Transportation
Land Development
Environmental
Services

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Meeting Notes

Attendees: Chris Waszczuk, NHDOT
Mike Dugas, NHDOT
Marc Laurin, NHDOT
Bill O'Donnell, FHWA
Peter Walker, VHB
Frank O'Callaghan, VHB

Date/Time: July 1, 2004

Project No.: 51425.00

Place: Newington Town Hall

Re: Newington-Dover, 11238
Public Informational Meeting

Notes taken by: Frank O'Callaghan

Chris Waszczuk, NHDOT Project Manager, called the meeting to order at 7:05 PM by introducing himself and welcoming those in attendance. He noted that this meeting was the second of two (2) public informational meetings on the Newington-Dover Spaulding Turnpike Improvement project, and that over 40 persons had attended a similar meeting last evening (June 30, 2004) at Dover City Hall. He stated that the project team is looking for feedback, and that public input is important to the success of the project. He reminded all that project information packets were available that would assist them in following and understanding the presentation of project information, and asked everyone to sign in before they leave the meeting. He also noted that a project newsletter was available that included project contacts for additional information.

Chris then introduced Mike Dugas, NHDOT, Marc Laurin, NHDOT, and Frank O'Callaghan, VHB, as members of the project team. He reviewed the composition of the Advisory Task Force (ATF), noting community representation and its purpose of providing guidance to the project team and acting as a conduit for disseminating project information to project stakeholders. Chris noted that the ATF meets regularly, usually every 2 to 3 months, and has met to date seven times over the course of the study.

Chris then reviewed the meeting agenda, noting that it would be interactive in nature, and that four (4) question and answer periods are scheduled during the presentation to make the digestion of information and dialogue with the public as convenient and effective as possible. He then reviewed the project's purpose which is to reduce safety problems and improve transportation efficiency for an approximately 3.5 mile long section of the Spaulding Turnpike beginning at the Gosling Road Interchange in Newington and extending across the Little Bay Bridges to the toll plaza in Dover. Chris then reviewed the project need citing the importance of the Spaulding Turnpike from commuter, commerce, and tourist perspectives; its designation as part of the National Highway System (NHS); and its function as a limited access highway linking the seacoast region with I-95, Concord, the Lakes Region and the White Mountains. He cited the historic growth of traffic and future projections, the poor levels of traffic service, existing geometric constraints and deficiencies and the history of traffic accident experience. Chris also noted that the Turnpike bisects local

residential, recreational and commercial areas, and that there exists a need for local connectivity of motorists, pedestrians and bicyclists between the east and west sides of the Turnpike in both Newington and Dover. He stated that the Little Bay Bridges are major structures located on an important highway in a moderate seismic area and were not designed to meet the current seismic criteria for this region. He noted that the Newington-Dover Spaulding Turnpike project was included in the State's Ten-Year Transportation Improvement Program and was the highest long-term transportation priority of the Seacoast Metropolitan Planning Organization. He stated that as the area continues to develop and future traffic volumes increase, traffic operations and safety conditions would worsen.

Chris then reviewed the five (5) phases of an Environmental Impact Statement (EIS) noting that the EIS is the highest order of study required by the National Environmental Policy Act (NEPA). The project Scoping Report, published in March 2004, summarizes the Phase 1 activities, which included the project's purpose and need statement, inventories of environmental resources, analysis of existing traffic conditions and projections of future travel demands, and the identification of the range of typical alternatives that would be considered. Currently, Phase 2 activities include the development and screening of potential alternatives to carry forward into Phase 3, the Draft EIS, for detailed analysis. Phase 4 is the FHWA/ACOE/NHDES/NHDOT joint Public Hearing on the Preferred Alternative, and Phase 5, the Final EIS, will respond to comments on the DEIS as well as identify the least environmentally damaging practicable alternative (LEDPA). He then reviewed the overall project schedule target dates including September 2004 for completion of Phase 2, and the fall of 2005 for the joint-public hearing. Assuming the availability of funding, construction – which would be phased – could begin as early as 2008. Prior to pausing for any questions on project purpose and need, or the phasing and schedule of the project, Chris noted the importance of public participation in the study, and emphasized the openness of the process. He identified the ATF as a 2-way conduit for stakeholder input and feedback. The ATF meets regularly and Chris noted that the next scheduled ATF meeting will be on August 25, 2004 at Newington Town Hall. He reminded all that there are public information meetings scheduled for each phase of the study, and that meetings with federal and state Resource Agencies are also regularly held to solicit their input. Project newsletters are also prepared at the conclusion of each phase of study, and the project website, www.newington-dover.com, provides a wealth of project related information and another means of public input to the project team.

At this point, Chris paused and asked for questions and/or comments.

Doug Mahoney, Thermo Electron, asked if the completion date for construction of the Newington Interim Safety Improvements was August 2005. Chris Waszczuk responded that it was a separate project and targeted to be completed by the end of 2005.

