would meet the USDOT FHWA/FHA "Ladders of Opportunity" goal of identifying gaps in transportation system connectivity to improve the access of the traditional underserved populations to essential services.

d. Therefore, the Study also meets the NJDOT MPO Transportation Priorities goal of "implementing actions that support fairness and improved coordination of services, access and mobility for low income, minority, persons with disabilities and seniors" and would address the Environmental Justice required program element.

3. Study Goals and Objectives

a. Per the NJTPA Regional Transportation Plan (RTP), a major goal of this Study is to "Enhance system coordination, efficiency and intermodal connectivity." This Study will endeavor to meet that goal by examining the intermodal linkages from the Barnegat Branch Trail to principal destinations, thereby increasing the

"comprehensive efficiency and coordination" of the County's transportation system in the study area.

b. By building on existing studies and efforts, and current and future site analyses, this plan would identify opportunities for implementing safe on and off road linkages between the Barnegat Branch Trail to recreational areas, parklands, residential areas, and other destinations, such as shopping areas, schools, and downtown Toms River; thereby increasing the vitality of the County's off-road bicycle/pedestrian circulation network.

c. This project meets many of the principles as set in the Regional Capital Investment Strategy (RCIS), in addition to the principles of "Support Walking and Bicycling."

    i. Expanding bicycle / pedestrian access from residential areas to local commercial destinations would "encourage economic growth while protecting the environment."

    ii. The design and improvement of the identified linkages would make travel safer for bicyclists and pedestrians by design.

d. As the study will be looking at both off-road and on-road improvements and linkages from the BBT, there may be opportunities to improve bicycle/pedestrian access along County roads, by planning for bike lane or sidewalk improvements as part of the County's transportation maintenance plan. This would make the existing system work better for all modes of transportation, meeting two major principles of the RCIS and Together North Jersey (TNJ) "Complete Streets" initiatives.

e. This plan would serve as a guide to prioritize investments in bicycle/pedestrian facility improvements, providing low-cost, low-maintenance recommendations in a phased improvement plan that would include both short-term and future recommendations.

f. Identify funding opportunities and constraints for future implementation.

Figure 1: Overview Map of the Barnegat Branch Trail (BBT)

B. Methodology

Task 1: Project Management

Ocean 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 the 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 county review and approval, and reviewed regularly during the course of the study to ensure the timely completion of the study.

Deliverables:

1. The County will prepare and submit quarterly reports and any other documentation required by the North Jersey Transportation Planning Authority.
2. 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 2: Needs Assessment

Task 2.1: Outreach and Partnerships

Technical Advisory Committee

The County and the consultant team shall create a technical advisory committee (TAC) to provide input and expertise from technical experts. This group shall consist of representatives of groups including the County Planning, Engineering, and Parks Departments, NJDOT, Greater Mercer TMA, and the NJTPA. Municipal officials will be members of the TAC. The responsibilities of the TAC shall include, but not be limited to:

- Identify stakeholders, community groups and partners for community outreach and participation for various public participation activities, such as focus group and public meetings. Special consideration will be given to ensure the commitment and involvement of interested parties familiar with the County transportation network, environmental justice issues and land use patterns.
- Review and provide feedback to the consultant on interim, draft and final reports, and other documents throughout the study.
- Review and provide input on the data collection, public outreach, development of improvements and recommended implementation strategies for the study.

- Review the final recommended action items and strategies.
- Ensure that the final report clearly identifies the implementation priorities along with agencies responsible for each study hand-off.

Public Outreach Activities

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

Meetings and Coordination

- At least 4 TAC meetings are anticipated, at which consultant participation shall be required, and with at least one meeting of the TAC to be held on the project site. The schedule of meetings and distribution of meeting notices and associated materials to committee members will be handled by County Planning Department Staff. Arrangements shall be made so that participants will be able to take part via conference call.
- Up to two (2) 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.
- Engage bicycle and pedestrian interest groups and BBT users to assist in current gaps in existing facilities, potential linkages, popular origins, destinations, and routes, and priorities for developing new and improved bicycle and pedestrian facilities.
- Up to four (4) municipal meetings (1 per participating town) will be held, with consultant participation required at all of these meetings. The Consultant Team shall budget to prepare meeting materials and to have a representative participate at all 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.
- At least two (2) public meetings shall be held during the course of this study in a transit accessible facility. At the kickoff meeting, the consultant shall introduce the study to the all of the public officials and general public and solicit input to identify transportation and related issues 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 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 and Outreach

- 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 study information and materials as needed.

- The consultant, working with the County and the TAC, will develop and maintain a study website which will be linked to the County Planning Department's webpage. The study webpage will be used to solicit comments on draft documents and materials during the public involvement process.
- The website will be updated as the Study progresses to give an overview of the proposed study recommendations, and, as the study comes to a close, will outline the final report's recommendations.

Task 2.2: Data Collection and Review, Quantification of Need

- Review the related prior and pending future studies that relate to the study area, with emphasis on study findings, implementation recommendations, potential implementation agencies and potential funding sources.

  Related Prior Work and Future Work

  a. 2009 Redevelopment Area Study for the Downtown Toms River Waterfront Area
  b. 2011 Ocean County Subregional Study: Pedestrian and Bicycle Mobility Plan, Toms River
  c. 2014 South Toms River Transportation Alternatives Program (TAP) Grant for acquisition and extension of the Ocean County Barnegat Branch Trail (BBT) (acquisition pending)
  d. 2014 South Toms River Streetscape Revitalization (Route 166)
  e. 2015 Borough of Bay Head Bicycle Pedestrian Plan
  f. 2015 Together North Jersey Route 37 Economic Corridor Vision Plan, Toms River, Manchester, Berkeley, Lakehurst, Ocean County
  g. 2016 Neighborhood Plan, Ortley Beach and the Route 35 Corridor, Toms River
  h. Borough of South Toms River Draft Municipal Public Access Plan

- Review existing ordinances in respect to bicycle/pedestrian mobility.
- Develop and expand the existing map of the Barnegat Branch Trail to include significant local destinations within 1-2 miles from the trail and identify residential neighborhoods within the study municipalities.
- Develop a map and inventory, including condition, of existing bicycle and pedestrian facilities within that 1-2 mile radius.
- Identify gaps in existing pedestrian accommodations such as sidewalks and crosswalks.
- Identify locations with limited shoulders and blind spots.
- Using the County's updated Transportation Model and the NJDOT Plan4Safety model, identity accident hotspots.

