

Appendix A

A.	SMTC/NYS DOT Communications
	Fact Sheet #1 – Summer 2009
	Response to Frequently Asked Questions (FAQ's) August 2009
	Case Studies of Urban Freeways for <i>The I-81 Challenge</i> (February 2010)
	The I-81 Challenge: Public Participation, Focus Group Meeting Summary (September 2010)



The I-81 Challenge

A Brief Transportation Overview

WHAT'S HAPPENING WITH I-81?

As many people in Onondaga County are learning, portions of I-81 are nearing the end of their lifespan. This is particularly true of the elevated sections of the highway in downtown Syracuse. Over the next decade, these portions of the road will need to be replaced, reconstructed, removed, or otherwise changed. Given this reality, the Syracuse region, including the road's owner, the New York State Department of Transportation (NYSDOT), is faced with a challenge: what should be done with I-81?

As many residents of the community know, this discussion has already started. In fact, government officials, local organizations, and members of the public have already offered numerous ideas about the future of I-81: remove the elevated portion (the viaduct) and replace it with a boulevard, route traffic onto I-481 and decommission I-81 between the I-481 interchanges, bury the elevated portion underground and cover it with a park, or rebuild the viaduct at a higher elevation with a more attractive design. Ultimately, the region is still several years from a final decision on the future of I-81 – a choice this large must involve the whole community in a thoughtful, deliberative dialogue. But these ideas provide a starting point for the official I-81 decision-making process, which is beginning right now.

This official decision-making process, *The I-81 Challenge*, is being led by two entities, the New York State Department of Transportation and the Syracuse Metropolitan Transportation Council (SMTC), the region's metropolitan planning organization. Together, these two entities are trying to engage a broad cross-section of community members in developing and evaluating options for the future of the highway.

This fact sheet gives a brief introduction to the I-81 decision-making process and the highway itself. But it can't tell you everything you want to know about I-81. That's why there will be many more opportunities, spread over the next several years, to get involved. To learn more, visit www.theI81challenge.org.

Get involved. Ask questions. Educate yourself about the process and the facts. The future of the community is in all of our hands.

BRIEF HISTORY

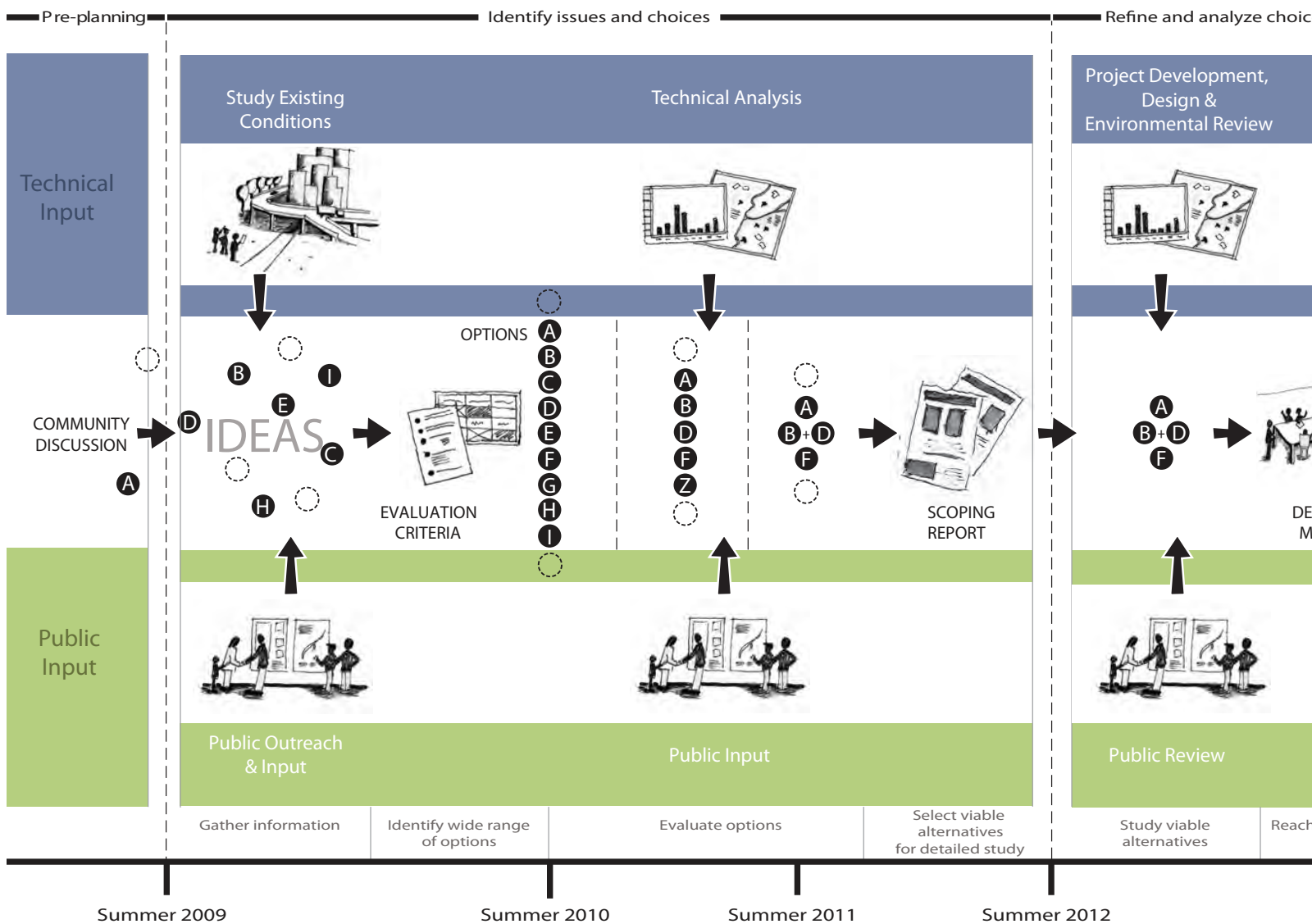
I-81 was built in Central New York during the 1950s and 1960s for two main reasons: to carry through traffic between Pennsylvania and Canada and to bring local traffic in and out of the City of Syracuse. The highway was the product of a vigorous federal road-building program that included the construction of many miles of interstate highways in every state across the country.

The idea of the proposed highway, particularly through downtown Syracuse, was controversial. Local residents, business interests, and leaders had differing opinions about the highway's design and location. Many issues, including economic growth, property taxes, housing, and community development, were divisive. Ultimately, the decision was made to construct the highway with its current alignment and, by the late 1960's, I-81 was completed through Onondaga County.

Construction of I-81 through the City of Syracuse



HOW WILL DECISIONS ABOUT THE FUTURE OF I-81 BE MADE?

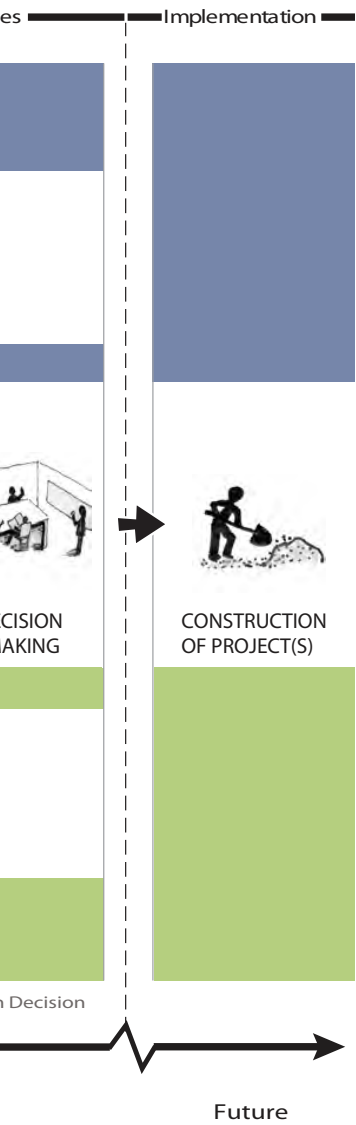


SOME BASIC FACTS ABOUT I-81 NOW

Traffic: Anyone who commutes to work on I-81 realizes that this road carries a large portion of the region's traffic. Currently, there are approximately 100,000 cars and trucks per day on the most heavily-traveled portion of I-81 in the City of Syracuse. Traffic decreases to approximately 65,000 cars per day at the northern interchange with I-481, and to 40,000 cars per day at the southern interchange with I-481. In comparison, I-690 carries more cars and trucks per day on its most heavily-traveled segment: over 120,000.

Afternoon traffic on I-81 north of downtown

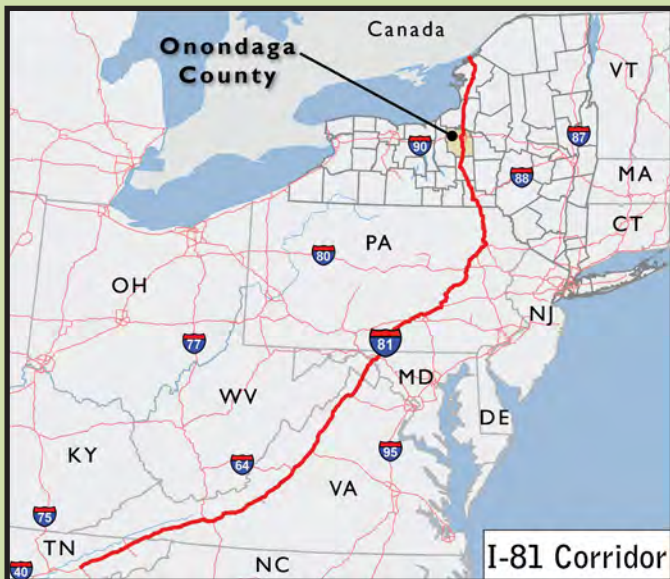




Over the next several years, *The I-81 Challenge* will advance the community discussion that has already started about the future of I-81. Information about the existing conditions of the highway and the regional transportation system will be collected and an understanding of the community's values, goals, and ideas will be developed through a regional public involvement process. All of this information will be used to generate a wide range of options for the future of the highway and a set of criteria for evaluating them. The broad range of options will be narrowed down to a small number of viable alternatives through a combination of technical analysis and continued public involvement. Later, the viable alternatives will be refined and analyzed in further detail and a formal environmental review process, including official hearings, will begin. That process will ultimately lead to a decision, and to a project or projects that can be implemented.



I-81 outside the City of Syracuse



Role and Function: I-81 serves two major transportation functions. First, I-81 is one of the Syracuse metropolitan area's major commuter corridors. I-81 provides direct access from suburban and rural communities to downtown Syracuse, the city's hospitals, Syracuse University, and SUNY-ESF. The Greater Syracuse Economic Growth Council reports that five of the region's 10 largest employers are located adjacent to I-81. Second, I-81 is an important national and international trade route. In terms of long-distance hauling, I-81 provides a major alternative to congested I-95. According to the I-81 Corridor Coalition, it has been estimated that 12% of the United States' Gross Domestic Product travels on some portion of the I-81 corridor. I-81 also serves as an important connection to the east-west route of I-90.

CURRENT CONDITIONS

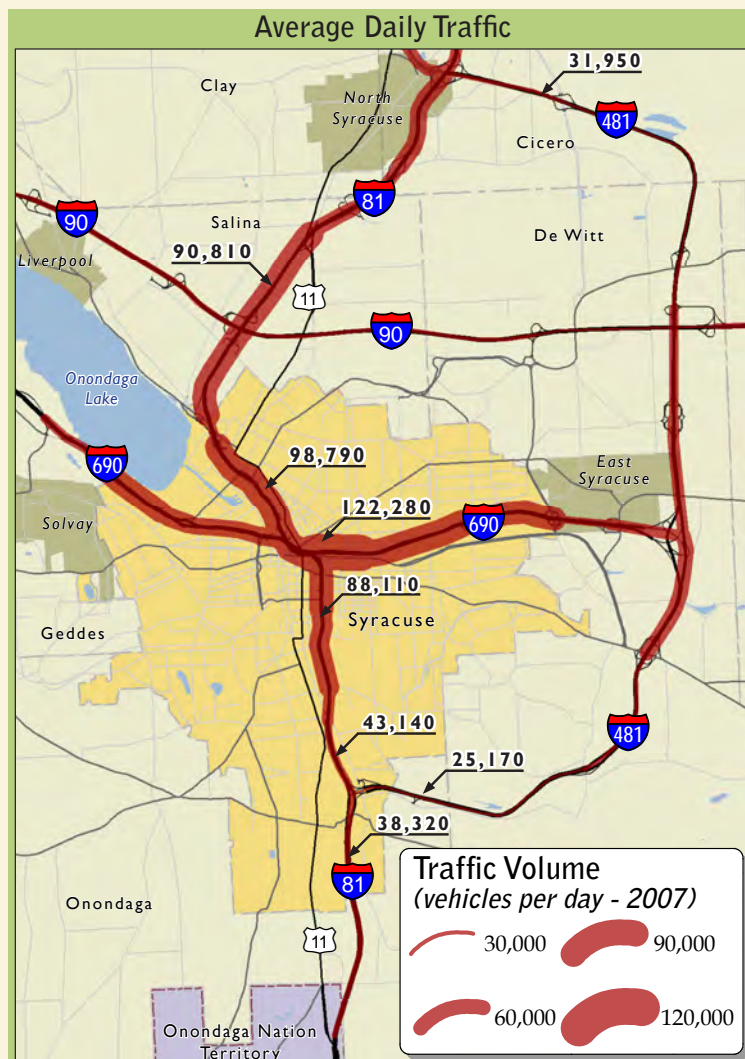
Safety: For most of the I-81 corridor, accident rates are below the state-wide average for similar interstate systems. However, accident rates from the I-481 interchange north of the city to the I-690 interchange and from the Adams Street exit to the I-481 interchange south of the city are slightly above the statewide average. The accident rate on the viaduct portion of I-81 is more than double the statewide average. Due to its tight curves and narrow shoulders, large portions of the viaduct are difficult for emergency responders.

Capacity: I-81 generally has sufficient capacity to handle existing traffic volumes north and south of the city. However, in the central portion of the corridor, particularly near downtown, the highway is well over its design capacity during the peak hours. Any disruption due to maintenance or accidents can cause severe traffic congestion for the entire region, as this route is a key in the region's highway network.

Highway Design: When I-81 was constructed in the 1950s and 1960s, highway design standards were different from today. Although the highway met the design standards of its era, I-81 does not meet current standards for high-speed freeways. This is true particularly in the urban sections, where physical constraints forced engineers to design the highway with tight curves, narrow lanes, short weaving distances, and minimal shoulders. In fact, this portion of I-81 has a speed limit of 45 mph, the lowest on the entire 850-mile corridor from Canada to Tennessee.

Operational Issues: The narrow width and high traffic volumes on the urban sections of I-81 pose significant operational challenges. It is difficult to conduct routine maintenance during daytime hours on I-81 in downtown Syracuse, as construction translates into major congestion. When accidents occur, limited shoulder width means that disabled vehicles are forced to remain in the travel lane, blocking traffic and creating additional hazards. Likewise, snow removal and stormwater runoff are recurring problems.

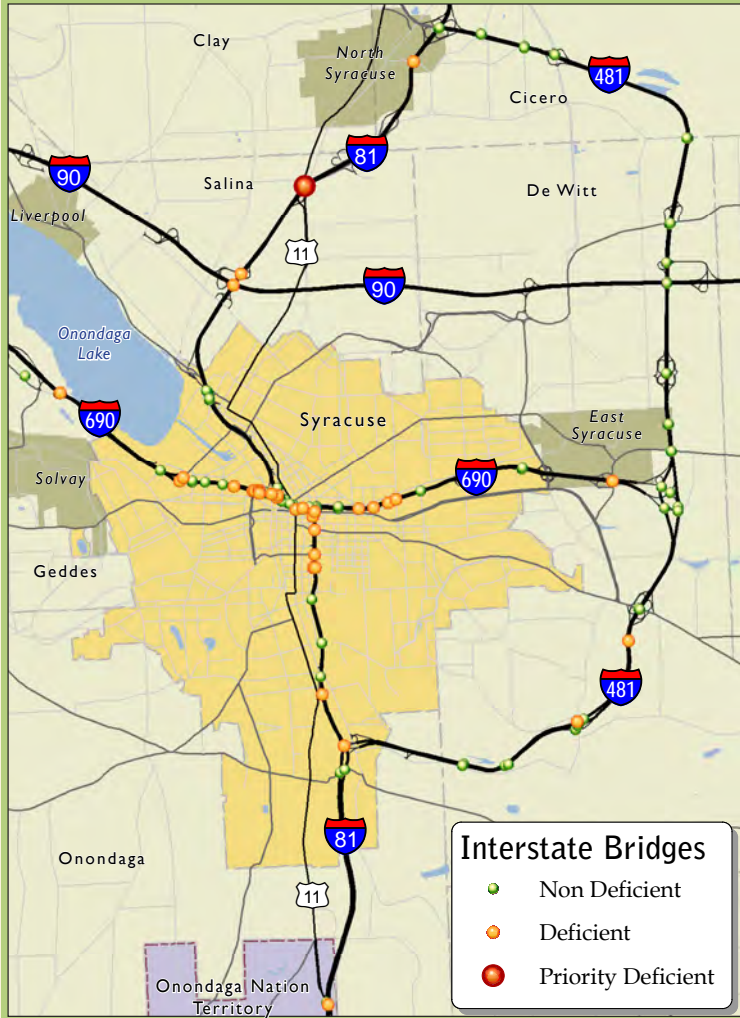
Structural Issues: While *The I-81 Challenge* will study all of I-81 between the I-481 interchanges, the major reason for the urgency of this effort is the condition of the viaduct portion of I-81 in downtown Syracuse. Altogether, the viaduct has a total of 1.4 miles of bridges, with 124 individual bridge spans. The structures are approximately 50 years old and show signs of age and deterioration as illustrated in the photo at right. NYSDOT frequently inspects these bridges and makes routine repairs to protect the traveling public. However, it is critically important to begin a serious effort to address these pieces of infrastructure to assure the safety and efficiency of the future regional transportation network.



The traffic volumes on the Syracuse region's interstate highway network vary from about 25,000 vehicles per day on the more lightly traveled portions of I-481 to over 122,000 vehicles per day on I-690 just east of I-81. These substantial variations in traffic indicate that many drivers use the interstates for relatively short trips. The highest volume on I-81, nearly 99,000 vehicles per day, occurs just north of the I-690 interchange. The highest volume on the viaduct is 88,000 vehicles per day.



Interstate Bridge Conditions

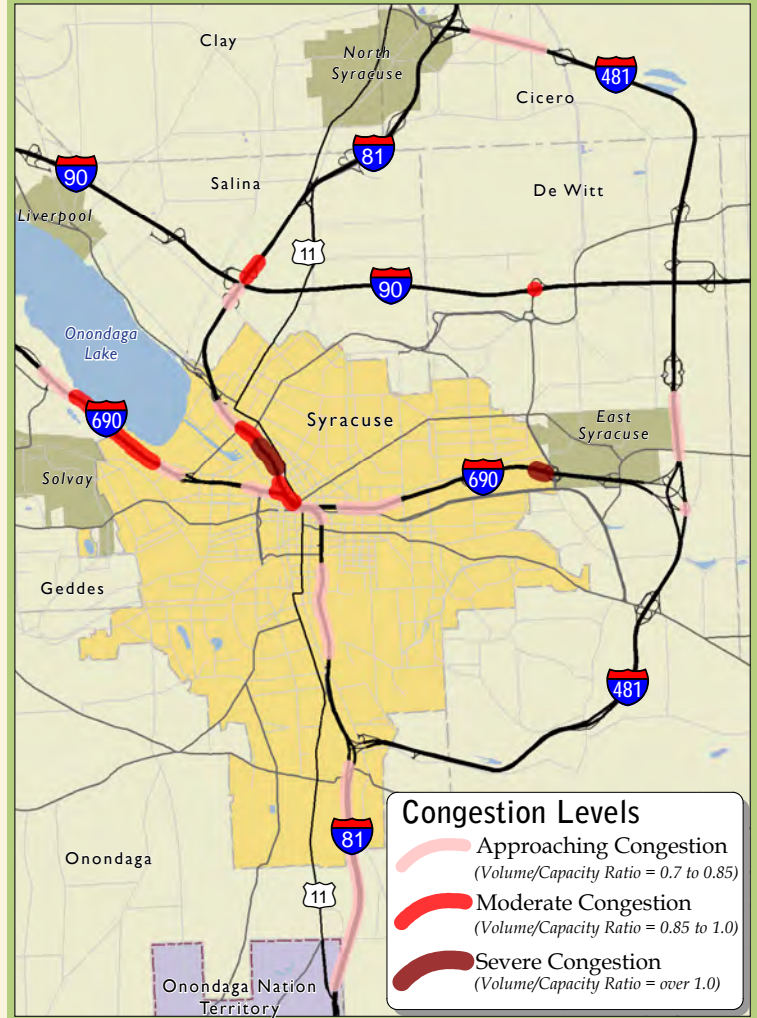


Interstate Bridges

- Non Deficient
- Deficient
- Priority Deficient

The deficiency ratings shown on this map indicate that many of the interstate bridges in the region are deficient in some aspects. The high number of deficient bridges is a reflection of the region's aging infrastructure. NYSDOT routinely conducts bridge inspections and repairs to maintain a safe highway system. For example, they have a construction project under contract to address the single priority deficient bridge shown above. Still, the number of these aging structures indicates that it is time to begin a regional effort to plan for the future of our interstate system.

Interstate Congestion Areas



Congestion Levels

- Approaching Congestion
(Volume/Capacity Ratio = 0.7 to 0.85)
- Moderate Congestion
(Volume/Capacity Ratio = 0.85 to 1.0)
- Severe Congestion
(Volume/Capacity Ratio = over 1.0)

This map shows locations on the Syracuse region's interstate highway network that experience traffic congestion during either the morning or afternoon peak hours according to the SMTC's regional transportation model. Locations noted with "severe congestion" are places where the modeled traffic volume exceeds the theoretical capacity of the roadway. The I-81 Challenge will examine traffic congestion in more detail in terms of exact location and duration.

HOW DO I STAY INVOLVED?

Learn More: The I-81 decision-making process will include a variety of opportunities to get involved. The in-person opportunities will include workshops, focus groups, open houses, and some events which haven't even been designed yet. A listing of these opportunities will be posted on our website, www.theI81challenge.org, as they evolve.

Contact Us: In addition, there will be many opportunities to get involved if you can't make it to a workshop or open house. You can send us a comment at contactus@theI81challenge.org, fill out our online questionnaires as they become available, or call or write us at the SMTC at any time. You can also join our mailing list at www.theI81challenge.org to receive updates on public involvement opportunities as they arise.

Syracuse Metropolitan Transportation Council



126 N. Salina Street, Suite 100
Syracuse, NY 13202
P: 315-422-5716 F: 315-422-7753

NYS Department of Transportation



333 E. Washington Street
Syracuse, NY 13202
P: 315-428-4409 F: 315-428-4417

July 2009

DISPELLING I-81 MYTHS

Myth #1: The solution for I-81 has already been determined.

Although many people have ideas about the future of the highway, no decision has been made about I-81. All options for the future of the highway are currently on the table. The I-81 decision-making process, being called *The I-81 Challenge*, is designed to inform the public about the highway and the I-81 planning effort, as well as gather public input. This public input will be used by NYSDOT and the SMTC to help identify the range of options that will eventually be analyzed. Options will be narrowed down during later stages of the project development process.

Myth #2: The solution for I-81 is six months away.

Resolving a question as complex as what to do with I-81 in Central New York, and doing so well, requires much longer than six months. Because this process involves federal, state, and local agencies and the public, it will, by necessity, take a significant amount of time. It will also require adherence to federal and state environmental regulations (NEPA and SEQRR), which are designed to deliberately consider the public's interest and apply to all large projects of this kind. Many people's voices will need to be heard. Impacts of potential options will need to be studied. Tradeoffs between potential options will need to be weighed. Ultimately, a preferred option is several years away.

Myth #3: There is capital funding for I-81 right now.

The only funding available for I-81 right now is for planning. This planning money is being used for *The I-81 Challenge*, including a comprehensive corridor study, public involvement, and computer modeling. There is no funding for the design, removal, construction, or reconstruction of I-81 at this time. Securing capital funding requires a preferred option (or a short list of preferred options) and the development of a financial plan, which are several years away.

Myth #4: This effort is all about the viaduct.

While the elevated portion of I-81 through the City of Syracuse may be the impetus for this effort, it is not the sole focus. This process will consider the future of I-81 throughout Onondaga County. By necessity, the process will include special attention to the portions of the highway which receive the most use, and this will include the 1.4-mile viaduct, a highly complex section of the highway that crosses 18 city streets and interchanges with I-690.



FREQUENTLY ASKED QUESTIONS (FAQs) ABOUT *THE I-81 CHALLENGE*

August 2009

- Has a decision about I-81 already been made?
- Is there already funding for the I-81 solution?
- Why are you planning for I-81 now?
- Is the viaduct safe?
- Who makes the ultimate decision about what happens to I-81?
- What is the SMTC?
- What is the decision-making process?
- Who will be involved in this process?
- Will the process be inclusive?
- How can I be involved in the process?
- How will my input really be used?
- How will the public's interests be considered in this process?
- How will economic, social, aesthetic, land use, urban design, environmental, and other impacts of potential options be addressed?
- How much is the eventual I-81 project going to cost?
- Who is going to pay for the eventual I-81 project?
- When would any construction, whatever that may be, likely take place?
- Why does this process take so long?
- Will transit be considered as part of the process?