State Rep. Paul McEachern inquired as to the coordination of the Newington-Dover Turnpike project with the Portsmouth traffic circle and Route 1 Bypass improvement project. Chris responded that both projects are utilizing the same regional travel demand model. Mike Dugas added that with respect to the traffic circle project, there is an active ATF, but the project is not as far along as the Turnpike project. He added that the project includes funding available for the bridges, but not yet for any roadway improvements.

Dave Holden, Portsmouth Planning Department, noted that the City of Portsmouth sees the linkage between the projects and understands that project coordination is on-going.

Cameron Wake, SABR, raised the issue of maintaining bicycle connectivity over the channel during a 4-year or longer construction schedule. Chris Waszczuk responded that traffic management during construction will be challenging at times and result in some additional delays, but that two lanes of traffic are envisioned to be maintained in each direction at all times. While moving traffic safely during construction will be the first priority, Chris stated that every reasonable effort would also be made to accommodate bicycles during construction.

Bill Burtis, Clean Air/Cool Planet, commented on the volume of daily traffic on the Turnpike. Frank O'Callaghan noted that peak hour volumes were more critical than daily volumes from a design perspective.

At this point, Chris Waszczuk reminded the attendees that their input was important. He then introduced Frank O'Callaghan to review the project background. Frank began by describing the project study area as extending north from Exit 1 (Gosling Road/Pease Boulevard) of the Turnpike on the south, traversing the Little Bay Bridges to a point just south of the Dover Toll Plaza, and bounded by the Piscataqua River on the east and Little Bay on the west. He noted many study area issues such as marine habitat, navigation, water quality, tidal and surface wetlands, floodplains, ground water, hazardous materials, visual resources, park and recreational activities, historic and cultural resources and potential residential and commercial property impacts. He stated that air quality and noise were also relevant issues, and each would be analyzed in detail during Phase 3 (DEIS) of the study. He also noted that indirect and cumulative socio-economic impacts would also be identified in the next phase (DEIS) of the study. He stated that the March 2004 Scoping Report summarized many of the inventories of environmental resources.

In summarizing safety conditions, Frank noted that study area traffic accidents during the 1997-2001 period (908 total) increased by approximately 58 percent in comparison to the previous 5-year, 1992-1996, period (575 total). During the 1997-2001period, accidents increased at approximately 11 percent per year in comparison to the average annual traffic volume growth of 3 percent per year. He also reviewed traffic volume growth where average daily traffic (ADT) volume has increased from approximately 30,000 vehicles in 1980, to over 70,000 in 2003, and is projected to grow to over 101,000 vehicles per day by the year 2025. He noted that current weekday peak hour capacity constraints extended from Exit 6 southbound to Exit 3 (Woodbury Avenue) in the morning, and from Exit 4N northbound through Exit 6 in the evening. These capacity conditions are compounded by a number of geometric deficiencies including substandard shoulder width on the Little Bay Bridges, substandard turning radii at many of the interchange on and off ramps, and inadequate weaving distances in both the northbound (River Road) and southbound (Nimble Hill Road) Exit 4N - Exit 4 area. As traffic volumes grow, the safety and traffic operational conditions, which are currently constrained, will worsen.

Frank O'Callaghan then presented some general bridge information for both the Little Bay Bridges and the General Sullivan Bridge. He noted the length, width, main navigation span and vertical clearance of each bridge. The Little Bay Bridges are characterized by substandard shoulder widths and a 3.5 percent grade which limits driver sight distance to a 60 mph design speed (design speed being the maximum safe operating speed governed by the vertical alignment or profile). The 2-lane bridges have minor deterioration and the substructure for both bridges – composed of reinforced concrete – was designed and constructed in 1966 prior to seismic resistance requirements. Frank then enumerated several factors which would affect the rehabilitation alternatives for the General Sullivan Bridge. A 4 percent grade limits driver sight distance to a 45 mph design speed. The cross-section is limited to 24' of pavement and 2'-11" sidewalks on each side. These geometric characteristics and the continuous truss nature of the structure will preclude the rehabilitation and reuse of the bridge to function as two freeway/turnpike lanes to complement the function and operation of the Little Bay

Bridges and Turnpike. In addition, the deck, girders and truss members exhibit major deterioration, and there is extensive substructure deterioration. He noted that the piers are composed of unreinforced granite block and mortar, and in conjunction with the low internal redundancy of the truss design and the fatigue associated with the age (1935 construction) of the structure, the General Sullivan Bridge is more vulnerable to a seismic event than the Little Bay Bridges. The General Sullivan Bridge is also historic – being the second highest-ranking historic bridge in the state -- and subject to costly lead paint removal and re-painting.

At this point Frank paused for questions and comments. A resident asked if the GSB was safe for pedestrian and bicycle travel. Chris Waszczuk responded that the bridge is safe for pedestrians and bicyclists, and would be closed if it were unsafe. It is not safe for carrying vehicular traffic.