- Analyze demographic data to the small geography levels to determine those low-income communities in the study area that may have higher needs for non-vehicular mobility and access to destinations and public transit connections. Make use of the Environmental Justice GIS Mapping Data provided by the NJTPA to represent demographic data such as race, poverty, income, and languages spoken, etc.
- Identify environmental justice populations at the census block group level within the study area. The data will be tabulated at the county or municipal level and displayed graphically using GIS mapping. The percent of low-income populations and minority populations by county or municipality that is located within the block group will be tabulated and displayed graphically using GIS mapping. This approach will show what portion of low-income populations and minority populations within the County or municipality are located within the block group within the study area.
- Collect existing bicycle count data, data related to bicycle counts, and usage/facility data such as available bike racks at key destinations and transit hubs within the study area.
- Collect data regarding access to the Toms River Bus Park & Ride Bus Terminal, including how riders travel to the Terminal, origins of trips, etc.

Deliverables for Task 2:

1. Document TAC meetings and input in the form of written minutes.
2. Draft and Final Study Interim Reports.
3. The consultant shall conduct at least two (2) focus group/interview sessions, and provide summaries of each meeting, as well as provide an overall summary of the findings and recommendations from the focus groups/interview process. Up to 4 (1 per town) municipal coordination meetings/conference calls will be held at which consultant participation will be required at all of them.
4. The consultant shall participate in all public meetings and prepare the necessary materials for these meetings.
5. The consultant will develop and host a study website, with approval from the County, that is updated with current information during the course of the study and remain active during the length of the project period. All web materials will be provided to the County for posting to their webpage as needed.
6. At least four (4) meetings of the TAC 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 Department Staff. Arrangements shall be made so that participants will be able to take part via conference call.
7. Summaries of the TAC meetings shall be prepared by the consultant. The mailing list of stakeholders, community groups, and partners will be prepared and maintained by the County Planning Department Staff. Planning staff will handle posting of meeting materials on the County Planning Department 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.

8. Consultant shall collect all data and review the existing studies as listed in Task 2.2 to quantify need and incorporate into recommendations.
9. Consultant will provide draft recommendations based on integration of BBT with previous studies.
10. GIS mapping will be created to incorporate inventory of existing bicycle and pedestrian facilities.
11. A dangerous conditions report will be integrated into study report.

Task 3: Data Analysis and Mapping

- Use NJTPA GIS resources to identify Environmental Justice areas, in addition to Census and American Fact Finder data down to the block level.
- Use the Ocean County Engineering Department's Transportation Model (based on the North Jersey Regional Transportation Model-Enhanced NJRTM-E) and analyze crash data to identify current and future hot spots, and impacts on proposed bicycle/pedestrian design improvements.
- Identify specific streets for on-street bicycle lanes and/or corridors for off street bicycle paths,
- Recommend new or updates to existing municipal bicycle /pedestrian ordinances.
- Identify potential locations for bicycle parking facilities.
- Identify the best routes from the trail to the destinations for recommended new bicycle and pedestrian facilities, as well as improvements to existing facilities that could be developed.
- Identify land ownership and estimate land value for privately owned off-road sections.
- Identify roads or corridors that are NOT appropriate for bicycling and walking. These corridors should be mapped and the reasons documented for future guidance.
- Identify destinations, such as residential areas, schools, local shopping, and parks.

Deliverables:

1. Maps and inventory of existing bicycle and pedestrian facilities.
2. Maps and inventory of integrated data of routes and corridors and level of recommendation.

Task 4: Study Finding and Recommendations

- The consultant shall develop an Implementation Matrix of recommended action items, including order of magnitude cost, time frame, and identification of potential implementing agencies.
- Recommendations are to be prioritized and categorized into short-term and long-term improvements, based on each item's viability for future implementation and application at the local, county, state or federal level.
- Potential funding sources for implementation are to be included, and potential primary responsible parties identified.

Deliverables:

1. The consultant shall develop an Implementation Matrix of recommended action items, including order of magnitude cost, time frame, and identification of potential implementing agencies.
2. The consultant shall prepare and provide a GIS map of proposed bicycle and pedestrian improvements to correspond to the Implementation Matrix.

Task 5: Final Report

- The consultant will prepare the final report which will be comprised of the following sections: an Abstract, Executive Summary, Introduction, Methodology, Findings, Recommendations and Implementation Plan, and GIS Maps and a summary PowerPoint presentation that can be used by Ocean County or NJTPA staff as needed. The draft and final document will be based on the results of the previous tasks.
    - The Implementation Plan section shall include a matrix of recommended action items for implementation and will identify existing county, state and federal transportation funding resources available to advance recommendations within the report.
    - The GIS Maps section shall include all maps prepared in the study tasks, including data analysis and existing conditions, and geographical representation of recommendations within the study area, including highlighted linkages and improvement. GIS maps shall be provided as embedded report graphics as well as full size maps, at least 24" x 36".
- The final report shall be presented 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, members of the TAC. The report will also be made available to members of the public, other stakeholders not otherwise listed, and study participants via electronic download from the County website. The final plan, "Ocean County Bicycle and Pedestrian Linkages from the Barnegat Branch Trail, Northern Section," will serve as a guide in prioritizing future bicycle/pedestrian facility improvements in the study area and could serve as a template for continuing the efforts to plan for a comprehensive pedestrian/bicycle network throughout the County.

Deliverables:

Final Report with Executive Summary and Plan Implementation Agenda

1. **Draft Final and Final Report**: The consultant shall prepare a draft final report to be reviewed by the project manager, the TAC and other stakeholders. The consultant shall then revise the draft final report and submit to NJTPA for final review with all previous comments addressed. After receiving final edits from NJTPA, the consultant shall prepare a final report.

a. The reports shall include all the elements that were part of this study, including, how the Study met the Regional/Subregional Needs, the stated Goals and Objectives.

2. PowerPoint Presentation(s): PowerPoint presentation(s) must include graphic-oriented slides and accompanying presentation notes or script. The presentation follows the same format as the Executive Summary, with images at print resolution.
3. Study Materials: The consultant shall provide digital copies of all presentation materials developed during the study; the final report will follow NJTPA reporting guidelines. All data, including images, raw data from surveys, derived GIS layers, will be provided to the subregion. 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.
4. The Reports shall include collation of meeting minutes and public community and stakeholder workshops.
5. The Reports shall collate recommendations for multi-modal improvements throughout Ocean County from existing plans and studies y to develop a comprehensive overview.
6. GIS Mapping of existing conditions and recommendations.
7. All invoicing, billing, progress reports, meeting materials, website materials, outreach, and report documents, as outlined in this proposal.
8. Once the Subregional Study is completed, all identified needs and recommendations generated by the study should be entered into the Planning Recommendations Integration Management Engine (PRIME) by the consultant at the completion of the final report.
9. Submission of the Report shall include the following:

    a) One electronic copy of summaries of all stakeholder and public meetings;

    b) One electronic and one paper copy of all presentation materials used to facilitate stakeholder and public meetings;

    c) One electronic copy of all GIS mapping and related files (in GIS format) prepared for this study.

    d) One electronic (DVD/CD) and enough paper copies of the draft report for each committee member, compiling all of the above for TAC and stakeholder committees comments and approval;

    e) One electronic (DVD/CD) and enough paper copies of the Final Report for each committee member and incorporating TAC and stakeholder committee's comments from draft report.

    f) Two electronic (DVD/CD) and one paper copy of all final deliverables to be submitted to the NJTPA.

