Freight Concept Development Program Guidelines

North Jersey Transportation Planning Authority

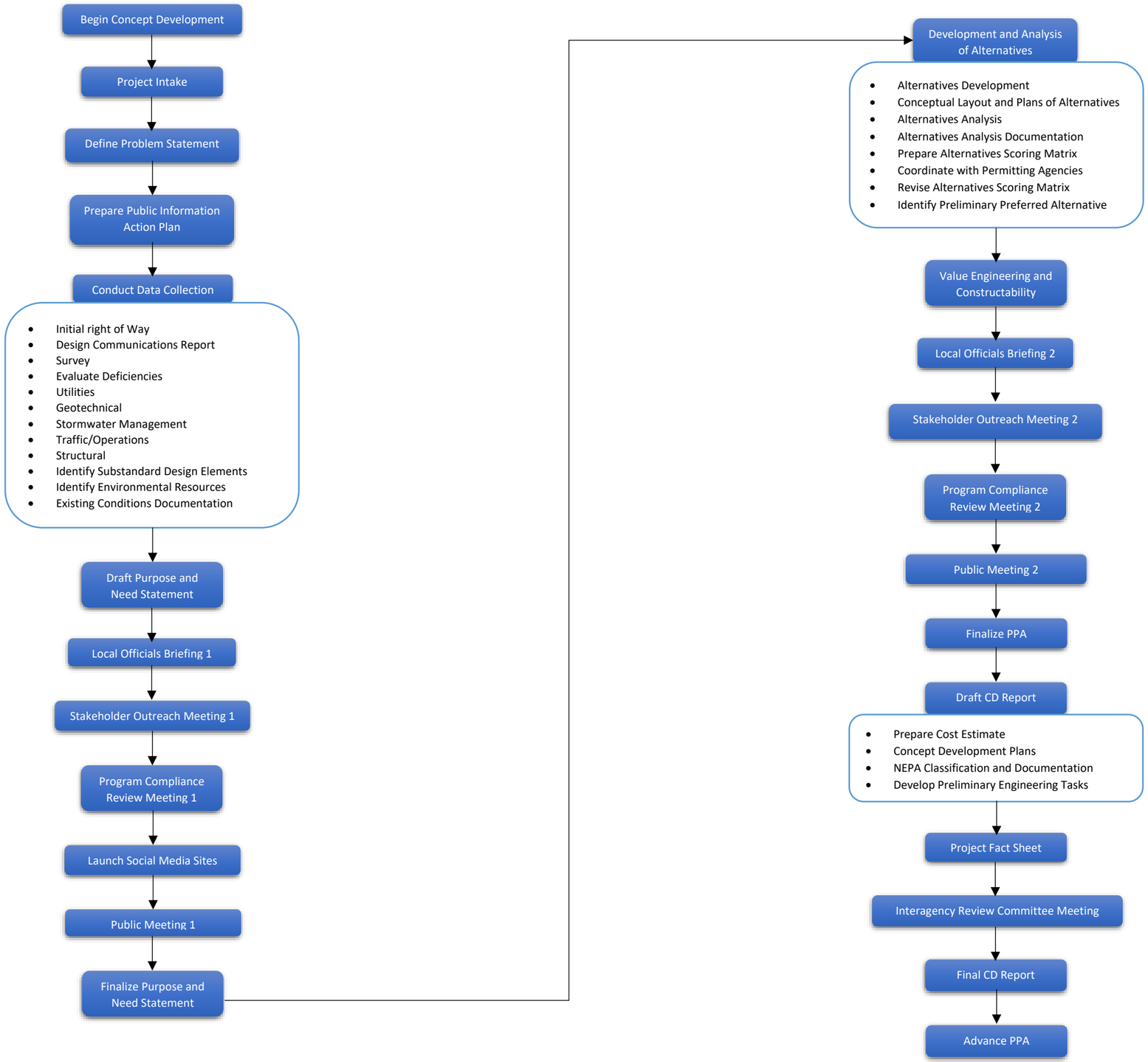
NJTPA
NORTH JERSEY
TRANSPORTATION
PLANNING AUTHORITY

DECEMBER 2020

1. Introduction 2
2. Project Intake Process 2
3. Project Kickoff 4
4. Define Project Problem Statement 4
5. Develop Community Profile 5
6. Prepare Public Information Action Plan 5
7. Conduct Data Collection 5
A. Initial Right of Way 6
B. Design Communication Report 6
C. Survey 6
D. Evaluate Deficiencies 6
E. Utilities 7
F. Geotechnical 7
G. Stormwater Management 7
H. Traffic/Operations 8
I. Structural 9
J. Identify Substandard Design Elements 10
K. Identify Environmental Resources 10
- Environmental Screening 10
- Constraints Mapping 11
L. Existing Conditions Documentation 11
8. Draft Purpose and Need Statement 12
9. Local Officials Briefing #1 12
10. Stakeholder Outreach Meetings #1 12
11. Program Compliance Review Committee Meeting #1 13
12. Develop Social Media Content 13
13. Public Meeting #1 14
14. Finalize Purpose and Need Statement 14
15. Development and Analysis of Alternatives 15
A. Alternatives Development 15
B. Conceptual Layout and Plans of Alternatives 15
C. Alternative Analysis 16
D. Alternatives Analysis Documentation 16

E. Prepare Alternatives Scoring Matrix 16
F. Coordinate with Permitting Agencies 16
G. Revise Alternatives Scoring Matrix 17
H. Identify Preliminary Preferred Alternative 17
16. Value Engineering and Constructability Review 17
17. Local Officials Briefing #2 17
A. Obtain Resolutions of Support 18
18. Stakeholder Outreach Meetings #2 18
19. Program Compliance Review Committee Meeting #2 18
20. Public Meeting #2 18
21. Finalize PPA 19
22. Draft Concept Development Report 19
A. Prepare Cost Estimate 20
B. Concept Development Plans 20
C. NEPA Classification and Documentation 20
D. Develop Preliminary Engineering Next Steps/Tasks 20
23. Project Fact Sheet 20
24. Interagency Review Committee Meeting 20
25. Finalize CD Report 21
26. Advancing PPA 21

