

New Jersey Department of Transportation

Transportation Problem Statement

PLEASE SEND THIS COMPLETED FORM TO TOM WOSPIL, CAPITAL PROGRAMMING & FUNDS MANAGEMENT

The following information is to be completed by the Division of Capital Programming & Funds Management

DB Number:

Legislative District:

Congressional District:

CIS Text and CIS No.:

Program Category:

Information contained on this form has been verified by _____

LOCATION (To be completed by initiator): At-Grade crossing of the CR Lehigh Line at Inman Avenue (Middlesex County Route 602), Edison, NJ

Route (if applicable): N/A

Mileposts (if applicable): N/A

Structure number (if applicable): N/A

Limits: At-Grade crossing of Inman Avenue with CR Lehigh Line

County(s): Middlesex County

Municipality(s): Edison Township



DESCRIPTION OF PROBLEM (to be completed by initiator)

At this location, the CR Lehigh Line crosses Inman Avenue at grade. The Lehigh Line currently carries an average of 44 freight trains per day, with significant growth in the number of daily trains anticipated in the near future. Sections of the Lehigh Line have recently been double tracked, with additional double tracking anticipated in the future.

Inman Avenue (CR 602) is a heavily traveled east-west roadway serving as a primary local arterial across Edison and adjoining communities. Frequent rail crossings disrupt traffic flow, create extensive queuing and delays, and impede mobility in the area. Routine train activity results in closures of the roadway averaging 2 minutes and 6 seconds per closure, with the roadway being closed for just over one and one-half hours each day.

Maximum authorized speed along the Lehigh Line is typically 50 miles per hour.

Over the past ten (10) years, there have been three collisions between trains and automobiles. While one was an attempted suicide, the other two were unintentional.

A driveway to a residential community enters Inman Avenue immediately adjacent to the rail line. Vehicles have been observed turning left from the driveway and crossing the tracks immediately after a train crosses, but prior to the gates being fully raised. The double-track condition of this section makes this a potentially hazardous practice. Institution of a quiet zone encompassing this location, which is currently under investigation, would include installation of a quad-gate system that would effectively eliminate this practice.

The Lehigh Line separates area residential developments that are adjacent to the northern side of the tracks from retail activity just south of the tracks. The crossing experiences modest, but regular, pedestrian activity across the rail line. However, sidewalks are not present, nor has pedestrian control been installed. The skewed angle of intersection of the roadway and the rail line serves to increase the crossing distance as well.

Inman Avenue, while relatively flat, runs on a grade with the eastbound lanes approaching the crossing on a downgrade. The geometric condition of the roadway suggests consideration of advanced warning lights advising eastbound traffic of a crossing closure and vehicle queuing ahead.

A new traffic signal has recently been installed at the intersection of Inman Avenue with Shamrock Drive, approximately 325 feet east of the crossing. Integration of the traffic signal control with the grade crossing gate control has not been incorporated at this time.

While elimination of the grade crossing would alleviate this condition and enhance roadway mobility in the area, impacts to adjacent land uses are

anticipated to be considerable. Additional measures are available for consideration to alleviate existing concerns and conditions, and improve area mobility, safety and quality of life.

It is anticipated that advancement of the selection and implementation of the appropriate solutions will follow the NJDOT project Development process. Within that process, the next step will likely be the preparation of a TIER II Screening analysis that will fully define the problem(s) and recommend one or more solutions for advancement into the Concept Development process. Subsequent steps in the analysis and project advancement will be subject to the determinations made by NJDOT Capital Programming.

The attachments to this document include:

- Photographs of the existing at-grade crossing.
- Detailed evaluation of a range of criteria and parameters that characterize operations of an at-grade rail crossing.
- Matrix of potential solutions for further investigation of suitability in addressing the identified issues.

NOTE: Please attach related correspondence, map of the area, and other appropriate support material.

Check those items that best describe the problem:

Existing Highway/Rail line

_____ Capacity problem

__ X__ Operational problem

__ X__ Physical condition problem

__ X__ Safety problem

__ X__ Other (specify): Overnight noise, lack of pedestrian accommodation and control.

Existing Bridge

_____ Capacity problem

_____ Physical condition problem

_____ Safety problem

Corridor/area Capacity Problem

_____ Need for corridor study

- _____ Possible highway on new alignment
- _____ Possible new transit line
- _____ Need for park and ride development

DESCRIBE THE PROBLEM:

See Description Above

If an outside group actively supports this problem, please identify:

Township of Edison, Middlesex County Planning Department, North Jersey Transportation Planning Authority

Other comments (if any) by initiator:

Initiator (Please print or type): North Jersey Transportation Planning Authority

Division:

Date of Initiation: May 27, 2008

Signature

Concurrence by Division Director (Signature)_____

Date of Concurrence _____

Attachment 1

Information required on Transportation Problem Statements

- Concise statement of need
- Proposed concept and/or scope of work of a capital improvement project to address the identified need where appropriate
- Statement of the extent to which the proposed capital improvement project or removal of the identified deficiency would advance the Department's objectives as identified in the Capital Investment Strategy.
- Current traffic counts and accident rates, with respect to the following program categories: Bridge Rehabilitation and Replacement, Highway Rehabilitation and Reconstruction, Safety Intersection Improvements.
- Identification of individuals or groups who may be sponsoring or supporting the proposed project.
- Summary of identified environmental issues within the probable footprint of the proposed project, especially including the identification of any historic or potentially historic properties, historic or potentially historic structures, historic districts, and wetlands.
- To assure proper quality control, all Transportation Problem Statements must be signed by a division director.