Contact Information:

Subregional Project Manager Name: David J. McKeon
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Subregional Chief Financial Officer Name: Julie N. Tarrant, Comptroller, CFO
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FY 2018 - FY 2019 SUBREGIONAL STUDIES PROGRAM

OCEAN COUNTY

OCEAN COUNTY BICYCLE AND PEDESTRIAN LINKAGES FROM THE BARNEGAT BRANCH TRAIL, NORTHERN SECTION

BUDGET PLAN

				PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	**DIRECT COSTS - PERSONNEL SERVICES**					
	1. SALARIES		$	24,271.26		
	2. FRINGE BENEFITS	64.80%	$	15,728.74		
		SUBTOTAL	**$**	**40,000.00**	0%	100%
PART II:	**DIRECT NON-LABOR COSTS**					
	1. SUPPLIES		$	-		
	2. TRAVEL		$	-		
	3. PRINTING & REPRODUCTION		$	-		
	4. TELEPHONE		$	-		
	5. POSTAGE		$	-		
	6. CONFERENCE/TRAINING		$	-		
	7. OTHER (SPECIFY)		$	-		
		SUBTOTAL	**$**	**-**	0%	100%
PART III:	**INDIRECT COSTS**					
	INDIRECT COST ALLOCATION	0%	$	-		
		SUBTOTAL	**$**	**-**	100%	0%
PART IV:	**CONSULTANT COSTS**					
	CONSULTANT		$	160,000.00		
		SUBTOTAL	**$**	**160,000.00**	100%	0%
		TOTAL PROGRAM BUDGET	**$**	**200,000.00**	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2018-FY 2019 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: $ 160,000.00 **Local Match:** $ 40,000.00 **Total:** $ 200,000.00

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM
OCEAN COUNTY
OCEAN COUNTY BICYCLE AND PEDESTRIAN LINKAGES FROM THE BARNEGAT BRANCH TRAIL, NORTHERN SECTION
STAFFING PLAN

Project Task Budget

	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
Task	**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	91	$ 5,304.05	$ -	$ -	$ 5,304.05	100	$ 13,000.00	$ 18,304.05	9%
Task 2A - Outreach and Partnerships	84	$ 4,918.61	$ -	$ -	$ 4,918.61	250	$ 32,500.00	$ 37,418.61	19%
Task 2B - Visioning and Goal Setting	88	$ 5,136.74	$ -	$ -	$ 5,136.74	250	$ 32,500.00	$ 37,636.74	19%
Task 2C - Data Collection and Review; Quantification of Need	105	$ 5,524.41	$ -	$ -	$ 5,524.41	275	$ 27,500.00	$ 33,024.41	17%
Task 3 - Data Analysis and Mapping	62	$ 3,798.96	$ -	$ -	$ 3,798.96	250	$ 25,000.00	$ 28,798.96	14%
Task 4 - Recommendations and Implementation	131	$ 7,911.17	$ -	$ -	$ 7,911.17	156	$ 19,500.00	$ 27,411.17	14%
Task 5 - Final Report and Final Deliverables	121	$ 7,406.05	$ -	$ -	$ 7,406.05	80	$ 10,000.00	$ 17,406.05	9%
TOTAL	**682**	**$ 40,000.00**	**$ -**	**$ -**	**$ 40,000.00**	**1,361**	**$ 160,000.00**	**$ 200,000.00**	**100%**

Subregional Staff Plan

Personnel (Name & Title)	**Estimated % of Time Needed for Study** *(based on total work hours for the year)*	**Total Estimated Hours for Study**
David J. McKeon, Planning Director	1%	60
Victoria Pecchioli, Principal Planner	5%	223
Mark Villinger, Principal Planner	5%	212
Jenny Jimenez, Assistant Planner	3%	123
C. Roberts Mulloy, Assistant County Engineer	0%	15
Mark Jehnke, Principal Engineer	0%	15
Michael Mangum, Director, County Parks Department	0%	12
Joseph Pirozek, County Parks Department	0%	12
Jennifer L. Protonentis, P.E., Senior Engineer	0%	10
TOTAL	**2%**	**682**

FY 2018 – FY 2019 SUBREGIONAL STUDY

SOMERSET COUNTY BICYCLE AND PEDESTRIAN FACILITIES AND TRAILS PLAN

SOMERSET COUNTY

Proposal Sponsor(s): Somerset County

Title of Proposed Study: Somerset County Bicycle and Pedestrian Facilities and Trails Plan

Estimated Budget Requested ($256,000 Consultant/$64,000 Local): $320,000

Anticipated Study Duration (22 months overall and 18 month Consultant)

I. Project Management

A. **Subregional Project Manager**: Kenneth Wedeen, AICP/PP, Supervising Planner, Somerset County Planning Division
B. **Identification of agencies and municipalities from which letters of support and active participation are required:** NJDOT

II. Study Scope of Work

A. Needs, Goals and Objectives

The Somerset County Bicycle and Pedestrian Facilities and Trails Plan will improve regional connectivity and mobility by creating a seamless network of bicycle, pedestrian and trail facilities to connect major destinations and attractions to create a safe and useable network that improves non-motorized travel options. Some priority destinations and attractors that would benefit from improved non-motorized travel connections include; county parks, county complex, Raritan Valley Community College, RWJ Barnabas of Somerset, Duke Farms, Peters Brook Greenway, Somerset County Environmental Center, Patriot Stadium, Bridgewater Commons Mall, Sourland Mountains, D&R Canal Towpath and the East Coast Greenway. Somerset County, with a growing diverse population and changing employment opportunities, has a great need for better connected destinations and additional mobility choices by improving the existing bicycle, pedestrian and trails infrastructure to better connect priority destinations. Many of these destinations connect the public with essential services including: public facilities, medical facilities, recreation and educational facilities, employment nodes, transit hubs and cultural and historic facilities. The study will propose improvements to the existing regional pedestrian and bike facilities and trails network which will support the increased usage of these non-motorized facilities for various trip purposes. The study will also increase mobility options for county residents, workers and visitors without a car, not located near public transit and promote health and wellness opportunities for all persons.