Freight Concept Development Program (FCDP) Phase Flow Chart



1. Introduction

Over the past 10 years more than 500 potential freight projects have been identified in planning studies conducted in the NJTPA region. Many of these projects do not have a clear path forward to implementation. As such, the NJTPA Freight Planning Division developed a Freight Concept Development Program (FCDP) to provide an avenue to advance these freight projects toward implementation. This program builds off of the NJTPA's Local Capital Project Delivery (LCPD) Program – Local Concept Development (LCD) phase.

2. Project Intake Process

The following is the Project Intake Process for identifying and selecting projects for the FCDP. NJTPA is the lead for steps 1, 2, 3 and 5. NJTPA subregions are the lead for step 4.

Step 1

Develop a master list of freight projects in the NJTPA region identified in previously completed studies including statewide freight plans, regional plans, county master plans and freight planning studies. NJTPA freight staff will review and update this master list every two years to add freight projects from recently completed planning studies or remove freight projects that have already advanced.

Step 2

From the list developed in Step 1, remove policy needs, needs that have already been addressed and needs that are advancing or can advance by other means (State road projects, projects already in the TIP, NJ TRANSIT projects, New Jersey Turnpike Authority projects, projects eligible for the competitive NJTPA LCPD Program's LCD phase and those eligible for other future programs). This screening of freight projects will be repeated any time the master list is updated.

Step 3

NJTPA freight staff will score the remaining (pre-screened) list of candidate projects and provide this pre-scored list of projects along with project descriptions to the subregions. The proposed scoring criteria is presented on the following page.

Step 4

The subregions would review this pre-scored list and request up to two projects to advance to the FCDP. The subregions may provide additional information to justify a higher score for their selections as needed. They may also provide an additional project not on this pre-scored list for the NJTPA to consider as long as it has been identified in a previous study and such reference can be provided. Submitting a request constitutes a commitment from the subregion to lead and participate in the advancement of the requested project.

Step 5

The NJTPA will rank the subregional requests and select projects to advance into the program each cycle depending on funding availability. The project selection requires NJTPA Board approval.

Scoring Criteria

The scoring criteria has been adopted from the scoring criteria originally developed as part of the NJ Statewide Freight Rail Strategic Plan (2014). This scoring criteria was subsequently applied to rail projects in the 2017 NJ Statewide Freight Plan, which was adopted by the Federal Highway Administration (FHWA). For the purpose of this program, this scoring tool was enhanced to account for all modes of travel. The Project Team coordinated with NJTPA staff and other NJTPA programs to ensure that this scoring criteria aligned with current NJTPA goals outlined in *Plan 2045: Connecting North Jersey* as well as the current scoring criteria for the NJTPA LCD Program.

The proposed scoring tool includes two types of criteria: critical (highly weighted) and supportive (moderately weighted). The scoring tool will be applied to the pre-screened candidate projects as shown in Step 3 above. The candidate projects may include any and all modes of goods movement.

There are six critical criteria:

1. Maintain state of good repair and resiliency
2. Preserve critical transportation assets including rights of way
3. Provide, preserve and enhance transportation system connectivity
4. Improve safety
5. Maintain / enhance economic development opportunities
6. Reduce environmental impacts

The critical criteria would receive one of the following scores:

- High = 5,
- Moderate = 3,
- Neutral = 0, and
- Detrimental = -5

There are three supportive criteria:

1. Ensure adequate service efficiency and operational capacity
2. Maintain or expand system redundancy
3. Reduce congestion and enhance operational efficiency

The supportive criteria would receive one of the following scores:

- High = 3,
- Moderate = 1,
- Neutral = 0, and
- Detrimental = -3

The table below depicts a sample of how a project would be scored. Each project would receive a score and be compared to other projects on the master candidate list.

	Goal / Objective	Subregion Project Name Additional Descriptor			
		Highly Supportive	Moderately Supportive	Not Applicable	Detrimental
CRITICAL CRITERIA	Maintain State of Good Repair and Resiliency		3		
	Preserve Critical Transportation Assets Including Rights of Way			0	
	Provide, Preserve and Enhance Transportation System Connectivity		3		
	Improve Safety		3		
	Maintain / Enhance Economic Development Opportunities	5			
	Reduce Environmental Impacts		3		
SUPPORTIVE CRITERIA	Ensure Adequate Service Efficiency and Operational Capacity	3			
	Maintain or Expand System Redundancy		1		
	Reduce Congestion and Enhance Operational Efficiency	3			
				Score	24

3. Project Kickoff

The workflow that follows is intended to provide guidance on the steps needed to complete a FCDP study. At the onset of a FCDP study, a kick-off meeting will be held with the Project Team consisting of the NJTPA, the project sponsors, NJDOT Bureau of Multimodal Services, NJDOT Bureau of Local Aid (NJDOT-LA), NJDOT Bureau of Environmental Program Resources (NJDOT-BEPR) and others as dictated by the study (e.g., NJ TRANSIT Rail Infrastructure Engineering for projects that involve NJ TRANSIT infrastructure). The purpose of the kick-off meeting is to discuss the project's background, goals, schedule and determine which specific tasks may not be required due to the nature of the project. For example, if the issue is vertical clearane constraint due to a pedestrian overpass or a catenary wire, a traffic analysis is not likely to be needed.