NOTE: In the case of a Transportation Problem Statement originating from outside the Department, the Bureau of Capital Program Development may request the Department unit which transmitted the problem statement, and/or any other appropriate unit within the Department, to complete the necessary information.

The Bureau of Capital Program Development may return a Transportation Problem Statement to the initiator with a request to complete missing or inadequate items of information.

The Bureau of Capital Program Development may request the Division of Design Services to undertake an environmental screening to identify pertinent environmental issues involving Transportation Problem Statements, as appropriate.

CR Lehigh Line Crossing of Inman Avenue, Edison, NJ



**NJTPA Freight Rail Crossing and Safety Assessment
Project Selection Criteria and Scoring**

**Lehigh Line (MP 23.18)
Inman Avenue, Edison, Middlesex County**

Planned Grade Separation? Y _____ No _____

Criteria	Score	Weight	Total	Notes/Comments
FRA/FHWA Quantitative Considerations				
FRA crash history	3	5.00	15	3 crash/no injury/no fatality
Hazard Index	2	4.25	8.5	
FRA near misses	1	4.50	4.5	
Location, Configuration and Control Considerations				
Functional Class of Roadway (see below)	4	2.75	11	
Active vs. Passive Control at grade crossing (1=full active, 3=combination, 5=passive)	1	3.00	3	
Proximate/Adjacent driveways and roadways (existing and anticipated)	5	2.75	13.75	
Proximate/Adjacent traffic signals (existing and anticipated)	0	3.25	0	
Existence/Severity of Vertical curvature (crest and/or sag)	3	3.25	9.75	
Existence/Severity of Horizontal curvature	1	3.25	3.25	
Proximity to other rail crossings (NJ Transit, shortline, active spurs)	1	3.50	3.5	score plus 1
Proximity to other grade crossings on same rail line (bisected community)	3	3.25	9.75	
Sight distance	3	3.50	10.5	
Operational Considerations -- Roadway, Rail, Pedestrian				
Rail -- Local rail operations/switching involving the grade crossing (0=non-existent, 5=exists)	0	2.75	0	CP-Potter
Frequency of Activity - Activations/Trains per day (see below)	5	4.25	21.25	
Duration of closure -Average time (see below)	3	3.50	10.5	
Projected Change in Rail Traffic (0=none, 3=moderate, 5=significant)	3	3.50	10.5	
School Buses Using Crossing (0=none, 3=minor use, 5=major use)	3	3.00	9	
Roadway - volume level	4	3.00	12	
Roadway - Prevailing Travel Speed	3	2.25	6.75	
Roadway - Projected Change in Roadway Traffic (0=low, 3=moderate, 5=high)	4	3.00	12	
Pedestrian -- level of activity (0=none, 1=sidewalks exist, 3=modest, 5=significant)	3	3.75	11.25	
Pedestrian -- level of accommodation and control (5=none, 3=modest, 0=extensive)	5	3.00	15	
Proximity to Adjacent Grade Separated Crossings and Alternate Routes (see below)	3	3.00	9	
Community Considerations				
Proportion of Actuations during peak roadway activity periods	2	3.00	6	
Emergency Response Constraint	3	4.25	12.75	
Proximity to School	3	3.75	11.25	
Adjacent Sensitive Land Use (i.e.: residential, school, park, etc)	3	3.00	9	
Overnight Noise	4	2.50	10	
TOTAL WEIGHTED SCORE			258.75	

New Jersey Department of Transportation

Transportation Problem Statement

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DB Number:

Legislative District:

Congressional District:

CIS Text and CIS No.:

Program Category:

Information contained on this form has been verified by _____

LOCATION (To be completed by initiator): At-Grade crossing of the Cr Lehigh Line at Cedar Avenue, Middlesex Boro, Middlesex County, NJ

Route (if applicable): N/A

Mileposts (if applicable): N/A

Structure number (if applicable): N/A

Limits: At-Grade crossing of Cedar Avenue by CR Lehigh Line and NJ Transit Raritan Valley Line

County(s): Middlesex County

Municipality(s): Borough of Middlesex



DESCRIPTION OF PROBLEM (to be completed by initiator)

At this location, the CR Lehigh Line crosses Cedar Avenue at grade. This crossing operates in concert with the adjacent Cedar Avenue crossing by the NJ Transit Raritan Valley Line. The Lehigh Line currently carries an average of 43 freight trains per day, with the Raritan Valley Line carrying an additional 57 passenger trains per day. While these are technically two separate crossings, an activation of either crossing triggers a closure of both crossings. Of these 100 daily crossings, approximately 39 gate closures occur during the AM or PM peak travel periods. Significant growth in the number of daily trains is anticipated in the near future.

Sections of the Lehigh Line have recently been double tracked, including the section that crosses Cedar Avenue.

Trains at this location can travel at one of eight different speeds, ranging from 30 to 80 miles per hour maximum, depending upon track, direction and type of train. Of significant concern is the space between the two sets of two tracks at this location. Vehicles were observed stuck between the two sets of tracks on multiple occasions.

