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Route 15 Executive Summary

Route 15 Study

Disclaimer

Executive Summary

Discussion | Objectives | Concepts | Conclusion

This web site has been archived and is no longer being updated.

Background

The Route 15 Corridor Study was initiated in 1998 from the North Jersey Transportation Planning Authority (NJTPA) Study and Development Work Program. The first phase of the study consisted of determining what the needs or the problems were within the corridor. One of the immediate issues was that Route 15 did not fit within the existing NJTPA's defined corridors. The New Jersey Department of Transportation (NJDOT) proposed creating a new corridor of study for Route 15 and Route 206. This request was submitted to NJTPA for approval before the Multimodal Alternative Analysis and Concept Development studies commenced. NJTPA agreed that the study proposal was reasonable; however, they declined to add the proposed new corridor to their present Regional Transportation Plan update. Based on the results of the Route 15 Corridor Study, NJTPA may consider adding this proposed corridor in the future.

Another issue related specifically to the transportation problems within the corridor. Deficiencies related to safety, pavement, bridges, drainage, geometrics, and mobility were collected. When the needs were identified, NJDOT held outreach meetings with local officials, business owners, and elected officials. NJDOT received comments on the identified needs that were incorporated into the Needs Assessment phase of the study and subsequent report. With a consensus regarding the needs, it became clear that roadway capacity increases would need to be considered in the next phase and that a Mulitmodal Alternative Analysis would be required. The concepts presented here were derived in conjunction with this analysis. The need for the capacity improvements recommended could not be eliminated by the alternatives. However, several complimentary strategies were identified. It is important to the future viability of the corridor to implement these complimentary strategies.

Discussion 🖻

Route 15 is a diverse corridor that presents a myriad of issues pertaining to the development of possible transportation improvement concepts. These issues must be analyzed and taken into consideration when concepts are proposed. In determining possible concepts for the identified needs within the corridor, system level transportation constraints are critical. The solution for one roadway cannot create or worsen the situation on another roadway. The problem cannot just be moved to another location. From a roadway perspective, we cannot continue to build our way out of congestion. In all studies that show a need to add capacity, a detailed analysis is conducted to determine what other possible strategies can be used in lieu of or in addition to a widening or bypass. As demand increases, the number of lanes necessary to permit an equivalent amount of travel by vehicles goes beyond the realm of what can or should realistically be built.

In determining the final concepts, NJDOT had several meetings for both the local and elected officials as well as the general public. A web site focusing on Route 15 was established for the public to both learn about the study and to provide input. A Community Assessment was conducted that tried to determine the community vision for each municipality within the corridor so that the concepts developed would be within the context of the surrounding communities and not just for the road user. As a final check for the concepts, The New Jersey State Development and Redevelopment Plan, (SDRP), was reviewed. The concepts presented in this summary are meant to pose possible engineering solutions to identified problems tailored around community-recognized issues, constraints, and opportunities.

The corridor is divided into five different sections for discussion: Dover/Wharton; Rockaway/I-80; Jefferson; Freeway Section; Sparta/Lafayette. Each section has its own unique characteristics and issues that have to be addressed. The study does not recommend adding lanes to Route 15 through the entire corridor, but there are concepts to widen segments of the roadway and/or to bypass the existing alignment. The corridor has been studied as a whole to determine what makes sense not only for the individual municipalities, but also for the region. The overall study strives to maintain a road system of continuity.

Objectives 📥

As a result of the considerations listed in the above discussion, the objectives for the concepts are to address the identified need while: maintaining a transportation system level balance; incorporating multimodal transportation uses; meshing with the locally identified context of the surrounding community; conforming to the strategies of SDRP; and striving for a continuity of level of service.

Concepts:

See <u>Figure 1</u> - Near Term Potential Concepts Map (pdf 73kb) See <u>Figure 2</u> - Long Term Potential Concepts Map (pdf 71kb)

You will need Adobe Acrobat Reader to view these maps. You can download Adobe Reader for free at our <u>State Adobe Access page</u>.

Dover/Wharton

Three primary concepts were developed for Route 15 from its southern terminus in Dover at the intersection of Route 46, north through the retail area of Wharton. These are identified on Figure 1, south of I-80. A complimentary strategy for this section is to provide local access and pedestrian accommodations in proposed improvements between Essex Street and Mount Pleasant Avenue.