The study will analyze the existing pedestrian and bicycle network with a focus on the County Road and Greenway Network to determine why the system may be underutilized (missing links, safety issues, etc.) and how the system can be enhanced and better utilized. Somerset County will undertake a needs assessment using an extensive data collection effort including existing

County GIS data layers to understand the existing conditions and where priority travel destinations are located and how existing trails, pedestrian and bicycle facilities can be increasingly utilized for travel to these priority destinations. The analysis will lead to types of improvements to be recommended to increase usage of trails, pedestrian and bicycle facilities for recreational and non-recreational uses such as traveling to jobs, school, Fitness and for errands. The study will develop a list of priority travel corridors and proposed improvements that will produce a more seamless, continuous bike and pedestrian facility and trails system that connects persons using non-motorized travel options to more priority destinations.

The Somerset County 500 and 600 level county roadway network makes up 250 miles of roadway of which 78.5 miles is bike compatible based on NJDOT guidelines. This does not include bike compatible local roads. The county's bike compatible roadways are scattered across the county and provide limited connectivity. Somerset County's Circulation Element Making Connections identified opportunities to improve bicycle circulation on county roads including: access to major transit hubs including adequate bike parking; investigate shared lane markings where appropriate; shoulder improvements and speed limit reductions; off-road connectivity use of public lands, open spaces and greenway corridors i.e. D&R Canal and Towpath. These issues will be addressed along with others as part of this study.

The County Circulation Element Making Connections identified some key county level bicycle circulation system weaknesses including numerous high speed roadways which act as barriers to bicycle circulation; insufficient bike parking; lack of compatible bike shoulders on many rural routes; overall county bicycle network lacking connectivity; documented barriers to bicyclist accessibility and mobility; limited study and focus on rural areas outside of the regional center. The County Circulation Element highlighted constraints to bicycle circulation including: highways acting as major barriers; topological limitations; environmental concerns; Raritan River Crossings and limited capital funding. All of the above bicycle opportunities and constraints identified in the 2011 County Circulation Element Making Connections will act as a starting point as the consultant develops a list of issues identifying why the county bicycle, pedestrian and trails are not being increasingly utilized. These issues will be a major focus as additional data is collected to identify different types of existing bicycle, pedestrian and trails opportunities and constraints.

Somerset County's Circulation Element Making Connections also identified opportunities to improve pedestrian mobility by prioritizing improvements for gaps near major generators; improve pedestrian access to transit hubs; review locations where unmet demand is clear and identify funding sources to allow the county to fund sidewalk projects and encourage annual maintenance at municipal level to address gaps link by link. The County Circulation Element identified some key county level pedestrian circulation weaknesses including major highways that act as barriers preventing safe movement of pedestrians and lack of sidewalks in certain corridors. All of the above pedestrian opportunities and constraints identified in the 2011 County Circulation Element Making Connections will act as a starting point for the consultant to develop a list of issues identifying what is keeping our bicycle, pedestrian and trails from being increasingly utilized.

The use of Greenways or trails to improve bicycle and pedestrian mobility is also an important theme in the County's Circulation Element. The extensive park, trails and greenway network in the County can enhance the current on road bicycle and pedestrian network by providing additional connections to key attractions and destinations via the existing open space network. The County Circulation Element Making Connections highlights the opportunities to use the D&R Canal Park Tow Path and other County trails and greenway corridors such as the Raritan River and Peters Brook Greenways to improve bicycle and pedestrian mobility while preserving the County's green infrastructure and open spaces. This will be a main focus area in the study where data is collected to identify different existing conditions that are restricting bicycling, pedestrian and trails usage.

The Somerset County Bicycle and Pedestrian Facilities and Trails Plan will provide a comprehensive vision that will create a pedestrian, bicycle and trail system that will improve non-motorized mobility in the County. This Plan will be used to inform investment decisions related to the County's Capital Plan. It will also help advance the County Investment Framework (CIF) by reinforcing the land use and preservation planning goals set by the County. In addition, this plan will be used to support future grant requests for bicycle and pedestrian improvements by showing the requested grant funding is part of a comprehensive regional plan to improve bicycle, pedestrian and trails mobility in the county.

1. Addressing a Regional Need

NJTPA RTP Goals

Provide affordable, accessible and dynamic transportation systems responsive to current and future customers. The proposed study will result in improvements to trails and bicycle facilities providing increased mobility options by making the facilities accessible to more persons regardless of age, income or race. The study will offer more non-motorized mobility opportunities for the growing segments of the population that choose not to have an automobile or persons whom do not have easy access to public transit or wish for more health and wellness opportunities.

Retain and increase economic activity and competitiveness. By improving mobility options in the County, this study will support economic development within the Priority Growth Investment Areas as identified in the County Investment Framework. This study will advance the recommendations from the Supporting Priority Investment in Somerset County studies funded by previous Subregional Studies grants.

NJTPA RCIS Principles:

Support Walking and Biking: **All transportation projects should promote walking and bicycling wherever possible.** The study will promote increased walking and biking mobility options as viable non-motorized transportation alternatives to the single occupant automobile.

Make Travel Safer: Improving safety and security should be explicitly incorporated in the planning, design and implementation of all investments. Improvements identified by this

study will increase safety for bicyclists and pedestrians by creating a seamless network of facilities to improve mobility.

Help Northern New Jersey Grow Wisely: Transportation investments should 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. This study will reinforce land use planning efforts to encourage investment and development/redevelopment in areas with existing infrastructure.

1. **Federal Emphasis Areas:**

- **Ladders of Opportunity as part of the transportation planning process identify transportation connectivity gaps in access to essential services…. By measuring the transportation systems connectivity to essential services and the use of information to identify gaps in the transportation system connectivity that preclude access from the public, including traditionally underserved populations essential services to essential services. It could also involve the identification to address those gaps.** The study will identify missing links and gaps in the existing trails and bicycle network and recommend improved access between a person's residence and destinations. The study will identify any barriers that would adversely impact traditionally underserved populations and develop solutions to increase low and no cost mobility options available to underserved populations.

FY 2017 NJDOT MPO Emphasis area Transportation Priorities
Congestion Relief Strategies
Maximize opportunities for complete streets implementation

- **Support collection of bicycle and pedestrian volume data on county roads**. The study supports the collection of bike and pedestrian counts and analyzing bike and pedestrian crash data to recommend safety and access improvements to increase usage of the underutilized trails and bicycle infrastructure.