The total gate closure time over a 24 hour period averages just over 2 hours and 20 minutes. The average gate closure duration was observed to be approximately 1 minute and 24 seconds. The longest observed gate closure duration was 4 minutes and 26 seconds with simultaneous train movements noted in several instances.

A Train Defect Detector is located about a mile from the Cedar Avenue grade crossing on the Lehigh Line. When activated, this detector could result in freight trains blocking the grade crossing while their crews walk and inspect the train before proceeding.

The key questions and issues include:

New Jersey Transit is considering future installation of a third track through this area (and the Cedar Avenue location) for future express passenger service. The addition of this track is likely to exacerbate conditions noted at this crossing.

A plan, subject to DEP approval, to extend William Avenue to Cedar Avenue could alleviate some of the traffic conditions at the grade crossing. However, a plan to redevelop the Lincoln Boulevard area could bring additional traffic to the grade crossing area.

While elimination of the grade crossing would alleviate this condition and enhance roadway mobility in the area, impacts to adjacent land uses are anticipated to be considerable. Additional measures are available for consideration to alleviate existing concerns and conditions, and improve area mobility, safety and quality of life.

It is anticipated that advancement of the selection and implementation of the appropriate solutions will follow the NJDOT project Development process. Within that process, the next step will likely be the preparation of a TIER II Screening analysis that will fully define the problem(s) and recommend one or more solutions for advancement into the Concept Development process. Subsequent steps in the analysis and project advancement will be subject to the determinations made by NJDOT Capital Programming.

The attachments to this document include:

- Photographs of the existing at-grade crossing.
- Detailed evaluation of a range of criteria and parameters that characterize operations of an at-grade rail crossing.
- Matrix of potential solutions for further investigation of suitability in addressing the identified issues.

NOTE: Please attach related correspondence, map of the area, and other appropriate support material.

Check those items that best describe the problem:

Existing Highway/Rail line

- Capacity problem
- Operational problem
- Physical condition problem
- Safety problem
- Other (specify): Wide crossing with internal gap allows vehicles to become stranded between the freight and passenger lines.

Existing Bridge

- Capacity problem
- Physical condition problem
- Safety problem

Corridor/area Capacity Problem

- Need for corridor study
- Possible highway on new alignment
- Possible new transit line

_____ Need for park and ride development

DESCRIBE THE PROBLEM:

See Description Above

If an outside group actively supports this problem, please identify:

Borough of Middlesex, Middlesex County Planning Department, North Jersey Transportation Planning Authority

Other comments (if any) by initiator:

Initiator (Please print or type): North Jersey Transportation Planning Authority

Division:

Date of Initiation: May 8, 2008

Signature

Concurrence by Division Director (Signature) _____

Date of Concurrence _____

Attachment 1

Information required on Transportation Problem Statements

- Concise statement of need
- Proposed concept and/or scope of work of a capital improvement project to address the identified need where appropriate
- Statement of the extent to which the proposed capital improvement project or removal of the identified deficiency would advance the Department's objectives as identified in the Capital Investment Strategy.
- Current traffic counts and accident rates, with respect to the following program categories: Bridge Rehabilitation and Replacement, Highway Rehabilitation and Reconstruction, Safety Intersection Improvements.
- Identification of individuals or groups who may be sponsoring or supporting the proposed project.
- Summary of identified environmental issues within the probable footprint of the proposed project, especially including the identification of any historic or potentially historic properties, historic or potentially historic structures, historic districts, and wetlands.
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The Bureau of Capital Program Development may request the Division of Design Services to undertake an environmental screening to identify pertinent environmental issues involving Transportation Problem Statements, as appropriate.

Cr Lehigh Line Crossing of Cedar Avenue, Middlesex, NJ



Note: Photos taken prior to restoration of second track on the Lehigh Line.

**NJTPA Freight Rail Crossing and Safety Assessment
Project Selection Criteria and Scoring**

Lehigh Line (MP 31.41)