Bridge Replacements (CPM): The first concept supports an active NJDOT project presently in the Feasibility Assessment phase. Two bridges are slated for replacement. Currently, the bridge replacement projects may involve replacing one bridge while eliminating the other bridge and putting a T-intersection at Rt. 15 and Rt. 46. Alternatives are being studied. If Rt. 15 and Rt. 46 are changed to a T, then an opportunity exists for the Department to return what are essentially local streets back to the municipality. From a context sensitive design perspective, this would be ideal as the existing problems include access

and geometric deficiencies as well as safety concerns related to overrepresented accidents at Dover's local intersections. Removing this traffic from the local roads would be ideal, but the ramifications to the intersections are still under review.

Bicycle/Pedestrian: The second concept involves the need to correct deficiencies between Route 46 and Mount Pleasant Avenue. The segment needs mobility improvements for pedestrians and bicyclists such as sidewalks, crosswalks, handicap ramps, and bicycle-safe inlet grates. Access deficiencies should also be evaluated within this concept.

Developer Improvements with Enhancements: Rockaway 80, a developer, is to make improvements to the intersection of Route 15 and Mount Pleasant Avenue which will include widening north of the intersection. A second developer (Costco/Shop Rite) is to meet the Mt. Pleasant improvement and widen northbound to the Dewey Avenue intersection with the Costco driveway. This study concurs with the need to make both developer improvements as identified by the NJDOT Bureau of Major Access Permits and further suggests some restriping of the turning lanes and a southbound widening to carry two lanes southbound until after the Mt. Pleasant Avenue intersection. The environmental screening identifies a stream crossing and wetlands adjacent to Mt. Pleasant Avenue where the southbound widening may require widening the bridge over Green Pond Brook.

Rockaway/I-80

This section of the Route 15 corridor has two concepts with important regional implications. These concepts are identified on Figure 1 and Figure 2.

Complete the Missing Moves at the I-80/Rt. 15 Interchange:

The I-80/Rt. 15 interchange is missing the following moves: I-80 eastbound to Route 15 southbound; I-80 eastbound to Route 15 northbound; Route 15 northbound to I-80 westbound. Many geometric, structural, and pavement deficiencies can be addressed together by providing the missing ramps. Safety concerns will also be addressed by removing the "missing movement" traffic from the local streets.

Developer Improvements with Enhancements: The developer (Highlands at Morris) will widen northbound Route 15 to provide three lanes consistently from I-80 to Phipps Road. Southbound Route 15 will be widened to Main Street again providing a consistent three-lane section. The developer will also put in a traffic signal southbound and new access for the development. This study supports the developer improvements as a minimum.

Several alternative concepts were evaluated for this area with suggested widenings to four and five lanes in each direction and widenings of approaches for the cross streets. To recommend these concepts would be inappropriate. The existing system cannot handle the traffic that exists today. Route 15 traffic feeds onto I-80 with such force that mainline I-80 cannot absorb the traffic. A backup onto both I-80 and Rt. 15 is the result. The developer improvements proposed, while adding more capacity to handle the additional development, also meters the southbound flow by adding a traffic signal. The net result should be a continuation of the traffic flow that exists today. If Route 15 were widened beyond the recommended three lanes, I-80 could not handle the traffic. I-80 would experience a system level failure and an environmental, societal, and financial detriment for both commuters

and residents.

On the other hand, the developer's widening to three lanes will not provide desirable operations for the next twenty years. However, given that, north of this section, Route 15 runs through both Rural and Environmentally Sensitive Planning Areas according to The New Jersey State Development and Redevelopment Plan, (SDRP), future traffic demand should be tempered by the type of development and patterns of growth in the years to come. Extensive, low density and dispersed growth to the north will result in a need for five lanes in each direction in this section, which is undesirable and cannot be supported within the existing transportation system.

As a result, the best concept seems to be the one that maintains a balance between I-80 and Route 15 as it currently exists, giving a slight advantage to the Route 15 commuters. Therefore, the developer's improvements are consistent with the concept that provides the best working solution for this section of the roadway and was the concept presented to the public. A widening to four or five lanes is a concept that cannot, and should not, be pursued at this time. Any potential travel demand beyond what is provided by this concept should be addressed through growth management strategies consistent with the SDRP and appropriate Travel Demand Management strategies. Additionally, a proposal to initiate passenger service on the New York Susquehanna and Western freight line can also play a role in managing the future growth by removing these road users from the highway system.