TNJ Emphasis Areas:

- **Efficient: Connect People and Places with safe, convenient and reliable transportation.** The study will connect person's residence with destinations that offer essential services with safe convenient, reliable trails and bike facilities.

2. **Subregional Need**

During the last several years there has been a growing need to improve regional connectivity of the existing bike, pedestrian and trail infrastructure into a seamless and continuous system connecting various destinations and attractions to improve mobility in Somerset County. With a growing, aging and ethnically diverse population and changing employment patterns, Somerset County has a growing demand for improved bicycle, pedestrian and trails connections. Somerset County residents, workers and visitors want increased non-motorized mobility alternatives to the single occupant automobile. Somerset County and its municipalities have existing trails, pedestrian and

bike routes but some are not well signed, have missing links and or gaps that discourage their usage.

Recent trends, confirmed by Somerset County employers, are that employees want better connected pedestrian, trail and bicycle facilities to travel to and from work, complete errands and for increased health and wellness opportunities. Local officials also state that their residents have expressed the same. Improved bike, pedestrian and trail connections are considered a benefit to persons seeking employment at companies located in Somerset County. For Somerset County employers improved pedestrian, bicycle facilities and trails can make them more competitive in hiring and retaining the best educated and technically trained employees especially millennials looking for high technology jobs in the suburbs located near things to do.

Today more persons are walking or biking either due to limited or no access to an automobile or limited access to public transit. The traditional 9am-5pm weekday work schedule has changed over the last 40 years where today persons work 24/7. Public transit in suburban Somerset County operates on a very limited schedule on weekends and does not operate overnight. Many employees must bike or walk to work for overnight and weekend jobs. The growing demand for non-motorized transportation options is driving the need to develop a continuous and seamless county wide pedestrian, bike and trails plan resulting in additional non-motorized mobility options. To address this growing demand, some municipalities have undertaken pedestrian, bicycle and or trail route planning. Some of these municipalities include Franklin Township, Hillsborough Township, Bernards and Bedminster Townships. These four municipalities have been the most active towns in terms of planning and designating local bike routes and local bike lanes.

The Somerset County Bicycle and Pedestrian Facilities and Trails Plan will identify safety and mobility improvements for encouraging increased bicycling and walking to and from priority destinations using existing bicycle, pedestrian and trails facilities. The purpose of the study is to identify safety and mobility improvements. Somerset County wants to develop a bike, pedestrian and trails plan that identifies county roads and trails that are appropriate and desirable to better accommodate biking and walking. The county has many attractors which are locations where people would be more likely to access by walking and biking if routes were improved to that connect to these travel destinations.

3. Study Goals and Objectives

Study Goals and Objectives:

- Identify gaps, missing linkages, safety and signage issues between key priority destinations along priority travel routes
- Connect existing or planned off-road pathways with priority destinations
- Build on municipal and county plans to promote walking and biking as an mobility option
- Address safe crossings of local, county roads and state and interstate highways
- Work to promote complete streets by promoting trails and bike routes
- Offer increased opportunities for health and wellness activities
- Promote and support economic development by coordinating transportation investments with land use planning to increase non-motorized travel options

- Provide increased low or no cost non-motorized mobility options for underserved populations utilizing the existing bicycle and trails infrastructure
- Focus improvements along the most heavily traveled routes that offer persons the greatest access to priority destinations

B. 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 (SAC) will be formed to meet during the project and public meetings will be held to guide the study and inform its progress to the public.

Data Collection: The consultant will collect data through a variety of means including existing county GIS data layers, crowd sourcing mapping, stakeholder interviews, focus groups, online surveys, steering advisory committee and public meetings. This will lead to the mapping of existing conditions and a list of priority travel routes. The data on existing conditions will be presented in both tabular and mapping formats.

Analysis of Existing Conditions: The consultant will analyze the existing conditions and priority travel routes using the following tools to develop criteria, hot spot crash analysis, bicycle compatibility, bike stress level, wikimapping technology, focus groups and online surveys.

Recommendations, Design Guidelines and Desired Typical Sections: The consultant will develop a series of short, medium and long term recommended improvements based on the results from the above analysis. An implementation matrix will be developed that includes the type of improvement, lead agency, funding resources. The consultant will also develop a sample of desired typical sections and general design guidelines as well as potential locations for applying these recommendations.

Work Plan:

Task One: Project Management

Somerset County Planning Division Staff will provide overall project oversight, as well as perform the administrative tasks associated with this study. These activities include the consultant selection process, contract administration and processing of consultant invoices. Other work associated with this task includes preparation and submission of quarterly project status reports and any other documentation required by the North Jersey Transportation Planning Authority (NJTPA).

The consultant shall designate a project manager who will be responsible for overseeing the day-to-day activities of the consultant team and who will serve as the primary contact with county staff. The project manager shall establish an effective means of coordinating and reporting its

activities with county staff throughout the course of the project and ensure the timely and efficient exchange of information. The consultant project manager (and other key members of the consultant team) will participate in a project kick-off and monthly project progress meetings. The progress meetings can take place in person or via telecom with county staff. The project manager shall be responsible for the preparation and submission of progress meeting agendas and minutes, monthly progress reports and invoices. A detailed schedule of project tasks and associated timeline (Gantt chart) shall be submitted at a project kick-off meeting for county staff review and approval, which will be evaluated at regular intervals during the course of the project to ensure the timely completion of all tasks.

Task 1 Deliverables: County staff will provide overall project oversight and administration including the preparation and submission of eight (8) quarterly reports and any other documentation required by the NJTPA. The consultant project manager shall participate in, and provide summaries of a project kick-off meeting and monthly project progress meetings with county staff; and shall prepare and submit a schedule of tasks, monthly progress reports and invoices.

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 Park Commission, Somerset County Business Partnership, Healthier Somerset, NJDOT, NJTPA, NJ TRANSIT, NJ Office of Planning Advocacy, RideWise of Raritan Valley. Members of bike/trail groups, the Somerset County Regional Center Partnership and municipal officials may also be asked to participate on 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 bike, pedestrian and trails network, 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 the final report clearly identifies the implementation priorities along with agencies responsible for each project hand-off.

Deliverable Description: Up to six 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 Planning Board Staff. Planning staff will handle posting of meeting materials on the Somerset County Planning Division web site. The consultant shall be responsible for preparing SAC meeting PowerPoint presentations, displays, handouts and meeting materials.