Has a decision about I-81 already been made?

Although many people have ideas about the future of the highway, no decision has been made about I-81. All options for the future of the highway are currently on the table. The I-81 decision-making process, being called *The I-81 Challenge*, is designed to inform the public about the highway and the I-81 planning effort, as well as gather public input. This public input will be used by the New York State Department of Transportation (NYSDOT) and SMTC to help identify the range of options that will eventually be analyzed. Options will be narrowed down during later stages of the project development process.

Is there already funding for the I-81 solution?

The only funding available for I-81 right now is for planning. This planning money is being used for *The I-81 Challenge*, including a comprehensive corridor study, public involvement, and computer modeling. There is no funding for the design, removal, construction, or reconstruction of I-81 at this time. Securing adequate capital funding requires a preferred option (or a short list of preferred options) and the development of a financial plan, which are several years away.

Why are you planning for I-81 now?

I-81 was built in Onondaga County in the 1950s and 1960s. This means that portions of I-81 are nearing the end of their lifespan. In particular, it is the deteriorating condition of the 1.4-mile elevated section of the interstate in the City of Syracuse (the viaduct) that is the primary motivation for studying the future of I-81 at this time. The New York State Department of Transportation (NYSDOT), which owns the road, recognizes that it will take several years to reach a decision about the future of the highway. Given this timeline, it is important to start this process now.

Is the viaduct safe?

The viaduct is safe. The NYSDOT inspects and maintains the 124 bridge spans that make up the viaduct on a regular basis. However, all of these bridges are nearly 50 years old. The time and cost associated with maintaining them in safe condition is growing. Within the next few years, a more comprehensive solution for dealing with the aging viaduct must be found.

Who makes the ultimate decision about what happens to I-81?

The decision about what happens to I-81 will involve many parties:

- The NYSDOT owns the road and will therefore have ultimate responsibility for any decision about the future of I-81. The NYSDOT will be responsible for overseeing the decision-making process and, eventually, construction.
- The Syracuse Metropolitan Transportation Council (SMTC), the metropolitan planning organization (MPO) for the greater Syracuse area, will also play a major role in the decision-making for I-81 (see “What is the SMTC?” for more information). The SMTC consists of member agencies that have a stake in transportation decisions in Central New York. These entities, through the SMTC, plan transportation projects and make transportation investment decisions for the greater Syracuse area. In addition to managing technical and public involvement aspects of the I-81 planning effort, the SMTC will be responsible for approving the capital program for federal funding, the Transportation Improvement Program (TIP), which will ultimately include funds for an I-81 project once a decision has been reached. The SMTC will have the opportunity to approve or disapprove the TIP that includes the eventual I-81 project funding. A consensus of SMTC member agencies is required for TIP approval (as well as all major SMTC actions). The TIP is made available for public comment prior to approval.
- Because federal money will be expended, the federal government, through the Federal Highway Administration (FHWA) and other federal agencies, will also have a role in the I-81 decision-making process. The FHWA will oversee the adherence to federal transportation planning and design regulations throughout the process.
- Because this project has the potential to profoundly impact everyone who lives in the Syracuse metropolitan area, the public will also play a role in the ultimate decision about I-81. The public will be central to the development of options for the future of the highway, as well as the process to narrow those options down to the one preferred option.

What is the SMTC?

The SMTC is the state-designated metropolitan planning organization (MPO) for Onondaga County and small portions of Madison and Oswego Counties. In this capacity, the SMTC does transportation planning for the metropolitan planning area. The SMTC is also responsible for administering federal transportation funds for the area through the Transportation Improvement Program (TIP). The SMTC's member agencies include:

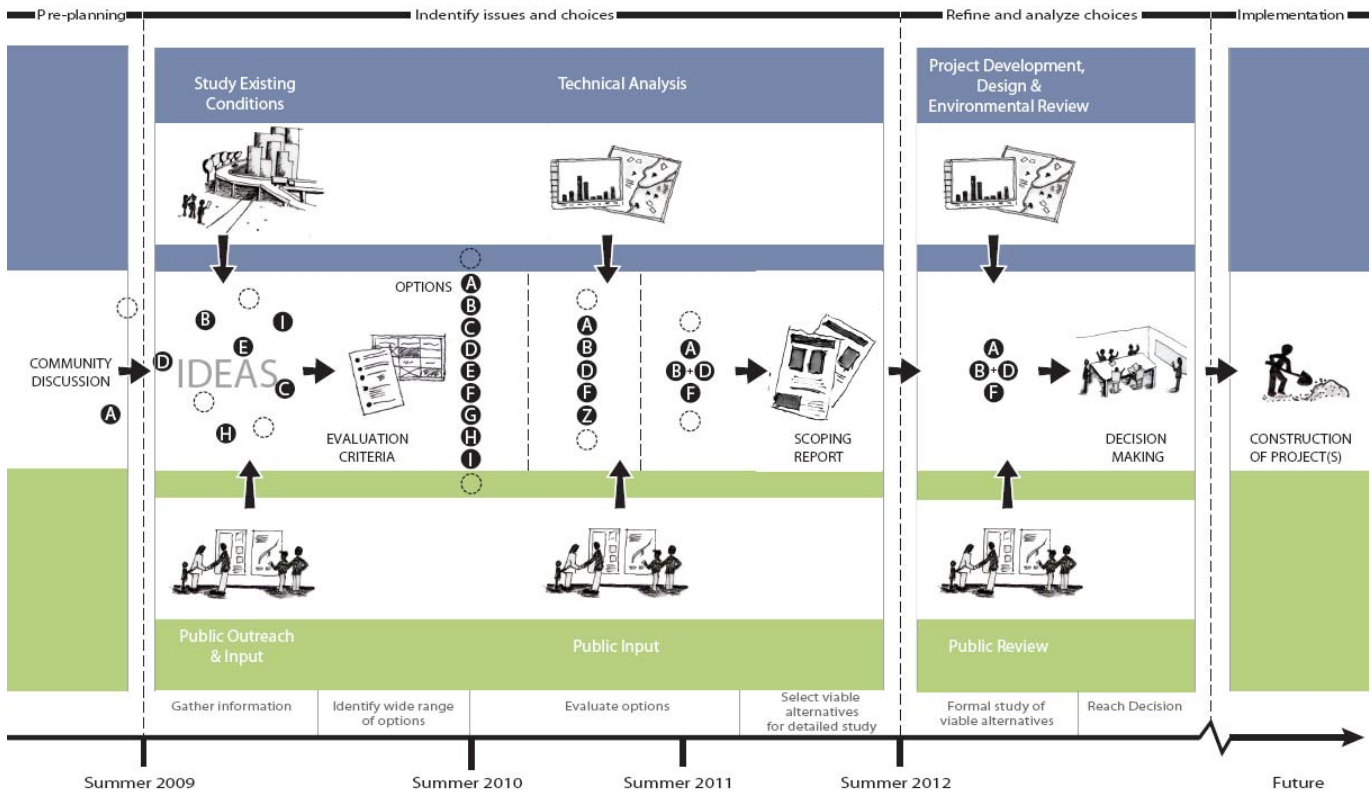
- Central New York Regional Planning and Development Board (CNYRPDB)
- Central New York Regional Transportation Authority (CNYRTA)
- City of Syracuse
 - Office of the Mayor
 - Common Council
 - Planning Commission
- Empire State Development Corporation
- Metropolitan Development Association (MDA)
- New York State
 - Department of Environmental Conservation
 - Department of Transportation
 - Thruway Authority
- Onondaga County
 - Office of the County Executive
 - Legislature
 - Planning Board/Syracuse Onondaga County Planning Agency (SOCPA)
- Federal Aviation Administration (FAA)*
- Federal Highway Administration (FHWA)*
- Federal Transit Administration (FTA)*
- Madison County Board of Supervisors*
- Oswego County Legislature*

* denotes non-voting/advisory members

What is the decision-making process?

Over the next several years, *The I-81 Challenge* will advance the community discussion that has already started about the future of I-81. Information about the existing conditions of the highway and the regional transportation system will be collected. An understanding of the community's values, goals, and ideas will be developed through a regional public involvement process. All of this information will be used to generate a wide range of options for the future of the highway and a set of criteria for evaluating them. The broad range of options will be narrowed down to a small number of viable alternatives through a combination of technical analysis and continued public involvement. Later, the viable alternatives will be refined and analyzed in further detail, and a formal environmental review process, including official public hearings, will begin. That process will ultimately lead to a decision and to a project or projects that can be implemented. A graphic illustrating this process appears on page 4.

The I-81 Challenge



Who will be involved in this process?

The NYSDOT and SMTC are leading the process of planning for the future of I-81. These agencies are being assisted by a Study Advisory Committee, consisting of representatives of SMTC member agencies such as the City of Syracuse, Centro, Syracuse-Onondaga County Planning Agency, Onondaga County, the Central New York Regional Planning & Development Board, and the Metropolitan Development Association. To ensure that all interested persons, organizations, and agencies have an opportunity to be involved in this process, the SMTC and NYSDOT, with the assistance of the Study Advisory Committee, have designed a comprehensive public participation effort. There will be numerous opportunities for community involvement over the coming months and years, including workshops, open houses, focus groups, surveys, and other events that have yet to be planned. Information on these public involvement opportunities will be posted on our web site, www.theI81challenge.org, as they evolve.

Will the process be inclusive?

Since the start of the public participation effort earlier this year (2009), the SMTC and NYSDOT, with the assistance of the Study Advisory Committee (SAC), have been identifying potential stakeholders in the I-81 process, including difficult to reach and typically underrepresented communities. Throughout this process, we will take a proactive approach to reaching out to these groups - both the NYSDOT and the SMTC believe that collecting input from a broad and diverse community is essential to the success

of this process. If you have a question about the representation of a specific community in this effort, feel free to contact the SMTC at contactus@theI81challenge.org.

How can I be involved in the process?

You can begin to be involved in this process right away by joining our mailing list at www.theI81challenge.org. By joining the mailing list, you will receive periodic updates about public workshops and other opportunities to be involved. Small focus groups will begin this fall, and the first set of public workshops will follow. You can also provide comments to the SMTC and NYSDOT at any time at contactus@theI81challenge.org.

How will my input really be used?

As a community member, you can impact this process in several important ways. First, you can educate yourself about the highway and the process by visiting our web site at www.theI81challenge.org and participating in our public involvement opportunities as they arise. If you choose to express your issues and ideas through public workshops, open houses, questionnaires, and other mechanisms, your input will help guide the development of options for the future of the highway. Just as importantly, your input will help inform the evaluation criteria that will be used to narrow down the potential options for the future of the highway. The decision-making process graphic on page 4 illustrates how public input will be used in each phase of the decision-making process.

How will the public's interests be considered in this process?

The National Environmental Policy Act (NEPA) and the State Environmental Quality Review Act (SEQRA) are two powerful regulations designed to ensure that impacts to human and natural environments are considered throughout the planning process. These laws were not in place when decisions about the original construction of I-81 were made. Today, they ensure that the public interest is deliberately considered before a decision of this magnitude can be reached. In keeping with these regulations, the I-81 decision-making process will include multiple and varied means of public involvement.

In addition, SMTC member agencies and public comment are incorporated into the Transportation Improvement Program (TIP) approval process. For more information on this process, see "Who makes the ultimate decision about what happens to I-81?"

How will economic, social, aesthetic, land use, urban design, environmental, and other impacts of potential options be addressed?

In addition to examining the impacts of potential options on the transportation system, the I-81 decision-making process will study and take into consideration the likely economic, land use, community, and environmental effects of varying options.

How much is the eventual I-81 project going to cost?

Currently, there is no identified solution, or set of solutions, for addressing the long-term future of I-81. Therefore, no valid cost projections can be made. Cost will be one of many factors considered in the process of evaluating future options.

Who is going to pay for the eventual I-81 project?

As noted above, there is currently no identified solution for addressing the long-term future of I-81. Until the nature of a proposed solution is better understood, it is impossible to know what the eventual cost will be and through what mechanisms the project will be financed. For that matter, since there will be new federal transportation legislation when a decision is reached, we do not know now what specific funding programs will be available.

However, transportation projects of this size usually are paid for with some combination of federal and state funding. Under current highway funding programs, the federal government typically pays 80% of project costs, and state or local entities are responsible for the remaining share.

When would any construction, whatever that may be, likely take place?

It is unlikely that construction of any kind, other than regular maintenance, will begin in the near term. The decision-making process, including federally-mandated environmental review, is estimated to take at least several years.

Why does this process take so long?

Resolving a question as complex as what to do with I-81 in Central New York, and doing so well, takes time. This process involves federal, state, and local agencies and the public. It will require adherence to federal and state environmental regulations (NEPA and SEQRA), which are designed to deliberately consider the public's interest and apply to all large projects of this kind. Many people's voices will need to be heard. Impacts of potential options will need to be studied. Tradeoffs between potential options will need to be weighed. Ultimately, a preferred option is several years away.

Will transit be considered as part of the process?

Public transportation, in addition to other ways of moving people, will be considered as part of the development and evaluation of options for the future of the highway. This approach is supported by federal transportation policy.

Case Studies of Urban Freeways for *The I-81 Challenge*



Syracuse Metropolitan Transportation Council

February 2010

Table of Contents

OVERVIEW.....	2	Highway 99/Alaskan Way Viaduct	42
Lessons from the Case Studies	4	I-84/Hub of Hartford	45
Success Stories	6	I-10/Claiborne Expressway.....	47
Case Studies for <i>The I-81 Challenge</i>	6	Whitehurst Freeway.....	49
Table 1: Urban Freeway Case Studies – Completed Projects.....	7	I-83 Jones Falls Expressway.....	51
Table 2: Urban Freeway Case Studies – Planning and Design Projects.....	8	International Examples	53
COMPLETED URBAN HIGHWAY PROJECTS.....	9	Conclusions	56
<i>Reconstruct the highway/new construction</i>			
US 183 Viaduct	9		
Marquette Interchange.....	11		
East West Expressway	13		
<i>Bury the highway</i>			
I-93/Central Artery	15		
<i>Depress the highway</i>			
Fort Washington Way/I-71.....	18		
<i>Relocate the highway</i>			
I-195/The "I-Way"	21		
<i>Remove the highway</i>			
Park East Freeway	24		
Westside Highway.....	27		
US 99W/Harbor Drive	29		
Embarcadero Freeway	31		
Central Freeway	33		
CASE STUDIES FOR PLANNING AND DESIGN PROJECTS.....	35		
<i>Existing at-grade highways</i>			
I-895/Sheridan Expressway.....	35		
Cleveland Memorial Shoreway/Route 6 (West).....	38		
<i>Existing elevated highways</i>			
Gowanus Expressway	40		

Cover photos (clockwise from top left): Octavia Boulevard, San Francisco, CA; Whitehurst Freeway, Washington, DC; Westside Highway, New York, NY; Route 183, Austin, TX; Cleveland Memorial Shoreway, Cleveland, OH; Marquette Interchange, Milwaukee, WI.

Behan Planning and Design, Smart Mobility, Inc., and Plan-it Consulting conducted the research for this report and produced the initial version of the document.

The SMTC and its consultants have made a good-faith effort to obtain permission for the use of images in this report. Please contact the SMTC at (315) 422-5716 to report any images that should be removed from this document due to ownership or copyright issues. This report is intended for non-commercial, public education purposes only.

This document was prepared with financial assistance from the Federal Highway Administration and the Federal Transit Administration of the U.S. Department of Transportation through the New York State Department of Transportation. The Syracuse Metropolitan Transportation Council is solely responsible for its contents.

For further information contact:
 James D’Agostino, Director
 Syracuse Metropolitan Transportation Council
 126 N. Salina St., 100 Clinton Square, Suite 100, Syracuse, NY 13202
 PHONE: (315) 422-5716 FAX: (315) 422-7753
www.smtcmpo.org

CASE STUDIES FOR *THE I-81 CHALLENGE*

OVERVIEW

About *The I-81 Challenge*

As many people in Onondaga County are learning, portions of I-81 are nearing the end of their lifespan. This is particularly true of the elevated sections of the highway in downtown Syracuse. Over the next decade, these portions of the road will need to be replaced, reconstructed, removed, or otherwise changed. Given this reality, the Syracuse region, including the road's owner, the New York State Department of Transportation (NYSDOT), is faced with a challenge: what should be done with I-81.

This discussion has already started. In fact, government officials, local organizations, and members of the public have already offered numerous ideas about the future of I-81: remove the elevated portion (the viaduct) and replace it with a boulevard, route traffic onto I-481 and decommission I-81 between the I-481 interchanges, bury the elevated portion underground and cover it with a park, or rebuild the viaduct at a higher elevation with a more attractive design. Ultimately, the region is still several years from a final decision on the future of I-81 – a choice this large must involve the whole community in a thoughtful, deliberative dialogue. But these ideas provide a starting point for the official I-81 decision-making process, which is beginning right now.

In the Fall of 2009, the New York State Department of Transportation (NYSDOT) and the Syracuse Metropolitan Transportation Council (SMTC) launched *The I-81*

Challenge, the official process to determine the future of I-81 in the greater Syracuse region. Together, these two entities are trying to engage the community in developing and evaluating options for the future of the highway. *The I-81 Challenge* will consider the needs of and impacts to the entire I-81 corridor within the SMTC's planning area, from the southern boundary of Onondaga County to just over 6 miles into southern Oswego Countyⁱ. This report – as just one element of *The I-81 Challenge* – focuses on potential outcomes for the viaduct section in downtown Syracuse. This report is intended to provide information about the range of outcomes, processes, and alternatives considered by other regions facing similar challenges.

Challenges Faced by Other Regions

Freeways have been constructed through the downtowns of many cities across the United States. Many of these highways were constructed in the 1960s or 1970s, and were intended to ensure economic viability in an era when suburban growth, along with car ownership and use, was accelerating. It was feared that without the direct connections that highways provided, the cities would die. At the time, there were differing opinions about these decisions to locate highways through the centers of cities; in hindsight, there are decidedly mixed conclusions as to whether the highways have done more harm or good. Some argue that urban highways resulted in collateral damage in the form of environmental, social, aesthetic, and economic impacts on the city, contributing to the decline of these urban areas in recent decades. Others emphasize the positive role that these highways play in providing access to downtowns and moving people and goods regionally.

Many of these highways are now over fifty years old and are in need of major investment. In some cities, this has been viewed as an opportunity to address any negative impacts associated with the first generation of urban highway construction, and, depending on the highway's role in the regional transportation

ⁱ The SMTC's official Metropolitan Planning Area includes all of Onondaga County plus small portions of Oswego and Madison Counties.

network, to broadly reconsider the future infrastructure and mobility needs of the city and the region. However, addressing the challenge of an aging urban highway can be a very difficult and sometimes contentious issue. There are many potential options and impacts to consider.

Today's regulatory environment adds to the complexity of such a decision. Unlike the era when much of our interstate highway system was built, consultation with a far broader range of interests and individuals and consideration of a broader range of alternatives are now mandated by law. While this may make it more difficult to develop and implement changes to our urban highways, the required processes also ensure that large decisions such as these are made in a more inclusive and comprehensive manner than they were in the past.

The Syracuse region is not alone in facing this situation. This report tells the stories of some of the other cities and regions that have faced challenges comparable to that of Syracuse and the I-81 corridor. All of the cases included in this report involve the major reconstruction or reconfiguration of an urban limited access highway. Some are completed projects, and others are in various stages of planning and public discussion. Although there may only be a few cases that are directly comparable to the I-81 corridor, all of these projects can offer insight into some aspect of *The I-81 Challenge*.

Outcomes of Urban Freeway Projects

The case studies presented here offer a wide array of options for consideration as we begin to explore possibilities for the future of I-81 in Syracuse. Common outcomes that have been considered include:

- **Reconstruct an elevated highway:** The East-West Expressway, an elevated toll highway through downtown Orlando, was recently reconstructed using design techniques that reduced the potential negative impacts of the highway. These included raising the elevation of the highway to reduce noise and shadowing, treating the piers and abutments with public art installations, and designing the space under the highway for active, creative uses. For embanked sections (i.e. constructed on fill rather than

on a structure or viaduct), terracing and landscaping were used to soften and enhance the highway's appearance.

- **Bury the highway:** Boston's Big Dig provides a recent example of tunneling a major interstate highway under the center of a historic city. While the Big Dig has resulted in the creation of open space and improved traffic flow, the costs and complexity of the project have also been enormous. For Seattle's Alaskan Way Viaduct and Brooklyn's Gowanus Expressway, favored alternatives include deep bored tunnels to serve through traffic, combined with improved surface streets and transit service. Deep bored tunnels have less impact during construction than the "cut and cover" type employed in Boston, but typically only serve through traffic and do not provide intermediate access points.
- **Depress the highway:** Fort Washington Way/I-71 in Cincinnati was reconfigured as a narrow, depressed highway, which allowed numerous wide at-grade street crossings that improved the connectivity of the city's street system and opened the Ohio Riverfront to development. Several cities have "capped" their depressed highways with parks (as in Seattle's "Freeway Park"), or with development (as in the Union Station district in Columbus, OH).
- **Relocate the highway:** Rhode Island's I-Way project involved relocating the elevated I-195 highway from downtown Providence to a nearby industrial corridor. This opened up valuable redevelopment areas and is allowing the city to reconnect parts of the downtown street grid. It is often difficult to find a new alignment for a highway in a dense urban area due to the potential for localized impacts and opposition.
- **Remove the highway and replace with a boulevard:** Three cases where freeways were replaced with a boulevard, including the Embarcadero and Central Freeway in San Francisco and the West Side Highway in New York City, occurred after the highways were closed due to unexpected infrastructure failures. There were no plans in place to reconstruct the freeways, so the cities had to adapt to life without the highways. As time

went on, public support for replacing the freeways declined, and eventually each was replaced by a surface street. The aging Park East Freeway in Milwaukee was converted to a boulevard rather than reconstructed, allowing for redevelopment of the city's riverfront.

Lessons from the Case Studies

These case studies can offer many lessons for *The I-81 Challenge*. No single case study offers the answer for I-81 and the Syracuse region. Many of the examples cited in this document are not Interstate facilities, which may limit their applicability to I-81, since the Interstate designation carries with it certain design standards and functional characteristics that do not need to be considered for non-Interstate facilities. The cases here are meant to present a set of ideas for the community to think about as a starting point in the dialogue about the future of I-81.

Urban Traffic Circulation and Mobility

Each of the cases describes a unique situation in terms of a highway's importance in providing access to a downtown and serving long distance through travel. There are diverse situations among these case studies in terms of traffic volumes, growth rates, and transportation alternatives (i.e. robust mass transit, street network capacity, or bypass routes). While none are identical, most of these offer some parallels to *The I-81 Challenge*.

Some of the cases illustrate the concept of "induced demand," in which traffic responds relatively quickly to available highway capacity. This is most often demonstrated in cases where a highway is constructed or expanded, and cars seem to arrive out of nowhere to use the new road, quickly exceeding traffic volume forecasts. The converse is also true, and the cases of freeway closures have shown that traffic can be highly adaptable, making use of alternate routes when necessary.¹ Under the right circumstances – a dense urban street grid, other parallel highways, or a well-developed transit network – the impacts of a freeway closure can be greatly minimized as people find other ways to get to their destinations.

The most successful projects integrate highway, street, and transit improvements to focus broadly on urban mobility. Boston's Big Dig was accompanied by a parallel effort to significantly upgrade and expand the transit system, both to mitigate the short-term impacts of construction and to provide a long-term supplement to the highway system. Seattle's Alaskan Way Viaduct process included developing an Urban Mobility Plan for the downtown area first, so that all alternatives could work toward the goals established in the plan. In order to successfully plan the future of I-81, consideration should be given to the city and the region's overall urban mobility goals.

Urban Design and Economic Development

The era of interstate highway construction resulted in many new highways in downtown urban areas that were intended to aid the local economy by making them more accessible. Years later, it is clear that these highways had both positive and negative effects. Freeways can play an important role in bringing workers and visitors to and from the downtown. Freeways also provide regional mobility, carry freight traffic, and bring economic benefits to a region. However, freeways are sometimes perceived by the community as responsible for urban blight and decline.² Economic and aesthetic considerations have been dominant factors in many projects involving reconstruction or reconfiguration of urban freeways, such as the Big Dig in Boston, the Embarcadero in San Francisco, and the Park East Freeway in Milwaukee (note that the latter two examples are not Interstate facilities). Substantial improvements to the urban environment have resulted, stimulating economic development or creating new public spaces.

Some projects, such as the I-71 improvements in Cincinnati, did not remove or bury the highway, but reduced its scale to make room for economic activity and urban redevelopment and lessen its barrier effect. Others, such as the East West Expressway in Orlando and the Marquette Interchange in Milwaukee, have included aesthetic enhancements, such as decorative concrete imprinting on the overpasses and murals depicting local historic events. These projects have just been completed, and while they have improved highway operations and increased capacity, it is too early to know if their design enhancements will be viewed as an improvement to conditions adjacent to these highways.

The Route 183 Freeway in Austin used piers for the elevated structure that have a much narrower base, and therefore allow more light penetration underneath the highway. Increasing the elevation of freeway viaducts can reduce the effects of noise and shadowing on the ground level. However, these facilities have fewer access points due to their higher elevation.