Jefferson Township Area

The Jefferson section of the corridor has two major concepts as well. Complimentary strategies identified within Jefferson Township include leasing existing parking spaces for a park-and-ride lot and NJ TRANSIT's studying the idea provision of bus transit service from the Picatinny Arsenal to Dover. Additionally local access and pedestrian accommodations need to be considered in the proposed improvement plans for Route 15 southbound between south of Lake Hopatcong and the U-turn ramp to Route 15 northbound. The concepts are identified on Figure1 and Figure 2.

Intersection Redesign at Berkshire Valley Road: The Berkshire Valley intersection has several issues that need to be addressed by a redesign: congestion; safety; access; mobility; and geometry. Several possible concepts were identified for this location although none will provide desirable levels of service more than twenty years into the future. The over-represented left-turn accidents point to a need to make improvements. Although the concepts do not accommodate travel demand for more than twenty years, again, there is a need to consider the other system level issues. If this intersection is improved to provide maximum flow, it will change the character of this business section as well as push more traffic down Route 15 to the I-80 interchange. Any potential travel demand beyond what is provided by this concept should be addressed through growth management strategies consistent with the SDRP and appropriate Travel Demand Management strategies.

Widening through the commercial area: The area between Edison Road and Bowling Green Parkway is Jefferson's commercial district denoted by a high driveway density and with a potential for pedestrian activity. Because the state highway environment is a three or four lane roadway carrying 4000-5000 vehicles per hour at 40-50 m.p.h., a concept of relocating Route 15 southbound outside the commercial area was suggested. Such a concept would have a significant environmental impact and although it would provide a better local environment, the trade off in this case does not seem to warrant the investment to the detriment of the environment. Through our public outreach, the municipality did not clearly indicate any interest in pursuing a bypass and, in respect of local preferences, this concept will not be pursued.

Various concepts were analyzed for this area including widenings up to four lanes in each direction. Although such widenings would provide acceptable operations through 2018 in this section, traffic congestion would only be pushed further south. Currently, Route 15 northbound is three lanes to Edison Road while southbound is only two lanes. Intersection improvements are needed at both Edison Road and Bowling Green Parkway for northbound Route 15. One suggested concept is to put a jughandle in at the existing signalized intersection at Edison and "T" the Bowling Green Parkway intersection by converting it into a cul-de-sac west of the intersection. A collector road could be built within the existing median between the northbound and southbound alignments of Route 15 to provide adequate mobility through this commercial area. Northbound Route 15 would be widened north of Edison and southbound Route 15 would be widened to provide a consistent three-lane section through this area. An alternative concept would include the specified widenings, but would require a new traffic signal and an additional turning lane for eastbound Bowling Green Parkway. A collector road is still recommended, but a jughandle at Edison Road is not. For both concepts, Route 15 southbound turning lanes should be considered with acceleration/deceleration lanes.

Freeway Section

The freeway section starts in northern Jefferson Township and proceeds north through Sparta Township. Two concepts are proposed within these limits are listed on Figure 1 and Figure 2.

Truck climbing lane: One concept is to provide a southbound truckclimbing lane south of County Route 517. This improvement can be made in conjunction with the culvert rehabilitation and will resolve the deficiency of the short acceleration lane from 517.

Park-and-ride expansion: The recommended expansion of the Blue Heron Park-and-Ride involves relocating the existing on-ramp for Route 15 northbound to north of Blue Heron Road which would eliminate an existing weave between the on- and off-ramps. Expanding the park-and-ride is a complimentary strategy that was identified by the multimodal alternative analysis that at the same time will create a better exit from and entrance to Route 15.

"End-of-freeway" safety and congestion problems are to be resolved by the widening concept proposed in the next section.

Sparta/Lafayette

Two capacity increases are proposed for the remaining section of Route 15 and are noted on Figure 2. The section is divided into two different types of increases due to the traffic flow and characteristics of the areas. The first concept proposes a widening from the end of the freeway section at Route 181 to Route 94. The second concept is to bypass the village of Lafayette from Route 94 to Route 206. The Multimodal Alternative Analysis suggests that NJ TRANSIT should study the possibility of bus transit routes from Sparta to Morristown and Ross's Corner to Newark.