4. Define Project Problem Statement

The project's problem statement is defined before beginning the data collection phase. This will typically be taken from the planning document that initially identified the project and will eventually serve as the basis for the Purpose and Need Statement discussed in Section 8 of this document.

5. Develop Community Profile

Demographic data for the study area should be obtained from US Census and a field visit should be conducted to determine the characteristics of the study area, such as neighborhood boundaries, locations of residences and businesses, demographic and economic information, presence of Environmental Justice communities, and land use pattern. The field visit should also alert the Project Manager to potential impacts from the proposed project. The information gathered from the profile will aid in developing the Public Information Action Plan (PIAP), the development of alternatives and the ultimate selection of the Preliminary Preferred Alternative (PPA).

6. Prepare Public Information Action Plan

The PIAP will include strategies for communicating project information and soliciting feedback from stakeholders and the public. The PIAP should be relevant to the project and developed in consultation with the Project Team. The purpose is to solicit public involvement as early as possible within the project development process and continue during concept development through selection of the PPA. The PIAP will include, but not be limited to, developing a database of known stakeholders, determining the number of anticipated meetings with local officials, citizens groups, outside public, private agencies and any other interested parties impacted by the proposed project. Outreach strategies should include, but not be limited to, meetings with involved and affected parties, local officials briefings, public meetings, posting of project notices and materials on NJTPA and subregion websites, creation of a project-specific website and other social media outlets as deemed appropriate in consultation with NJTPA and the Project Team. The PIAP should outline all anticipated outreach efforts and be memorialized in a memorandum. It should be noted that the PIAP is a living document and should be updated and amended as the Concept Development (CD) process advances.

All outreach efforts need to be documented including preparing meeting minutes, presentation materials, comment resolutions and correspondence. All outreach efforts will be coordinated with the Project Team and overseen by the Subregion. Public meetings procedures, advertisements and notices will comply with federal standards.

7. Conduct Data Collection

Data collection items are discussed further under the Evaluate Deficiencies sections.

Gather existing data and information of the project site from municipal, county, state and regional agencies as well as private sources (e.g., railroads) which could include:

- Tax and right-of-way maps
- Research and obtain deeds
- Zoning and flood maps
- Jurisdictional agreements and maps
- As-built and site plans
- State and local master plans and land use studies
- Utility maps
- Railroad infrastructure and operational data
- Railroad valuation maps

- Freight industry data
- Traffic reports and studies
- Structural inspection reports and inventory & appraisal sheets
- Straight line diagrams and other roadway inventory data
- Drainage maps, soil surveys and geodetic surveys
- Hydrological and hydraulic data and reports
- Environmental landscape data, reports and studies
- Demographic profiles\Environmental Justice maps & data

A. Initial Right of Way

During the CD phase, the following information needs to be identified for the existing right-of-way within the project limit:

- Consider required rights of entry, safety training, and permissions required for facility access in scope, schedule and cost. These will need to be determined based on project constraints and complexity. This decision will be made in consultation with the Project Team.
- A current list of property owners and adjoining properties owners who may potentially be affected by the project
- Existing right-of-way and property lines per tax map records, as-built plans and other readily available information provided by the subregion and other sources such as parcel mapping and subdivision maps etc.
- Major easements including but not limited to utility, floodplain, conservation and drainage easements readily available from the documents previously mentioned
- Facility jurisdiction within the project limits i.e. municipal, county, state, railroad, port, etc.

It is not the intent under CD to perform detailed right of way surveys including deed and map plots, field reconnaissance and title searches. Right of way information will be plotted on the topographical mapping and aerial photography based on surveying judgment and interpretation of collected documentation. This mapping will be used in future tasks for initial evaluation of right of way impacts and for coordination with potentially impacted property owners. Conceptual right of way layout will be performed under the supervision of a state licensed professional land surveyor.

B. Design Communication Report

A Design Communication Report (DCR) is maintained during the entire project. The intent of this document is to provide a record of all pertinent communications, decisions, agreements and approvals that occur between the designers, the Project Team, and various stakeholders.

C. Survey

Determine an adequate level of mapping based on project constraints and complexity. Consider required rights of entry, safety training, and permissions required for facility access in scope, schedule and cost. This decision will be made in consultation with the Project Team. CD mapping typically consists of aerial photography or topographical mapping. When topographical mapping is required, a Geodetic Control Report may need to be prepared.

D. Evaluate Deficiencies

This portion of the Data Collection phase will evaluate deficiencies of the existing infrastructure at the project site. Projects being advanced through the FCDP have an identified problem statement such as structural, safety and operational deficiencies which will be the primary goal of the project purpose and need for the CD study; however additional deficiencies may also exist within a study area that will also be identified.

Potential deficiencies and/or substandard design elements identified through the engineering subtasks could include but not be limited to:

- Structural
- Traffic
- Stormwater management
- Geotechnical
- Pavement
- Utilities
- Hydraulics & hydrology
- Rail geometric design (following AREMA, Conrail, NJ TRANSIT guidelines as applicable)

Typically, detailed engineering evaluations and analysis should be performed under Preliminary Engineering (PE) phase. However, these assessments may be recommended under the CD phase provided they are justified and approved by the Project Team.

E. Utilities

It's important to identify public and private utility companies (including railroad facilities as needed) in the project area. Send a letter (Letter #1) to each company to establish a point of contact. Once the contact has been established, send a second letter (Letter #2) requesting plans of existing utility/facility information. Two sets of topographical basemap plans should accompany this letter, one set for the company's record and one set to be returned to the designer with their facility locations identified. The companies should also provide information regarding the facility type and size.

Information obtained from the companies is then incorporated into the base mapping. Additionally, confirm the location of the utility locations provided by the various companies during a field visit. Include a description of each utility present on the site including company name, contact, location, facility type and size in the existing conditions documentation.