The “capping” of a depressed freeway offers additional possibilities to create a positive urban environment. While the Big Dig in Boston is the primary example included in this report, there are other smaller scale examples that may be relevant for I-81, including Seattle’s “Freeway Park” on a depressed section of I-5, and Columbus, Ohio’s Union Station shopping district, which is constructed over a depressed section of I-670 near downtown.

Planning and Decision-Making Process

The case studies represent a wide range of planning, decision-making, and political processes. Some of the freeway projects were the result of catastrophic structural failures, which forced an abbreviated planning and decision-making process on the community. Others have been the subject of protracted discussion, controversy, and changes in attitudes, which have made achieving consensus difficult. In several instances, city-wide votes were held to advise decision-makers of voters’ preferences among competing alternatives.

Several projects stand out for their success in terms of public and stakeholder engagement, consensus-building, and, ultimately, efficient implementation. The processes for the I-Way in Providence and the Fort Washington Way/I-71 in Cincinnati were characterized by early consultation with a wide range of stakeholders and a balanced consideration of urban design, economic, and transportation concerns. These projects placed a priority on addressing the perceived negative impacts of the highways and included major urban redevelopment components. This approach served to generate enthusiasm and support from the broader community, providing momentum to carry the projects smoothly through funding and implementation.

Conversely, there are numerous examples of less harmonious and efficient planning processes. The earthquake-damaged Central Freeway in San Francisco was the subject of a great deal of controversy and dispute between the city and the California Department of Transportation (CalTrans). Voters weighed in three different times in community-driven ballot initiatives, with two votes in support of replacing the freeway with a boulevard, and one vote supporting freeway reconstruction.

The Gowanus Expressway example illustrates how a process can be derailed when the community is not engaged up-front in the process. The Gowanus project began in the 1980s as an engineering-driven reconstruction project, which did not adequately engage the community in its early stages. This resulted in a proposed alternative that focused solely on moving traffic and did not address any of the highway’s negative community impacts. A coalition of local community organizations filed a lawsuit to stop the reconstruction of the viaduct. The project was subsequently re-started with the active involvement of a community stakeholder group.

Seattle’s Alaskan Way Viaduct also experienced setbacks when reconstruction and tunnel alternatives, preferred respectively by the state and city, were both rejected in a city-wide vote. These alternatives both required the highway to be closed for five years, were perceived by many as too narrowly focused on moving cars, and were never compared to an alternative replacing the highway with a boulevard and streetcar line. After the vote, the project was re-started as a collaborative planning process including a broader range of participants and alternatives.

One interesting model of incorporating community concerns into the decision-making process was used in the Bruckner/Sheridan project, in the South Bronx area of New York City. In earlier stages of this project, community members were not happy with the highly technical decision-making criteria that did not, in their view, adequately reflect local goals and concerns. However, it is sometimes impossible to develop numerical measures of important community criteria. A renewed effort was made to address this by convening a panel of local and state experts to rank alternatives based on qualitative criteria. For example, the panel was asked to rank

the alternatives in terms of how well community aesthetics were addressed. These rankings were then averaged into scores, allowing these aspects that are important yet difficult to measure to be on equal footing with more traditional criteria in the decision-making process.

These examples illustrate the importance of including a diverse range of stakeholders in the planning process and the benefit of identifying a broad range of alternatives from the start. An inclusive and comprehensive approach to the planning and decision-making process is likely to result in a more efficient process and a better outcome.

Success Stories

The projects that have proceeded most efficiently and effectively to implementation are those that recognized the importance of balancing the impacts of the highway on the urban environment, the economy, and the transportation network. Broad-reaching public engagement is also an essential component of a successful process. In the cases presented here, this type of approach tended to garner support from a large cross-section of the community and gave these efforts the momentum needed to proceed through a complex process of planning, design, and permitting.

Even in the best cases, these types of major projects take years to study, discuss, debate, and design. Many processes that ultimately resulted in successful projects did not necessarily move in a straight line from concept to implementation. The Syracuse region will need patience, persistence, and willingness to listen to all concerns in order to meet *The I-81 Challenge*.

Case Studies for *The I-81 Challenge*

This report does not present every possible case study, but is intended to cover a wide range of outcomes and design options. Each project involves a major highway in an urban area in the United States. The next page provides summary tables of the case studies for built projects and for projects that are still in the planning and

design stage. The tables are followed, on subsequent pages, by descriptions of each case study.

The case study descriptions vary in length and detail, based on both the potential relevance of the project and the availability of reliable information. In each built project case, after a brief description, the following questions are addressed:

- What was the decision-making process?
- What were the outcomes?
- Are there parallels to *The I-81 Challenge*?
- What can we learn from this project, in terms of urban traffic circulation, economic development, and the political/public process?

For projects that are still in the planning and design stage, the project descriptions are followed by short discussions about what *The I-81 Challenge* can learn from the efforts underway in each case.

Following the case studies is a brief sampling of international examples. While it is not possible to compare these cases from abroad directly to our domestic examples, they do offer some compelling planning and design concepts and a different view of the role of freeways in cities.

Table 1: Urban Freeway Case Studies – Completed Projects

Highway	Type of Project	Inter-state?	Through traffic?	Vehicles /day	Length	Context	City	Year of completion	Cost (millions, in construction year \$)*	Cost per mi. (million \$ per mile)	City Population (at time of project)
<i>Reconstruct the highway/new construction</i>											
US 183 Viaduct	New elevated highway	no	yes	86,000	3.6 mi.	suburban	Austin, TX	1997	\$ 281	\$78	681,804
Marquette Interchange	Reconstructed an elevated highway interchange	yes	yes	300,000	n/a	downtown	Milwaukee, WI	2008	\$ 810	n/a	602,191
East West Expressway	Reconstructed and widened an elevated highway	no	yes	140,000	16.0 mi	downtown	Orlando, FL	2008	\$ 640	\$40	213,223
<i>Bury the highway</i>											
I-93/Central Artery	Replaced an elevated highway with a tunnel	yes	yes	200,000	1.8 mi.	downtown	Boston, MA	2007	\$ 15,000	\$8333**	559,034
<i>Depress the highway</i>											
Fort Washington Way/I-71	Reconfigured a depressed highway	yes	yes	113,000	1.3 mi.	waterfront	Cincinnati, OH	2000	\$ 146	\$112	287,540
<i>Relocate the highway</i>											
I-195/The "I-Way"	Relocated an elevated highway and major interchange	yes	yes	152,800	0.5 mi.	waterfront	Providence, RI	2010	\$ 610	\$1,220	176,862
<i>Remove the highway</i>											
Park East Freeway	Removed an elevated highway and replaced with a boulevard	no	spur	40,000	1.0 mi.	waterfront	Milwaukee, WI	2003	\$ 25	\$25	596,974
Westside Highway	Removed an elevated highway and replaced with a boulevard	no	yes	140,000	4.7 mi.	waterfront	New York, NY	2001	\$ 380	\$81	7,894,862
US 99W/Harbor Drive	Removed an at-grade highway and replaced with a riverfront park.	no	yes	25,000	3.0 mi.	waterfront	Portland, OR	1974	n/a***	n/a	437,319
Embarcadero	Removed an elevated highway and replaced with a boulevard .	no	spur	61,000	1.6 mi.	waterfront	San Francisco, CA	2001	\$ 171	\$107	723,959
Central Freeway	Removed an elevated highway and replaced with a boulevard	no	spur	93,000	0.6 mi.	downtown	San Francisco, CA	2005	\$ 50	\$83	739,426

* For comparison, the programmed funds in the SMTC's 2007-2012 Transportation Improvement Program (the multi-year listing of federally-funded infrastructure projects in the Syracuse Metropolitan Area) total \$306,117,056.

** This cost per mile calculation includes a tunnel under Boston Harbor in the total project cost, in addition to burying I-93.

*** Not available due to age of project.

Table 2: Urban Freeway Case Studies – Planning and Design Projects (Not Completed)

Highway	Type of Facility (existing)	Interstate?	Through traffic?	Vehicles /day	Length	Context	City	Stage	Estimated cost (millions)	City Population
<i>Existing at-grade highways</i>										
I-895/Sheridan Expressway	at grade highway	yes	yes	41,000	1.2 mi.	high density urban	Bronx, NYC, NY	EIS	\$413	1,373,659
Cleveland Memorial Shoreway/Route 6 (West)	at grade highway	no	spur	45,000	8.0 mi.	waterfront	Cleveland, OH	planning	\$77	596,974
<i>Existing elevated highways</i>										
Gowanus Expressway	elevated highway	yes	yes	198,000	3.8 mi.	high density urban	Brooklyn, NYC, NY	EIS	\$2,400 – 12,800	2,528,050
Highway 99/Alaskan Way	elevated highway	no	yes	103,000	2.8 mi.	waterfront	Seattle, WA	EIS	\$1,913	582,454
I-84/Hub of Hartford	elevated highway	yes	yes	172,000	1.0 mi.	downtown	Hartford, CT	planning	unknown	124,512
I-10/Claiborne Expressway	elevated highway	yes	yes	69,000	2.0 mi.	downtown	New Orleans, LA	planning	unknown	288,000
Whitehurst Expressway	elevated highway	no	yes	42,000	0.6 mi.	waterfront	Washington DC	planning	unknown	591,833
I-83/Jones Falls Expressway	elevated highway	yes	spur	55,000	1.0 mi.	downtown	Baltimore, MD	concept	\$1,000	631,366
I-81 Viaduct	elevated highway	yes	yes	100,000	1.4 mi.	downtown	Syracuse, NY	planning	unknown	140,658

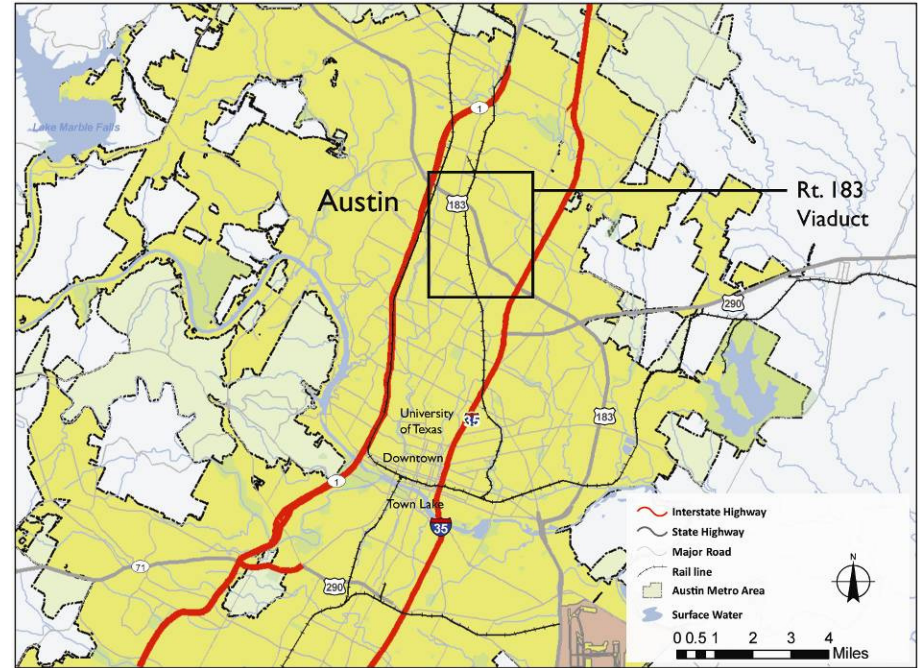
COMPLETED URBAN HIGHWAY PROJECTS

Route 183, Austin, TX

	Route 183	I-81
Project type	new viaduct (elevated highway)	existing elevated highway - TBD
Interstate highway?	no	yes
Through traffic?	yes	yes
Vehicles /day	86,000	100,000
Project length	3.6 miles	1.4 mi.
Context	suburban, primarily commercial	downtown
City	Austin, TX	Syracuse, NY
Population	681,804	140,658
Timeline	planning in the mid-1980s; construction of entire corridor in phases from 1991 to 1997	unknown
Cost/Cost per mile	\$281 million/ \$78 million per mile	unknown

In 2005, the US 183 corridor, on the north side of Austin, TX, was upgraded from an arterial street to form a partial freeway loop around the city. The heavy commercial development along the northern portion of the corridor and narrow right-of-way led to the decision to elevate the freeway lanes between I-35 and the Mo-Pac Expressway (TX Rte 1). The community was concerned about the aesthetics of an overhead structure, but an at-grade freeway would have had huge property impacts and acquisition costs. As a compromise, the viaduct was designed to mitigate the potential negative aesthetic impacts of an elevated freeway. The design goal was to create a transparent and attractive bridge structure with attention to details. Concrete forms were used to replicate traditional architectural themes in the pier design.

Location



What was the decision-making process?

The project followed the Texas Department of Transportation (TXDOT) project development process, which included an Environmental Impact Statement (EIS). Public outreach was particularly focused in the final stages of design, as decisions were made about the type of structure and its appearance. Because of the extremely rapid population growth in the region, freeway expansions are not uncommon, and all of the “build” alternatives included a freeway in some form. A variety of design options were explored, including grade level and elevated freeways.

The project was originally conceived in the 1990s. The first actual components to be constructed were the freeway interchanges with Route 1 and I-35 at either end of

the segment. Work began on the new freeway in 2001, and construction continued incrementally until its completion in 2005.

What were the outcomes?

Locally, the design of the viaduct is considered successful and attractive, especially when compared to other elevated highways in the area. TXDOT has since used similar aesthetic bridge design treatments on other projects in the Austin area, such as architectural details imprinted in the concrete piers (see photo below). However, the elevated highway still presents a somewhat bland and uninviting environment for pedestrians seeking to cross under the route. But in this case, the context is relatively low-density and auto-oriented; therefore, expectations for the pedestrian environment may not be as high as in a more compact downtown area.



View from under the viaduct. Source: www.texasfreeway.com

Are there parallels to *The I-81 Challenge*?

This project involved new road construction in a rapidly growing city that has limited alternative transportation modes. The immediate context is lower density than Syracuse, and the primary concerns during the planning and design related to impacts to existing businesses. Though there are few direct parallels to *The I-81*

Challenge, this case is useful in demonstrating that modern engineering and design techniques can create more attractive elevated highway structures than is typical of older elevated highways. In the southern U.S., innovative techniques using reinforced concrete have become more common to construct aesthetically pleasing elevated highway structures. However, in northern climates, these are much more difficult to maintain, as they are susceptible to cracks that allow moisture to penetrate the concrete. Once moisture reaches the reinforcing steel, rusting and structural deterioration can occur. This type of structure would likely require frequent maintenance attention, which should be a consideration in the alternatives analysis.

What can we learn from this project?

Traffic Circulation and Urban Mobility: This project resulted from an engineering-driven planning process, and serves an auto-dominant area in the fringe of Austin. There was little consideration of other modes or alternatives. There was controversy primarily centered around the need to acquire numerous commercial properties, which delayed the project's implementation.³

Economic Development/Urban Design: This project demonstrates that it is possible to create a modern elevated highway structure that is less massive at the ground level and includes some architectural adornment. While this increased the project cost, it addresses many concerns commonly expressed by the community during the planning and design phase.

Political/Public Process: The planning and decision-making process was narrowly focused on upgrading an existing arterial to a freeway, and did not include consideration of a wide variety of alternatives. The public participation consisted primarily of gathering community input on aesthetic design preferences.

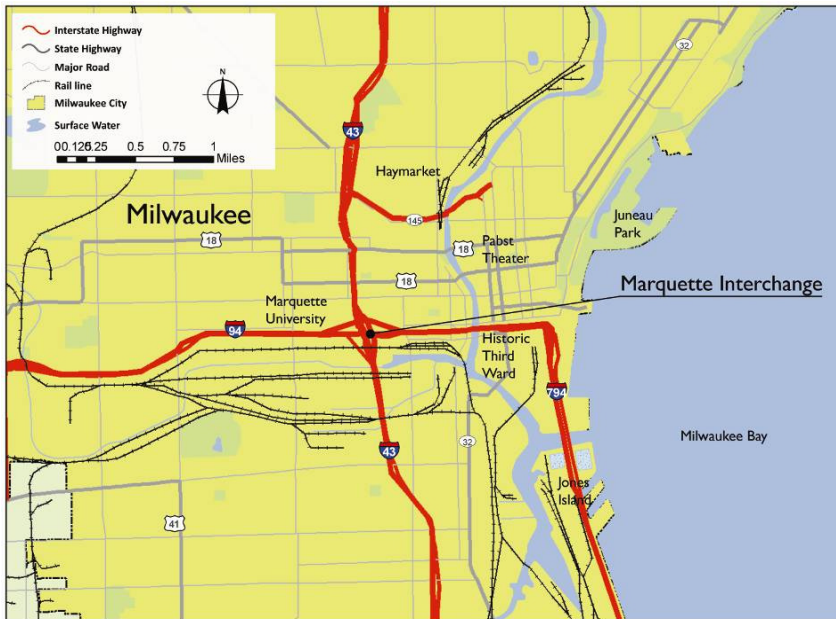
For More Information

http://www.texasfreeway.com/Austin/Construction/183north/austin_construction_183north.html

Marquette Interchange

	Marquette Interchange	I-81
Project Type	reconstruction of an elevated highway interchange	existing elevated highway - TBD
Interstate Highway?	yes (I-794, I-43 and I-94)	yes
Through Traffic?	yes	yes
Vehicles /day	300,000 for full interchange	100,000
Project Length	n/a	1.4 mi.
Context	downtown	downtown
City	Milwaukee, WI	Syracuse, NY
Population	602,000	140,658
Timeline	planning and design 1996-2002; construction 2003-2008	unknown
Cost	\$810 million for interchange	unknown

Project Location



This project involved the complete reconstruction of the interchange of I-94, I-794, and I-43 in downtown Milwaukee, the “Marquette Interchange.” The interchange was aging, and had an outdated design that did not function well for high traffic volumes merging and weaving at high speeds. In addition, the physical presence of the elevated interchange resulted in negative noise, aesthetic, and pedestrian circulation impacts on the surrounding neighborhood, exacerbated by past urban renewal activities that eliminated the urban fabric in the interchange area.



An EIS was conducted that focused on the involvement of surrounding neighborhoods, with the goal of developing a “community sensitive design.” While the interchange is still a massive presence in the area, its design is considered more attractive, and connectivity of the street network was repaired.

What was the decision-making process?

The State DOT-led effort included an EIS, which produced a general design concept for the interchange. A “Community Sensitive Design Task Force” was established in 2002, near the end of the highway design process, to provide input on design features. The project established neighborhood committees to consider design features within each area. Each of these groups had a representative on an advisory committee for the project, which also included representatives from local businesses and government agencies. The work of the community sensitive design committees occurred in a relatively short, six month time frame, after the major decisions about the interchange’s structure had been made by Wisconsin DOT (WDOT) and FHWA. Among the primary goals of the neighborhood committees were to make the reconstructed interchange more visually appealing, less of a

barrier, and more pedestrian-friendly at ground level. Visualization tools were helpful for exploring some of the design options with the task force. Final design and construction proceeded without significant delays starting in 2003, and the interchange was complete in 2008.



Highway structures emphasized clean lines and light/bright colors

What were the outcomes?

The project has just been completed, and is functioning well for traffic. However, it is premature to determine if the design enhancements will have the desired outcome of reducing the barrier effect and improving the pedestrian environment. The design process, coupled with visualization tools used by the WDOT, was appreciated by the community, and resulted in a successful collaboration.

Are there parallels to *The I-81 Challenge*?

The Marquette Interchange is comparable to the interchange of I-81 and I-690, which is likely to be a major element of any significant investment on I-81 through downtown Syracuse. The design and construction techniques used in the Marquette Interchange reconstruction could be considered for the 81/690 interchange, especially in light of the similar climate conditions.

What can we learn from this project?

Traffic Circulation and Urban Mobility: In this case, major alterations of the city's freeway network were not considered, as the project focused primarily on the redevelopment of a safe and functional high speed highway interchange.

Economic Development/Urban Design: The design included narrower concrete piers and decorative features applied to the interchange structure to reduce the aesthetic impact of the interchange. Because the project was completed recently, it remains to be seen if the new interchange will create a more appealing place for economic investment.

Political/Public Process: The design of a high speed interstate interchange will by necessity be dominated by engineering concerns, to assure a safe and functional system. The public engagement primarily occurred in later stages of the project design, after key decisions on the interchange alignment were made based on engineering factors. However, the task force seemed to have worked well?



Murals on underpasses illustrate local history

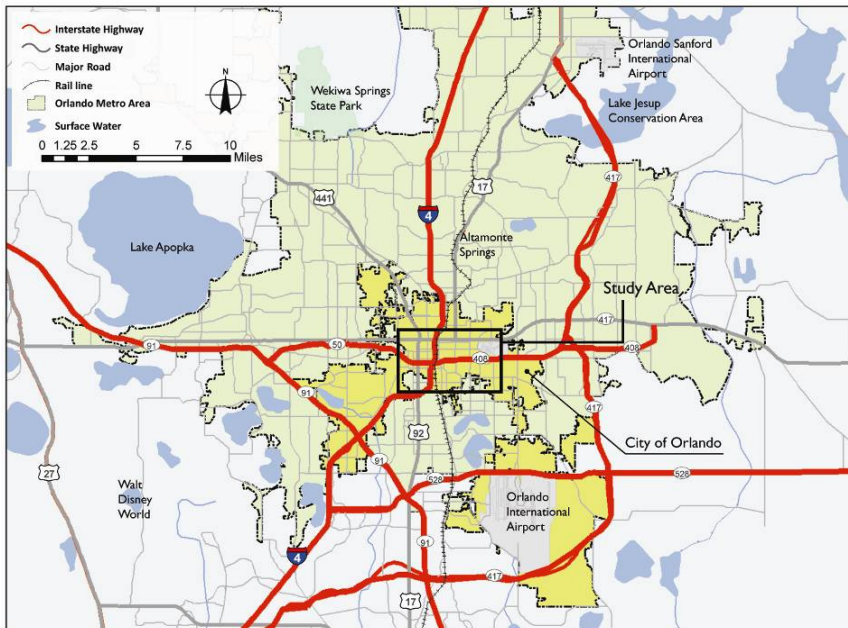
For More Information:

<http://www.mchange.org/page.jsp?&key=csd>

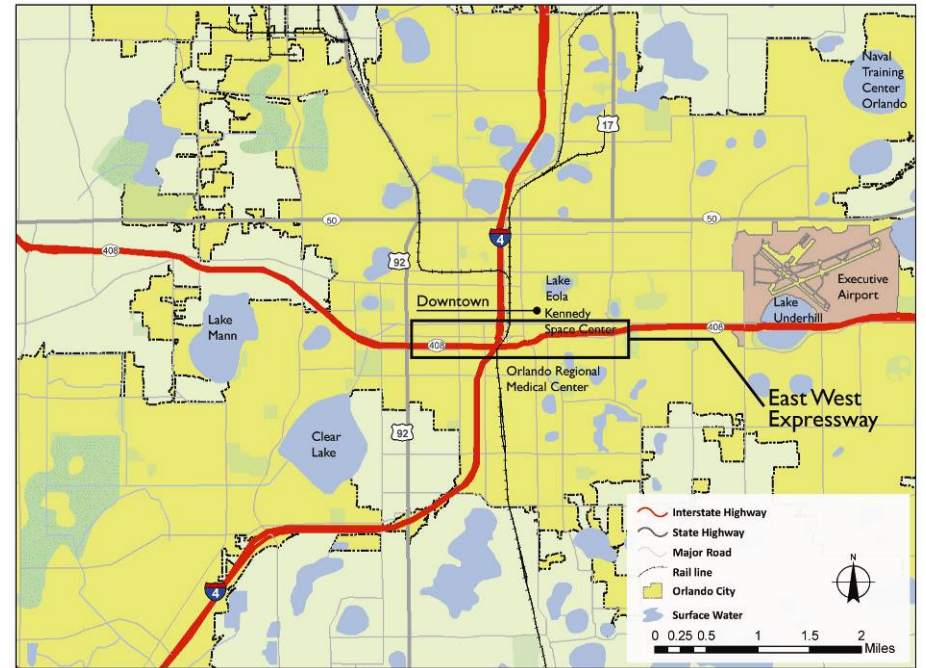
East West Expressway

	East West Expressway	I-81
Project Type	reconstruction of an elevated highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	yes	yes
Vehicles /day	140,000	100,000
Project Length	16 miles (to be constructed in 6 phases)	1.4 mi.
Context	downtown	downtown
City	Orlando, FL	Syracuse, NY
Population	213,000	140,658
Timeline	construction 2005 - 2008	unknown
Cost/Cost per mile	\$640 million/\$40 million per mile	unknown

Regional Context-Orlando



Project Location



This east-west elevated toll road through downtown Orlando serves very high traffic volumes, and the basic purpose and need for the project was to increase the highway’s capacity. As a result, other alternatives were not considered in the planning and design process. The aesthetics of the expanded highway were of great concern, as were potential noise impacts. The result is that much of the length of highway through downtown was constructed on a terraced embankment, which is heavily landscaped and incorporates sound walls.

The replacement road was constructed on or immediately adjacent to the existing route. The overpass structures were designed with decorative features to increase their visual appeal.

What was the decision-making process?

Planning and design was conducted jointly by the Florida Department of Transportation and the Orange County Expressway Authority. This project was the focus of an extensive public outreach effort, given its unique context in downtown Orlando. A team of public involvement specialists focused on outreach and consultation with stakeholders, which resulted in unique design details for many of the overpasses, reflecting historical themes of the Orlando area. There was limited public involvement in the alternatives analysis process.