Cedar Avenue, Middlesex, Middlesex County

Planned Grade Separation? Y _____ No _____

Criteria	Score	Weight	Total	Notes/Comments
FRA/FHWA Quantitative Considerations				
FRA crash history	1	5.00	5	
Hazard Index	5	4.25	21.25	
FRA near misses	0	4.50	0	
Location, Configuration and Control Considerations				
Functional Class of Roadway (see below)	3	2.75	8.25	
Active vs. Passive Control at grade crossing (1=full active, 3=combination, 5=passive)	1	3.00	3	
Proximate/Adjacent driveways and roadways (existing and anticipated)	3	2.75	8.25	
Proximate/Adjacent traffic signals (existing and anticipated)	4	3.25	13	signal close but not visible due to road curvature
Existence/Severity of Vertical curvature (crest and/or sag)	1	3.25	3.25	
Existence/Severity of Horizontal curvature	5	3.25	16.25	
Proximity to other rail crossings (NJ Transit, shortline, active spurs)	5	3.50	17.5	
Proximity to other grade crossings on same rail line (biseected community)	4	3.25	13	detour route to River Rd when River floods
Sight distance	3	3.50	10.5	
Operational Considerations -- Roadway, Rail, Pedestrian				
Rail -- Local rail operations/switching involving the grade crossing (0=non-existent, 5=exists)	0	2.75	0	
Frequency of Activity - Activations/Trains per day (see below)	5	4.25	21.25	100+ including NJ Transit
Duration of closure -Average time (see below)	3	3.50	10.5	score plus 1 to account for NJ Transit short crossing times
Projected Change in Rail Traffic (0=none, 3=moderate, 5=significant)	3	3.50	10.5	joint gates - include NJ Transit RV Line Growth
School Buses Using Crossing (0=none, 3=minor use, 5=major use)	3	3.00	9	
Roadway - volume level	2	3.00	6	
Roadway - Prevailing Travel Speed	2	2.25	4.5	
Roadway - Projected Change in Roadway Traffic (0=low, 3=moderate, 5=high)	1	3.00	3	
Pedestrian -- level of activity (0=none, 1=sidewalks exist, 3=modest, 5=significant)	1	3.75	3.75	
Pedestrian -- level of accommodation and control (5=none, 3=modest, 0=extensive)	5	3.00	15	
Proximity to Adjacent Grade Separated Crossings and Alternate Routes (see below)	4	3.00	12	
Community Considerations				
Proportion of Actuations during peak roadway activity periods	5	3.00	15	39 Of 100 including NJ Transit
Emergency Response Constraint	4	4.25	17	
Proximity to School	0	3.75	0	
Adjacent Sensitive Land Use (i.e.: residential, school, park, etc)	0	3.00	0	
Overnight Noise	0	2.50	0	
TOTAL WEIGHTED SCORE			246.75	

New Jersey Department of Transportation

Transportation Problem Statement

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DB Number:

Legislative District:

Congressional District:

CIS Text and CIS No.:

Program Category:

Information contained on this form has been verified by _____

LOCATION (To be completed by initiator): At-Grade crossing of the CSX River Subdivision at Bergen County Route 502 – Old Hook Road, Borough of Closter, Bergen County New Jersey

Route (if applicable): Bergen County Route 502 – Old Hook Road

Mileposts (if applicable): MP

Structure number (if applicable): N/A

Limits: At-Grade crossing of Rt 502 – Old Hook Road and the CSX River Subdivision

County(s): Bergen County

Municipality(s): Borough of Closter



DESCRIPTION OF PROBLEM (to be completed by initiator)

At this location, the CSX River Subdivision crosses Bergen County Route 502 (Old Hook Road) at grade. The River Subdivision currently carries an average of 30 freight trains per day, with significant growth in the number of daily trains anticipated in the near future.

Bergen County Route 502 – Old Hook Road is a heavily traveled east-west roadway serving as one of the only roadways crossing the Oradell reservoir. This roadway also serves as a primary route for access to the Pascack Valley Hospital, located approximately 1.8 miles west of the crossing along Old Hook Road. Frequent rail crossings disrupt traffic flow, create extensive queuing and delays, and impede access to and from the area's primary medical center. Routine train activity results in closures of the roadway averaging 2 minutes and 5 seconds per closure, with the roadway being closed for just over one hour each day.

Maximum authorized speed along the CSX River Subdivision is typically 50 miles per hour.

In discussions with municipal officials, it was reported that there have been instances of trains coming to a complete stop and blocking the crossing for an extended period of time. Such incidents are the exception, not the rule. Preliminary investigations indicate that the nearest Defect detector is more than 5 miles away from Old Hook Road and is 2.25 miles away from first crossing studied on this line (Clinton Ave). It is therefore unlikely that Old Hook Road would be blocked by trains as a result of defect detector actuation. Further investigation of the frequency and cause of this issue is warranted.

County Route 39 – Schraalenburgh Road runs parallel to the CSX River Subdivision (approximately 500 feet to the east) in a north/south orientation. The intersection of two heavily traveled roadways (Rt 502 and Rt 39) is adversely affected by train crossings and closures of Old Hook Road. Vehicles traveling along Rt 39 destined for Old Hook Road are unable to turn onto Old Hook Road during a closure due to vehicles queuing back from the crossing. According to representatives of the Borough of Closter Police Department, frequent read-end collisions occur as a result of the vehicle queuing. Although these crashes occur well away from the crossing itself, the police department attributes the closures and vertical curvature of the roadway as key contributors to the crashes. Several years ago, the municipality initiated a request for integration of the traffic signal with the grade crossing. However, no action has yet been taken.

While elimination of the grade crossing would alleviate this condition and enhance roadway mobility in the area, additional measures are available for consideration to eliminate the potential for trains to stop and completely block the Route 502 Old Hook Road crossing, as well as enhance area roadway operations and safety through implementation of traffic signal pre-emption.

It is anticipated that advancement of the selection and implementation of the appropriate solutions will follow the NJDOT project Development process. Within that process, the next step will likely be the preparation of a TIER II Screening analysis that will fully define the problem(s) and recommend one or more solutions for advancement into the Concept Development process. Subsequent steps in the analysis and project advancement will be subject to the determinations made by NJDOT Capital Programming.

The attachments to this document include:

- Photographs of the existing at-grade crossing.
- Detailed evaluation of a range of criteria and parameters that characterize operations of an at-grade rail crossing.
- Matrix of potential solutions for further investigation of suitability in addressing the identified issues.

NOTE: Please attach related correspondence, map of the area, and other appropriate support material.