F. Geotechnical

Review existing plans, maps, subsurface investigations and surveys to ascertain likely subsurface conditions within the project limits and recommend design considerations.

G. Stormwater Management

If it is likely that the project will trigger stormwater management (SWM) compliance (based upon applicable regulations in place at the time of the project) further data collection will be required. Review available GIS maps for compliance with SWM rules including soil survey maps from the Natural Resource Conservation Service (NRSC) and land use maps from the New Jersey Department of Environmental Protection (NJDEP) for the project area, and a U.S. Geological Survey digital elevation model. Issues

relevant to the project's stormwater requirements and how to meet current SWM rules will need to be considered during the Alternatives Analysis.

If alternative solutions hold the potential to have an adverse impact on SWM, review existing soil data to identify likely soil parameters for achieving stormwater detention and recharge. In addition, there should be a review and assessment of available right-of-way, topography and functionality of non-structural strategies. If deemed necessary and approved by the Project Team, soil testing and sampling at select locations could be performed to confirm soil characteristics. Prepare summaries of soil conditions and solutions for the site considering best management practice (BMP) systems, as well as total suspended solids (TSS) removal rates complying with water quality and SWM regulations.

H. Traffic/Operations

Assess and evaluate the current and future conditions of highway, rail, or port operations. Efforts under CD will include the following as appropriate based upon the nature of the project:

- Review existing plans, traffic data, rail data, port data, and studies
- Assess land use, future development and planning initiatives, including those which support goods movement
- Identify forecast travel projections
- Develop data collection program
- Perform analysis of existing and future operational conditions
- Assess maintenance and protection of traffic needed during construction
- Identify potentially appropriate congestion management strategies to be considered for the Purpose and Need Statement

Data Program

Highway
Where practical, existing traffic count data should be used during the CD phase, or new counts may be needed. Develop a traffic count program to supplement existing traffic data.

Rail
Existing rail data should be used during the CD phase, or new data collected. Develop a data program that may include rail schedules, employee timetables, operator information, and other data as appropriate for a specific project.

Port
Existing port data should be used during the CD phase, or new data collected. Develop a data program that may include port schedules, marine traffic, employee timetables, operator information, and other data as appropriate for a specific project.

Land Use, Future Development and Planning Initiatives

Review plans — local master plans, zoning maps, regional plans, congestion management studies and state development and redevelopment plans — relative to the project area early on to identify potential intermodal connections and freight supportive land uses. Consultation with the metropolitan planning organization (MPO), the subregion and municipal planners is recommended.

Forecast Travel Projections

It is important to use a reasonable growth rate factor for traffic projection calculations. Consider growth rate data provided by the subregional planning department and review regional travel forecasting from the NJTPA and NJDOT. Also consider proposed development, especially those that generate freight movements and intermodal connections within the project area that may locally impact travel projections.

Assess Operations

Operational conditions/constraints analysis (Level of Service for highway) should be evaluated for the existing, construction, and 20 plus year conditions.

Congestion Management Process Findings

Existing congestion management study findings regarding all appropriate strategies are documented (or supplemented) to incorporate in the project Purpose and Need Statement. This will support the fulfillment of federal Congestion Management Process requirements within the NJTPA planning process. **It should be noted that rail and port facilities are not subject to the Congestion Management Process**.

The identification should include the following types of strategies as appropriate:

- Travel demand management, including growth management and congestion pricing
- Traffic operational improvements
- Multimodal improvements, including public transportation and non-motorized
- Intelligent transportation systems technologies
- Additional roadway system capacity
- Intermodal connections and goods movement facilitation
- Land use management, including freight supportive land uses

For each strategy considered document either the reason for including it in the Purpose and Need Statement and/or the subsequent Alternatives Analysis or why it may be appropriately excluded. This documentation should reference anticipated performance impacts of strategy implementation in terms of applicable performance measures established in plans and studies.

If the existing or supplemental analysis demonstrates that travel demand reduction and operational management strategies cannot fully satisfy the performance needs in the corridor and additional roadway capacity is warranted, identify all reasonable travel demand reduction and operational management strategies that can either be incorporated into the facility or committed to by the State and MPO for complementary implementation.

I. Structural

Identify existing structures within the project limits with the potential to be affected including bridges, culverts, retaining walls, etc. Assess the condition of all structures by reviewing inspection reports, conducting field visits, testing and analysis. Testing and analysis will be limited to circumstances when it is critical to confirm the degree of degradation of an existing structure. This will be reviewed on a case by case basis in consultation with the Project Team. Structural designs will be in accordance with American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance

Factor Design (LRFD) Bridge Design Specifications, the latest edition, with interim revisions and as amended by NJDOT for roadway bridges, and in accordance with American Railway Engineering and Maintenance-of-Way Association (AREMA) for rail bridges.

The nature and degree of all structural defects needs to be described including scour, seismic, corrosion, section loss, collision damage, settlements, etc., as well as the appraisal rating, geometric deficiencies and load ratings that could aid in defining the project's Purpose and Need Statement. It is recommended that a field investigation of existing structures be performed to confirm the findings, conclusions and recommendations of the most recent inspection reports while complying with industry and engineering standards of care for this task.

J. Identify Substandard Design Elements

Identify all existing substandard design elements (roadway, railway and structural) or Controlling Design Elements (CDE) within the project limits and determine what is required to bring them up to standards.

A comparison should be made between the substandard design elements and crash data (for a three year period for roads and a 10 year period for railways) to determine if there are crash rates above statewide or industry averages that can be directly attributed to the substandard condition. Identify means to mitigate these conditions through design alterations or implementation of safety measures and consult with project stakeholders regarding crash history and problem areas within the project limits.