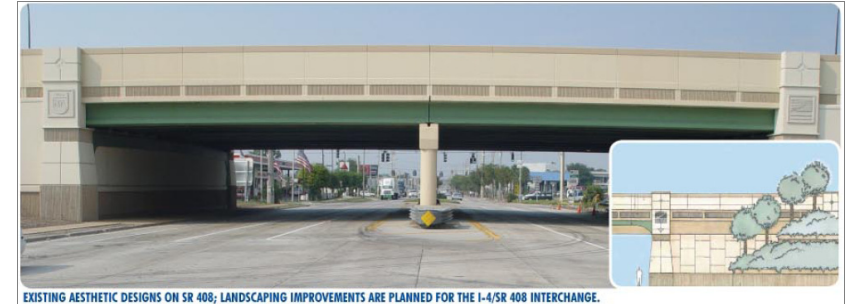
Photo Simulation (left) and final outcome (right) of embankment design (FDOT)

What were the outcomes?

Some segments of the expanded toll road are still under construction, but the elevated portion through downtown Orlando is complete and viewed as an aesthetic improvement over the old elevated highway. It is too early to tell if the improved appearance will spur higher value uses of the land alongside the highway.

Are there parallels to *The I-81 Challenge*?

The high traffic volumes and downtown location are similar to the I-81 corridor through Syracuse. However, this corridor is in a rapidly growing city, which was a factor that led to the decision to expand the highway. Because this highway is also a toll road, with specific planning, access and financing considerations, the range of alternatives was considerably narrowed.



*Photosimulation of new underpass with decorative features
(Florida DOT and Orange County Expressway Authority)*

What can we learn from this project?

Traffic Circulation and Urban Mobility: This project sought to improve the appearance and reduce negative noise and aesthetic affects of an elevated highway through downtown Orlando. While concrete construction techniques used in this project are more challenging in a northern climate, the specific design techniques, particularly for noise abatement, are worthy of consideration.

Economic Development/Urban Design: The project offers some appealing design ideas for screening embanked, elevated highways with terraced landscaping. This type of treatment is more challenging in a northern climate, where landscaping options are more limited.

Political/Public Process: Because this was a toll authority roadway, the range of alternatives was considerably narrow, so there was less public input on the major design concepts that were considered.

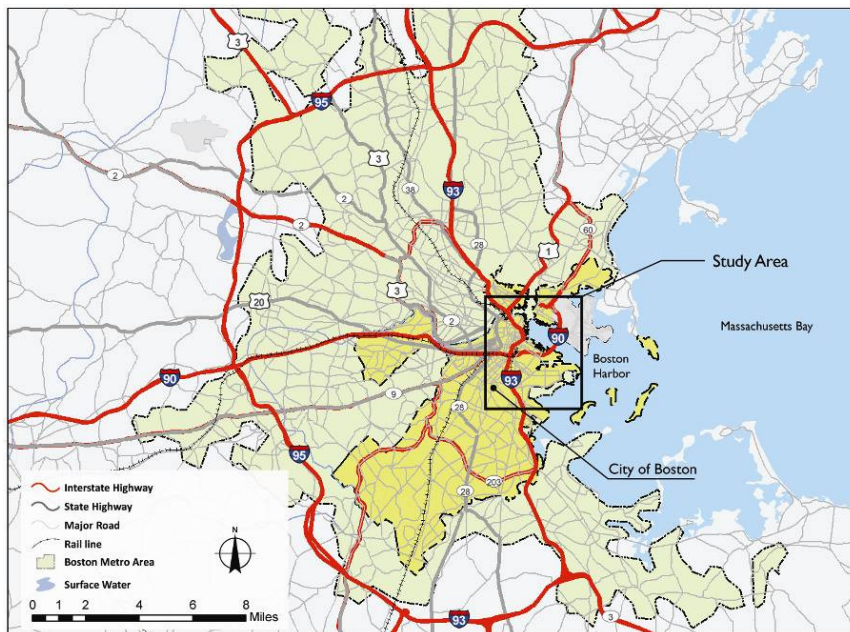
For More Information:

<http://www.expresswayauthority.com/Corporate/oursystem/SR408/Default.aspx>

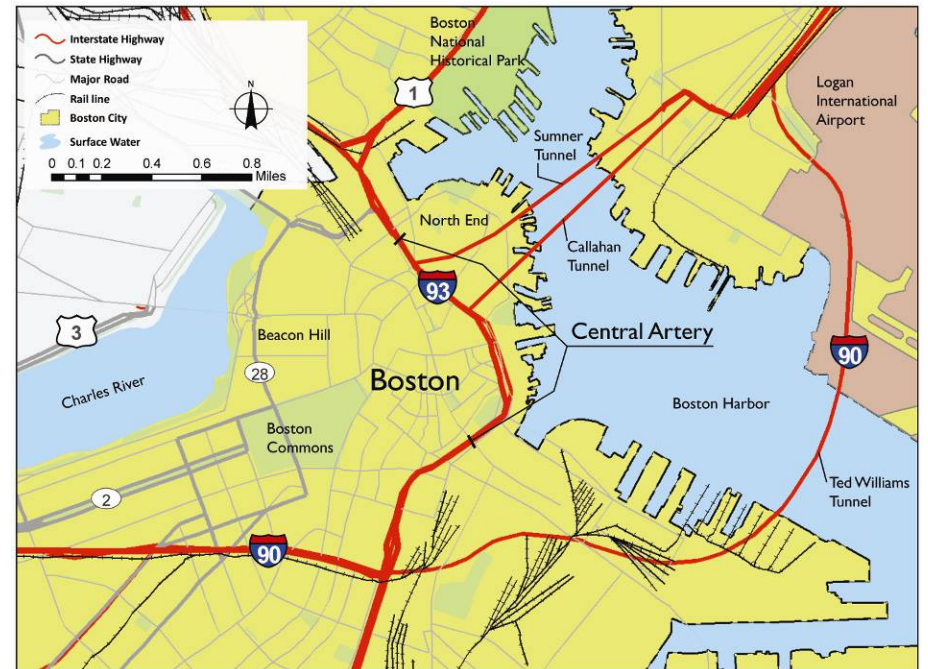
I-93 (Central Artery), a.k.a. the “Big Dig,” Boston

	I-93	I-81
Project type	burying an elevated highway	existing elevated highway - TBD
Interstate highway?	yes	yes
Through traffic?	yes	yes
Vehicles /day	200,000	100,000
Project length	1.8 miles for I-93 tunnel, plus 1.7 miles for new tunnel to airport	1.4 mi.
Context	downtown	downtown
City	Boston, MA	Syracuse, NY
Population	559,000	140,658
Timeline	planning 1982-1989; construction 1990-2007	unknown
Cost	\$15 billion, \$22 billion including interest (2006\$)	unknown

Regional Context



Project Location



The “Big Dig” involved an unprecedented effort to bury a major interstate highway through the center of one of the U.S.’s oldest cities. The complications in design and construction were enormous, and final costs were five times the original estimates. There were numerous technical challenges, including leaky tunnel walls and a collapsed tunnel ceiling. The State of Massachusetts will be paying the bonds for the cost overruns for years, placing a financial burden on future taxpayers and limiting funding for projects in other parts of the state.

However, the project has improved the quality of life and urban environment in downtown Boston, and successfully addressed the problems associated with the old elevated Central Artery, which included the noise and aesthetic impacts of the elevated highway and the barrier it created between the North End and downtown. Green space has been developed in the Central Artery footprint, economic

development is occurring in the immediate neighborhoods, and connections between the North End and the rest of downtown have been restored. The Big Dig was accompanied by a parallel effort to significantly upgrade and expand the transit system, both to mitigate the short-term impacts of construction and to provide a long-term supplement to the highway system. The project has significantly improved and simplified traffic circulation and public transit in a city notorious for its congestion.

What was the decision-making process?

In recognition of the deteriorated condition of the elevated I-93 corridor, an EIS process began in 1982, which was completed in 1985 and approved in 1986. In 1987, the U.S. Congress provided earmark funding for project design. Because of the complexity of the project, exploratory drilling and excavation was conducted during the design process. In 1990, Congress allocated \$755 million for the project and in 1991, construction began. Because the project was initiated without full understanding of the subsurface conditions, the construction of the underground section was more complicated, time-consuming, and costly than expected. By 1999, overall construction was 50 percent complete, with openings of key components in the subsequent years. I-93 was fully opened in 2005, and the city streets were reconnected by 2007. Greenway construction and development activities are continuing.



What were the outcomes?

Traffic circulation is much improved, and there are outstanding redevelopment opportunities in and adjacent to the footprint, which now hosts a one-mile greenway. There has been a high level of private investment in downtown

development in recent years, which is at least partly attributable to the improved public realm and traffic circulation.

However, the complexity of submerging a major highway under a city as old as Boston should not be understated. The total construction cost was \$15 billion, over five times early estimates. Because the cost overruns had to be paid through borrowing, bond repayments will require an additional \$7 billion in payments, bringing the total investment to \$22 billion. This is a major burden passed on to future taxpayers, leading to deferred funding for other projects across the state. The congestion created during the years of construction also had many negative effects on the city and businesses.



Are there parallels to *The I-81 Challenge*?

The traffic volume on I-93 was 190,000 cars per day by the time construction began, significantly higher than I-81. The route had similar roles in that it served both through traffic and provided access to downtown Boston. The regional highway network offers a bypass route, Route 128/I-95. However, this route is also notoriously congested and unable to absorb diverted through traffic. Boston is a large city with very high property values in the downtown area, so the enormous cost of construction could be justified at least in part by the increase in development and property values.

What can we learn from this project?

Traffic Circulation and Urban Mobility: The cost and complexity of burying an urban highway is enormous. Because it is often not possible to fully understand the subsurface conditions until construction is active, there are often “surprises” along the way that result in increased costs or delays. At the same time, Boston’s Big Dig provides a compelling example of how a city can prioritize pedestrian, transit, and street level mobility, and improve the urban environment, while maintaining highway access to the city center and preserving through traffic capacity. Recent observations are that traffic flows through the city center have increased due to the improvements, resulting in new freeway bottlenecks outside the city, with no improvement in regional travel time.⁴ Transit ridership has generally remained flat since the Big Dig was completed.⁵

Economic Development /Urban Design: The Big Dig has been a tremendous success in terms of its effect on the urban environment. The project has either directly or indirectly stimulated development benefits estimated at \$7 billion, including the reuse of formerly underutilized land adjacent to the former freeway footprint.



Political/Public Process: Several elements of the Big Dig were designed on a “fast track process,” wherein only a preliminary design was initially prepared. The final construction design was developed as the project

began, as adequate information about subsurface conditions was not initially available to prepare a more refined design. In addition to the high cost of maintaining traffic flow during construction (estimated at 20 percent of the project cost), the “surprises” encountered along the way were the primary reasons for the

cost overruns, as substantial design changes were needed midstream. There was never a rigorous look at alternatives, with a relatively truncated initial planning and design process. There could potentially have been some savings with a more involved analysis of alternatives, including the exploration of different engineering techniques.

For More Information:

<http://www.masspike.com/bigdig/index.html>

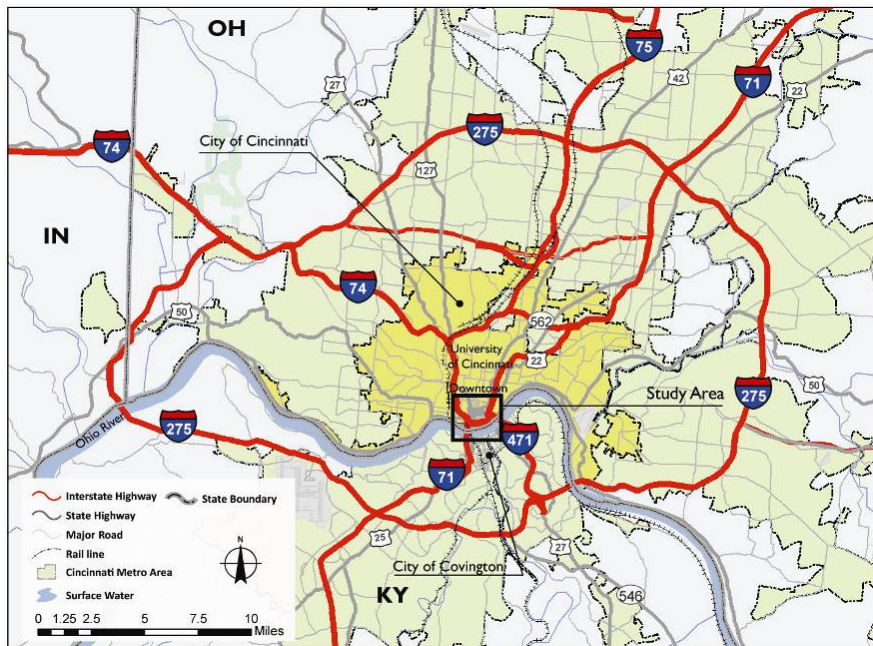


Photos by J. Behan

Fort Washington Way, I-71

	I-71	I-81
Project Type	reconfiguration of a depressed highway	existing elevated highway - TBD
Interstate Highway?	yes (I-71)	yes
Through Traffic?	yes	yes
Vehicles /day	130,000	100,000
Project Length	1.3 miles	1.4 mi.
Context	downtown: Ohio River waterfront	downtown
City	cincinnati, OH	Syracuse, NY
Population	288,000	140,658
Timeline	planning and design 1995-1997; construction 1997 -2000	unknown
Cost/Cost per mile	\$146 million (2004\$)/\$112 million per mile	unknown

Regional Context



Project Location



The Fort Washington Way is the section of I-71 that passes between downtown Cincinnati and the Ohio River waterfront. In the 1990s, the existing highway provided two through lanes in each direction, with numerous auxiliary lanes and ramps. The through lanes were depressed, and there were several existing overpasses. Traffic volumes exceeded capacity, and the numerous ramps and weaving maneuvers required made it both unsafe and congested for travelers. In addition, the wide right-of-way occupied by the highway and the access ramps created a major barrier between the waterfront and downtown Cincinnati.

The improvements included widening the highway to four through lanes in each direction and the elimination of several exits and entrances to simplify and improve traffic flow. The total right-of-way width was substantially reduced by defining the highway edge using vertical retaining walls rather than sloped embankments. The

additional space was reclaimed as a riverfront park, with new venues for the city's professional sports teams. There are now five streets crossing the highway, which have broad sidewalks and landscaping. These provide a significantly improved pedestrian environment and safe access to the riverfront park. The street connections also help restore connectivity between the riverfront park and the downtown street network, which has improved traffic congestion after sports events.

What was the decision-making process?

The project was initiated in 1995 as a Major Investment Study (MIS) by the Ohio, Kentucky, and Indiana Council of Governments (OKI), the region's Metropolitan Planning Organization (MPO). A highly collaborative process explored 25 different alternatives, which were evaluated for their effects on pedestrian access, land use, riverfront redevelopment opportunities, and local street network access, in addition to conventional highway performance measures. Five alternatives were selected for further study, and eventually the final design was developed through a cooperative effort between the City of Cincinnati, OKI, ODOT and other stakeholders. The project schedule was highly compressed, with the project largely completed by the end of 2000, only five years after initiation.

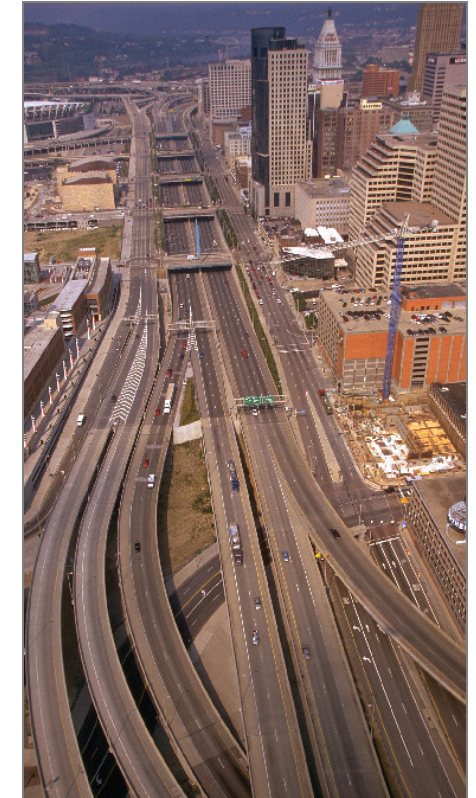
What were the outcomes?

This project is considered highly successful, in terms of the collaborative process, the relatively streamlined schedule from start to finish, and the benefits that the project has brought to the city. The process was marked by high degrees of cooperation and motivation among the key stakeholders, including the Ohio DOT, Kentucky Transportation Cabinet, the OKI Council of Governments, the Southwest Ohio Regional Transit Authority, City of Cincinnati, and Hamilton County. The state of Kentucky participated in the funding, even though the project was entirely within the borders of Ohio. The project is considered a major catalyst for significant investment in other developments, including several downtown buildings, the sports stadiums, and the riverfront park.

Before (left) and After (right) the Fort Washington Way Improvements



Wider footprint, with fewer through lanes



More through lanes, but narrower footprint

Source: David Sailors, with permission.

Are there parallels to *The I-81 Challenge*?

This project involved a high volume interstate highway in a major urban area. A primary difference from I-81 is that the existing I-71 lanes were depressed. Ultimately, this project can be viewed as an enhancement to the corridor to reduce its negative impacts rather than a complete redesign of the corridor. The project included some major reconfiguration and reduction of access points, as well as

widening. The need for major realignment of the lanes was avoided, since the project capitalized on the fact that the lanes were already below the street grade level.

What can we learn from this project?

Traffic Circulation and Urban Mobility: This project focused on improving and adapting the existing highway to reduce its impact and be more compatible with riverfront redevelopment. The project also simplified downtown access points to improve the freeway function and included improvements to parallel surface streets.

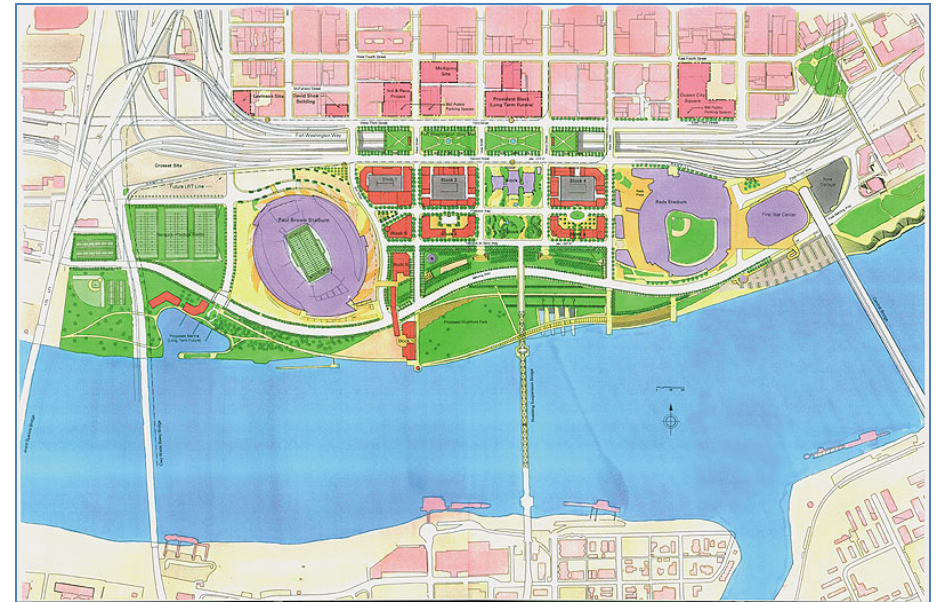
Economic Development/Urban Design: The project was initiated with twin goals of improving the traffic flow and facilitating the redevelopment and recreational use of the riverfront. The results have been very successful, with widely perceived benefits to the city.

Public Process: This project benefited from an effective stakeholder involvement process, which allowed all the relevant agencies to participate and work together to assure rapid implementation of the project. Because the project was integrated with economic development and improved riverfront access, it enjoyed much broader support than would have been likely if it were merely a freeway expansion.

For More Information:

http://americacityandcounty.com/mag/government_road_rehab_reintroduces/

http://www.pbworld.com/news_events/publications/network/issue_59/5



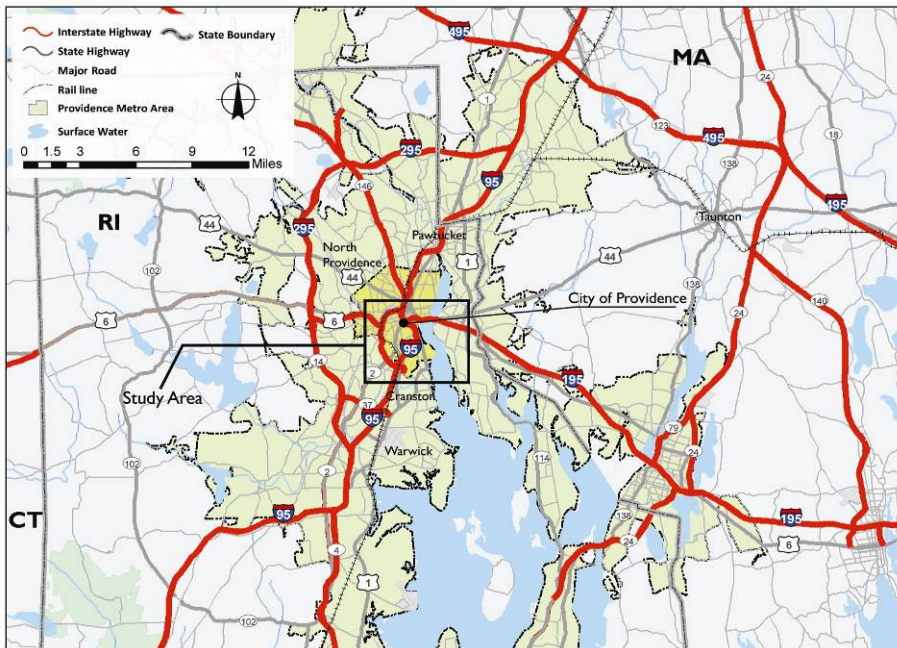
1999 Redevelopment Plan showing a future cap on the I-71 Corridor

Source: <http://www.cincinnati-transit.net/fww.html>

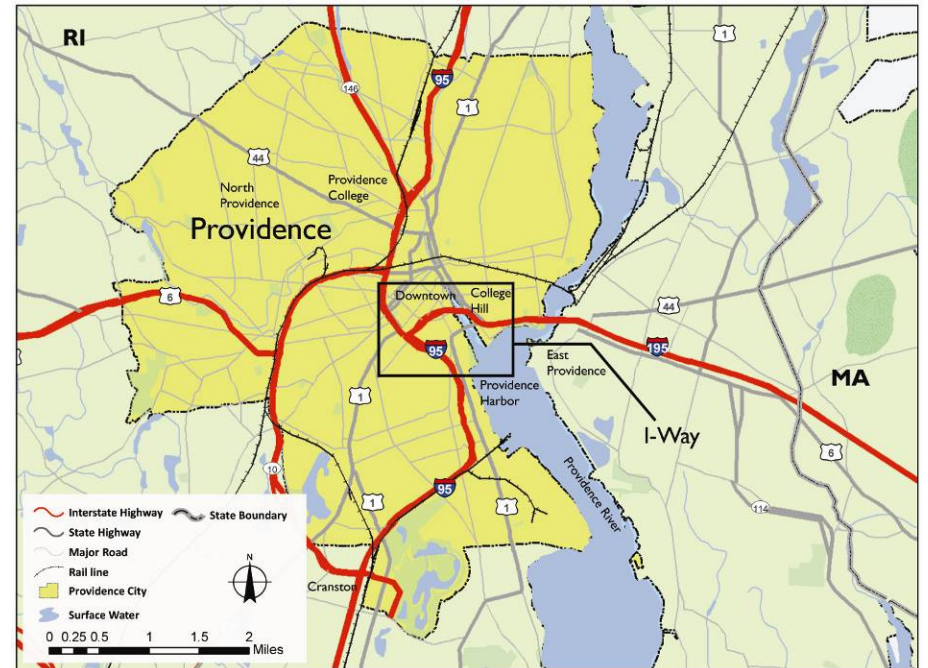
I-195/ The “I-Way”

	I-195	I-81
Project Type	relocation of an elevated highway	existing elevated highway - TBD
Interstate Highway?	yes	yes
Through Traffic?	yes	yes
Vehicles /day	153,000	100,000
Project Length	0.5 mile highway, plus reconstructed interchange	1.4 mi.
Context	downtown waterfront	downtown
City	Providence, RI	Syracuse, NY
Population	177,000	140,658
Timeline	planning, design, and construction 2006-2010	unknown
Cost/Cost per mile	\$610 million/\$1,220 million per mile (includes major interchange)	unknown

Regional Context: Providence



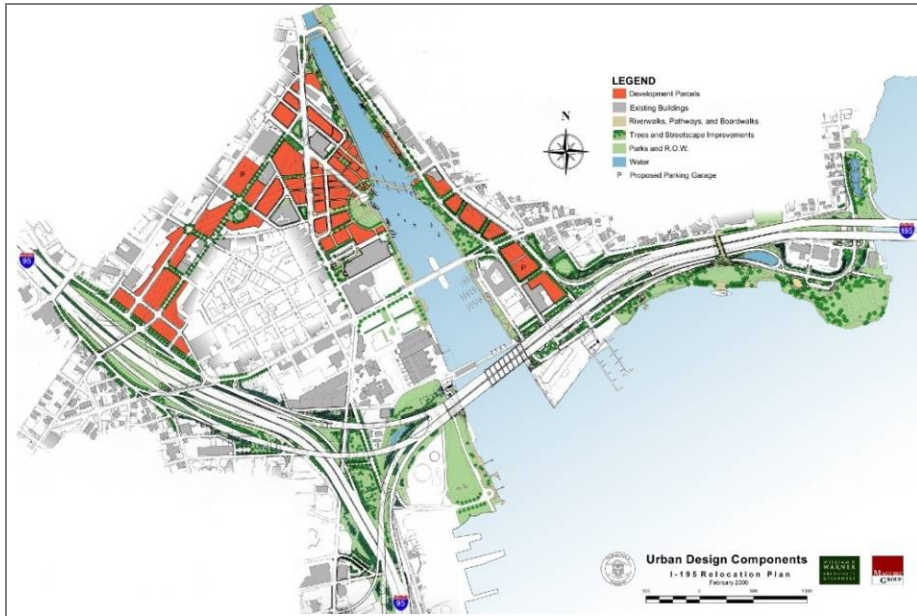
Project Location



When planning for the I-Way began, the I-195 corridor through downtown Providence was outdated, with narrow lanes, constrained merging areas, left exits, and other problematic features. The traffic volumes far exceeded the design capacity, and its deteriorated condition necessitated a change.