Check those items that best describe the problem:

Existing Highway/Rail line

Capacity problem

Operational problem

Physical condition problem

Safety problem

Other (specify): Extensive blockage and closure of Route 502 adversely affecting mobility, access and safety in the surrounding area.

Existing Bridge

Capacity problem

Physical condition problem

Safety problem

Corridor/area Capacity Problem

- _____ Need for corridor study
- _____ Possible highway on new alignment
- _____ Possible new transit line
- _____ Need for park and ride development

DESCRIBE THE PROBLEM:

See Description Above

If an outside group actively supports this problem, please identify:

Borough of Closter, Bergen County Planning Department, North Jersey Transportation Planning Authority

Other comments (if any) by initiator:

Initiator (Please print or type): North Jersey Transportation Planning Authority

Division:

Date of Initiation: May 8, 2008

Signature

Concurrence by Division Director (Signature)_____

Date of Concurrence _____

Attachment 1

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CSX River Subdivision Crossing of CR 502 – Borough of Closter, New Jersey



**NJTPA Freight Rail Crossing and Safety Assessment
Project Selection Criteria and Scoring**

River Line (MP QR 15.37)

Old Hook Road, Closter, Bergen County

Planned Grade Separation? Y _____ No _____

Criteria	Score	Weight	Total	Notes/Comments
FRA/FHWA Quantitative Considerations				
FRA crash history	1	5.00	5	
Hazard Index	5	4.25	21.25	
FRA near misses	0	4.50	0	
Location, Configuration and Control Considerations				
Functional Class of Roadway (see below)	4	2.75	11	
Active vs. Passive Control at grade crossing (1=full active, 3=combination, 5=passive)	1	3.00	3	
Proximate/Adjacent driveways and roadways (existing and anticipated)	5	2.75	13.75	
Proximate/Adjacent traffic signals (existing and anticipated)	3	3.25	9.75	Police requested preemption
Existence/Severity of Vertical curvature (crest and/or sag)	1	3.25	3.25	
Existence/Severity of Horizontal curvature	1	3.25	3.25	
Proximity to other rail crossings (NJ Transit, shortline, active spurs)	0	3.50	0	
Proximity to other grade crossings on same rail line (bisected community)	5	3.25	16.25	
Sight distance	2	3.50	7	
Operational Considerations -- Roadway, Rail, Pedestrian				
Rail -- Local rail operations/switching involving the grade crossing (0=non-existent, 5=exists)	0	2.75	0	
Frequency of Activity - Activations/Trains per day (see below)	4	4.25	17	
Duration of closure -Average time (see below)	3	3.50	10.5	
Projected Change in Rail Traffic (0=none, 3=moderate, 5=significant)	3	3.50	10.5	
School Buses Using Crossing (0=none, 3=minor use, 5=major use)	3	3.00	9	school bus garage in westwood
Roadway - volume level	5	3.00	15	
Roadway - Prevailing Travel Speed	4	2.25	9	
Roadway - Projected Change in Roadway Traffic (0=low, 3=moderate, 5=high)	3	3.00	9	
Pedestrian -- level of activity (0=none, 1=sidewalks exist, 3=modest, 5=significant)	0	3.75	0	
Pedestrian -- level of accommodation and control (5=none, 3=modest, 0=extensive)	0	3.00	0	
Proximity to Adjacent Grade Separated Crossings and Alternate Routes (see below)	4	3.00	12	
Community Considerations				
Proportion of Actuations during peak roadway activity periods	2	3.00	6	
Emergency Response Constraint	5	4.25	21.25	Pascack Valley Hospital 1.8 miles to west on Old Hook Rd
Proximity to School	1	3.75	3.75	
Adjacent Sensitive Land Use (i.e.: residential, school, park, etc)	2	3.00	6	
Overnight Noise	2	2.50	5	
TOTAL WEIGHTED SCORE			227.5	

Reviewed By: _____

Representing: _____

New Jersey Department of Transportation

Transportation Problem Statement

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The following information is to be completed by the Division of Capital Programming & Funds Management

DB Number:

Legislative District:

Congressional District:

CIS Text and CIS No.:

Program Category:

Information contained on this form has been verified by _____

LOCATION (To be completed by initiator): At-Grade crossing of CSX Trenton Subdivision at County Route 601 - Belle Mead-Blawenburg Road, Montgomery Township, Somerset County New Jersey

Route (if applicable): Somerset County Route 601

Mileposts (if applicable): MP 3.92

Structure number (if applicable): N/A

Limits: At-Grade crossing of Rt 601 and the CSX Trenton Subdivision (AKA West Trenton Line)

County(s): Somerset County

Municipality(s): Montgomery Township



DESCRIPTION OF PROBLEM (to be completed by initiator)

At this location, the CSX Trenton Subdivision (AKA the West Trenton Line) crosses Somerset County Route 601 (Belle Mead Blawenburg Road) at grade. The CSX Trenton Subdivision currently carries an average of 20 freight trains per day, with significant growth in the number of daily trains anticipated in the near future.

Somerset County Route 601 is a heavily traveled north/south roadway serving as an alternative travel-way to Route 206 through Montgomery Township. Frequent rail crossings disrupt traffic flow and create extensive queuing and delays along this important roadway. Routine train activity results in closures of the roadway averaging 2 minutes and 45 seconds per closure, with the roadway being closed for just under one hour each day.