Another complimentary strategy is to lease park-and-ride spaces in the vicinity of Route 15 and Route 94. These strategies as well as local access and pedestrian accommodations on Route 15 between Route 94 southbound/Limecrest Road and Beaver Run Road, do not negate the need for capacity increases, but are suggested to help maintain the available roadway capacity in the corridor. In the long term, the proposal to initiate passenger service on the New York Susquehanna and Western freight line can also play a role in managing the future growth. If service extends from Sparta, motorists will have a new and convenient alternative to driving. Various strategies will have to be implemented to maintain a viable transportation system.

Proposed widening: The proposed widening from Route 181 to Route 94 will require an Environmental Impact Statement (EIS) which will consider all possible alternatives that meet the purpose and need of the potential project. From a conceptual perspective, a widening along the existing alignment seems to be the best way to minimize any environmental impacts in this sensitive area. Such a widening without the need for an off-alignment freeway could accommodate the land use and traffic, but any determination will be made through the course of the EIS. Regardless of the final outcome, the intersections of Wilson and White Lake Roads should be realigned to provide one signalized intersection instead of two separate intersections.

Proposed Bypass: The second concept is a bypass or widening of Route 15 through Lafayette. While the projected traffic volumes could be handled by the existing facility until at least 2018, this concept is being recommended for quality of life issues for the local communities. The SDRP discusses that people choose to live in Rural Planning Area's because the community character is compact, rural and often historic, as it is in Lafayette. The Plan also discusses the need to protect the character of existing, stable communities, but notes that planning initiatives in these areas have not always promoted rural character, and master plans include roads that induce sprawl. In this case, even though the traffic volumes in the future can be supported by the existing facility, it is more traffic than Lafayette can handle without detracting from its character. Web site replies from Lafayette, garnered from the Community Assessment used to understand each community's vision, talk about its "rural character" and worry about its "historic integrity". Residents have voiced concerns about their quality of life both through the web site and at the public meetings. The consensus from our outreach is that the bypass is a concept that is supported and encouraged, but a widening cannot and should not be pursued.

This area of the State is identified as Rural and Environmentally Sensitive Planning Areas and part of the Highlands. While it is important to maintain the integrity of these environments, the viability of the local communities must also be weighed. The Plan notes that while we must encourage alternatives to driving alone, we need to enhance a transportation system that limits scattered and piecemeal development. The SDRP allows that traffic for the seasonal demands of travel and tourism that support recreational and natural resourcebased activities should be accommodated. The bypass concept, while it will have impacts, at the same time strives to meet the spirit of the plan. The concept is for the bypass to be a two lane, limited access facility. No development would occur along the bypass as there would be no access. The viability of the town would be preserved while removing the regional traffic from its "main street". A limited access bypass would protect the area from the "piecemeal development" cited by the Plan while allowing for the demands of recreational activities which helps support the local economy.

Other intersection improvement concepts at Sunset Inn Road and Morris Farm/Meadows Road are not needed until at least 2008 and 2018 respectively and did not receive favorable comment at the public meetings. These improvements will not be needed within the next twenty years if the bypass is built.

While the EIS will consider the possibility of an off-alignment freeway between Rt. 181 and Rt. 94, the second concept of a bypass from Rt. 94 to Rt. 206 has independent utility from the proposed widening. Even if an alternate alignment is the preferred solution between Rt. 181 and Rt. 94, there is a need for traffic to have access at the junction of Route 94 which means that a separate freeway alignment would have to tie into Route 94 and then proceed north. Regardless of the alignment chosen south of Route 94, a bypass from the junction at 15/94 to 206 is independent of the concept between 181 and 94.

Conclusion

This study presents several concepts to improve the mobility and safety in the Route 15 corridor. As the Department advances the concept solutions, some policy level decisions need to be made regarding the different situations and issues that are presented in the corridor. Overall, the concepts are meant to provide reasonable engineering solutions to very complex issues that fit within the context or vision of the communities involved.

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ROUTE 15 CORRIDOR STUDY New Jersey Department of Transportation Urbitran / Garmen POTENTIAL CONCEPTS

(Near Term)



Figure 2