An EIS process focused on several alternatives, including relocation of the elevated portion to a new alignment that addressed the highway’s geometric issues. The plans also included extensive improvements to the local street network to alleviate existing congestion problems and to address any issues that might arise from the relocated highway. The final design relocated the existing road to a new alignment, which allowed for construction of the new road to occur while the existing one remained in operation. The final plan creates space for urban redevelopment, waterfront access, and improved traffic circulation and street connectivity.

Project plan showing former highway corridor to be redeveloped in orange, with new street connections and greenspace (Rhode Island DOT)



The design incorporates numerous pedestrian amenities, including walkways along the Providence River, and allows much greater access to the waterfront. The design also includes a new signature – or landmark – bridge.

What was the decision-making process?

An EIS was conducted that looked at three alternatives: reconstruction on the existing alignment, a new alignment just north of the existing highway, and the new alignment to the south, along the Fox Point Hurricane Barrier. The third option, which mitigated operational problems and allowed for urban redevelopment of the existing corridor adjacent to downtown Providence and the Providence River, was selected. The new alignment passes through an industrial area, promising fewer socio-economic impacts than other options.

New “Signature” Bridge Crossing and Interchange



Source: Rhode Island DOT

What were the outcomes?

The project is under construction. Therefore, it is too early to measure success or failure. The project development process has been very successful in terms of stakeholder collaboration, garnering public support, and controlling project cost and schedule.

Are there parallels to *The I-81 Challenge*?

I-195 has comparable volumes to I-81, and serves substantial long distance travel between Cape Cod and the eastern seaboard. The size of the metropolitan area, and the complexity of working in an older northeastern urban area are also

comparable. However, there are no regional alternative routes or bypasses to this portion of I-195.

What can we learn from this project?

Traffic Circulation and Urban Mobility: Because the final design relocated the existing road to a new alignment, allowing construction of the new road to occur while the existing one remained in operation, there were few traffic disruptions during the construction phase. Regional mobility has been maintained while local street connectivity in the downtown area has been improved.

Economic Development/Urban Design: Among the reasons that this project enjoyed solid support was the strong focus on urban design. The highway corridor itself was improved from an aesthetic standpoint, and new connections between downtown and the riverfront were established providing opportunities for redevelopment.

Political/Public Process: The public involvement process was characterized by broad involvement of many stakeholders and strong communication. This included outreach through media, websites, project podcasts, and many stakeholder meetings. The project's focus was always on improving both the urban environment and the transportation network.

For More Information:

<http://www.dot.ri.gov/engineering/construction/195intro.asp>

Visual Simulation of Pedestrian Crossing of I-195 to Narragansett Waterfront



Source: RIDOT

My city has discovered that the freeway is not free." Because of its short length, the Park East Freeway was never heavily used, and its peak hour traffic volumes were always well below its capacity.

The success of the East Pointe redevelopment in the 1990s led to consideration of removing the remaining underutilized and deteriorating Park East Freeway when it was slated for reconstruction. The funding to eventually remove the freeway came from a combination of Intermodal Surface Transportation Efficiency Act (ISTEA) federal highway funds and Tax Increment Financing through the City of Milwaukee. The total construction cost was estimated to be \$25 million, which included demolishing the freeway and reconnecting the surface streets to absorb the freeway traffic. The freeway removal made 26 acres of downtown land, much of it on the Milwaukee Riverfront, available for redevelopment. After the freeway removal, land uses changed and values increased substantially. The City of Milwaukee has established the Park East Corridor development area, with a master plan for mixed use urban redevelopment gradually unfolding.

What was the decision-making process?

The process of removing the Park East Freeway was led by then-mayor John Norquist. The idea for removing the freeway was inspired by the combination of successful urban redevelopment in nearby neighborhoods and a Wisconsin DOT-initiated plan, proposed in the mid-1990s, to reconstruct the deteriorating elevated Park East Freeway. With Mayor John Norquist strongly in favor of highway removal, and traffic reports indicating that reconnecting the street network would provide sufficient capacity to replace the freeway, other agencies were encouraged to join in support of the idea of removal. While it was not without controversy, overall community leadership at all levels solidly favored the removal concept. In 1999, the city council agreed on the removal option by a unanimous vote, and the county board of commissioners approved freeway removal by a very large margin. The Federal Highway Administration (FHWA) required additional traffic studies before agreeing to fund the project, partially because they were concerned about the threat of lawsuits by opponents of the removal. The highway was removed in 2003.

The Park East corridor before and after the freeway removal



Park East Corridor in 2006, with street network re-established.

Source: City of Milwaukee

What were the outcomes?

This project has set the stage for highly successful urban redevelopment, which is ongoing today. Traffic congestion from the removal never materialized. Economic development has been encouraged, vacant property has been redeveloped, and property values and tax revenues have increased substantially since the freeway was removed.

Are there parallels to *The I-81 Challenge*?

The physical presence of the elevated freeway, and the adjacent underdeveloped areas through the downtown are similarities to the I-81 corridor. However, the role

of the Park East Freeway was very different from the role of the I-81 corridor in Syracuse. The Park East Freeway had substantially lower volumes (well under its capacity) and served as only a short spur to access downtown from the regional highway network. It was not an interstate highway or through traffic route.

What can we learn from this project?

Traffic Circulation and Urban Mobility: The street network was easily able to absorb the freeway traffic, despite limited availability of transit alternatives in the city. Traffic congestion did not noticeably increase after the freeway was removed, although some commuters may experience an increase in travel time simply due to the change from a high-speed freeway to a lower-speed local street.

Economic Development/Urban Design: In Milwaukee’s case, the benefits of opening up underutilized land in the center of the city and along the Milwaukee River for redevelopment seems to have outweighed any negative effects from the loss of convenient highway access. The removal of the Park East Freeway has been accompanied by a significant increase in investment to downtown Milwaukee, and was tied to an economic revitalization plan for the Milwaukee Riverfront that has been successful.

Political/Public Process: The support for the freeway removal built up in a political process, rather than in a formal planning and public involvement process. Strong political leadership at many levels was necessary for this project to be implemented.

Park East Corridor Redevelopment Projects

Proposed, Planned and/or Under Construction Projects within the Park East Corridor

Manpower (Block 9)
Construction of the new world headquarters for Manpower, Inc. was completed in fall 2007. The \$87 million development employs 1,200 people and includes a parking structure, public plaza, and extension of the Milwaukee Riverwalk. The building is the recipient of the 2007 Midwest Construction Award and the 2007 Real Estate and Construction Review Building of America Award. Gilbane Building Company was the general contractor.

North End-Phase 1 and 2 (Blocks 23, 24, & 27)
A \$175 million project developed in phases over the next 3-7 years is expected to become a neighborhood within itself with a variety of housing options and supportive retail services. Construction began earlier this year on phase 1: a 5-story apartment building featuring 83 apartments and 12,000 sq ft of 1st floor neighborhood retail (Block 24 on the Park East map). Construction of phase 2 is planned to begin later this year (Block 23) and will consist of two 5-story apartment buildings that will offer 130-160 apartments, a new Riverwalk segment, public plaza, and new road. KBS is the general contractor.

Flatiron (Block 25)
Mixed use project developed by Legacy Real Estate Partners, LLC with ground level retail, a corner public plaza, and 38 condominiums. This project was completed in Fall 2007. Currently, there are remaining condo units for sale and the retail space remains for lease. Altius Building Company was the general contractor.

MSOE Kern Center (Block 20)
A \$25 million investment completed by MSOE in 2005. The development includes a 210,000 sq. ft. facility with a fitness center, 3 classrooms, 1,600-seat hockey arena, 1,200 seat basketball arena, field house, running track, wrestling area, offices, facilities associated with athletics, counseling and health services.

Park East Redevelopment Corridor

The Aloft (Block 10)
A 5-story, 160-room hotel development with 3,200 square feet of ground floor retail, a Riverwalk, and public green space. Total investment equals approximately \$24 million.

The Moderne (Block 8)
Owned by Milwaukee Moderne LLC. This will be a 30-story development to include 14 condos (priced between \$258,000-\$2.8 million), 203 high-end executive residences for lease and 7,200 sq ft retail (spa and restaurant). Total private investment will be \$72 million. Hunzinger is the general contractor.

Park East Square-Phase 1 (Block 20)
Although there are over 4 blocks that have been optioned by Milwaukee County, this is the first block within the Park East corridor that has been officially sold by Milwaukee County. RSC & Associates has purchased the property and is proposing a hotel with ground floor retail and outdoor seating.

Convent Hill (Block 29)
Senior housing owned and operated by the Housing Authority of the City of Milwaukee. Phase 1 of the transformation of a former 120-unit, high-rise building into 182 on-site and 20 off-site housing units occurred in 2005. The new high-rise is a green, LEED certified building with mixed income units and a garden roof top.

Source: City of Milwaukee Economic Development

For More Information:

<http://www.mkedcd.org/parkeast/>

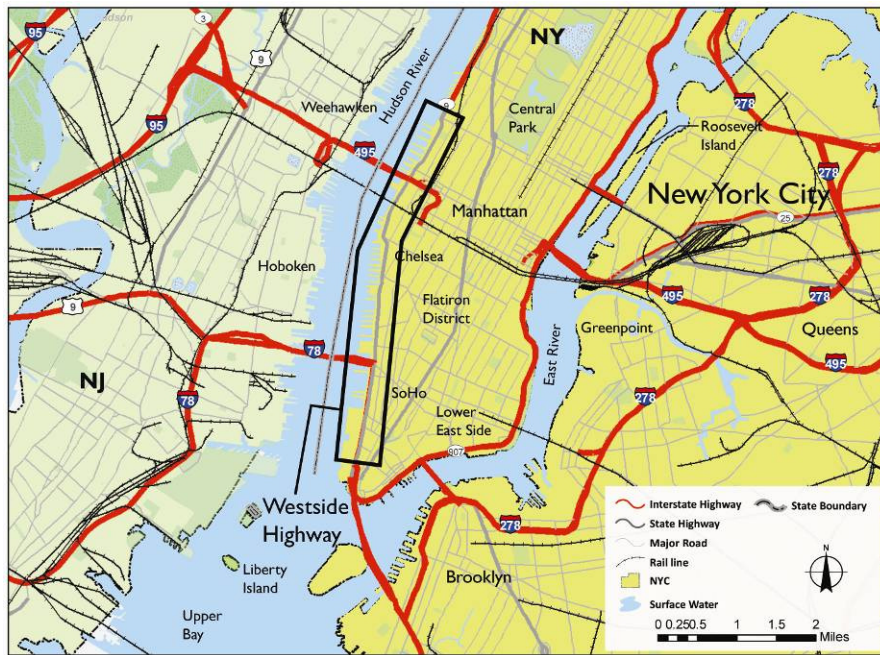
Westside Highway

	Westside Highway	I-81
Project Type	removal of an elevated highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	yes	yes
Vehicles /day	140,000	100,000
Project Length	4.7 miles	1.4 mi.
Context	urban core: Hudson River waterfront	downtown
City	Manhattan, New York City, NY	Syracuse, NY
Population	7,895,000	140,658
Timeline	freeway collapsed 1973; planning and design 1985-1993; Construction of Boulevard 1996-2001	unknown
Cost/Cost per mile	\$380 million/\$81 million per mile	unknown

The West Side Highway was the first elevated highway constructed in the U.S. in the 1920s. It ran along the Hudson River shoreline from 72nd Street to the southern tip of Manhattan. It was not designed to modern highway standards, with very narrow lanes and sharp turns at exit ramps. On December 15, 1973, the northbound lanes between 12th and Gansevoort Streets collapsed under the weight of a dump truck, which was ironically carrying asphalt for highway repairs. An interview with Sam Schwartz, former Chief Engineer of NYCDOT, provided some history on how the collapse affected the area’s traffic conditions:

One of my first assignments was racing out to the West Side Highway when it collapsed. This was an elevated platform that fell to the ground. We were hired to measure the impact on traffic. I put traffic counters all across the avenues and traced the diversion; it went to the FDR Drive and to the West Side avenues. But over time, we didn't see any increase in traffic: the other avenues absorbed it and we weren't able to trace it.

Project Location



What was the decision-making process?

Even though the highway had been closed for years, alternatives for upgrading the corridor to the “Westway” were studied in the late-1980s. These included:

1. a “no build” that would have reconstructed the collapsed highway under the prior configuration,
2. a collection of related alternatives that included an at-grade boulevard with some improvements to access points, and
3. a fully grade-separated expressway.

These alternatives all included parallel bicycle and pedestrian facilities. After seven years of review and discussion, a variation of Alternative Two, which community board members called the "Lessway," was approved in May 1993. Construction began in 1996, and the Joe DiMaggio Boulevard was opened in 2001 to replace the West Side Highway.

The failure of the West Side Highway presented a unique environment for decision-making. As has been the case in several other freeway collapse situations, traffic was able to adapt to the street network. The longer people lived without the highway, the more they became convinced that they didn't need to replace it. This made it easier to reach consensus on alternatives. A variety of alternatives were

considered in the official decision-making process, with ample involvement of community stakeholders. Cost, as well as lack of support for reconstruction of an elevated freeway, was a factor in the final decision. Tunnel options were found to be excessively costly and were eliminated.

Westside Highway: Before and After



Credit: FHWA (above), Charles Spiegel (below)

What were the outcomes?

The Joe DiMaggio Boulevard is a popular corridor for bicyclists, walkers, and joggers. Redevelopment has occurred along the length of the corridor since the freeway was removed. Although some people feel that the design solution does not provide enough capacity, formal studies by the New York City Department of

Transportation (NYCDOT) have found that the highway closure has not resulted in undue congestion.

Are there parallels to *The I-81 Challenge*?

Traffic on the highway ranged from 90,000 to 140,000, similar to the volumes on the I-81 viaduct. It is located in the dense urban street network of Manhattan, which was able to successfully absorb the traffic once the freeway closed.

What can we learn from this project?

Traffic Circulation and Urban Mobility: This case shows how traffic is able to adapt to new conditions in ways that may not be entirely predictable by conventional traffic models. New York City has a robust street network that can be congested at times, but was seemingly able to carry the diverted traffic volumes without a noticeable increase in congestion. The new boulevard provides a bicycle and walking path, accommodating additional modes.

Economic Development/Urban Design: There has been some redevelopment alongside the corridor where the highway had been, which may have been unlikely, or of lower value, if the highway existed.

Political/Public Process: The decision-making process took place after the freeway had closed, which greatly altered public perception on the need for a replacement highway. Since so much time (over 20 years) elapsed between the freeway closure and the opening of the boulevard, people became used to not having the freeway and the boulevard essentially offered a new facility to the public.

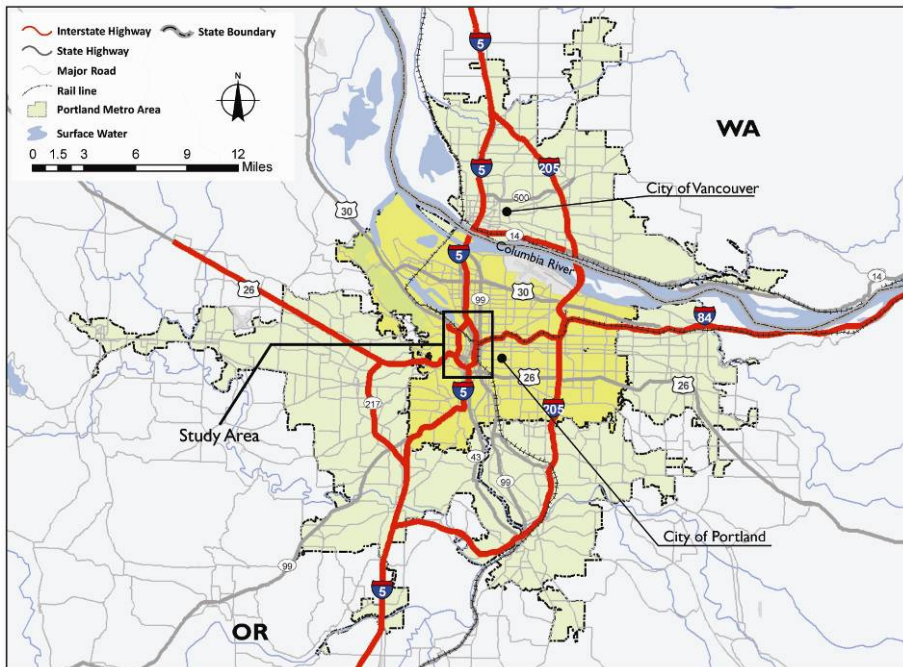
For More Information:

<http://www.nycroads.com/roads/west-side/>

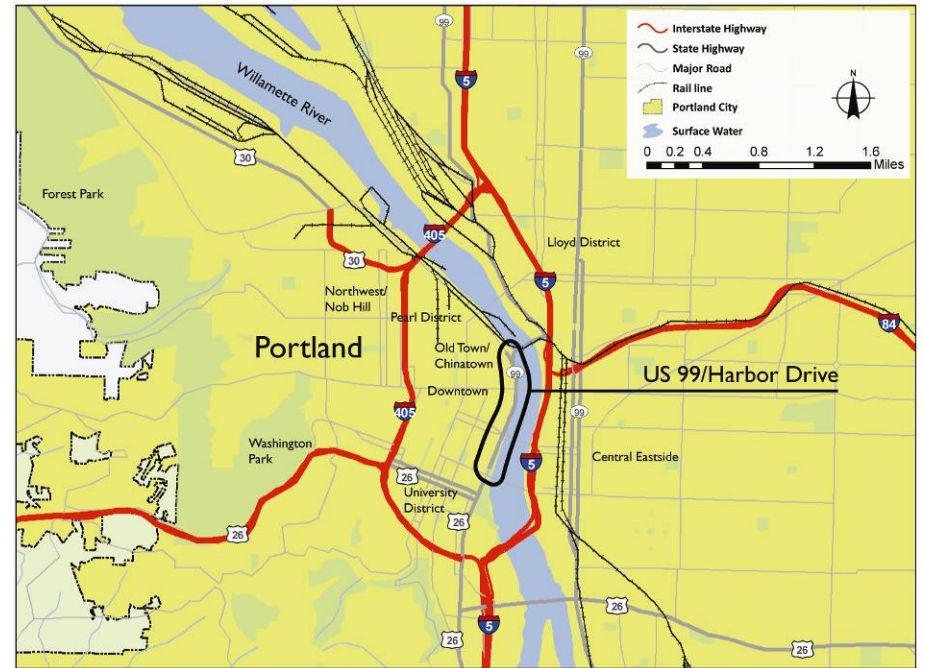
US 99W/Harbor Drive

	US 99W	I-81
Project Type	removal of an at-grade waterfront highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	yes	yes
Vehicles /day	25,000	100,000
Project Length	3 miles	1.4 mi.
Context	downtown: Willamette River waterfront	downtown
City	Portland, OR	Syracuse, NY
Population	437,000	140,658
Timeline	planning 1966-1968; freeway removed 1974	unknown
Cost/Cost per mile	not available	unknown

Regional Context: Portland



Project Location



This project replaced a riverfront highway, US 99W, with a park and boulevard. The opportunity to make this change came about with the construction of I-5, which paralleled US 99W on the east side of the Willamette River. Despite the increased freeway capacity provided by I-5, the Oregon DOT proposed to widen route 99W. This instigated a waterfront planning process, which eventually recommended in 1968 that the riverfront be reclaimed as a public park. I-405 was then completed in 1973, providing another parallel north-south route through Portland, and further obviating the need for the capacity provided by 99W. In 1974, Harbor Drive/99W was closed to traffic, and the Tom McCall Waterfront Park was constructed. No congestion was reported with the closure, and the park has proven to be a highly valued place in Portland.

What was the decision-making process?

A citizen's task force formed to develop a waterfront plan once the Oregon DOT announced plans to expand Harbor Drive/99W. This group eventually recommended closing the road and establishing a park, which was embraced by the city leaders and the public.



Source: National Agricultural Imaging Program (NAIP) Aerial Photo, NRCS

What were the outcomes?

This project is considered highly successful. Due to the availability of parallel routes, the traffic impacts were minimal, and the new park has helped revitalize the Willamette River waterfront. Further, the changes stimulated redevelopment in surrounding areas which increased property values, expanded the tax base, and helped encourage a more compact, sustainable development trend for the city.

Are there parallels to *The I-81 Challenge*?

The role and function of 99W was vastly different from I-81, as it served much lower traffic volumes and had two parallel interstate corridors in the immediate vicinity. This project was also conducted in a different era in terms of funding, regulation, and design practices.

What can we learn from this project?

Traffic Circulation and Urban Mobility: The construction of I-5 and I-405, parallel to this corridor, made the decision to remove the 99W highway much easier. Both of these roads provide alternative high speed through routes, as well as access to downtown.

Economic Development/Urban Design: Providing an opportunity for redevelopment and removing obstacles to public waterfront access have resulted in substantial economic and quality of life benefits for the city and the region. The park is immensely popular, and property values in the area have increased relative to other parts of the city.

Political/Public Process: The implementation of this freeway conversion, which occurred much earlier than others in this report, came about due to the cooperation of a grass roots organization and the local political establishment.

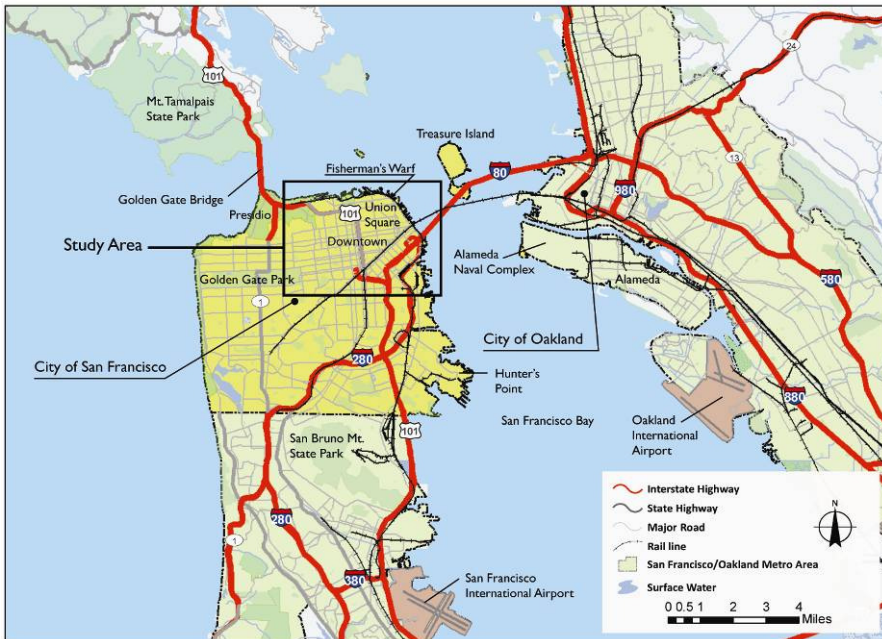
For More Information:

<http://www.westcoastroads.com/oregon/portland.html>

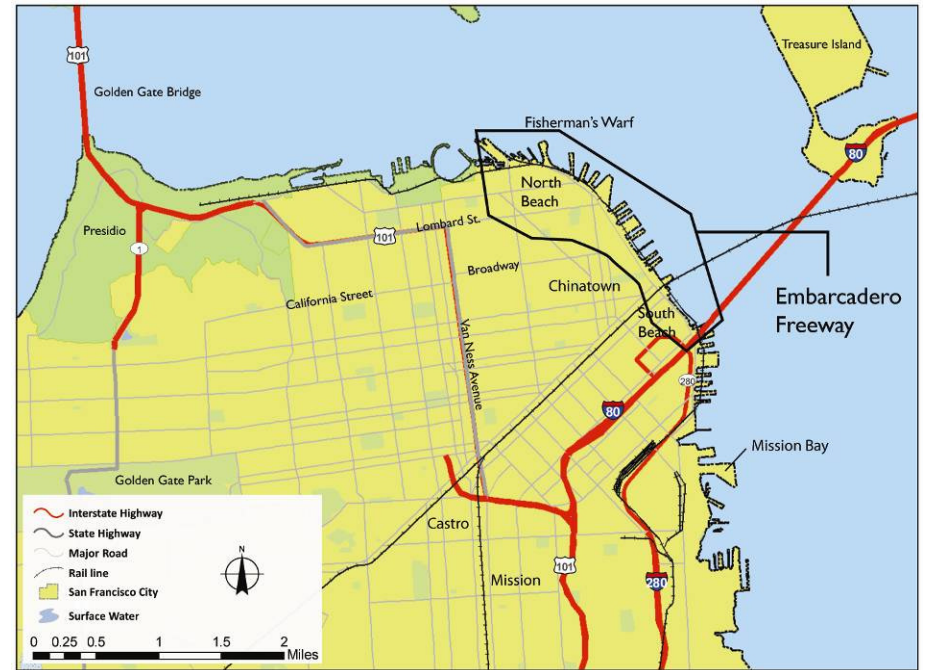
Embarcadero Freeway

	Embarcadero	I-81
Project Type	replacement of an elevated highway with a boulevard	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	no: spur highway to downtown	yes
Vehicles /day	61,000	100,000
Project Length	1.6 miles	1.4 mi.
Context	downtown: San Francisco Bay waterfront	downtown
City	San Francisco, CA	Syracuse, NY
Population	724,000	140,658
Timeline	planning and design 1983-1990; earthquake collapse 1989; construction 1991-2001	unknown
Cost/Cost per mile	\$171 million/ \$107 million per mile	unknown

Regional Context: San Francisco



Project Location



The Embarcadero Freeway was originally planned as a through route between the Bay Bridge (I-80) and the Golden Gate Bridge (Hwy 101), but was abandoned after the first leg was built due to growing concerns about the freeway’s impacts on surrounding neighborhoods. In 1985, the City of San Francisco Board of Supervisors moved to eliminate the freeway and replace it with a boulevard and trolley, but this measure failed in a 1987 vote, primarily due to fear of ensuing traffic congestion. In 1989, the Loma Prieta earthquake caused a section of the freeway to collapse, and the freeway was closed.