Plot all crashes on a crash diagram, identifying the cause of crashes and the associated substandard features identified. This information will be used to develop alternative solutions to meet the project Purpose and Need Statement.

K. Identify Environmental Resources

Identify all environmentally sensitive areas, cultural resources and regulated areas within the project area. Perform an environmental screening, including obtaining and reviewing existing data from the various regulatory agencies, identifying and documenting these resources within a report, and preparing constraint mapping that will lay the ground work for assessing impacts by the various alternatives being considered. The environmental screening process will be coordinated with the Project Team. In addition, there will be consultation with and approval from NJDOT-BEPR.

- ### Environmental Screening

This screening identifies the social, economic and environmental resources, issues, concerns and potential "fatal flaws" that will aid in establishing impacts of the future alternatives. Prior to the environmental screening, the project study area should be established. Screenings should be prepared for review by the NJDOT-BEPR and should include environmental constraints and sensitive resources including (but are not limited to):

a. Cultural resources (archeological and historic architecture)
b. Section 4(f) properties (recreational and historic)
c. Wetlands
d. Land use
e. Floodplains/Sole source aquifers

f. Threatened & endangered species
g. U.S. Fish & Wildlife
h. Stormwater regulations
i. Hazardous waste
j. Air & Noise
k. Socio-economic
l. Environmental Justice
m. Community needs and impacts
n. Regulated/protected areas
    - Coastal Zone impacts (e.g. waterfront development, CAFRA, U.S. Army Corps, U.S. Coast Guard)
    - Flood hazard/tidelands/riparian areas
    - NJDEP Green Acres Program
    - Highlands, Pinelands, Hackensack Meadowlands, Wild & Scenic Rivers
    - Soil erosion and sediment control
    - Dam safety

If justified, conduct a field investigation and delineations (in consultation with the Project Team) to identify areas of sensitivities and resources. These investigations may be essential activities in determining fatal flaws in supporting the alternative analysis.

The NJDOT-BEPR will provide comments to and concurrence with the environmental screening report (ESR). The NJDOT-BEPR will also advise on the need for consultation with the State Historic Preservation Office (SHPO) and the Department of Land Use Regulations (DLUR). NJDOT-BEPR will also serve as the liaison, if needed, with respect to coordinating with Federal and State Regulatory Agencies.

Review NJDEP regulations to determine the project's applicability to wetlands classifications and buffers, riparian buffers, cultural resources, stormwater regulations, land use and regulated areas such as NJDEP Green Acres Program, CAFRA, Pinelands and Highlands and to also determine anticipated environmental permits, approvals and coordination.

- ### Constraints Mapping

At the conclusion of the environmental screening process identify all environmentally sensitive areas on the project base mapping. Areas to be represented on the base mapping could include wetlands areas, riparian zones, threatened and endanger species habitats, floodplains, historical, recreational (encumbered) and contaminated properties, etc. Regulated and environmentally sensitive areas, as well as properties impacted by Section 106 (cultural resources) will be clearly illustrated and labeled on the map using hatching, shading and or text to a level of accuracy comparable to the data source. Delineated areas will be represented with field markers when applicable. Floodplains and tidally influenced areas will be designated with elevations provided. Provide source data for these elevations and other represented data on the base mapping for future reference. This subtask will conclude resource identification efforts for this phase.

L. Existing Conditions Documentation

At the conclusion of the Data Collection phase, the following information should have been obtained:

- A description of the project site including project history
- An existing inventory and conditions present at the project site
- Identification of substandard conditions and crash history
- Description of structural deficiencies and defects
- Description of traffic conditions (if required), including truck data, and data collection efforts
- Description of rail or port conditions
- Summary of Social, Economic and Environmental conditions (Environmental Screening Report)
- Description of potential congestion management strategies including travel demand reduction and operational management strategies that might be packaged with any potential capacity increases
- Description of land uses changes, especially those supportive of freight
- Summary of project objectives, constraints and deficiencies

8. Draft Purpose and Need Statement

The Purpose and Need Statement is a fundamental requirement to develop a proposal that will require future NEPA documentation and is the basis for the alternative development. The Statement has three parts: The purpose, the need, and goals and objectives. The purpose defines the transportation problem to address. The needs found in the study area provide data to support the purpose. The goals and objectives describe other issues that need to be resolved as part of a successful solution to the problem. The draft Statement will be prepared and forwarded to the Project Team.

9. Local Officials Briefing #1

The group is defined as local technical and elected officials, state officials, and permitting agencies (resource agencies). Engaging the local community will enable problems and solutions to be assessed and developed with community input and buy-in. This briefing, subsequent to the data collection phase and the development of the draft Statement, provides an opportunity for the subregion to obtain input on project needs and deficiencies and begin laying the groundwork for alternatives that will be well received by the local community.

10. Stakeholder Outreach Meetings #1

Coordination with the various stakeholders will be needed to obtain input on the developed alternatives to determine community support and preferences in accordance with the approved PIAP. This includes developing a database of known stakeholders, citizens groups, outside public and private agencies impacted by the proposed project.

A list of stakeholders for the project will be developed in consultation with the Project Team. These typically consist of parties in proximity to the project or special interest groups. Possible stakeholders may include:

- Local officials
- Local emergency responders (police, fire, first aid)
- Rail or port owners
- Rail or port operators
- Rail or port customers

- Industrial property owners
- Trucking companies
- Business or property owners within 250 feet of project limits likely to be directly affected by alternatives.
- Local institutions (schools, churches, etc.)
- Civic and cultural groups
- Bicycle and pedestrian advocacy groups
- Environmental organizations
- Neighborhood associations
- Commuter advocacy groups
- Advocacy groups for disadvantaged populations
- Regulatory agencies (NJDEP, US Army Corps, US Coast Guard, etc.)