There being no further questions or comments, Frank proceeded to review the range of conceptual alternatives that have been developed including Transportation System Management (TSM), Transportation Demand Management (TDM), Bridge Alternatives and Roadway Alternatives. With respect to TSM improvements, Frank noted that these improvements are generally low cost in nature and usually implemented within the existing right-of-way, or require minor right-of-way, to improve safety and/or increase traffic operating efficiency. Examples of TSM-type actions are adding turning lanes and/or increasing traffic control at intersections, or changing pavement markings or increasing regulatory or directional signage.

Within the study area, Frank noted that signage on the bridge approaches that reminds drivers to stay in their lane has already been upgraded, and directional signage for NB travelers connecting to US4 at Exit 6W will be upgraded as part of a construction project this year. He then referred to conceptual graphics and described several TSM alternatives.

Dover TSM 1

This action involves extension of the NB deceleration lane to the loop ramp leading to US 4 at Exit 6W. Restriping of the shoulder area under the overpass will extend the deceleration lane by approximately 400' without impacting the bridge abutment. This measure will prevent peak hour exiting traffic from backing up on the loop ramp onto the Turnpike and blocking NB through traffic on the Turnpike.

Dover TSM 2

This action involves merging the 2-lane SB on-ramp at Exit 6 to a single lane prior to the merge with the main line, coupled with carrying two (2) through lanes on the Turnpike through the Exit 6 interchange to merge with the single SB on-ramp. Currently, the 2 Turnpike through lanes merge to a single lane. The proposed changes will make it safer and easier for drivers to be in the proper lanes (either inside or outside) when planning to exit at Nimble Hill Road or Woodbury Avenue.

Interim Safety Plan (Newington)

The Interim Safety Plan will address the current safety and traffic operational problems at Nimble Hill Road and at River Road due to inadequate weaving distances between these roadways and the median SB to NB turnaround on the Turnpike. By providing a two-way, grade-separated connection under the Turnpike, between Nimble Hill Road and River Road, the median turnaround can be eliminated, thus making the current weaving conditions unnecessary. The existing SB on-ramp from the grade-separated turnaround from River Road will also be eliminated which will remove another safety and traffic operational problem. This project is under final design and scheduled for construction in 2005.

Other Newington TSM Actions

Upon completion of the Interim Safety Plan, the SB deceleration lane to Woodbury Avenue can be extended to provide improved operations. In addition, a NB auxiliary lane can be developed between Woodbury Avenue and River Road to provide a better merging and weaving condition for traffic entering the Turnpike from Woodbury Avenue and for traffic exiting at River Road. In addition, access from Woodbury Avenue to Shattuck Way/River Road via the River Road/Patterson Lane connection would be restricted to emergency vehicles only to preclude NB traffic from diverting to River Road in an attempt to bypass Turnpike traffic and rejoin the Turnpike at Exit 4. The NB auxiliary lane will be included as part of the Interim Safety Project

While reducing the level of traffic turbulence and improving the safety of current traffic operations on both sides of the bridges, Frank reminded all that the basic capacity constraints of the bridges and Turnpike remain, resulting in peak hour congestion and vehicular delay.

Frank then reviewed the Transportation Demand Management (TDM) strategies that have been considered to reduce the overall travel demand within the corridor including rail, bus, park and ride facilities, high occupancy vehicle (HOV) lanes and employer-based measures. He noted that the project team had met with transit operators and regional planning staff in developing these alternatives. With respect to rail, he presented several alternatives.

Expansion of the Downeaster Service

The first rail alternative examined would involve expanding the Downeaster service by one train set. Currently, the Downeaster makes four round trips per day through the study area. However, only one of these trips coincides with the morning peak hour commuter time. Thus, the existing service is really not providing commuter service. By adding an additional train, it is expected that the service would be more convenient to commuters in the study area. The additional train set would run from Dover station to Boston during the weekday AM peak hour, and return from Boston during the PM peak hour. This alternative would require construction of a new layover facility in Dover in addition to the purchase of a new train set.

Based on a conceptual design, the infrastructure investment for this option is expected to cost between $11.5 and $17 million. It was assumed that there would not be a need to double track the existing rail corridor to the Massachusetts state line. If that double tracking is in fact required, then the capital investment would increase to about $110-$115 million. Frank noted that these estimates (for all rail and transit alternatives) did not include operational costs.

Regional Commuter Rail Service

A second rail alternative would involve development of a new commuter rail line to carry passengers between Rochester and Portsmouth. This alternative would utilize the existing Conway Branch line south from Rochester and then run along the Main Line West to Dover. From Dover there are two (2) options: continuing along the MLW to Rockingham Junction, and then running east to Portsmouth along the Portsmouth Branch line; or running south from Dover on new right-of-way paralleling the Turnpike and crossing the channel to meet the Newington Branch Line.