As the city grew accustomed to the freeway closure, there was a growing realization that traffic had adapted to the new network with few problems, and support for reconstruction waned. The decision-making process culminated in a 6-to-5 City Board of Supervisors vote that called for the highway to be torn down and

replaced with a boulevard, trolley line and waterfront park. The councilors who favored reconstruction did so largely out of concern that freeway removal would isolate the Chinatown neighborhood, located adjacent to the highway. In 1991, the Embarcadero Freeway was removed.



Precedent Design Study, Washington U. 2008

What were the outcomes?

The project is considered highly successful. The waterfront park is extremely popular, and the surrounding area has received significant levels of private investment. The Embarcadero Boulevard carries about 26,000 cars per day, about half the original freeway volume. The remaining traffic has either found other routes or switched to other modes of transportation.

Are there parallels to *The I-81 Challenge*?

Traffic volumes on the Embarcadero Freeway were lower than I-81, and, as a spur, the highway did not have the same function in the regional transportation network.

(Although originally planned as a through route, only the first leg was built.) However, this case provides a model of how local access to a downtown can be provided without a freeway. Traffic proved highly adaptable in this case, likely due to the availability of a robust local street network and a well-developed transit system.



Credit: Bruce Turner

What can we learn from this project?

Traffic Circulation and Urban Mobility: This project illustrates the ability of urban traffic to adapt to a significant change in the network, as drivers seek to avoid congestion and find their most favorable routes. The conversion to a boulevard allowed the route to support not only a significant number of cars, but also pedestrians and transit.

Economic Development/Urban Design: This project illustrates how the removal of an elevated freeway can increase property values and spur redevelopment. The freeway ran along the waterfront in an area with outstanding scenic value. As a result, the boulevard has attracted substantial economic development.

Political/Public Process: The process that led to the freeway removal decision had a number of unique characteristics. Since the freeway was closed after an earthquake, the city had to adapt quickly to the loss of capacity. The City Board of Supervisors took a stand against replacement of the freeway through a vote, which enabled the removal to proceed.

For More Information:

<http://www.streetfilms.org/archives/lessons-from-san-francisco/>

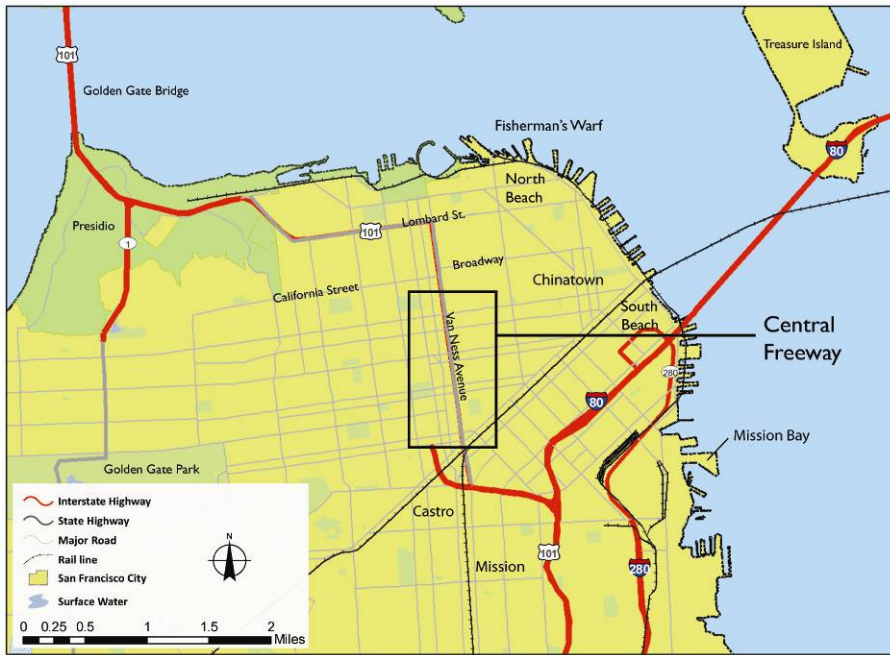
<http://courses.washington.edu/gehlstud/Precedent%20Studies/Embarcadero.pdf>

Central Freeway

	Central Freeway	I-81
Project Type	replace an elevated highway and with a boulevard	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	no: spur highway to downtown	yes
Vehicles /day	93,000	100,000
Project Length	0.6 miles	1.4 mi.
Context	downtown	downtown
City	San Francisco, CA	Syracuse, NY
Population	739,000	140,658
Timeline	earthquake causes closure 1989; planning and design 1989-2001; construction 2003- 2005	unknown
Cost/Cost per mile	\$50 million/ \$83 million per mile	unknown

Similar to the Embarcadero Freeway, the Central Freeway was intended to eventually cross the City of San Francisco as a through route, but the movement that arose in opposition to urban freeways prevented its completion. Therefore, the Central Freeway functioned as a spur, but it carried significant traffic volume--over 90,000 cars per day. Damage from the Loma Prieta earthquake also forced this highway to close, and support to demolish rather than rebuild the freeway gradually took hold. As time passed, drivers adapted to the loss of the freeway and it became apparent that the freeway closure had many positive effects on the neighborhood, such as lower noise levels and less traffic. However, after the earthquake, the California Department of Transportation (CalTrans) proceeded with plans to repair the elevated freeway, which was re-opened with a single deck serving two directions (rather than the previous double-deck design) in 1996.

Project Location



Octavia Boulevard - Credit: Bill Lieberman

There were two attempts at ballot initiatives brought by the “San Francisco Neighbors Association” calling to tear down the highway between 1994 and 1999. There was also a competing measure introduced by organizations representing neighborhoods to the west, which feared that the freeway removal would cause

unbearable congestion. During this time, a proposal by Alan Jacobs and Elizabeth MacDonald of UC Berkeley to replace the freeway with a multi-way boulevard gained support. Finally, there was a vote with conclusive results in 1999, when two separate measures were approved: one to tear down the freeway, and the second to build Octavia Boulevard. The freeway was demolished in 2002, and Octavia Boulevard opened in 2005 as a replacement for the Central Freeway. It now carries 45,000 cars per day, about half the volume of the freeway.

What were the outcomes?

The project has successfully addressed the need for traffic capacity, with nearly half of the prior traffic volume finding other routes or changing modes. The city has conducted counts of neighborhood streets surrounding the boulevard, and has not found any significant increases from the diversion. The neighborhood around the new boulevard has seen increased residential and commercial investment. The multi-way boulevard is largely considered successful, although some design issues at the intersections, particularly conflicts between the side access roads and cross street traffic, continue to require refinement.

Are there parallels to *The I-81 Challenge*?

The traffic volumes served by the Central Freeway are comparable to those on I-81, although this freeway only provided downtown access, did not carry through traffic, and was not an Interstate facility. There are limited parallels in terms of metropolitan area characteristics; San Francisco has a significant transit system and dense, urban grid of local streets that can offer travelers alternate routes. The Central Freeway decision-making process also occurred under unique circumstances, prompted by an earthquake that forced the freeway to be closed.

What can we learn from this project?

Traffic Circulation and Urban Mobility: This project offers one more example of the ability of traffic to re-route itself in an urban network and find routes that result in the least delay. A study conducted by the University of California Transportation Center⁶ concluded that most freeway drivers switched to other driving routes, and

very few switched to public transit. The project also shows that a multi-way boulevard is worthy of consideration as a design option that can carry significant traffic volumes and still provide a friendly edge for urban, pedestrian-oriented development.

Economic Development/Urban Design: The urban environment in the neighborhood adjacent to this freeway was dramatically improved by the project, through the reduction in noise and traffic, and improvement for other modes in the corridor. Even though there are still over 40,000 cars per day traveling on Octavia Boulevard, they do so at a slower speed. Redevelopment of newly available property will bring additional revenue to the city.

Political/Public Process: The process was highly politicized, with three different votes, and conflicting views from different neighborhoods. The planning process did not result in a consensus decision.

For More Information:

<http://www.sfcta.org/content/view/309/156/>

http://www.sfgov.org/site/sfdpw_page.asp?id=32258



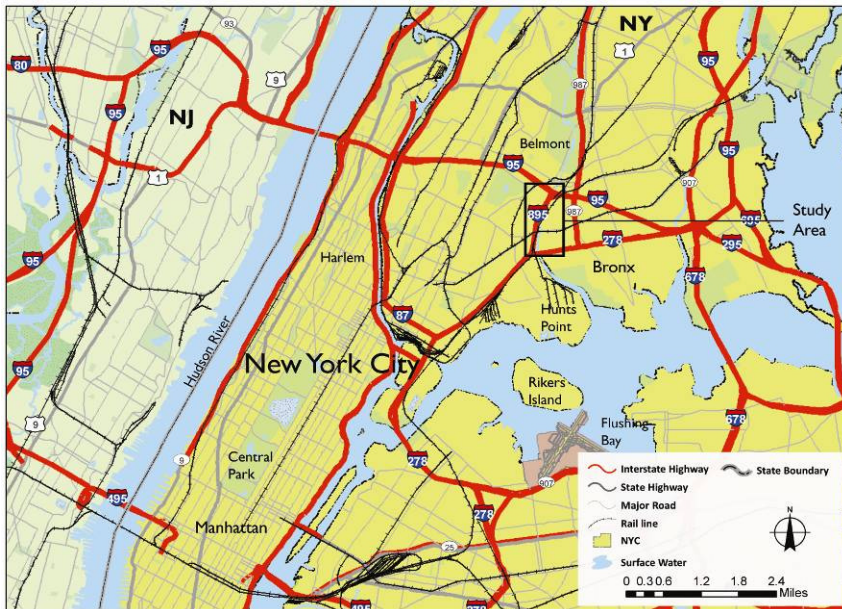
Credit: Bill Lieberman

CASE STUDIES FOR PLANNING AND DESIGN PROJECTS

I-895/Sheridan Expressway

	Sheridan Expressway	I-81
Type	at grade highway	existing elevated highway - TBD
Interstate Highway?	yes	yes
Through Traffic?	yes	yes
Vehicles /Day	41,000	100,000
Project Length	1.25 miles	1.4 mi.
Context	urban core	downtown
City	Bronx, NYC, NY	Syracuse, NY
Population	1,373,659 (Bronx only)	140,658
Project Stage	EIS	planning
Estimated Cost	\$413 million	unknown

Regional Context



Project Location



The Sheridan Expressway was the only completed segment of a highway that was intended to run parallel to the Bronx River Parkway through the Bronx and Westchester County. The highway is at grade level and runs along the shoreline of the Bronx River between the Bruckner and Cross Bronx Expressways. There is currently an ongoing EIS for improvements to the Bruckner Expressway, an elevated highway which has an interchange with the Sheridan. A coalition of local environmental, religious, and social equity organizations has created a plan to redevelop the Sheridan corridor with housing, a riverfront park, and alternative transportation choices. The EIS process has prompted calls by the community to eliminate this interchange and “de-commission” the Sheridan, which has low traffic volumes, especially by New York City standards. This would allow the redevelopment of the riverfront as envisioned by the community.

What was the decision-making process?

This project has benefited from a highly engaged community. A coalition of groups, including the South Bronx Watershed Association, Sustainable South Bronx, Youth Ministries for Peace and Justice, Tri-State Transportation Campaign, and Mothers on the Move, has been engaged in the New York State Department of Transportation (NYSDOT) EIS process since it began. The community worked to develop a comprehensive vision for the area, with transportation improvements and economic and residential development (see site plan on the following page), and have been seeking alternative designs that will allow the implementation of this plan.

The community vision alternative was in jeopardy early in the EIS process based on the outcome of a highly quantitative, technical analysis of alternatives. The community alternative, which included removal of the Sheridan along with street and transit improvements, ranked poorly in the traffic modeling results, which indicated high levels of congestion. An independent analysis of the modeling results concluded that a modeling error explained the disproportionate levels of congestion for the community vision alternative. In addition, the economic impact analysis did not include any of the economic benefits from the envisioned redevelopment of the Bronx River waterfront, further slanting the technical analysis against the community vision alternative. NYSDOT proved to be responsive to these concerns, and revised their traffic and economic analyses accordingly. .



In the next phase of the public involvement process, two lists of criteria were developed including qualitative and quantitative measures. A community stakeholder group provided the qualitative ranking of alternatives and NYSDOT provided the quantitative measures using models and other technical analyses. A summary of the overall project goals and objectives that were developed by these groups, focused on

both transportation and community development is shown to the right.

Table 1
Project Goals and Objectives

Goal	Objective
1 Improve Transportation System Efficiency and Reliability	1.1 Minimize travel delays within the primary study area
	1.2 Minimize delays resulting from incidents on expressways
	1.3 Enhance traffic network infrastructure
	1.4 Promote public transit service
	1.5 Improve bicycle and pedestrian travel
2 Enhance Quality of Life	2.1 Reduce the number of trucks on local streets
	2.2 Improve access to parks
	2.3 Minimize disruption to the community resulting from highway construction and operation
3 Support Economic Development	3.1 Provide direct truck access to Hunts Point peninsula markets
	3.2 Maintain and improve rail freight service to South Bronx industries and Hunts Point Markets
	3.3 Reduce truck miles and hours traveled
	3.4 Promote waterborne freight access to Hunts Point
4 Reduce Accidents	4.1 Increase pedestrian safety and reduce accidents, accident rates, and severity at busy primary study area intersections
	4.2 Reduce accidents, accident rates, and severity on the expressway system in the primary study area
5 Minimize Adverse Environmental Impacts	5.1 Reduce truck emissions in residential areas
	5.2 Minimize and mitigate adverse environmental impacts resulting from highway construction and operation
6 Support Environmental Enhancements	6.1 Provide access to planned parkland and recreational facilities
	6.2 Support the development of regional bicycle/pedestrian routes
	6.3 Support the development of river-front open space on the Bronx River and on the East River
7 Financial Viability	7.1 Minimize capital cost while meeting project objectives
	7.2 Maximize the cost effectiveness of transportation system investments
8 Maintain Security	8.1 Maintain alternative routes and delivery systems for vital freight needs in the event of a security breach on key interstate facilities

Listing of Project Goals and Objectives, NYSDOT

The NYSDOT and community stakeholders group agreed that while quantitative models can provide helpful information, there should be a qualitative review and ranking as well. NYSDOT convened a panel of stakeholders to develop qualitative rankings for many of the measures, following a process where the rankings from each panel member were averaged (see example of results in the next table). This proved to be an effective way to combine technical analysis and local perspectives into a transparent decision-making process.

Table 4
Qualitative Screening of Alternatives

Expert Panel		Objective	Max /Min	Rank-based Weight	Alternative								
					1A	1B	2A	2B	2C	2D	3A	3B	3C
Transportation Efficiency and Security	1.1	Minimize travel delays within the primary study area.	Min	4.29	1.3	2.3	3.0	3.0	3.5	3.5	1.3	2.3	1.0
	8.1	Maintain alternative routes and delivery systems for vital freight needs in the event of a security breach on key interstate facilities	Max	0.97	1.5	2.0	2.5	4.0	2.5	3.0	2.5	3.5	2.5
Environmental Issues and Impacts on Quality of Life	2.2	Improve access to parks	Max	3.39	3.7	2.2	0.2	0.2	0.5	0.2	0.0	1.2	2.0
	6.1	Provide access to planned parkland and recreational facilities											
	2.3	Minimize disruption to the community resulting from highway construction and operation	Min	3.16	3.7	3.3	0.2	0.2	0.5	0.0	0.0	0.8	1.0
	2.1	Reduce the number of trucks on local streets	Min	7.79	3.7	3.7	0.8	0.5	1.2	0.8	1.2	2.0	0.6
	5.1	Reduce truck emissions in residential areas											
	5.2	Minimize and mitigate adverse environmental impacts resulting from highway construction and operation	Min	2.5	3.7	3.3	0.2	1.0	1.7	0.6	0.0	1.2	2.0
	1.5	Improve bicycle and pedestrian travel	Max	2.08	3.7	2.7	0.3	0.3	0.5	0.4	0.0	0.2	1.4
6.2	Support the development of regional bicycle/pedestrian routes												
6.3	Support the development of river-front open space on the Bronx River and on the East River	Max	2.45	3.7	2.8	0.0	0.0	0.0	0.0	0.0	0.2	1.8	
Economic Development	3.1	Provide direct truck access from expressways to Hunts Point peninsula markets	Max	5.53	0.1	0.1	1.2	0.3	4.0	3.1	0.2	2.0	0.1
	3.2	Maintain and improve rail freight service to South Bronx industries and Hunts Point markets	Max	2.26	0.2	0.2	1.0	0.1	3.9	3.1	0.1	2.1	0.1
	3.3	Reduce truck miles and hours traveled	Min	2.68	0.1	0.1	1.2	0.3	4.0	3.2	0.2	2.0	0.1
System Safety	4.1	Increase pedestrian safety and reduce accidents, accident rates, and severity at busy primary study area intersections	Min	4.08	0.3	0.5	2.2	2.5	3.5	2.0	2.5	3.7	1.0
	4.2	Reduce accidents, accident rates, and severity on the expressway system in the primary study area	Min	2.58	0.3	0.5	2.2	2.5	3.5	2.0	2.5	3.7	1.0
NYS DOT	7.1	Minimize capital costs while meeting overall project objectives	Min	0.29	0.0	2.0	1.0	1.0	1.0	3.0	4.0	2.0	4.0
				Total	89	84	51	45	101	74	37	86	43

Note: Shaded area shows highest ranking alternatives carried forward to Quantitative Screening

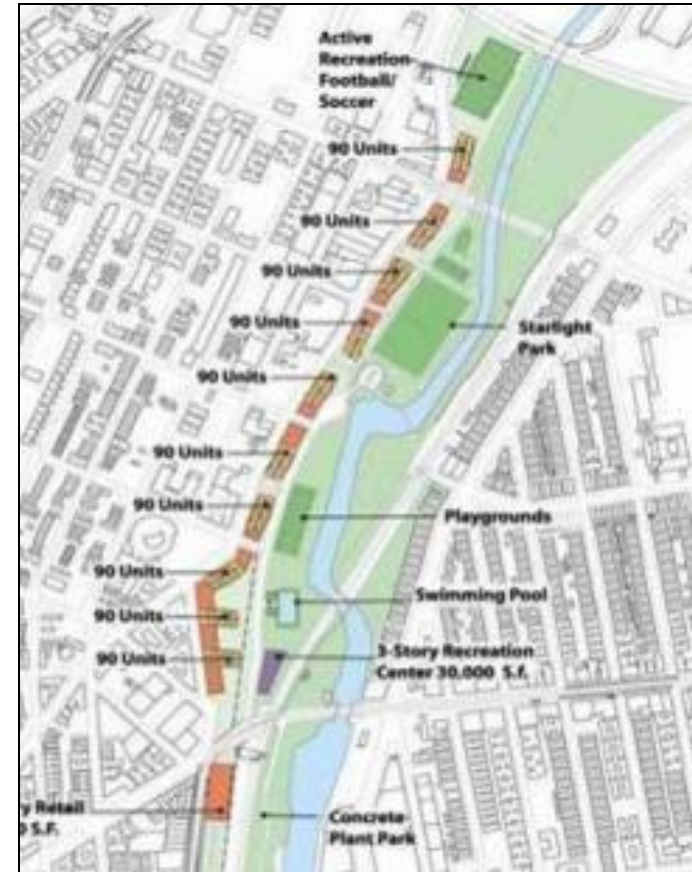
Qualitative Ranking of Alternatives based on average ranking of stakeholder group members

What can *The I-81 Challenge* learn from this effort?

The relationship between NYS DOT and the local community had seen its highs and lows during the course of this project, but currently, both sides are working collaboratively on a planning process that includes evaluation of broad community goals. Of particular interest is the process of qualitative ranking of alternatives. These techniques, where a panel of local experts is convened to provide a community perspective on various criteria, are being used more frequently for major transportation projects, and could apply to the I-81 project.

For More Information:

<https://www.nysdot.gov/regional-offices/region11/projects/project-repository/bese/index.html>

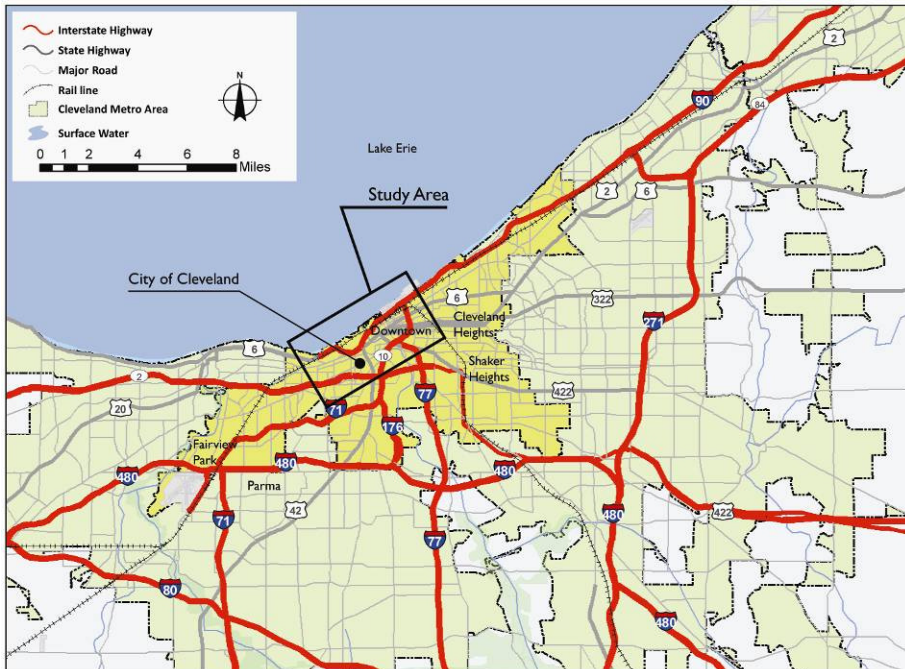


Community Vision Plan for the Sheridan Corridor

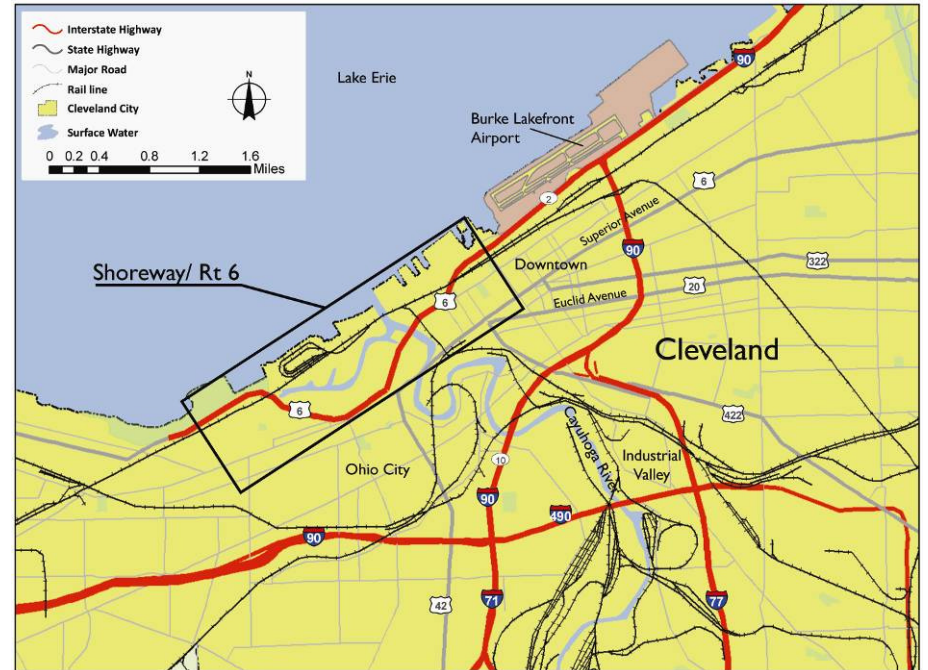
Cleveland Memorial Shoreway/Route 6 (West)

	Cleveland Memorial Shoreway	I-81
Type	at grade limited access highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	no-spur highway	yes
Vehicles /Day	45,000	100,000
Project Length	8 miles	1.4 mi.
Context	downtown waterfront	downtown
City	Cleveland, OH	Syracuse, NY
Population	596,974	140,658
Project Stage	planning	planning
Estimated Cost	\$77 million	unknown

Regional Context



Project Location



The Cleveland Memorial Shoreway serves as the primary highway access between downtown Cleveland and the near west side suburbs. While it provides convenient transportation, it also creates a barrier between downtown and Edgewater Park, a significant urban recreation resource. As part of a downtown freeway reconstruction project, an option to convert the limited access, high speed Shoreway into a tree-lined, 35 mph boulevard gained wide appeal among the local neighborhoods served by this corridor.