This information will be used to develop a project mailing list, to keep stakeholders apprised of project happenings.

11. Program Compliance Review Committee Meeting #1

The Program Compliance Review (PCR) Committee is comprised of representatives from NJTPA, NJDOT-Division of Local Aid, NJDOT-BEPR, NJDOT-Bureau of Multimodal Services. Additional agencies may be added to the committee depending upon the project being advanced under the FCDP. The committee performs interim reviews throughout the CD phase to confirm that the project's development is in compliance with program requirements.

The first review is conducted once the draft Purpose and Need is finalized. The objective of the meeting will be to:

1. Provide an overview of the project,
2. Present the draft project Purpose and Need Statement,
3. Present draft PIAP,
4. Summarize the initial stakeholder and local officials outreach efforts to date,
5. Summarize data collection efforts to date, and
6. Obtain sign-off from the participants on behalf of their respective agencies that the project's development complies with the program requirements.

12. Develop Social Media Content

An online presence can raise the profile of a project. A few steps are key to a successful social media campaign and should be considered when developing a social media campaign:

- Determine which social media platforms can help promote the project (subregion, municipality, county, community groups, etc.)
- Write social media guidelines the project should follow – For example, will there be a brand or terminology to follow? Will comments be addressed and if so, who will be responding?
- Determine how frequently postings will be made and provide the project sponsor with a schedule.
- Develop pre-written social media posts that the project sponsor and partners can easily share.

13. Public Meeting #1

A public meeting introduces the project to the public and local stakeholders. If study area encompasses more than one municipality, multiple meetings may be warranted. The number of meetings will be detailed in the PIAP, but a minimum of two is recommended during the study. The local governing bodies should participate in the presentation, acknowledging their partnership with the project team in an attempt to find a mutual solution to the transportation problem. The goal of this meeting is to provide the public with factual and reliable information about the project and to obtaining public input/support.

Meeting notices should be sent three to four weeks prior to the date of the meeting to the stakeholder list and any members of the public who signed up to receive additional information. Meeting notices will be posted in a minimum of two media sources preferably one local and one regional. Social media should also be used to promote the meeting. Other advertisement strategies will also be considered on a project by project basis. Display boards, if available, should be provided and any technical experts from the Project Team should be invited to attend. The meeting will be coordinated with the Subregion. Ideally, the meeting will be held in close proximity to the project site or in municipal facilities and must comply with the Americans with Disabilities Act. Locations should also be easily accessible by public transit. If in person meetings are not possible, such as during the COVID-19 pandemic, virtual meetings can be held. The meetings will be conducted at a convenient time of the day to allow all parties an opportunity to attend.

The meeting format will be developed in accordance with the PIAP and in consultation with the Project Team. A formal presentation with Q&A can be considered or an open format where attendees can freely review project materials with the Project Team available for Q&A as needed. All attendees should be asked to sign-in and be given the opportunity to fill-out comment sheets with postage that can be returned to the Project Team at their convenience.

Meeting minutes should be prepared to document all relevant input obtained at the meeting and any action items resulting from the public input. The sign-in sheet is to be attached to the minutes.

The first public meeting should be held after the Purpose and Need has been finalized. It is important to use clear and accessible communications and a variety of media to reach all segments of the community, including low income and minority groups where applicable. This can include innovative methods to communicate to the public as well (i.e. project specific web pages, translating public notices into various languages and providing translation services at public events)

14. Finalize Purpose and Need Statement

The project's Purpose and Need Statement will be finalized subsequent to the first PCR Committee meeting. The draft statement should be revised to address comments received through the local officials briefing, the Project Team, first PCR Committee meeting, and first public meeting.

15. Development and Analysis of Alternatives

Develop alternatives that meet the project Purpose and Need. Prepare a description and conceptually engineer each alternative being considered. The Project Team can determine the level of detail required for conceptual engineering design work in the development of each alternative.

Engineering designs will be in accordance with the latest design standards for the various disciplines of work. At a minimum, the range of alternatives will include a "no build" alternative and build solutions that comply with minimum design standards and engineering principals. Alternatives that fall below minimum standards may also be considered when site constraints warrant these conditions and context sensitive design practices are justifiable.

An avoidance alternative beyond the project limits may need to be considered in a circumstance where significant adverse impacts to section 4(f) and other highly sensitive resources are unavoidable within the project limits. Inclusion of avoidance alternatives is typically required when a project results in direct impacts to state and nationally eligible or listed historic properties. There are standards for projects that adversely impact historic structures such as a bridge. Reference should be made to the Secretary of the Interior Standards for more information.

Alternatives should be formulated to appropriately address congestion management strategies documented earlier, including options that avoid highway capacity increases. All reasonable complementary travel demand reduction and operational management strategies should be incorporated into alternatives that include new road, port, or rail capacity.

Each alternative will be analyzed with respect to impacts including, but not limited to, safety, capacity, congestion management, community, environment and operational improvements. Meetings with project stakeholders including a public meeting, will be held early during the alternative development phase to obtain input and feedback which can lead to community buy-in of the final solution. When warranted a context sensitive design approach will be considered to develop alternatives that strive to integrate the community's vision.

Once the alternatives have been defined and their respective footprints (impacts) established, impacts will be quantified (or qualitatively assessed) based on the surrounding resources. A comparison should also be made to identify how the alternatives compare with engineering principals such as their constructability, cost, substandard element etc. A comparison matrix representing each alternative and critical elements will be prepared with the advantage and disadvantage of each represented. This matrix will eventually lead to the selection of a Preliminary Preferred Alternative (PPA).

A. Alternatives Development

Identifying, considering and analyzing alternatives is key to the NEPA process. The primary focus of alternatives development is to meet the project Purpose and Need while avoiding, minimizing and mitigating impacts to the surrounding environment and community.