Capital cost estimates for these options range from approximately $145 to $170 million. This would involve upgrading the existing rail lines, purchasing new train sets and building new train stations in Rochester, Somersworth, Newmarket and Portsmouth. The cost estimate does not include operational costs. Preliminary ridership estimates would result in fewer than 100 peak hour vehicles

being removed from the Turnpike for the Rockingham Junction option, and fewer than 150 vehicles being removed for the more direct route paralleling the Turnpike.

Commuter/Tourist Service to Conway

A third rail option would involve extension/upgrading of rail service from Dover along the Conway Branch to Rochester and then north to Conway. This option assumes that the NHDOT would restore the 22 miles of missing track in Ossipee, and could be developed to handle freight service and also serve as a connection for tourists visiting the North Country or Boston. A preliminary cost estimate is approximately $40 million.

Frank explained that ridership numbers are very preliminary and that these rail options appear to remove approximately 50 to 150 peak hour vehicle trips from the Turnpike, a relatively low number in relation to the total traffic volume along the Turnpike.

Pease Spur

A now inactive rail right-of-way exists in Newington which runs from the industrial area on the south and east portion of the study area (the Newington Branch Line), across the Turnpike and then into the Pease Tradeport. The rail right-of-way is at-grade and was active when Pease was used as a military base. Frank pointed out that all of the Newington conceptual roadway alternatives maintain a grade-separated right-of-way corridor for future restoration of this rail service.

Frank then described the three (3) bus alternatives that had been developed and preliminarily assessed:

Expand Intercity Service (Rochester-Boston)

C & J Trailways currently operates a coach service between Dover and Boston via Portsmouth. This service could be expanded by adding coaches and extending the service area to Rochester. The cost of this alternative would be approximately $11.5 million in capital investment.

COAST Express Service

Frank explained that COAST plans to operate new express service between Rochester and Portsmouth along the Turnpike. This service is being funded through a CMAQ grant and is scheduled to begin in 2006. He noted that the express service could be further enhanced by adding Park and Ride facilities at Exit 9 in Dover and at Exit 12 in Rochester. The cost estimate for these Park and Rides is approximately $5 million. The Park and Rides would allow commuters a place to transfer between their private vehicles and the bus service, as well as support ride sharing and van-pooling.

Enhance Local Bus Service

Wildcat Transit and COAST, specifically COAST Route #2 (Rochester-Portsmouth), Wildcat Route #4 (Dover-Portsmouth) and COAST'S Tradeport Trolley operate local bus routes in the study area. These services could be enhanced by adding additional buses to reduce headways and by providing an interconnection/transfer point at Exit 1 which would allow riders to transfer among the local bus operators. In addition, a new Park and Ride facility could be constructed at the intersection of Route 108 and US4 in Durham, which would support the Wildcat #4 route, encourage ride sharing and van-pooling and allow the capture of some traffic that would otherwise go to or from the UNH campus. Capital cost for this enhancement is expected to be about $6.5 million.

There is some overlap among these bus alternatives. Therefore, if the three (3) alternatives were bundled and implemented together, the capital cost of the entire package would be about $16 million. Preliminary analysis indicates that ridership for these bus alternatives would be equal to the rail alternatives - at a fraction of the cost. Frank noted that analysis of ridership continues. He concluded by stating that new park and ride facilities were proposed at Exit 9 in Dover, at Exit 12 in Rochester and at the US4/NH108 interchange in Durham. Such a site would also benefit Durham and UNH by allowing UNH visitors to park remotely and be shuttled to the campus.

With respect to High Occupancy Vehicle (HOV) and Reversible Lane alternatives, Frank described two (2) main options that were examined, in comparison to a standard 8-lane (4 NB and 4 SB) roadway cross-section, to potentially reduce the scale of future roadway and bridge infrastructure improvements. He reminded all that future travel demands require 4-lanes in each direction assuming current travel characteristics (i.e. mode split, vehicle occupancy rates, work hours, travel patterns, etc.).

Frank used a graphic to illustrate the cross-section of each of the options. The first option would be a 2+2+2 lane cross section, with the center two lanes intended as HOV or reversible lanes. The total cross-section of this alternative would be approximately 132 feet. However, the results of the traffic modeling completed to date indicate that a minimum of three lanes in the off-peak direction during summer and fall peak hours would be needed to meet future travel demands. Therefore, this option was not being pursued..