Maximum authorized speed along the CSX Trenton Subdivision is typically 50 miles per hour. This section of rail line in the vicinity of Route 601 is governed by a temporary slow-order, which requires the trains to travel at a maximum speed of 30 miles per hour. This slow order is believed to be due to drainage problems along the rail line in the area of Camp Meeting Road, approximately 1.4 miles southwest of the Route 601 crossing. Elevating the existing roadway bridge along Camp Meeting Road would allow restoration of the rail bed to its previous elevation, thereby eliminating the drainage issue and allowing trains to travel at the 50 mile per hour track speed. Higher speeds translate to reduced closure times at the grade crossings, and reduced impact to roadway traffic along the Route 601 corridor.

In addition to the routine activity at this location, trains periodically come to a complete stop, blocking the Route 601 travel-way for extended periods of time. Preliminary investigations indicate that these train stoppages are the result of defect detectors located along the rail line north of the Route 601 crossing. When the defect detectors are triggered, the conductor received an immediate stop-order, and is required to bring the train to a complete stop and visually inspect the length of the train. Often, these stop orders result in a train stopping for extended periods of time and blocking roadway traffic along the Route 601 corridor. While elimination of the grade crossing would alleviate this condition and enhance roadway mobility in the area, additional measures are available for consideration to eliminate the potential for trains to stop and completely block the Route 601 crossing.

While specific issues exist affecting the Route 601 crossing location, investigation of potential solutions should consider adjacent crossings along this rail corridor. There are three (3) additional at-grade crossings within 3 miles to the southwest of the Route 601 crossing (Hallow Road, Spring Hill Road and Province Line Road). Issues confronting these other adjacent crossings should be considered in future investigations to maximize the benefits achieved by any solutions implemented to address issues at the Route 601 crossing.

It is anticipated that advancement of the selection and implementation of the appropriate solutions will follow the NJDOT Project Development process. Within that process, the next step will likely be the preparation of a TIER II Screening analysis that will fully define the problem(s) and recommend one or more solutions for advancement into the Concept Development process. Subsequent steps in the analysis and project advancement will be subject to the determinations made by NJDOT Capital Programming.

The attachments to this document include:

- Photographs of the existing at-grade crossing.
- Detailed evaluation of a range of criteria and parameters that characterize operations of an at-grade rail crossing.
- Matrix of potential solutions for further investigation of suitability in addressing the identified issues.

NOTE: Please attach related correspondence, map of the area, and other appropriate support material.

Check those items that best describe the problem:

Existing Highway/Rail line

Capacity problem

Operational problem

Physical condition problem

Safety problem

Other (specify): Extensive blockage and closure of Route 601 adversely affecting mobility and access in the surrounding area.

Existing Bridge

Capacity problem

Physical condition problem

Safety problem

Corridor/area Capacity Problem

Need for corridor study

Possible highway on new alignment

Possible new transit line

_____ Need for park and ride development

DESCRIBE THE PROBLEM:

See Description Above

If an outside group actively supports this problem, please identify:

Montgomery Township and local residents, Somerset County Planning Board, North Jersey Transportation Planning Authority

Other comments (if any) by initiator:

Initiator (Please print or type): North Jersey Transportation Planning Authority

Division:

Date of Initiation: May 8, 2008

Signature

Concurrence by Division Director (Signature)_____

Date of Concurrence _____

Attachment 1

Information required on Transportation Problem Statements

- Concise statement of need
- Proposed concept and/or scope of work of a capital improvement project to address the identified need where appropriate
- Statement of the extent to which the proposed capital improvement project or removal of the identified deficiency would advance the Department's objectives as identified in the Capital Investment Strategy.
- Current traffic counts and accident rates, with respect to the following program categories: Bridge Rehabilitation and Replacement, Highway Rehabilitation and Reconstruction, Safety Intersection Improvements.
- Identification of individuals or groups who may be sponsoring or supporting the proposed project.
- Summary of identified environmental issues within the probable footprint of the proposed project, especially including the identification of any historic or potentially historic properties, historic or potentially historic structures, historic districts, and wetlands.
- To assure proper quality control, all Transportation Problem Statements must be signed by a division director.

NOTE: In the case of a Transportation Problem Statement originating from outside the Department, the Bureau of Capital Program Development may request the Department unit which transmitted the problem statement, and/or any other appropriate unit within the Department, to complete the necessary information.

The Bureau of Capital Program Development may return a Transportation Problem Statement to the initiator with a request to complete missing or inadequate items of information.

The Bureau of Capital Program Development may request the Division of Design Services to undertake an environmental screening to identify pertinent environmental issues involving Transportation Problem Statements, as appropriate.