What was the decision-making process?

This project was the subject of protracted disagreements between the City of Cleveland and the Ohio Department of Transportation (ODOT). The reconfiguration was initially rejected by ODOT due to traffic and funding issues, but the city

remained resolute that this was the best option. Cleveland officials reduced the speed limit of the road from 50 to 35 mph, and argued that state law enabled this because the road passed through Edgewater Park. Initially, the ODOT did not agree, but eventually, the concept gained approval. The conversion to a boulevard is now planned as a “Phase II” of the highway reconstruction project, which includes some other downtown freeway improvements. Construction is planned to begin in 2013.



Source: Creative Commons, FreewayFan2007.

What can *The I-81 Challenge* learn from this effort?

The Shoreway was constructed with the intention of connecting commuters conveniently with the downtown, but has served to be a substantial barrier between the Detroit Avenue neighborhood and Edgewater Park, on the Lake Erie shore. The Cleveland Waterfront District Plan has recognized the desire to address these impacts with the proposed boulevard plan, at odds with the ODOT concepts.

Since the decision to convert this highway to a boulevard, private investment in the Detroit Avenue/Shoreway neighborhood has already been increasing based on optimism about the potential benefits of the boulevard and the enhanced accessibility to Edgewater Park that it would allow.

For More Information:

http://blog.cleveland.com/metro/2008/12/plan_to_turn_clevelands_west_s.html



Plan to Improve Connectivity to Shoreway and Edgewater Park

Gowanus Expressway

	Gowanus Expressway	I-81
Type	elevated highway	existing elevated highway - TBD
Interstate Highway?	yes	yes
Through Traffic?	yes	yes
Vehicles /Day	198,000	100,000
Project Length	3.8 mile viaduct section	1.4 mi.
Context	urban core	Downtown
City	Brooklyn, NYC, NY	Syracuse, NY
Population	2,528,050 (Brooklyn)	140,658
Project Stage	EIS	planning
Estimated Cost	\$2.4-\$12.8 billion	unknown

Project Location



The Gowanus Expressway is a major highway that runs from the Verrazano-Narrows Bridge to the Brooklyn-Battery Tunnel/Brooklyn-Queens Expressway Interchange, with connections to the Shore Parkway and the Prospect Expressway. It is an elevated highway, constructed in 1941 in the Robert Moses era. Traffic volumes grew over time, and it was expanded in the 1970s to three lanes in each direction. Some members of the community have blamed the highway for economic decline in the Red Hook neighborhood adjacent to the expressway, as well as for high asthma rates in this part of Brooklyn.⁷



What was the decision-making process?

In 1985, the New York State Department of Transportation (NYSDOT) initiated discussion of reconstruction options for the elevated expressway, which was showing signs of deterioration, and began technical studies. In 1992, NYSDOT announced their intention to reconstruct the elevated portion in sections over a ten year period. During the construction of each segment, the highway would be closed to traffic, which was to be re-routed onto local streets. For a number of reasons, the plan met strong opposition from the community. The potential impacts during the construction period, including significant harm to communities that were already suffering economically, were felt to be untenable. Further, many community members wanted to see a broader range of alternatives considered, including removing the freeway and replacing it with a boulevard or a tunnel. The Environmental Impact Statement (EIS) had only analyzed a single “build” alternative.

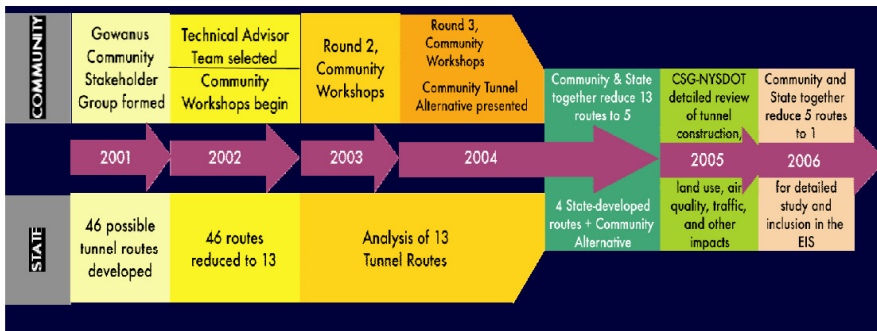
In 1997, the Gowanus Expressway Community Coalition filed a lawsuit against the NYSDOT, which stalled the project. In 2001, NYSDOT and the coalition reached an agreement to essentially re-start the planning process with much greater input and

collaboration from the community. The agreement established a Community Stakeholder Group (CSG), and provided funding for a “Community Engineer” to advise the CSG through the EIS process.

Between 2001 and 2006, a wide range of options were explored in the renewed draft EIS process. At this time, the draft EIS is considering two alternatives, including a tunnel alternative supported by the community and an alternative that reconstructs the elevated highway.

The new process that was initiated following the lawsuit has been far more successful in drawing in and actively considering community input. However, complications regarding the feasibility of a tunnel, and the high costs of constructing one, are concerns that could prevent the selection of this community-supported alternative in the end.

The process of finding a solution for the Gowanus Expressway has now stretched beyond 20 years. This case exemplifies the risk of delayed action for the I-81 corridor if consensus cannot be reached.



At the start of the renewed process, all parties agreed that there should not be loss of vehicular capacity, so alternatives that included removal of the freeway and replacement with a boulevard have not been considered. However, transit and other surface street improvements to repair the street network have been incorporated into the CSG tunnel alternative. The *Tunnel Alternative Report*, prepared by the CSG, describes some potential alignments for the tunnel alternatives.

What can *The I-81 Challenge* learn from this effort?

There are some important parallels between the Gowanus Expressway and *I-81*. They are both aging urban viaducts that are carrying more traffic than the designers ever envisioned. However, the Gowanus is far more deteriorated and carries substantially more traffic. With the delays in the EIS process, maintenance activities are frequently required which are costly and exacerbate congestion on the corridor.



German Tunnel Boring Machine – 46 feet in diameter



Alternative Tunnel Routes

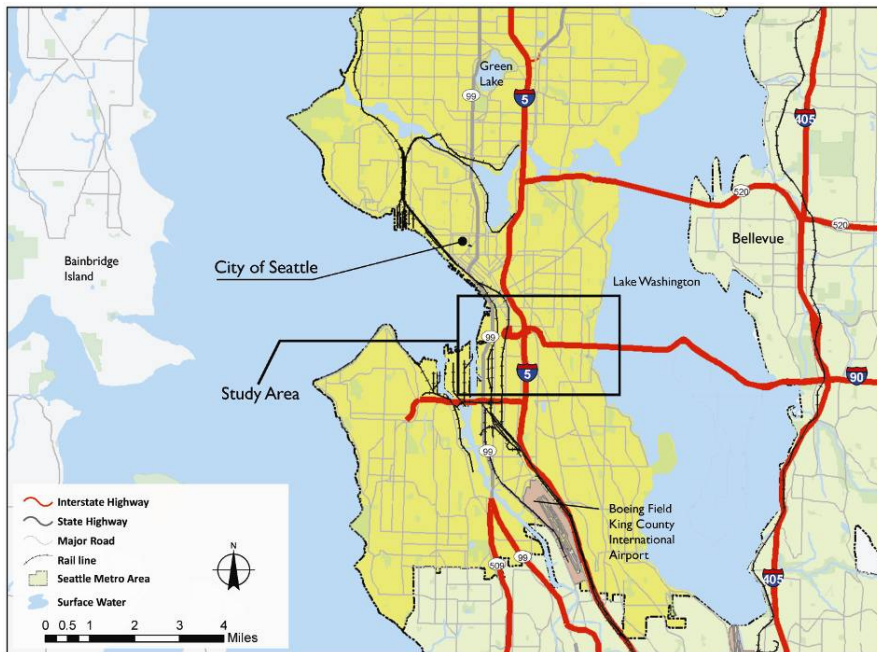
For More Information:

<https://www.nysdot.gov/portal/page/portal/regional-offices/region11/projects/gowanus-project>

Highway 99/Alaskan Way Viaduct

	Highway 99	I-81
Type	elevated highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	yes	yes
Vehicles /Day	103,000	100,000
Project Length	2.8 miles	1.4 mi.
Context	waterfront	downtown
City	Seattle, WA	Syracuse, NY
Population	582,454	140,658
Project Stage	EIS	planning
Estimated Cost	\$1,913 million (bored waterfront tunnel alternative)	unknown

Regional Context: Seattle



Project Location



The Alaskan Way Viaduct carries State Route 99 through Seattle along its Puget Sound waterfront. It is a double-deck highway with four lanes in each direction, and carries over 100,000 vehicles per day. The highway structure is considered an eyesore by residents and a barrier between downtown and the city’s active waterfront. There has been strong interest in exploring alternatives.



What was the decision-making process?

The viaduct was damaged by an earthquake and is at risk of more serious damage or failure if another significant earthquake occurs. Alternatives that have been considered include a new replacement structure, which would be even larger than the existing facility in order to meet modern engineering standards. Several options for full or partial cut-and-cover tunnels, requiring complicated construction plans and high costs, have also been considered. Another alternative, which has been called “Streets and Transit,” includes replacement of the viaduct with a boulevard, reconnecting and improving the downtown street grid’s traffic capacity, and increasing transit service to and through downtown.

In March 2007, Seattle voters were asked to vote on two of these alternatives: a new elevated highway and a new tunnel. The public voted “no” on both, indicating that perhaps the “Streets and Transit” alternative was the preferred option.



Construction of both the new elevated highway and the tunnel alternatives would have required closing the viaduct for several years. For some members of

the community, this begged the question: if we can live without the viaduct for five years during construction, why can’t we live without it forever?

Since the vote, a renewed, collaborative effort between Washington State DOT (WSDOT), the City of Seattle, and King County was initiated to look more broadly at alternatives. This included the development of a Study Advisory Committee that established a list of “Guiding Principles” for all alternatives and proposed broad

performance measures that reflect these principles. The alternatives development started with a set of “building blocks” representing a variety of urban mobility elements, including surface street improvements, highway improvements, transit improvements, and travel demand management strategies (e.g. land use strategies, parking management). These building blocks were then mixed and matched into alternatives.

This renewed, collaborative process has resulted in the City of Seattle, King County, and the WSDOT agreeing to proceed with a bored tunnel alternative. This tunnel would be substantially deeper than the other “cut and cover” tunnel alternatives that were considered previously, and it would provide no intermediate access points along its length. The bored tunnel is the highest cost alternative, but one factor in its favor is that it could be constructed while the existing viaduct remains open.

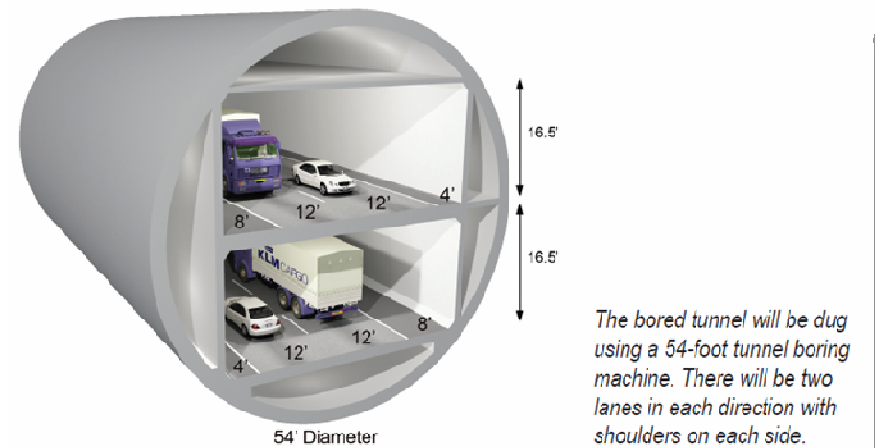


Illustration of the Proposed Double-Deck Bored Tunnel (WSDOT)

What can *The I-81 Challenge* learn from this effort?

The traffic volume and function of the Alaskan Way viaduct is comparable to the I-81 viaduct through downtown Syracuse. However, it is not an interstate highway, and only about 20% of its traffic is through moving.

The city has seen high levels of investment and redevelopment in and around the downtown area, and the viaduct is a substantial barrier between the downtown and the city's scenic waterfront. There is strong consensus in the city that replacing the viaduct is not an appropriate alternative, and would prolong a mistake from an earlier era.

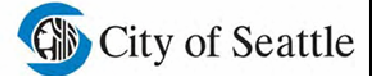
The renewed approach to the planning and design process has utilized some innovative methods that are worthy of consideration in Syracuse. The first step was to come to consensus on a set of guiding principles, which helped set the basis for the subsequent development of performance measures. Another was the use of "building blocks," which included construction, transit, and demand management components (i.e. parking pricing), that could be mixed or matched as appropriate in the development of alternatives.



For More Information:

<http://www.wsdot.wa.gov/projects/Viaduct/>

<http://www.seattle.gov/Transportation/awv.htm>



Alaskan Way Viaduct

Guiding Principles

February 2008

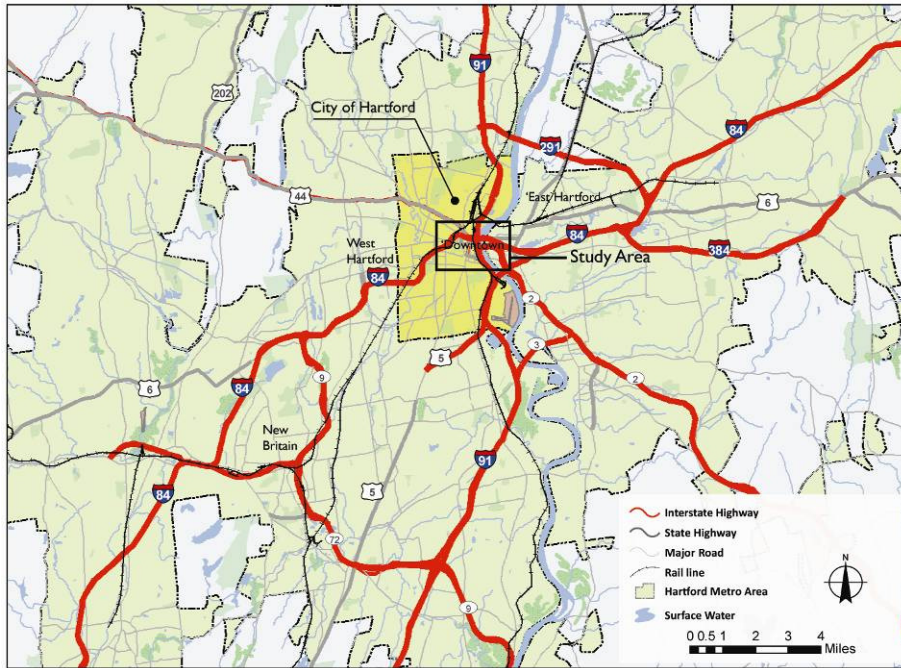
Any solution to the Alaskan Way Viaduct is to be grounded in the city, state and county's recognition of, commitment to and integration across a set of six guiding principles. These guiding principles are as follows:

- **Improve public safety.** Replacing the viaduct is an urgent public safety issue. Any solution to the Alaskan Way Viaduct must improve public safety for current viaduct users and along the central waterfront.
- **Provide efficient movement of people and goods now and in the future.** Any solution to the Alaskan Way Viaduct must optimize the ability to move people and goods today and in the future in and through Seattle in an efficient manner, including access to businesses, port and rail facilities during and after construction.
- **Maintain or improve downtown Seattle, regional, the port and state economies.** Any solution to the Alaskan Way Viaduct must sustain the city, region, port and state's economic vitality during and after construction.
- **Enhance Seattle's waterfront, downtown and adjacent neighborhoods as a place for people.** Any solution to the Alaskan Way Viaduct must augment Seattle's reputation as a world-class destination.
- **Create solutions that are fiscally responsible.** Any solution to the Alaskan Way Viaduct must make wise and efficient use of taxpayer dollars. The state's contribution to the project is not to exceed \$2.8 billion in 2012 dollars.
- **Improve the health of the environment.** Any solution to the Alaskan Way Viaduct must demonstrate environmental leadership, with a particular emphasis on supporting local, regional and state climate change, water quality and Puget Sound recovery initiatives.

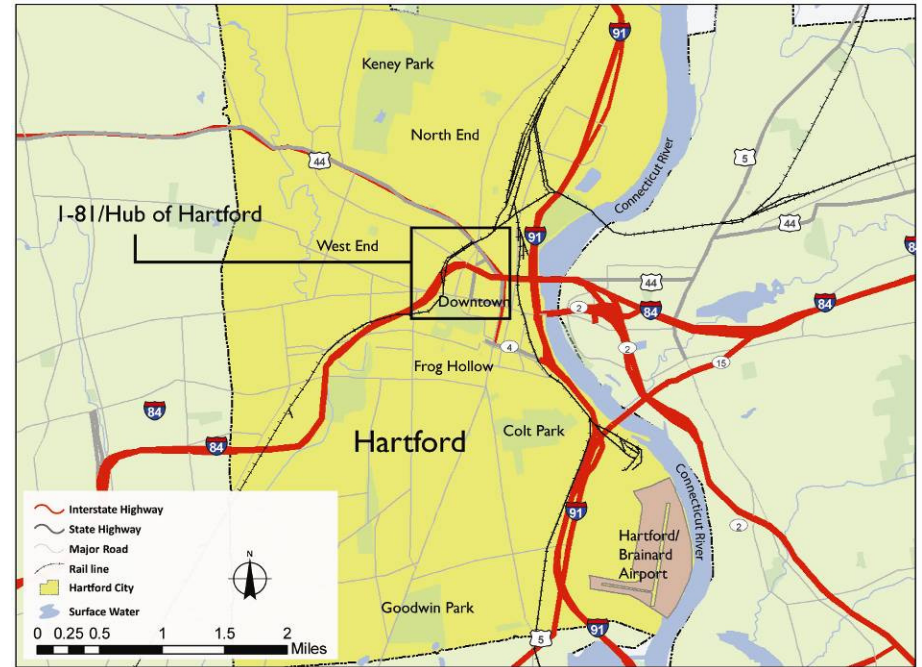
I-84/Hub of Hartford

	I-84	I-81
Type	elevated highway	existing elevated highway - TBD
Interstate Highway?	yes	yes
Through Traffic?	yes	yes
Vehicles /Day	172,000	100,000
Project Length	1 mile	1.4 mi.
Context	downtown	downtown
City	Hartford, CT	Syracuse, NY
Population	124,512	140,658
Project Stage	planning	planning
Estimated cost	unknown	unknown

Regional Context: Hartford



Project Location



When the Connecticut Department of Transportation (CTDOT) announced that \$100 million was to be spent on repairing the Aetna Viaduct, which carries I-84 through downtown Hartford, many people, particularly neighbors of the structure, objected, concerned that this investment would prolong the life of a structure that is thought to contribute noise and blight to the downtown area. Since that time, the CTDOT project has been scaled down to only include immediately necessary safety repairs and has funded a broad exploration of alternatives with the Connecticut Regional Council of Governments.

What was the decision-making process?

In 2006, the Aetna Viaduct Alternatives Committee was formed to raise awareness about the impacts of the highway on surrounding neighborhoods through which it passes. Meanwhile, the Capital Region Council of Governments (CRCOG) convened a study group to consider long range alternatives to reconstruction of the viaduct. The viaduct carries more than 180,000 cars per day and the area around it has felt the impacts of the highway, including noise, dust, and the visual presence of the elevated structure. The “Hub of Hartford” steering committee includes representatives from the City of Hartford, the major employers in the city (Aetna, The Hartford, etc.), neighborhood representatives, the CTDOT, and the CRCOG. The steering committee’s mission statement reads, “Using the redesign and de-emphasis of I-84 as the central theme for change, the Hub of Hartford can become a lively and walkable, mixed-use, mixed-income urban place, and a regional crossroads where business, government, community and recreational uses integrate seamlessly in a historic context supplemented by compatible new development.”

What can *The I-81 Challenge* learn from this effort?

The Aetna Viaduct carries somewhat higher traffic volumes than does the I-81 viaduct in Syracuse. However, this project does have several similarities to *The I-81 Challenge*. The sizes of the metropolitan areas and the regional significance of



these interstate highways are comparable.

The primary goal of the Hub of Hartford is to explore ways to repair the damage and impact of the I-84 viaduct. While efficient transportation will be a critical consideration, the urban environment shares equal priority among members of the steering

committee. A study of alternatives that is currently underway will include, “a comprehensive assessment of how each alternative might help improve the quality of life in surrounding neighborhoods, support existing businesses, and promote economic development⁸.”

The “Hub of Hartford” committee emphasizes employer and neighborhood representation. Their initial effort is not leading directly to an EIS, but rather is a broad-reaching urban planning and design effort that will precede the highway planning and design process, perhaps comparable to the *University Hill Transportation Study* in Syracuse.

For More Information:

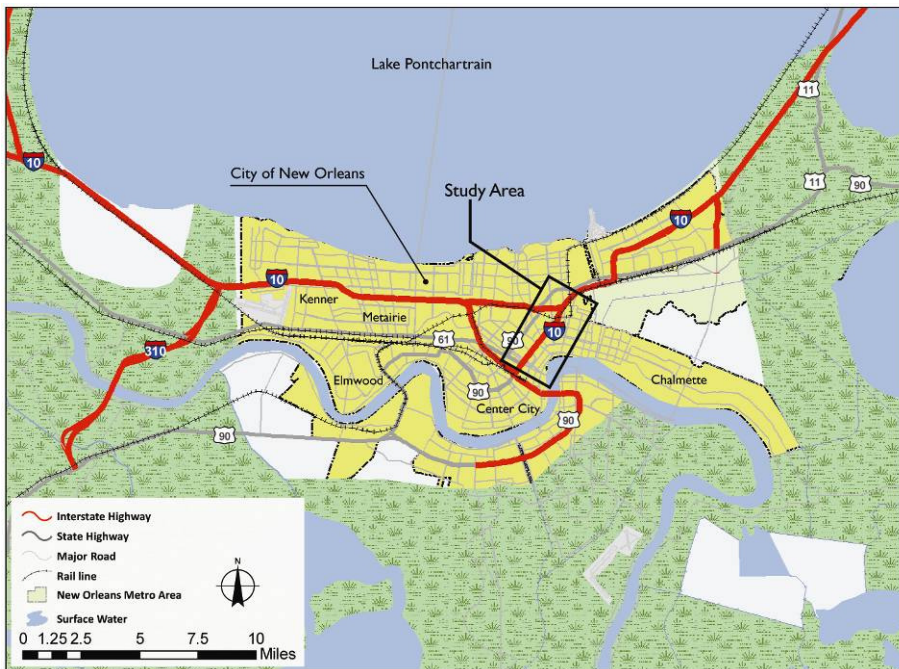
<http://www.crcog.org/viaduct.html>

http://www.hartfordinfo.org/issues/documents/transportation/htfd_courant_0413_08_2.asp

I-10/Claiborne Expressway

	I-10	I-81
Type	elevated highway	existing elevated highway - TBD
Interstate Highway?	yes	yes
Through Traffic?	yes	yes
Vehicles /Day	69,000	100,000
Project Length	2 miles	1.4 mi.
Context	downtown	downtown
City	New Orleans, LA	Syracuse, NY
Population	288,000	140,658
Project Stage	planning	planning
Estimated cost	unknown	unknown

Regional Context



Project Location



A portion of Interstate 10 was constructed as an elevated route on top of Claiborne Avenue in New Orleans in the 1960s. This dramatically altered the neighborhoods in the area, as many buildings were demolished to make room for the freeway, and the remaining structures were impacted by noise and shadows.

What was the decision-making process?

Since Hurricane Katrina, the Unified New Orleans Plan (UNOP) has been considering significant changes to the city’s infrastructure, including the conversion of I-10 to an at-grade Claiborne Boulevard, more closely resembling its historic role and character. The overall goals of the UNOP include community stabilization, transit expansion, and repairing local infrastructure. Removing the Claiborne Expressway,

and establishing a boulevard similar to what was in place before the highway, should serve these goals⁹.