B. Conceptual Layout and Plans of Alternatives

- Conceptually engineer road/rail and intersections/grade crossings geometrically in plan and section to establish the footprint of each alternative under consideration

- Conceptually engineer each structure to define its geometry and configuration including approximate width, length, depth and clearances. For major structures, a structural type assessment will be considered (i.e. steel, precast, etc.). In certain instances, aesthetic treatments may need to be investigated
- Conceptually engineer stormwater management system (i.e. basins and swales) for each alternative under consideration where it could significantly impact the footprint of the project
- Assess the need for and identify potential detour routes, if warranted
- Prepare plans of the various alternatives at an appropriate scale

C. Alternative Analysis

Analyze each alternative to determine its ability to address the project need with respect to safety, capacity, community, environmental, operational improvements, cost, etc. Where appropriate implement a context sensitive design approach. This assessment considers the advantages and disadvantages of each alternative, including:

- Quantifying direct and indirect impacts to environmental resources based on the proposed action
- Identifying costs, and potential constructability issues and traffic impacts during construction
- Identifying impacts to goods movement
- Assessing the long-term improvement to safety based on the proposed actions
- Assessing congestion management impacts, using established performance measures and including the benefits to traffic operations and other transportation modes
- Identifying the regulatory requirements for each
- Identifying potential mitigation measure and how they will benefit the community
- Assessing each alternative for meeting community needs

D. Alternatives Analysis Documentation

Assemble all alternatives analysis documents and plans, including alternatives descriptions, alternatives investigation documentation (i.e., traffic analysis, geometrics, and substandard design assessment), comparison matrices, alternatives selection synopsis/recommendation, and alternatives plans. These documents will be organized and forwarded to the Project Team for their review, comment, and concurrence.

E. Prepare Alternatives Scoring Matrix

Prepare a comparison matrix of all alternatives that can be qualitative and/or quantitative as appropriate or feasible. It may include, but is not limited to the following: bicycle and pedestrian compatibility, constructability, substandard design features, Environmental Justice, community impact and assessment, safety improvement, right-of-way, structural integrity, utility relocations, congestion management, and traffic operations, with cost as a consideration as a tie breaker. A comparison and rating system of the above factors will be made which will serve as the basis for selection of a PPA.

F. Coordinate with Permitting Agencies

Coordination with permitting agencies is critical to move the project forward and compare alternatives. If significant impacts are anticipated in the study area such as wetlands, endangered species, historic structures, riparian or storm water, provide the Alternatives Matrix to the permitting agencies to

present the study and range of alternatives being considered. Invite the permitting agencies to meet with the Project Team to solicit input on the selection of the Preliminary Preferred Alternative.

Permitting agencies may include:

- Highlands Council
- Pinelands Commission
- Meadowlands Commission
- Delaware and Raritan Canal Commission
- NJ State Historic Preservation Office
- NJ Division of Land Use Regulation Program
- United States Army Corps of Engineers
- United States Coast Guard

G. Revise Alternatives Scoring Matrix

Revise the matrix based on feedback from the permitting agencies.

H. Identify Preliminary Preferred Alternative

Conclude the alternatives analysis and scoring, and identify the PPA.

16. Value Engineering and Constructability Review

Depending on project magnitude and complexity, the NJTPA may determine there is a need for a Value Engineering (VE) and a Constructability Review (CR) of the PPA. If the VE consultant is from the project team, adequate firewalls will need to be established. The VE consultant will identify, evaluate, develop, and recommend alternative designs or methods that will provide an acceptable or improved product to maximize the value of every dollar spent and minimize life-cycle costs. The VE consultant will identify the most cost effective, quality solution through creative thinking and innovation. Prior to VE, the VE consultant will be provided with all necessary project information developed to date. VE evaluation will be performed in accordance with NJDOT's Value Engineering Unit requirements or FHWA guidelines. The VE consultant will also perform a CR to verify the proposed project can be constructed and does not contain any fatal flaws. A CR will be performed on all projects.

A VE Technical Report and CR Memorandum will be provided to the Project Team for review and comment. The consultant will prepare a Comment Resolution Memorandum, which will be returned to the Project Team for consideration.

If significant VE and CR issues are identified and resolutions are not achieved with the VE consultant, or the proposed recommendations would result in significant modifications to or require development of new alternatives, the Project Team may request a meeting to determine the next course of action.

17. Local Officials Briefing #2

A second briefing is held to present the developed alternatives to the local officials. The goal of this briefing is to obtain support of the recommended PPA. Project materials provided by the project team

may include a handout, project location map/aerial, display of the alternatives, profile plans, detour route, construction staging, traffic flow diagrams, crash diagram, environmental concerns/screening and photographs. Notify the local officials that an official Resolution of Support will be needed to advance an alternative.

A. Obtain Resolutions of Support

In coordination with the subregion, a Resolutions of Support will be sought from governing bodies in the municipalities in the study area. In some instances, a governing body may request a presentation prior issuing a Resolution of Support. Presentations will be coordinated through the subregion. Once the Resolution(s) of Support are obtained from the impacted municipalities, a Subregional Resolution of Support will be obtained.

18. Stakeholder Outreach Meetings #2

A second round of meetings is held to present the developed alternatives to the affected stakeholders. The goal of these meetings is to obtain support of the recommended PPA. Project materials provided by the project team may include a handout, project location map/aerial, display of the alternatives, profile plans, detour route, construction staging, traffic flow diagrams, crash diagram, environmental concerns/screening and photographs.

19. Program Compliance Review Committee Meeting #2

The second committee review should be conducted once the PPA is identified but before it is presented to the public. The objective of the meeting will be to:

1. Provide an update of project milestones,
2. Present the draft PPA,
3. Summarize the second round of stakeholder and local officials outreach efforts, and
4. Obtain sign-off from the participants on behalf of their respective agencies that the project's development complies with the program requirements.