Public Involvement Strategy:

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:

Outreach to Limited English Proficiency (LEP) Low Income and Environmental Justice Population Groups

The consultant will conduct a preliminary Environmental Justice analysis county wide utilizing the NJTPA EJ Portal, TNJ 2.0 data and US Census Bureau American Community Survey (ACS) data. The consultant will identify census tracts that are above the threshold for any of the Environmental Justice population groups. The consultant will plot these groups by census tract. The location of priority destinations and attractors will be overlayed with the Environmental Justice (EJ) data and priority destinations located near EJ areas will be examined to determine the best way to increase the participation of an adversely impacted population. Study materials at public meetings will be available in English and if needed in Spanish and the public meetings will include the opportunity for persons in an EJ group to provide feedback.

The consultant will develop a plan utilizing some new innovative public outreach techniques to address hard to reach communities. The outreach plan will include meeting with faith based organizations and meeting will main street and downtown business associations to understand how their workers travel to work, what mode of transportation they use to travel and where do they travel from. Other possible innovative techniques may include online surveys and mapping translated into Spanish if needed. Also hosting a focus group of community leaders in the EJ communities to discuss the travel patterns of residents and workers within EJ areas.

Focus Groups/Interview Sessions

Up to four (4) focus group/interview sessions shall be held by the consultant with municipal representatives, bicycle and trails clubs, leaders of community organizations, non-profit environmental groups, open space organizations, historic and cultural organizations, complete street advocates, civic and planning organizations, municipal engineers and planners, health and wellness organizations. The goal will be to identify early on the issues related to connecting high priority destinations using the existing bicycle, pedestrian and trails system, transportation and land use issues and strategies to advance recommendations to improve connections for non-motorized mobility choices. Input from the focus groups and interviews will be critical in the identification of existing conditions and identify priority travel routes and where improvements are needed to improve connections to priority destinations either walking or biking.

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 Somerset County Park Commission, the Somerset County Business Partnership of Somerset County, The Somerset County Regional Center, Somerset County Mayors Roundtable, RideWise of Raritan Valley and Healthier Somerset. Study updates to groups with regularly scheduled meetings will be handled by 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.

County staff will host meetings and focus groups with other stakeholders including local and national bike groups and complete streets advocates to gather a wide variety of input in the identification of existing conditions, identifying priority routes and recommending improvements to the existing bicycle and pedestrian facilities and trails systems.

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 hold all of the public meetings in ADA accessible facilities. It is envisioned that up to (4) public meetings shall be held during the course of this study.

At the kickoff meeting, the consultant shall introduce the project to public officials and the general public and solicit input to identify existing conditions, identify priority destinations and any issues with existing trails, pedestrian or bicycle facilities.

At the second public meeting, the existing conditions and list of priority destinations and travel corridors will be shown and the public will be able to point out safety, access and any other issues.

The last two public meetings will focus on reporting on proposed improvements in different parts of the county. This will allow for adequate time for each part of the county to have community members time to provide input on the recommended improvements.

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 county and consultant will jointly develop up to three (3) project newsletters during the course of the study. The project newsletters will be designed to be distributed electronically and in print. The newsletters will be used to inform the various stakeholders and public about the study's objectives and the status of the project work tasks. The first newsletter will provide an overview of the study and describe how the various stakeholders and public can become involved in identifying existing conditions and priority travel corridors. The second newsletter will give an overview of the proposed study findings and draft recommended improvements 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. The newsletter will be made available at municipal buildings and libraries as well as being posted to the County's and the Regional Centers 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 County Planning Board 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**.** The web page may also be used to solicit public input through an online survey or crowd source mapping exercise through which the public can post their travel routes along with any safety concerns or other access issues.

Project Mapping

The study will investigate the use of crowd sourcing or crowd mapping software like the interactive mapping tool wikimapping to gather public input on current travel patterns and potential improvements to the existing bicycle, pedestrian and trails network. This software allows users to identify their biking and walking routes and provide comments on key destinations and priority routes. This type of interactive mapping software helps planners understand where people go and how they get there. The following bike plans have been prepared using wikimapping including: Minnesota State Bike Plan; Bellevue Washington Bike and Pedestrian Plan; Princeton Bike Master Plan; Southern Nevada Bike and Pedestrian Plan; Cambridge Massachusetts Bike Network and Central Bergen County Bike Plan.

The consultant will work with the county to prepare the necessary online mapping materials to undertake a crowd sourcing event/survey. Somerset County will aid in preparing any GIS mapping and work to promote the crowd sourcing exercise. The consultant will review all of comments and summarize the individual comments into different type categories such as safety issues. The consultant will also prepare a series of summary maps highlighting priority destinations and priority travel corridors.

Report Distribution

The final report shall be presented 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's web site.

Deliverable Description: The consultant shall conduct up to (4) 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 in a technical memorandum. The consultant shall provide background information and graphics to county staff when they participate in stakeholder meetings. The consultant shall participate in up to (4) public meetings and prepare the necessary PowerPoint, handouts, display materials and summaries for these meetings. The consultant and Somerset County shall prepare electronic and 100 copies each for up to (3) newsletters highlighting the work products. The consultant will provide materials in electronic format to be posted on the county planning board and the business partnership web sites. The consultant will present summary data from the crowd source mapping including a map of where each comment references and the location of priority travel routes. The consultant shall present the final report at a regularly scheduled County Planning Board Meeting. The consultant will develop written and graphic materials to post on the county web site.

Task Three: Data Collection and Analysis

Data collection will include compiling GIS mapping data and planning documents from the 21 municipalities, maps of planned trails, pedestrian and bikeways identified in the County Circulation Element Making Connections; the County Planning Board, the County Park Commission, NJDOT, NJDEP, various open space organizations as well as input from the public and SAC committee members. The county will supply to the consultant any available existing bicycle counts from either local, county or NJDOT. Somerset County will undertake bicycle counts for high priority improvements identified in the final report recommendations prior to the submission of an application for improvement funding. The existing conditions data will be used to develop a countywide area base map showing bike and pedestrian facilities and trails along the county roadway network. The data collected on existing conditions will help identify the priority network of roads and trails providing access to major public destinations throughout the county.

Review of Existing County Roadway and Greenway/Trail Network

The main goal of the analysis will be to gather information on all of County road facilities and County Greenway and trails systems to assess the current conditions and identify opportunities to create a bicycle, pedestrian and trail system to improve mobility in the County. This will include gathering input from current and potential users of the system as well as a planning and engineering assessment of the system. This effort will result in the creation of several maps detailing existing conditions along County roadways and trails. Potential connections from the County system to local bikeways and greenways/trails will also be identified.