A second HOV concept would involve a 3+1+3 lane cross-section. The center lane would be an HOV or a reversible lane. Frank explained that in order for HOV lanes to be effective, they must be used by approximately 800 vehicles or more per peak hour. However, the traffic model predicts approximately 300 vehicles per hour would use the HOV lane assuming it would start at the Dover Toll Plaza and extend to I-95 in Portsmouth. Since potential traffic volumes would not justify this alternative, a second option was explored running from just south of Exit 6 to just north of Exit 1. This alternative would potentially maximize HOV ridership by extending HOV access to traffic from US4, Dover Point Road, and the Pease Tradeport. Unfortunately, given the compactness of the study area, the relatively short distance between Exits 6 and 1, and the distance necessary to safely accommodate the merging and weaving of traffic to enter and exit the HOV lane, this alternative was infeasible from a traffic safety and operations perspective. A third alternative was considered which assumed an HOV lane running from the Dover Toll Plaza to Exit 1. Similar to Alternative 1, the potential ridership estimate falls approximately 40% below the necessary threshold to justify its use.

In light of the infeasibility of HOV use, the 3+1+3 lane concept was tested from a reversible lane use perspective. Under this concept, the reversible lane would be utilized by the peak flow in the peak hour (i.e., southbound in the AM and northbound in the PM) and open to all vehicles. If this reversible lane extended from the Toll Plaza to Exit 1, approximately 1,500 vehicles per peak hour would use the lane, which is enough ridership to justify its use. Frank explained that this 3+1+3 cross-section would be approximately 152 feet in pavement width due to the shoulders and barriers that would need to be constructed between the reversible lane and the adjacent northbound and southbound lanes. He noted that this cross-section would actually be wider than the approximately 146-foot cross-section required for a typical 8-lane (4 NB and 4 SB) cross-section. As such, VHB concluded that the 3+1+3 reversible lane concept failed to offer a significant advantage over the traditional 8-lane cross-section -- the 3+1+3 cross-section was wider than the typical 8-lane section and presented additional operational and maintenance costs. Frank added, however, that the 8-lane cross-section affords the flexibility to convert the inside shoulder/lanes to HOV or exclusive transit use in the future.

Frank then reviewed employer-based TDM strategies which could include transit subsidies, ride sharing, vanpools, alternative work schedules, bike and pedestrian facilities, on-site amenities (daycare, cafeteria, showers, bicycle storage areas) and a guaranteed ride home program.

Frank next reviewed bridge alternatives. Conceptually speaking, he noted that widening the existing Little Bay Bridges from 4 to 8 lanes had been considered to the west side of the existing bridges, to the east side of the existing bridges and to both sides of the existing bridges assuming that the General Sullivan Bridge (GSB) was rehabilitated for a future use. Replacing the Little Bay Bridges (LBB) with a new bridge that includes a multi-use path (assuming the removal of the GSB) was also considered. Such a new bridge could be of a signature type structure, e.g. a cable-stayed or concrete arch. He noted that widening or replacing the LBB to the west of the existing bridges would minimize potential impacts to Hilton Park and the shoreline near Bloody Point. Frank also stated that double decking of the existing bridges was also considered in hopes of minimizing the footprint of the bridges and reducing private property and environmental resource impacts on the bridge approaches. Preliminary analysis indicated that these impacts were not significantly reduced in comparison to the previously described west side bridge widening or bridge replacement alternatives, and the double-decker alternative had the additional impacts of higher cost, difficult traffic control during construction and adverse visual aesthetics.

With respect to the General Sullivan Bridge, Frank described several reuse alternatives including a multi-use path for pedestrians and bicyclists; a pedestrian, bicyclist and restricted (6 ton) vehicle or unrestricted vehicle open to local traffic; and a pedestrian, bicyclist and transit vehicle only use. Rehabilitation costs would range from $19 M to $22 M. To replace the GSB would cost approximately $36 M, and to remove it, approximately $5 M. If rehabilitated, periodic (every 25 years) repainting and structural repairs would cost approximately $4.3 M (in 2004 dollars), and deck replacement (every 35 years) would cost approximately $1.4 M (in 2004 dollars). Frank concluded his description of bridge alternatives by reviewing a cost summary matrix of LBB and GSB combined alternatives. The LBB alternatives, which included rehabilitation of the GSB, ranged in cost from $68 M to $90 M. The LBB alternatives which entailed removal of the GSB ranged in construction cost from $57 M to $100 M.

Frank then proceeded to summarize the conceptual roadway alternatives, beginning in Dover. He reviewed three (3) Dover roadway alternatives noting that two-way flow on the Turnpike overpass and the provision of a new NB on-ramp at exit 6 were common to all alternatives. He noted that Alternative 1 provided a two-lane loop ramp for the NB Turnpike connection to WB US4, and that the at-grade connection from Hilton Park and the Wentworth Terrace neighborhood to Dover Point Road resulted in a relatively high number of property impacts in comparison to Alternatives 2 and 3. Frank stated that the E-W connection of Hilton Park for local motorized and non-motorized traffic is an important element from the City of Dover's perspective. Also, the City would consider accepting less efficient traffic operation at Exit 6 if property impacts could be reduced. Frank then described Alternative 2, which provides a grade-separated E-W connection of Hilton Park, and provides the NB Turnpike connection to WB US4 via a diamond-type signal controlled intersection. In comparison to Alternative 1, property impacts are substantially reduced and traffic operation at the four (4) signalized intersections are satisfactory. Alternative 3 modifies Alternative 2 by providing a grade-separated connection between Spur Road and Boston Harbor Road. This connection – under the US 4 overpass and the SB on-ramp to the Turnpike – enables local traffic to connect with Boston Harbor Road and Hilton Park without traversing the interchange area, and allows elimination of the Spur Road traffic signal by restricting turning movements to right-turns only.