CSX Trenton Subdivision Crossing of CR 601 – Montgomery Township, New Jersey



**NJTPA Freight Rail Crossing and Safety Assessment
Project Selection Criteria and Scoring**

West Trenton Secondary (MP QA47.39)

Rt 601 - Blawenburg Rd, Montgomery Twp, Somerset County

Planned Grade Separation? Y _____ No _____

Criteria	Score	Weight	Total	Notes/Comments
FRA/FHWA Quantitative Considerations				
FRA crash history	0	5.00	0	
Hazard Index	1	4.25	4.25	
FRA near misses	0	4.50	0	WITNESSED NEAR MISS DURING OBSERVATIONS
Location, Configuration and Control Considerations				
Functional Class of Roadway (see below)	4	2.75	11	
Active vs. Passive Control at grade crossing (1=full active, 3=combination, 5=passive)	1	3.00	3	
Proximate/Adjacent driveways and roadways (existing and anticipated)	3	2.75	8.25	J&J Plant Entrance adjacent to crossing
Proximate/Adjacent traffic signals (existing and anticipated)	0	3.25	0	
Existence/Severity of Vertical curvature (crest and/or sag)	1	3.25	3.25	
Existence/Severity of Horizontal curvature	3	3.25	9.75	ANGLED CROSSING
Proximity to other rail crossings (NJ Transit, shortline, active spurs)	0	3.50	0	
Proximity to other grade crossings on same rail line (bisected community)	5	3.25	16.25	
Sight distance	2	3.50	7	
Operational Considerations -- Roadway, Rail, Pedestrian				
Rail -- Local rail operations/switching involving the grade crossing (0=non-existent, 5=exists)	0	2.75	0	TEMPORARY 30 MPH SLOW ORDER AT SKILLMAN
Frequency of Activity - Activations/Trains per day (see below)	3	4.25	12.75	
Duration of closure -Average time (see below)	4	3.50	14	
Projected Change in Rail Traffic (0=none, 3=moderate, 5=significant)	3	3.50	10.5	
School Buses Using Crossing (0=none, 3=minor use, 5=major use)	5	3.00	15	
Roadway - volume level	4	3.00	12	
Roadway - Prevailing Travel Speed	4	2.25	9	
Roadway - Projected Change in Roadway Traffic (0=low, 3=moderate, 5=high)	3	3.00	9	
Pedestrian -- level of activity (0=none, 1=sidewalks exist, 3=modest, 5=significant)	1	3.75	3.75	
Pedestrian -- level of accommodation and control (5=none, 3=modest, 0=extensive)	5	3.00	15	
Proximity to Adjacent Grade Separated Crossings and Alternate Routes (see below)	5	3.00	15	
Community Considerations				
Proportion of Actuations during peak roadway activity periods	2	3.00	6	
Emergency Response Constraint	5	4.25	21.25	dragging equipment detector
Proximity to School	4	3.75	15	
Adjacent Sensitive Land Use (i.e.: residential, school, park, etc)	1	3.00	3	
Overnight Noise	1	2.50	2.5	
TOTAL WEIGHTED SCORE			226.5	

New Jersey Department of Transportation

Transportation Problem Statement

PLEASE SEND THIS COMPLETED FORM TO TOM WOSPIL, CAPITAL PROGRAMMING & FUNDS MANAGEMENT

The following information is to be completed by the Division of Capital Programming & Funds Management

DB Number:

Legislative District:

Congressional District:

CIS Text and CIS No.:

Program Category:

Information contained on this form has been verified by _____

LOCATION (To be completed by initiator): At-Grade crossing of the Port Reading Secondary at St. George's Avenue (SR 35), Woodbridge, Middlesex County, NJ

Route (if applicable): SR 35

Mileposts (if applicable): N/A

Structure number (if applicable): N/A

Limits: At-Grade crossing of Port Reading Secondary at St George's Avenue (SR 35), Woodbridge, Middlesex County, NJ

County(s): Middlesex County

Municipality(s): Woodbridge Township



DESCRIPTION OF PROBLEM (to be completed by initiator)

At this location, the Conrail Port Reading Secondary crosses State Route 35 – St. Georges Avenue. The Port Reading Secondary currently carries an average of 3 freight trains per day. Significant growth in the number of daily trains anticipated in the near future.

Average gate closure time over a 24 hour period was observed to be approximately 10 minutes and 56 seconds. The average gate closure duration was 3 minutes and 39 seconds. Of the three trains a day that currently were observed using this line, one moved during the peak periods and one moved in the middle of the night.

The area immediately surrounding the crossing is characterized by a mix of commercial and residential land uses, with driveways to Rt 35 located immediately adjacent to the crossing.

Maximum authorized speed of a maximum of 30 miles per hour along this section of the Port reading Secondary serves to increase the duration of the gate closures, and exacerbate queuing of roadway traffic during closures. Currently, the Port Reading Secondary line has no signals, requiring trains to travel at no more than 30 MPH.

The duration of gate closures is the biggest issue at this crossing. A five minute closure can cause significant traffic delays depending upon the time of day. This crossing is proximate to railroad Yard Limits where train speed is restricted to 15 MPH. While this territory is located east of nearby Rahway Avenue, the speed of trains crossing St. Georges Avenue may also be reduced to some degree as they accelerate or decelerate to comply with this speed restriction. Acceleration and deceleration also contributes to noise generation. It was also observed at night that an eastbound train was held short of St. Georges Avenue awaiting clearance to proceed. This practice results in trains taking additional time to accelerate and cross St. Georges Avenue at grade. Stopping trains in proximity to residential areas has also resulted in community complaints listed on the website for Woodbridge Township.