20. Public Meeting #2

The second meeting will be scheduled to present the PPA to the public. A formal presentation with Q&A can be considered or an open format where attendees can freely review project materials with the project team available for Q&A as needed. All attendees should be asked to sign-in and be given the opportunity to fill-out comment sheets with postage that can be returned to the Project Team at their convenience. Social media should be used to promote this meeting.

Minutes should be prepared to document all relevant input obtained at the meeting. The minutes should also document any action items resulting from the public input, including revisions to the alternative presented at the meeting. The sign-in sheet is to be attached to the minutes.

21. Finalize PPA

Finalize the PPA based on the input received from the VE review, and from local officials, stakeholders and the public.

22. Draft Concept Development Report

Prepare a draft Concept Development Report (CDR) that summarizes the development of alternatives, alternatives comparison matrix, and selection of the PPA. The CDR will incorporate all documentation prepared under CD and will be organized in the following manner:

- Introduction
- Purpose and Need
- Existing Conditions/Fact Sheet
- Social, Economic and Environmental Considerations
- Evaluations of Alternatives
- Selection of the Preliminary Preferred Alternative
- Description of Preliminary Preferred Alternative
- NEPA Classification
- Preliminary Engineering Next Steps/Tasks
- Appendices

The CDR appendices shall include, but not be limited to, the following documentation:

- Purpose and Need Statement
- List of Existing Documentation collected under FCD
- Inspection Reports
- Aerial Photography
- Straight Line Diagram
- Environmental Screening Report
- ROW Impacts, Local Detour
- Public Involvement Action Plan & Public Outreach Summary
- Resolutions of Support
- Sketches of Alternatives
- Alternatives Analysis Impact Matrix
- Cost Estimates
- Conceptual Plans for PPA
- Constructability Reports
- Value Engineering Report
- Risk Register (which for the purposes of this project is defined as a list of the potential risks)
- Utility Risk Assessment Plan
- Alternatives Risk Analysis
- Risk Management Summary Report
- Project Correspondence

Once all Project Team comments are received and incorporated, a final draft CDR will be forwarded to the Interagency Review Committee (IRC).

A. Prepare Cost Estimate

Prepare a preliminary construction cost estimate for the PPA. The cost estimate shall consider major construction activities including but not limited to structures, track, drainage and utilities. Unit prices for the individual cost components should consider recent regional bid pricing. The consultant shall also consider contingencies and escalation in the estimate. In addition to construction cost, the consultant shall estimate costs for right-of-way acquisitions, preliminary and final design, and other major expenditures. Costs developed for this task will be used for future funding needs.

B. Concept Development Plans

Prepare concept plans of the PPA at a scale of 1inch=30 feet and contours generated at a 1-foot interval, and in a media form deemed appropriate by the Project Team. The plans shall be in accordance with established railroad engineering and design standards, as described by AREMA, NJ TRANSIT, Norfolk Southern, CSX, and Conrail; Morris and Somerset Counties' engineering and design standards; NJDOT's Roadway Design Manual, Drainage Design Manual, the 2007 Standard Specifications for Roads and Bridge Construction; the AASHTO Policy on the Geometric Design of Streets and Highways (Green Book); and the 2009 MUTCD, as applicable. It is the intent of the concept plans to clearly present the nature and intent of the proposed work, as well as to provide enough detail to establish reasonable cost of the work. The concept plans shall be presented as an appendix in the CDR.

C. NEPA Classification and Documentation

Determine the level of NEPA documentation i.e. Categorical Exclusion(s), Environmental Assessment with FONSI, or Environmental Impact Statement for the next phase of work. In addition to the environmental document, a determination shall be made regarding the need for Section 106, Section 4(f), Section 6 (f) etc. investigations, evaluation(s) and reporting. This information shall be presented in the CDR. The NEPA document will be prepared as a separate Consultant effort, in the Preliminary Engineering phase.

D. Develop Preliminary Engineering Next Steps/Tasks

Prepare the next steps/tasks in coordination with the Project Team. This will include all the tasks needed to conduct PE and FD. This information shall be presented in the CDR.

23. Project Fact Sheet

Prepare a project fact sheet in coordination with the Project Team to include relevant information necessary to understand the proposed project and PPA.

24. Interagency Review Committee Meeting

The IRC is comprised of representatives from NJTPA, NJDOT Bureau of Multimodal Services, NJDOT-LA, NJDOT-BEPR, NJ TRANSIT Rail Infrastructure Engineering (as appropriate based on project), FHWA and subject matter experts to determine whether or not the project's Purpose and Need has been fully justified and documented. The NJTPA will schedule an IRC meeting at the conclusion of the study. The

Project Team will make a presentation and provide appropriate handouts to the IRC. The IRC will determine if the PPA can advance further into PE.

25. Finalize CD Report

The CDR will be finalized based on the feedback received from the IRC.

26. Advancing PPA

Upon the acceptance of the final report, NJTPA will close the CD process in order to hand the project off to the responsible agency, owner, operator or subregional partner to advance the PPA into preliminary and final design and construction.

The initial step will be to identify and secure funding to complete the project. The NJTPA prepared a FCDP Funding Matrix that identifies a number of potential state and federal funding programs that may be leveraged depending on the type of project, mode of transport, phase of work and estimated cost. For example, the New Jersey Rail Freight Assistance Program (RFAP) administered by the NJDOT may be a good source of funding to advance a rail project. While the NJTPA cannot lead the future phases of the project beyond CD, the agency stands ready to assist as appropriate and will follow up on the progress of projects that graduate from the FCDP.