Frank then reviewed the Newington roadway alternatives reminding all that Newington representatives had initially indicated community support for Alternatives 6 and 7 contained in the 2000 Spaulding Turnpike Feasibility Study. Alternative 6 maintains interchanges at both Exits 3 and 4, provides a right-of-way for a future railroad connection (paralleling Patterson Lane) to the Tradeport at Exit 3, and would provide an ideal at-grade location for a crossover between the NB and SB barrels of the Turnpike for incident management. He noted that Alternative 6 lacked a connection between the Turnpike and the industrial area located between Shattuck Way and the riverfront, and that local traffic from Nimble Hill Road to Woodbury Avenue is required to use the Turnpike (assuming that drivers decline to use the circuitous back route of River Road and Shattuck Way). Frank noted that the SB off-ramp to Woodbury Avenue at Exit 3 had been relocated slightly to the north (revising the original concept) to avoid impacting access to the City of Portsmouth's water tower. Alternative 7 combines Exits 3 and 4 at a new single point diamond interchange. This alternative provides roadway connections to both the Tradeport and the River Road-Shattuck Way industrial area, free-flow connections between the Turnpike and Woodbury Avenue, right-of-way for a future rail connection to the Tradeport that parallels Patterson Lane, and a local connector between Nimble Hill Road and Woodbury Avenue. Local access to future development at the former drive-in site could also be provided. Projected traffic volumes require a double NB on-ramp, which is problematic given the limited distance to merge prior to the bridge. The elevated structure of the Turnpike will present a visual impact, and the cost of the interchange (based on the 2000 Feasibility Study) will be approximately 50 percent higher than Alternative 6 Revised.

Alternative 9 combines the current Exits 3 and 4 at the location of the existing Exit 3 via a SB two-lane loop off ramp and a NB diamond type interchange. The local roadway connection to the Tradeport and the River Road – Shattuck Way industrial area is provided adjacent to the existing railroad right-of-way, which is preserved for a future connection to the Tradeport. A local roadway connects Nimble Hill Road to Exit 3 and Woodbury Avenue. The distance between the two-lane NB on-ramp at Exit 3 and the Little Bay Bridges is adequate for traffic merging prior to the bridge. Access to the former drive-in site could be provided from the local connector. Frank noted that the ATF reviewed Alternatives 6, 7, and 9 at the March 31 workshop meeting, and advised VHB to drop Alternative 7, and to focus on combining the best elements of Alternatives 6 and 9 into a new concept. To that end, he then described Alternatives 10 and 11.

Alternative 10 is similar to Alternative 9 in that it combines the current Exits 3 and 4 at the location of the existing Exit 3 for SB traffic, and maintains the local roadway connection to the Tradeport and the River Road – Shattuck Way industrial area adjacent to the existing railroad right-of-way, which is preserved for a future connection to the Tradeport. The local roadway connection from Nimble Hill Road to Exit 3 and Woodbury Avenue is also maintained. However, the SB off-ramp at Exit 3 has been converted from a loop ramp under Alternative 9 -- to a diamond configuration, and Alternative 10 also provides NB off- and on-ramps at Exit 4 (River Road). Alternative 11 is similar to Alternative 10, with the exception that the local connector to the industrial area and the preservation of a future rail right-of-way connection to the Tradeport has been relocated south to the Exit 3 interchange/Patterson Lane area. This results in a tri-level interchange area with the rail corridor and industrial access road running under Woodbury Avenue and the Turnpike, and the Woodbury Avenue extension traversing above the Turnpike to intersect the new connecting roadway to Nimble Hill Road.

Another alternative, Alternative 12 modifies Alternative 11 by simplifying the roadway connection from Woodbury Avenue and Exit 3 to the Tradeport, and by modifying the SB on-ramp from Exit 3 to reduce wetland impacts and increase traffic weaving distance between the SB Exit 3 on-ramp and the SB Exit 1 off-ramp. Frank concluded by noting that Alternatives 10, 11 and 12 could be modified to provide a SB off-ramp to Nimble Hill Road for the convenience of Newington residents.

At this point, Frank paused for questions and comments.

Doug Wilhelm, Thermo Electron Corp., asked if, under the Newington Interim Safety Improvement Plan, the Turnpike on-ramp from Nimble Hill Road was longer than the existing on-ramp. Chris Waszczuk responded that the proposed on-ramp is longer, in comparison to the existing condition, by approximately 1,000 feet. Also, a curbed island will be constructed as part of the interim project to preclude direct egress from the Exxon driveway to the Turnpike travel lane.