Adding a signal system to the rail line would allow increased train speed and reduce gate closure times. Additionally, revised methods of operation eliminate the existing yard switching limits imposed upon the line could potentially increase running speeds at the St George's Avenue crossing. Additional means to hold out trains clear of residential areas near the crossing should be further investigated. It was further noted that the train speed on the Chemical Coast line is also currently 30 miles per hour. Improvements to track connections between the Chemical Coast and the Port Reading Secondary Tracks could potentially improve speeds in the Woodbridge Township area and reduce train movements.

While elimination of the grade crossing would alleviate this condition and enhance roadway mobility in the area, impacts to adjacent land uses are anticipated to be considerable. Additional measures are available for

consideration to alleviate existing concerns and conditions, and improve area mobility, safety and quality of life.

It is anticipated that advancement of the selection and implementation of the appropriate solutions will follow the NJDOT project Development process. Within that process, the next step will likely be the preparation of a TIER II Screening analysis that will fully define the problem(s) and recommend one or more solutions for advancement into the Concept Development process. Subsequent steps in the analysis and project advancement will be subject to the determinations made by NJDOT Capital Programming.

The attachments to this document include:

- Photographs of the existing at-grade crossing.
- Detailed evaluation of a range of criteria and parameters that characterize operations of an at-grade rail crossing.
- Matrix of potential solutions for further investigation of suitability in addressing the identified issues.

NOTE: Please attach related correspondence, map of the area, and other appropriate support material.

Check those items that best describe the problem:

Existing Highway/Rail line

_____ Capacity problem

__ X__ Operational problem

__ X__ Physical condition problem

__ X__ Safety problem

__ X__ Other (specify): Wide crossing with internal gap allows vehicles to become stranded between the freight and passenger lines.

Existing Bridge

_____ Capacity problem

_____ Physical condition problem

_____ Safety problem

Corridor/area Capacity Problem

_____ Need for corridor study

- _____ Possible highway on new alignment
- _____ Possible new transit line
- _____ Need for park and ride development

DESCRIBE THE PROBLEM:

See Description Above

If an outside group actively supports this problem, please identify:

Woodbridge Township, Middlesex County Planning Department, North Jersey Transportation Planning Authority

Other comments (if any) by initiator:

Initiator (Please print or type): North Jersey Transportation Planning Authority

Division:

Date of Initiation: May 8, 2008

Signature

Concurrence by Division Director (Signature)_____

Date of Concurrence _____

Attachment 1

Information required on Transportation Problem Statements

- Concise statement of need
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**Conrail Port Reading Secondary Crossing of St George's Avenue (SR 35),
Woodbridge, Middlesex, NJ**



**NJTPA Freight Rail Crossing and Safety Assessment
Project Selection Criteria and Scoring**

Port Reading Secondary (MP 13.84)

St Georges Avenue, Woodbridge, Middlesex County

Planned Grade Separation? Y _____ No _____

Criteria	Score	Weight	Total	Notes/Comments
FRA/FHWA Quantitative Considerations				
FRA crash history	0	5.00	0	
Hazard Index	1	4.25	4.25	
FRA near misses	0	4.50	0	
Location, Configuration and Control Considerations				
Functional Class of Roadway (see below)	4	2.75	11	
Active vs. Passive Control at grade crossing (1=full active, 3=combination, 5=passive)	1	3.00	3	
Proximate/Adjacent driveways and roadways (existing and anticipated)	4	2.75	11	
Proximate/Adjacent traffic signals (existing and anticipated)	4	3.25	13	
Existence/Severity of Vertical curvature (crest and/or sag)	1	3.25	3.25	
Existence/Severity of Horizontal curvature	1	3.25	3.25	
Proximity to other rail crossings (NJ Transit, shortline, active spurs)	0	3.50	0	
Proximity to other grade crossings on same rail line (bisected community)	4	3.25	13	
Sight distance	3	3.50	10.5	
Operational Considerations -- Roadway, Rail, Pedestrian				
Rail -- Local rail operations/switching involving the grade crossing (0=non-existent, 5=exists)	1	2.75	2.75	holding point for trains
Frequency of Activity - Activations/Trains per day (see below)	1	4.25	4.25	
Duration of closure -Average time (see below)	4	3.50	14	
Projected Change in Rail Traffic (0=none, 3=moderate, 5=significant)	1	3.50	3.5	
School Buses Using Crossing (0=none, 3=minor use, 5=major use)	5	3.00	15	
Roadway - volume level	5	3.00	15	
Roadway - Prevailing Travel Speed	3	2.25	6.75	40 mph
Roadway - Projected Change in Roadway Traffic (0=low, 3=moderate, 5=high)	1	3.00	3	
Pedestrian -- level of activity (0=none, 1=sidewalks exist, 3=modest, 5=significant)	4	3.75	15	
Pedestrian -- level of accommodation and control (5=none, 3=modest, 0=extensive)	3	3.00	9	
Proximity to Adjacent Grade Separated Crossings and Alternate Routes (see below)	3	3.00	9	
Community Considerations				
Proportion of Actuations during peak roadway activity periods	2	3.00	6	
Emergency Response Constraint	3	4.25	12.75	
Proximity to School	3	3.75	11.25	
Adjacent Sensitive Land Use (i.e.: residential, school, park, etc)	4	3.00	12	
Overnight Noise	4	2.50	10	
TOTAL WEIGHTED SCORE			221.5	