County Roadways and Greenways/Trails

This analysis will identify and map the existing conditions pedestrian and bicycle facilities along the County road system. This will include such features as but not limited to type the sidewalk type, width, conditions, presence of crosswalks and traffic control, off road paths, right-of-way and lane widths and pavement markings. It will also describe and map the existing conditions of the current greenway/trail system including such features as but not limited to type of trails, condition of the trail and trail width. Mileposts must be referenced and cross sections must be given. The consultant may divide the roadway or trail/greenway into segments as necessary. A manageable segmentation system may be developed for examining and report the conditions along the County roadways. The County Park Commission will provide any GIS mapping and descriptions of their existing trails or greenways to the consultant.

The consultant will conduct a bike compatibility assessment of each County road. The consultant will review the existing bicycle compatibility map from the Making Connections Circulation Element and will update the data including any traffic volumes, posted speeds, parking road types, roadway and lane widths, number of lanes and local conditions for each priority travel route. The consultant will analyze the bicycle and pedestrian constraints and needs that were identified in the County Circulation Element. The consultant will identify what bicycle, pedestrian and trails recommendations from the County Circulation Element have been implemented and what recommendations have not been implemented. The consultant will prepare both updated GIS mapping and tabular representations of the results. In addition the consultant will also conduct a bicycle stress level analysis for each county roadway.

A Crash Analysis will be conducted by the consultant. This will include an assessment of NJDOT Plan4Safety pedestrian and bicycle crash data records along County Roads. The consultant will also conduct an evaluation of systematic crash factors. This will result in the consultant mapping locations that have conditions that are conducive to future crashes but have not yet had crashes reported. The consultant will conduct this effort by outreaching to municipal police departments and municipal engineers including the traffic safety officers and their county organization. The consultant will outreach to municipal engineers through an email survey and phone follow up asking about identifying high risk bicycle and pedestrian locations in their municipality where there may a high number of near misses that have yet to result in a crash involving pedestrians and bicyclists. The consultant will prepare a series of GIS maps that show the locations with safety issues and crash hotspot locations. The consultant will also review the responses received from the crow source mapping that may identify problematic locations that need further analysis.

Connections to Local Bikeways and Trails/Greenways

The consultant will review municipal master plans to identify potential connections and linkages to the County roadway network. Existing and planned municipal greenways/trails will be mapped by the consultant. County staff will outreach to municipalities to collect any mapped bicycle and pedestrian and trails facilities.

Deliverable Description: The consultant will prepare technical memorandum summarizing the findings of the existing conditions analysis. This will include a series of GIS maps and tables highlighting the existing conditions of bicycle and pedestrian facilities and trails. The technical memorandum will detail the findings of the bike compatibility assessment, bike stress analysis

and crash data analysis. A summary of potential connections to local bikeways and greenways/trails will also be provided.

Task Four: Data Analysis and Development of Preliminary Bicycle and Trail Network

Based upon the information gathered in Task Three and the results of the public involvement process, the consultant will develop a preliminary bicycle, pedestrian and greenway/trail framework plan for the County roadway system. Priority connections and linkages will be identified. This analysis will build upon the work in the previous tasks and stakeholder input to develop potential improvements to address the needs previously identified.

The conceptual recommendations will suggest potential improvements/treatments for the County roadway, pedestrian and trail system. The consultant will develop basic conceptual improvements such as but not limited to the type of facility, basic dimensions, sidewalks, cross walks, mid-block crossings off-road pathways/multiuse pathways, on-road and/or off road bicycle lanes, shared lane makings and other bicycle and pedestrian amenities. The consultant will also prepare a series of summary maps highlighting priority destinations and priority travel corridors. These recommendations will be the basis for the preliminary bicycle, pedestrian and trails network plan.

The consultant will develop screening criteria to prioritize potential improvements for the preliminary pedestrian, bicycle and trail network plan. The intent of this effort is prioritizing potential improvements that provide the greatest improvement of mobility to the largest group of users and furthers the County's Investment Framework (CIF) as well as other County goals and objectives. The criteria will be used to help shape the implementation matrix.

Deliverable Description: The consultant with county input will prepare a technical memorandum detailing the analysis undertaken during this task. The memorandum will describe the preliminary bicycle, pedestrian and greenway/trail framework plan. A summary of the draft recommendations will also be included. The consultant will also prepare a series of summary maps highlighting priority destinations and priority travel corridors.

Task Five: Development of Bicycle and Trail Framework Plan and Improvement Recommendations

The consultant will work with the County to refine the preliminary bicycle, pedestrian and greenway/trail framework plan into the final bicycle, pedestrian and greenway/trail framework plan. During this task, the consultant with input from the County will refine the draft framework plan and recommendations into a final plan with recommendations for bicycle and pedestrian routes and trail ways/greenways with a detailed set of implementable projects. Consideration for the recommended final bicycle, pedestrian and greenway/trail framework plan will include order-of-magnitude costs, constructability and consistency with MUTCD, ASSHTO, federal, State and County design standards and regulations. The refined improvement concepts shall be mapped and in a written narrative and will be sketched in conceptual format.

Conceptual format can be in the form of 2 or 3 dimensional drawings including typical sections and/or cross-sections, drawings with aerial photograph backdrop of the actual location, and

descriptions of improvement type, materials including signage, and accurate measurements of width, height, depth, and distance. A sampling of desired typical sections and general design guidelines will be prepared as part of the recommendations. Recommendations will be categorized into short, medium and long term time frames.

Deliverables: Anticipated Deliverable Description: The consultant team will develop a technical memorandum containing the draft final plan with recommendations for pedestrian, bicycle routes and trail ways/greenways with a detailed set of implementable projects. A sampling of desired typical sections and general design guidelines will be prepared as part of the recommendations

Task Six: Final Report, Executive Summary and Implementation Matrix

The consultant will prepare the final report which will be comprised of the following sections: Executive Summary and the following sections: Public Outreach Process, Data Collection and Analysis; Analysis and Development of Preliminary Bicycle and Trail Network, Development of Bicycle and Trail Framework Plan and Improvements Recommendations and the Implementation Matrix. The final report will also contain criteria used for developing proposed recommendations and the Implementation Matrix. The matrix will include metrics to track the implementation of improvements. The draft and final document will be based on the results of the above study tasks. The implementation section will identify existing county, state and federal transportation funding resources as well as the lead agencies available to advance recommendations and some magnitude of costs for typical improvement designs within the report**.** The consultant will develop problem statements for the proposed improvements.