Gail Klanchesser, Coleman Drive, commented that park and ride facilities should be considered as close as possible to the origin of traffic, and that the proposed facility at the NH108/US4 interchange was too close to the UNH destination. Frank responded that the primary function of the three (3) proposed park and ride facilities – Exit 12 (Rochester), Exit 9 (Dover) and US4/NH108 was, in fact, to intercept traffic prior to reaching the study area and traversing the bridges. With respect to the US4/NH108 proposal, its function as a remote parking area for UNH related traffic is secondary in nature, yet is of benefit to UNH and Durham by potentially reducing local parking and traffic circulation pressures.

Jack Pare, a Newington resident suggested that moving goods by rail might be more cost-effective than by truck if one considers a regional area, in comparison to the smaller project area. Chris Waszczuk replied that the project need is focused on the project area.

Scott Bogle, RPC, noted that the transit ridership estimates were for 2025. He asked why the bus rapid transit alternative was higher in construction cost that the commuter rail alternative running between Rochester and Portsmouth. Frank responded that the fixed guideway construction was more costly (approximately $10 million).

Donna Callahan, noting that Alternative 1 was not included in the informational handout, asked if Alternative 1 was being dropped from further consideration. Frank O'Callaghan replied that Alternative 1 was not being recommended as one of the alternatives to carry forward.

With respect to the Newington alternatives, Bill Verge asked if reconstructing Fox Run Road could serve as an industrial connector. Frank responded that grade separation of Fox Run Road with the Turnpike would affect access to roadside abutters on both sides of the Turnpike. He added that using Fox Run Road as the industrial traffic connector to Exit 3 and the Turnpike would be counter to the town of Newington's goal to segregate industrial traffic from local residential and retail shopping related traffic. Frank then reviewed the Newington alternatives noting the Town's desire to segregate the industrial related traffic from retail generated and local traffic. Newington Fire Chief, Roy Greenleaf, asked if consideration had been given to transporting hazardous materials. Frank replied that reconstruction of existing facilities and construction of new facilities would reflect current engineering design standards which will accommodate heavy commercial vehicles, and that the aforementioned industrial connector is planned to segregate industrial related traffic from local traffic. The Chief also noted the gas line running parallel to Patterson Lane. Frank acknowledged that the project team was aware of the utility corridor and would plan accordingly.

Ed Fish expressed concern over potential emissions and noise protection. Frank noted that detailed air quality and noise impact analyses would be conducted during the next phase of the study. If air quality or noise standards are exceeded, mitigation plans will be developed. Chris Waszczuk added that base condition data has been collected so that future alternatives may be modeled.

Bill Burtis, Clean Air/Cool Planet, asked if the air quality analysis will include an analysis of CO_2 impacts. Frank replied that the project would meet all federal air quality requirements. With respect to transit alternatives, Bill inquired as to the assumptions reflected in the preliminary ridership estimates. Frank responded that the ridership estimates reflect comparisons of driver and transit trip impedance factors related to travel time and cost (e.g. cost of time, fuel, parking, transit fare).

Cameron Wake, SABR, asked if four lanes were being planned for both NB and SB bridges. Chris Waszczuk responded that the existing two lanes in each direction are over capacity, and that future travel demand projections require four lanes in each direction. He noted that one of the four lanes functions as an auxiliary lane to facilitate the safe and efficient merging and weaving of traffic as drivers enter and exit the Turnpike between Woodbury Avenue (Exit 3) and US4/Dover Point Road (Exit 6). Cameron suggested that a harder look at TDM alternatives might avoid the need for four lanes in each direction. Frank responded that the challenge is to develop a smart solution that meets the project purpose and need, and is also practical, permitable, affordable and supported by the communities. He stated that at this point in time, the project team is not convinced that a 3-lane alternative in conjunction with a package of TDM actions will meet the projected travel demand. Cameron asked if four lanes were inevitable. Chris Waszczuk replied that it appears at this time that four lanes in each direction are needed.

Cameron Wake also questioned the potential disposition of the General Sullivan Bridge (GSB), noting the need to retain a bicycle and pedestrian connection across the channel. Chris Waszczuk replied that all of the bridge alternatives provide for a bicycle/pedestrian connection, and that an entire group of alternatives provides this connection by rehabilitation of the GSB.

Bill Verge inquired as to historic property impacts. At this point, Frank referred to a preliminary summary table of bridge and roadway impacts and construction costs by alternatives. He explained that the table represented a work in progress, and attempts to provide a quick relative comparison of alternatives vis-à-vis impacts and costs. He cited several examples. In comparing the Dover Roadway Alternatives 1, 2 and 3, Frank noted that wetland impacts ranged from 5.1 acres (Alternative 3) to 7.0 acres (Alternative 1), Local Connectivity ranged from Low (Alternative 1) to High (Alternative 3) and the Total Construction Costs ranged from a low of $17.8 M (Alternative 2) to a high of $25.9 M (Alternative 1). Frank then reviewed the six Newington alternatives, each of which identified the impact of a single historic property – the Isaac Dow House, located on Woodbury Avenue. Chris Waszczuk noted that the historic impact issues would be addressed in the 4(f) process. He added that Mr. Verge could request to become a consulting party in this process, and that the project team would explore the feasibility of alternatives that may avoid or minimize impact to this property.