Deliverable Description**:** The consultant working with the SAC will prepare the Somerset County Bicycle and Pedestrian Facilities and Trails Plan Final Report, which will contain an Executive Summary and the following sections: Public Outreach Process, Data Collection and Analysis; Analysis and Development of Preliminary Bicycle and Trail Network, Development of Bicycle and Trail Framework Plan and Improvements Recommendations and the Implementation Matrix. Problem Statements will also be developed by the consultant for proposed improvements. A PowerPoint Presentation summary of the study will also be developed by the consultant team. All GIS products will follow the NJTPA's E-GIS guidelines.

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).

C. Environmental Justice

The consultant will conduct an Environmental Justice analysis that will identify areas of the county where low income, minority, and limited English proficiency populations live and if any proposed improvements may have a disproportionate or adverse effect on those populations. The study will insure the public outreach process be inclusive to incorporate Environmental Justice populations by working to eliminate any barriers to their meaningful participation in the study process.

The study public outreach process will include if needed the preparation of materials in different languages and if needed translators and inviting representatives from adversely impacted

populations to participate in the study. Outreach activities can be tailored to better incorporate Environmental Justice communities into the study outreach process. If an area has a significant percentage of residents with limited English proficiency translated materials can be provided. The consultant will utilize the latest American Community Survey (ACS) data along with the NJTPA GIS Environmental Justice portal and TNJ Fair Housing and Equity Assessment to undertake the Environmental Justice analysis. The consultant will identify Environmental Justice populations at the census block group level. The data will be tabulated at the county level and displayed graphically by the consultant using GIS mapping. The Environmental Justice analysis will be used to determine any locations within the county that may be adversely or disproportionately impacted by one of the proposed improvements.

D. Study Partnerships

The study partnerships developed from SAC committee members, focus groups, interviews and input from bike and environmental organizations will be used to develop the existing conditions, and priority travel routes. The consultant will work to draw upon the expertise and experience from the many study partners to identify key issues including missing segments, gaps, and safety and mobility issues. Once the issues are identified the consultant will work with the stakeholders and partners to identify a list of improvements so existing bicycle and trails networks are better connected in a more seamless and continuous way to attract persons for different trip purposes.

Related Prior Work and Future Work:

County Comprehensive Economic Development Strategy (CEDS); Supporting Priority Investment in Somerset County Phase 2 and Phase 3 Studies, FY14-FY15 SSP, FY16-FY17 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-FY13 SSP; Update of Somerset County Circulation Element, FY10-FY11 SSP; Easton Avenue Corridor Study (with Middlesex County), FY10-FY11 SSP; Regional Center Bicycle, Pedestrian and Greenways Plan, FY08-FY09 SSP and LDP Route 202 Project with Hunterdon County.

Somerset County Parks, Recreation and Open Space Master Plan

The Somerset County Parks, Recreation and Open Space Master Plan adopted in 2000 contains a series of recommendations for creating greenways and trails in the County to link major destinations and attractions in the County. The results from this proposed study will help inform a future update of the Open Space Plan.

Contact Information:

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FY 2018 - FY 2019 SUBREGIONAL STUDIES PROGRAM
SOMERSET COUNTY
THE SOMERSET COUNTY BICYCLE AND PEDESTRIAN FACILITIES AND TRAILS PLAN
BUDGET PLAN

				PROPOSED BUDGET	FEDERAL SHARE	LOCAL MATCH
PART I:	**DIRECT COSTS - PERSONNEL SERVICES**					
	1. SALARIES		$	43,715.84		
	2. FRINGE BENEFITS	46%	$	20,284.15		
		SUBTOTAL	**$**	**64,000.00**	0%	100%
PART II:	**DIRECT NON-LABOR COSTS**					
	1. SUPPLIES		$	-		
	2. TRAVEL		$			
	3. PRINTING & REPRODUCTION		$			
	4. TELEPHONE		$	-		
	5. POSTAGE		$			
	6. CONFERENCE/TRAINING		$	-		
	7. OTHER (SPECIFY)		$	-		
		SUBTOTAL	**$**	**-**	0%	100%
PART III:	**INDIRECT COSTS**					
	INDIRECT COST ALLOCATION	0%	$	-		
		SUBTOTAL	**$**	**-**	100%	0%
PART IV:	**CONSULTANT COSTS**					
	CONSULTANT		$	256,000.00		
		SUBTOTAL	**$**	**256,000.00**	100%	0%
		TOTAL PROGRAM BUDGET	**$**	**320,000.00**	80%	20%

This estimated budget is based upon projected costs to perform the work program for FY 2018-FY 2019 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: $ 256,000.00 **Local Match:** $ 64,000.00 **Total:** $ 320,000.00

FY 2018 – FY 2019 SUBREGIONAL STUDIES PROGRAM
SOMERSET COUNTY
THE SOMERSET COUNTY BICYCLE AND PEDESTRIAN FACILITIES AND TRAILS PLAN
STAFFING PLAN

Project Task Budget

	In-house Subregional Staff Activities					Consultant Support Activities		Total Project	
Task	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	$ 5,074.08	$ -	$ -	$ 5,074.08	232	$ 27,648.00	$ 32,722.08	10%
Task 2- Public Outreach and Interagency Coordination	140	$ 8,477.95	$ -	$ -	$ 8,477.95	623	$ 61,696.00	$ 70,173.95	22%
Task 3 - Data Colelction and Analysis	235	$ 14,969.77	$ -	$ -	$ 14,969.77	878	$ 85,504.00	$ 100,473.77	31%
Task 4- Data Analysis and Mapping	245	$ 15,678.63	$ -	$ -	$ 15,678.63	250	$ 24,704.00	$ 40,382.63	13%
Task 5 - Development of Recommended Improvements, Study	205	$ 12,880.35	$ -	$ -	$ 12,880.35	250	$ 24,704.00	$ 37,584.35	12%
Task 6 -Final Report, Executive Summary and Implmenentation	120	$ 6,919.25	$ -	$ -	$ 6,919.25	316	$ 31,744.00	$ 38,663.25	12%
TOTAL	**1,020**	**$ 64,000.02**	**$ -**	**$ -**	**$ 64,000.02**	**2,549**	**$ 256,000.00**	**$ 320,000.02**	**100%**

Subregional Staff Plan

Personnel (Name & Title)	Estimated % of Time Needed for Study *(based on total work hours for the year)*	Total Estimated Hours for Study
Walter Lane, Director of Planning	4%	130
Laurette Kratina, Chief Strategic Planning	2%	73
Kenneth Wedeen, Supervising Planner	13%	487
Andras Holzmann, Senior Planner	5%	190
Andrew Phillips, GIS	0%	0
Tanya Rorbach, GIS	0%	0
Alicia Meyers Traffic Engineer	3%	140
TOTAL	**3%**	**1,020**