Before proceeding to present the alternatives recommended to carry forward, Frank noted that, depending on which alternatives are combined for Newington, the bridges, and Dover, the estimated total project construction costs could range from $119.6 M to $175.6 M.

Frank then summarized the recommended range of reasonable alternatives to carry forward for detailed analysis in the next phase (DEIS) of the project. He began by noting that the No-Build alternative is required by the federal environmental process to be carried forward as a base case condition that forms the framework for other Alternatives to be measured against. With respect to Transportation System Management (TSM) actions, the following alternatives are recommended to be

carried forward:

- NB Exit 6W Deceleration Lane Improvement
- SB Exit 6 On-Ramp Improvement
- Interim Safety Improvement Plan in Newington
- SB Deceleration Lane Improvement at Exit 3
- NB Auxiliary Lane Improvement from Exit 3 to Exit 4

Transportation Demand Management (TDM) alternatives recommended to be carried forward include:

- Expand Downeaster Service (without double tracking Main Line West)
- Restoration of Pease Spur
- Expand Intercity Bus Service (Rochester-Boston)
- Enhance Express Bus Service (Rochester-Portsmouth)
- Enhance Local Bus Services
- Promote Employer-Based Measures

Bridge Alternatives recommended to be carried forward include:

- Rehabilitation and Widening of Little Bay Bridges with General Sullivan Bridge Rehabilitation
- Rehabilitation and Widening of Little Bay Bridges with General Sullivan Bridge Removed
- Replace Little Bay Bridges with General Sullivan Bridge Removed

All of these bridge alternatives are proposed to be located to the west of the existing LBB to avoid/minimize impacts to Hilton Park and the Bloody Point shoreline.

Recommended Roadway Alternatives to be carried forward include:

- Alternative 2 (Dover)
- Alternative 3 (Dover)
- Alternative 10 (Newington)
- Alternative 11 (Newington)
- Alternative 12 (Newington)

Following Frank O'Callaghan's presentation of recommended alternatives to carry forward, there was another round of questions and comments.

A resident asked, in comparing the relative construction costs of Alternatives 10, 11 and 12, why is Alternative 10 the lowest? Frank responded it was due in part to lower bridge costs; Chris Waszczuk added that the location of the Pease rail spur was also a cost factor.

Bill Burtis asked if the Interim Safety Plan was reflected in the Newington alternatives. Frank confirmed that it was.

Jack Pare, a Newington resident expressed concern about the strong currents in the channel, and the affect the new or widened piers and footings could have on the currents and channel navigation. Chris responded that the project team has experts from UNH who are developing a hydrodynamic model of the channel to assess such impacts.

Chris Waszczuk asked attendees if the project team was on the right track vis-à-vis the range of recommended alternatives. Bill Burtis asked, assuming construction of eight lanes, when would the new facility reach capacity. Frank O'Callaghan responded that capacity would be reached sometime after 2025. He noted that new or improved bridge and highway infrastructure is usually designed for level of traffic (LOS) 'C' operations (with levels of service ranging from 'A' at best to 'F' at worst, and LOS 'E' representing capacity). Given the sensitive environmental resources of the study area, and the desire to minimize potential impacts, LOS 'D' is being used as a design criterion. Chris Waszczuk added that it is NHDOT's policy not to widen beyond four through lanes in each direction.

Scott Bogle asked if the induced growth results of the regional econometric model would be worked back into the overall travel demand projections. Chris Waszczuk responded that the traffic model has a land use component, which the planning commissions used to forecast the future growth in the region, and as such induced growth impacts should be accounted for. Scott asked if there would be travel demand projections and analysis beyond the 2025 planning horizon. Frank replied that there are no plans to project travel demand beyond 2025.

Given that the 2025 travel demand projections require four lanes in each direction assuming current travel characteristics, Bill Burtis suggested modeling the TDM alternatives assuming only three lanes in each direction. By providing less roadway capacity (3 lanes) than required (4 lanes), potential ridership for TDM alternatives should be maximized. Frank responded that the current TDM analysis of alternatives does, in fact, assume only three lanes of travel in each direction, and as such, is capacity constrained.

Jack Pare suggested that it would be prudent to reflect the planning for future rail or transit into the bridge and roadway design plans for travel beyond 2025.

There being no further questions or comments, Chris Waszczuk thanked all for attending and offering their input, and adjourned the meeting at 9:45 PM.

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