Historic Claiborne Avenue, Times Picayune Archives

The regional transportation impact of this conversion could be limited because I-610, constructed in the 1970s, provides a direct alternative for long distance travel. The potential for improved local traffic circulation provided by an at-grade boulevard has great appeal, as do the slower speeds and ability to create a more attractive, tree-lined street.

What can *The I-81 Challenge* learn from this effort?

The traffic volumes on I-10 are comparable to those on I-81; and an alternate route exists that does not require significant additional travel time for through traffic. Current planning for a replacement to I-10 is multimodal and includes substantial transit improvements. A primary motivation of the project is redevelopment of the corridor, and the city has concluded that traffic redistribution onto the local street network can be a factor to stimulate economic development.

For More Information:

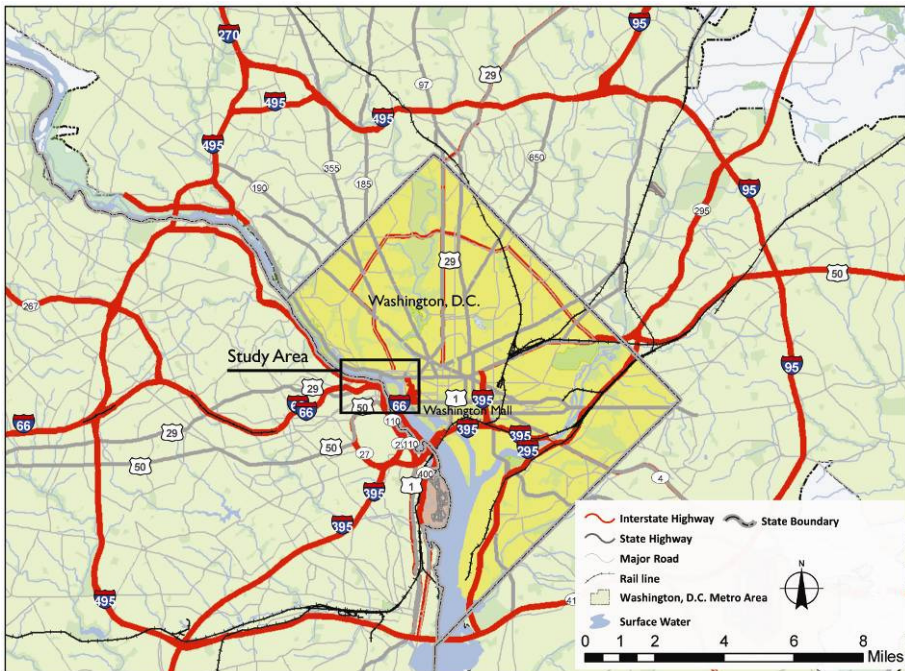
<http://www.unifiedneworleansplan.com/home3/section/136/city-wide-plan>



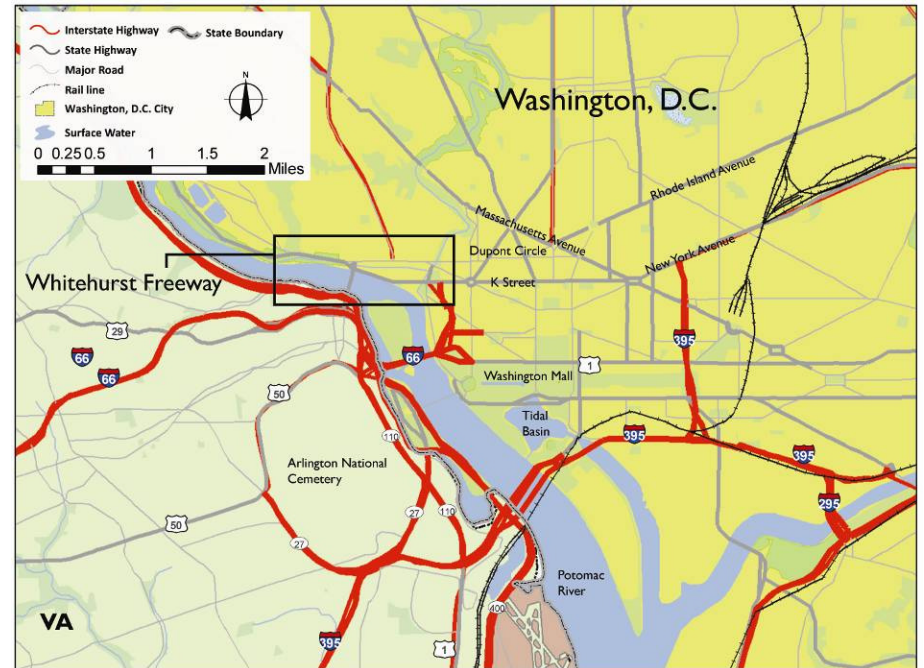
Whitehurst Freeway

	Whitehurst Freeway	I-81
Type	elevated highway	existing elevated highway - TBD
Interstate Highway?	no	yes
Through Traffic?	yes	yes
Vehicles /Day	42,000	100,000
Project Length	0.6 miles	1.4 mi.
Context	waterfront	downtown
City	Washington, DC	Syracuse, NY
Population	591,833	140,658
Project Stage	planning	planning
Estimated cost	unknown	unknown

Regional Context



Project Location



The Whitehurst Freeway is a short section of limited access highway that connects Georgetown to central Washington DC. It is used primarily by commuters and functions as a spur route serving the local area. It is elevated and has substantial noise impacts on surrounding neighborhoods.

What was the decision-making process?

In the mid-1980s, the Capital District Department of Transportation initiated a study to look at the feasibility of deconstructing the freeway. The study, which was also to serve as an Environmental Impact Statement (EIS), focused on a broad range of issues, including traffic operations, transit and pedestrian services, and possibilities for improved access to a waterfront park along the Potomac River in Georgetown. Urban design and environmental features were considered important factors.

Part way through the study, it was halted by the mayor of Washington, D.C. due to opposition to removal from commuters and local residents who feared increased traffic on their local streets. At the present time, there is no official consideration of removal of this road, although there continues to be discussion in the community.

What can *The I-81 Challenge* learn from this effort?

The Whitehurst Freeway has much lower traffic volumes and fewer geometric design issues than I-81 in Syracuse. It serves primarily commuter traffic into Washington, D.C. The process that considered options of removing the freeway proved to be divisive within the community, with some strongly supporting removal and others fearful of the traffic impacts. In addition, commuters from Maryland and Virginia suburbs expressed strong opposition to removal, eventually leading to cancellation of the study. The process failed to develop a consensus solution, and some of the stakeholders were not involved early enough in the process.

For More Information:

<http://www.ddot.dc.gov/ddot/cwp/view,a,1249,g,625355.asp>



The area underneath the elevated expressway has found some utility in the form of a weekly farmers market that is sheltered from rain and sun by the highway. However, given the educational and employment resources in the vicinity of the highway, many in the community believe that there likely would be opportunities for an improved economic environment if the highway was removed or its impacts mitigated. At this time, the study of future options has not reached any conclusions.



For More Information:

<http://www.baltimoresun.com/business/bal-bz.jfx17may17,0,7643521.story>



Credit: James George

International Examples

This section of the report presents some examples of freeway projects from beyond the United States. In comparison with U.S. examples, it is more difficult to develop comprehensive international case studies, due to limited access to data. Also, these examples have limited direct applicability to domestic situations, due to very different policies, regulations, design standards, and cultural expectations. However, this cursory overview offers some compelling design concepts.



In Europe, there are very few highways that have penetrated city centers, as European cities have primarily developed ring road networks with streets and transit entering the city cores. It is common for European cities to go to great lengths to separate highways from their cities, as shown in the photo at left of an elevated highway constructed in a manner that protects the village below.

Bologna, Italy

Located at a central transportation crossroads, Bologna is creating a long-term transportation program as part of its strategy to become an increasingly important economic development center and to reverse the trend of declining population yet expanding urban area. Like Syracuse, Bologna is promoting “the knowledge economy,” highlighting the University of Bologna, the oldest university in the western hemisphere, which is currently home to 70 departments and over 100,000 students. In the center city, pedestrian movements are given very high priority. This choice is facilitated by the mix of perimeter parking areas and the strength of the transit system.

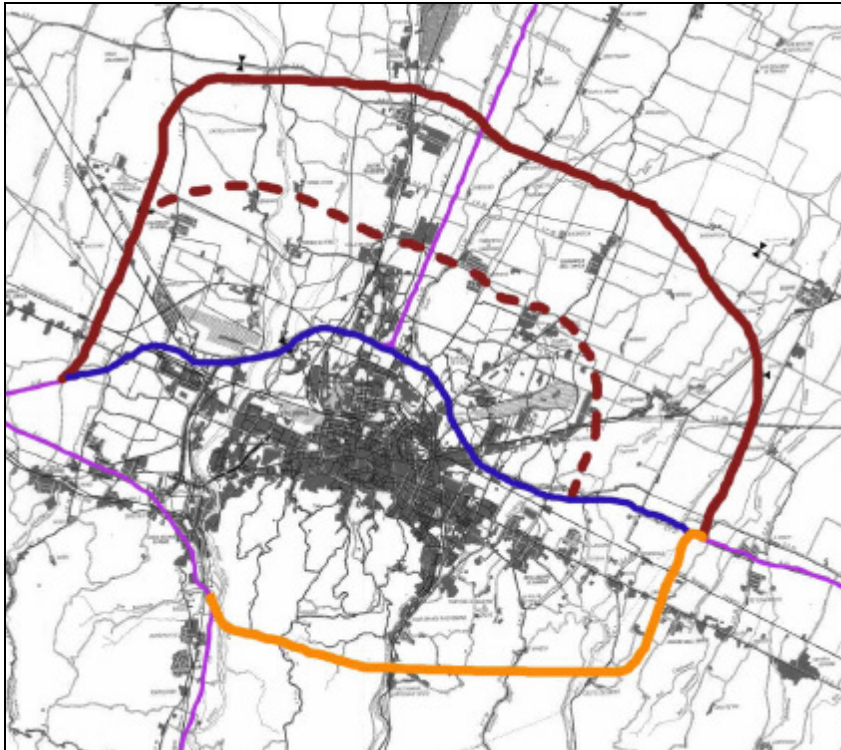
Proposed transportation projects include upgrades for the rail, transit, and highway systems. Rather than expand the highway, which runs along the edge of the central district, the region is creating a new northern by-pass as a secondary growth corridor.

To help strengthen the city center and the regional economy, the proposed “*Passante Nord*” bypass will be supplemented by a monorail linking the train station/central business district and the airport, the new tram-subway line, expanded perimeter parking lots outside the central city, and upgraded transit



(rail and bus) facilities and services. The new highway corridor will make an old 1950s East-West Freeway obsolete. The city is planning to redevelop the former freeway corridor, including demolition of the 50-year-old tangential

highway and construction of an “eco-boulevard” with a high-tech surface “green” tram and landscaped parallel service streets.



Regional Transportation Plan showing the new Passante Nord alternatives in red, and the “Nuovo Eco Boulevard” in blue. Images to the right show simulations of growth planned for the Eco Boulevard, along the former highway right-of-way.

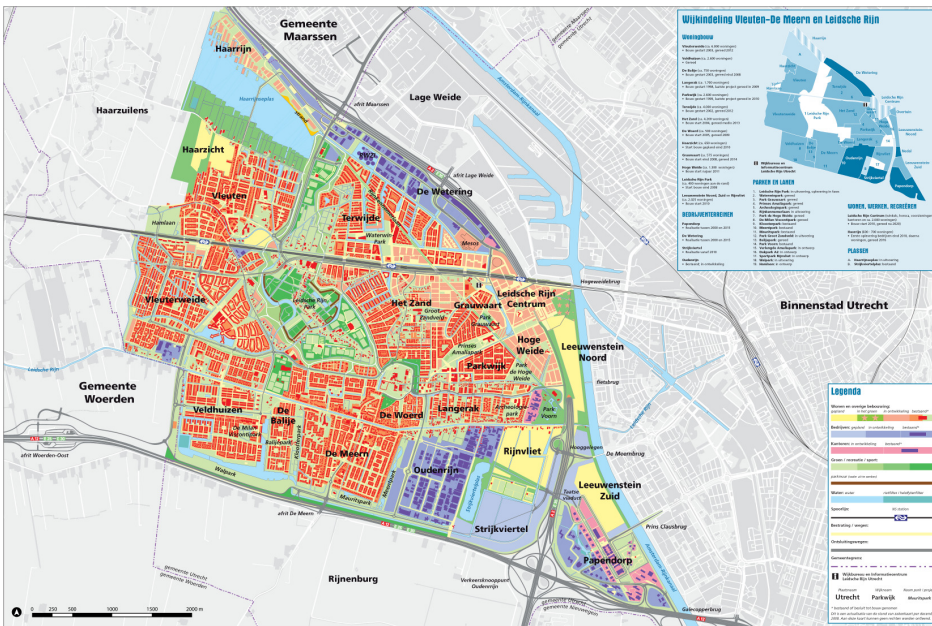
Bologna Master Plan for the Freeway Corridor



<http://www.avoe.org/bologna2020.html> (images used with permission)

Utrecht, The Netherlands

This city is combining the development of a new growth area with the expansion and modernization of an existing major motorway. The widened highway will be covered through the area where new residential growth is planned. The new development area will be served by transit and a bicycle network, while the highway will serve primarily through traffic and will have limited connection to the new development. The design reinforces the European approach where major highways are limited to long distance travel, and intra-city travel is by the slower modes: transit, bicycling and walking.



Source: Gemeente Utrecht, Projectbureau Leidsche Rijn (used with permission)

Sydney, Australia

As part of the 2030 vision, Sydney is working on a long term plan to remove the barriers that separate three key attractions: Darling Harbour, the western waterfront, and Pyrmont-Ultimo. One element of the plan is to bury the Western Distributor highway, which would improve pedestrian access to the western waterfront, and create a new urban park at the Darling Harbour. Substantial redevelopment would be possible with this scheme, including an expanded convention center.



Before



After

Seoul, South Korea

Seoul's Cheonggyecheon elevated expressway, constructed over a stream starting in 1958, was demolished in 2004, allowing the corridor to be restored as a linear park. This project had significant and positive economic and revitalization impacts. The highway had served about 170,000 cars per day, and the freeway removal was accompanied by a new bus rapid transit network and travel demand management policies for downtown Seoul.

Before: Cheonggyecheon Freeway



After: River Front Park and Boulevard

**Conclusions**

In each of these cases, there is recognition of the economic importance of creating high quality urban environments while continuing to provide transportation facilities. The reduction or elimination of the highway structure from these important community centers also included significant additional transportation investments in local and regional street and transit systems.

End Notes

¹ Traffic Impact of Highway Capacity Reduction, S Cairns, C Hass-Klau and PB Goodwin, ITE Journal, July 1998.

² The Genie in the Bottle: The Interstate System and Urban Problems, 1939-1957. Richard F. Weingroff, Public Roads Magazine, Turner Fairbanks Research Center, Federal Highway Administration. September/October 2000.

³ Property Values and Highway Expansions: An Investigation of Timing, Size, Location and Use Effect. Siethoff and Kockleman, Presented at the 81st Annual Meeting of the Transportation Research Board, 2002.

⁴ Big Dig pushes bottlenecks outward, Boston Globe, November 16, 2008.

⁵ The Boston Indicators Project, www.bostonindicators.org; The Boston Foundation Report on Transportation Indicators, <http://www.tbf.org/uploadedFiles/10-Transportation.pdf>

⁶ *Freeway Deconstruction and Urban Regeneration in the United States*, Robert Cervero, University of California Transportation Center, 2006.

⁷ *Gowanus Expressway Case Study*, prepared for the Gowanus Community Stakeholder Group, prepared by the Institute for Civil Infrastructure Systems at the Wagner Graduate School of Public Service, New York University, www.icinyu, 2006.

⁸ Hartford I-84 Viaduct Study, Capital Region Council of Governments (CT), www.crcog.org.

⁹ Unified New Orleans Plan (UNOP), Recovery Project Planning, District 4, Removal of I-10.

THE I-81 CHALLENGE
FOCUS GROUPS SUMMARY
FINAL REPORT

TABLE OF CONTENTS

I. Overview	1
2. Methodology	2
3. Synthesis of Findings	4
4. Responses by Question	9
5. Conclusions and Next Steps	20
ADDENDUM: Summary of Additional Focus Groups, Winter/Spring 2010	22

APPENDICES

- **Appendix 1: List of Participants**
- **Appendix 2: Focus Group Agenda and Interview Protocol**
- **Appendix 3: Summary of Responses from the Online Questionnaire**
- **Appendix 4: Frequently Requested Information on *The I-81 Challenge***
- **Appendix 5: Supplemental Materials: Fact Sheet and Frequently Asked Questions**

INTRODUCTION

In the fall of 2009, the New York State Department of Transportation (NYSDOT) and the Syracuse Metropolitan Transportation Council (SMTC) launched *The I-81 Challenge*, the official process to determine the future of I-81 in the greater Syracuse region. Public participation is a cornerstone of *The I-81 Challenge*. In an initial effort to engage a wide and diverse public audience in dialogue about the future of I-81, project partners, with guidance from a consultant team and *The I-81 Challenge* Study Advisory Committee (SAC), a large and diverse set of city, county, state, and federal agencies engaged in the effort, convened twenty focus groups with a representative sample of 156 community stakeholders. The list of stakeholder categories was designed as an initial sample of stakeholder interests, and subsequent rounds of focus groups will include additional stakeholders. This document summarizes the first round of the focus group process and findings.

Note: After the original publication of this report, several additional focus groups were conducted. A summary of these focus groups is included as an addendum to this document.

1. OVERVIEW OF THE I-81 CHALLENGE

Portions of I-81, particularly the 1.4 mile elevated span in and near downtown Syracuse, are nearing the end of their lifespan. This highway, part of the U.S. interstate system, was constructed in the 1950s and 1960s and, like many similar highways across the country, will need significant work in the coming years. The current highway, though safe and reliable, is not only nearing the end of its useful life, it is out of compliance with current highway design standards, it can be congested during key times of the day, and there are long standing concerns regarding how it has affected the region, the city, and the adjacent neighborhoods. Thus the Syracuse region¹ is faced with a challenge: *what should be done with I-81?* In fact, everyone who lives, works, or travels through this section of the I-81 corridor in Central New York shares this challenge.

As many people in Onondaga County are aware, the discussion about what to do with I-81 has already started. Government officials, local organizations, and civic leaders have already offered several ideas about the future of I-81. However, no decision has been made, and there is no preferred solution for the future of I-81. In fact, the official planning and decision-making process is just getting underway. This process, *The I-81 Challenge*, intends to capture the range of ideas already emerging, and in a more formal process, plan for the highway's future together as a region. *The I-81 Challenge* is being led by two entities, the New York State Department of Transportation (NYSDOT) and the Syracuse Metropolitan Transportation Council (SMTC), the region's metropolitan planning organization (MPO). Together, these two entities are committed to engaging and involving

¹ The overall study area for *The I-81 Challenge* includes the I-81 corridor through the entire SMTC planning area, which encompasses all of Onondaga County and small portions of Oswego and Madison Counties, although detailed technical analysis will be focused on the segment of I-81 between the two I-81/I-481 interchanges. The study will also consider how any proposed changes in the Syracuse area would impact the operation of the overall I-81 corridor, stretching from Tennessee to Canada.

the region's citizens, organizations, and governments early and throughout this planning process. For additional information on *The I-81 Challenge*, including frequently asked questions and a process graphic, see www.theI81challenge.org.

2. METHODOLOGY

During September and October 2009, the SMTC and the NYSDOT convened twenty focus groups with a representative set of stakeholders from throughout the region. The goals of the focus groups were to:

- Initiate *The I-81 Challenge*;
- Understand the range of interests and perspectives of a diverse group of stakeholders on the future of I-81;
- Gather information on current use of I-81 and the greater Syracuse highway system;
- Gather information on concerns and opportunities related to the future of I-81; and
- Gather advice about the information and outreach strategies that *The I-81 Challenge* should use to engage a diverse group of stakeholders and a wider public audience in the following months and years.

Each focus group targeted a category of stakeholder perspectives, such as downtown residents, suburban residents, civic organizations, and business owners. The SMTC and the NYSDOT engaged the services of a consulting team to assist in developing the stakeholder categories and also sought guidance from *The I-81 Challenge* Study Advisory Committee (SAC), a large and diverse set of city, county, state, and federal agencies engaged in the effort. The list of stakeholder categories was not comprehensive, in that it did not reflect every relevant stakeholder perspective. It was designed as an initial sample of stakeholder interests. Subsequent rounds of focus groups will include additional stakeholders.

With the help of SAC members, the SMTC and the NYSDOT identified a list of focus group invitees within each stakeholder category. Each list was not intended to be all encompassing, but to include a sample of community members representing a specific stakeholder perspective. Draft lists were reviewed by SAC members, as appropriate. Between ten and thirty invitees were included on each focus group list.

Invitations to the focus groups were distributed via postal mail three weeks prior to the first focus group. Invitees were asked to RSVP to their respective group. In the case that an invitee was unable to attend, they were directed to an online questionnaire containing the focus group questions (See Appendix 3). When responding, invitees were also given the option of attending an 'open' focus group session on an alternate date.

The hour-and-a-half focus groups were held in downtown Syracuse and suburban locations during daytime and evening hours. *The I-81 Challenge* consultant team facilitated the focus groups, with SMTC and NYSDOT staff participating as observers. Each focus group followed the same agenda,

which included a brief overview of *The I-81 Challenge* and a series of questions about the future of I-81 (See Appendix 2). *The I-81 Challenge* consultant team recorded notes of participant responses without attribution to individuals or their organizations.

A total of 156 stakeholders participated in this round of focus groups (See Appendix 1). Participation rates across this first round of focus groups varied. Future outreach will target additional community and regional stakeholders. One of the focus group questions was how best to engage a broad and diverse set of stakeholders across the region in the coming months and years.

Table 1: Focus Groups and Number of Participants²

Focus Groups	Number of Participants
City and county executive leadership and representative leaders from the City of Syracuse Common Council and Onondaga County Legislature	5
Town supervisors, village mayors, and planning board chairs (meetings held in Camillus, Minoa, Lafayette, and Cicero)	6, 14, 5, 4
Regional economic development organizations	11
Downtown Syracuse businesses and residents	11
University Hill institutions and businesses	11
The Metropolitan Development Association	22
Representatives of the local development and real estate sectors	0
Major local employers	6
City of Syracuse Tomorrow’s Neighborhoods Today (TNT) facilitators	14
The Syracuse Housing Authority’s I-81 Viaduct Committee	7
Representatives of neighborhoods adjacent to the I-81 viaduct	2
Environmental organizations	8
Community development and social service organizations (non-governmental)	12
Civic and planning organizations	5
Emergency service responders	6
The Central New York Regional Transportation Authority (CENTRO)	7
Total participants	156

² Note that this list only includes participants from the SMTC’s initial round of focus groups in the fall of 2009. Summaries of participants from subsequent rounds are included in the addendum to this document.

Relevant documents available in appendices:

- List of participants (Appendix 1)
- Focus group agenda and interview protocol (Appendix 2)
- Summary of responses from the online questionnaire (Appendix 3)
- Frequently requested information on *The I-81 Challenge* (Appendix 4)
- Supplemental materials: Fact Sheet and Frequently Asked Questions (Appendix 5)

3. SYNTHESIS OF FINDINGS

Focus group participants expressed a wide range of ideas, issues, and concerns about the future of I-81. Participants also shared views regarding *The I-81 Challenge* process. This input will help to shape *The I-81 Challenge* and methods of future engagement with additional stakeholders. Focus group input will also help the SMTC and the NYSDOT to evaluate potential alternatives. **The focus groups were only the beginning of a broad public engagement process. However, they yielded the following findings which will evolve and be vetted with a wider public audience as this process continues.**

A. SHARED THEMES AND PERSPECTIVES

- **I-81 is Essential to the Region** – While participants were asked to comment on the importance of I-81 to them, their constituents, or their peers, many also emphasized its importance to the Central New York region. They acknowledged the important ways in which I-81 positively and negatively contributes to quality of life, economic development, and environmental sustainability throughout the region.
- **Downtown Syracuse is Vital to the Region** – Focus group participants from across the region indicated that the success of downtown Syracuse has regional impacts. Many suggested that the sustainability of the region is dependent on a thriving downtown Syracuse and that the success of downtown is affected by I-81.
- **I-81 Poses a Number of Current Concerns** - Participants cited many concerns about I-81, including traffic congestion, public safety, air quality, noise, and the perception of I-81 as a barrier between key areas of the city.
- **I-81 Has Clear Benefits** - Participants cited many benefits that I-81 offers to the city and the region. They noted that I-81 facilitates access into, out of, through, and within Syracuse for many commuters, residents, businesses, and visitors. They commented that I-81 helps the Syracuse region function as a “twenty-minute city” – a metropolitan area in which a person can get from one point to another in twenty minutes – which is important to many community stakeholders.

- **I-81 Will Need to be Repaired, Replaced, or Significantly Altered in the Near Future –** Participants seemed to acknowledge that I-81 is faced with some challenges and that a significant undertaking is needed to improve the condition of the roadway in the near future.
- **Numerous Impacts Must Be Evaluated and Balanced to Help Decide What Is the Best Future for I-81–** While participants were not in agreement about what option *The I-81 Challenge* should pursue, they were united in their emphasis on evaluating the wide range of impacts that possible options could have including on commuting times, neighborhoods, alternative roadways, economic development, the environment, etc. These impacts must be evaluated and the trade-offs balanced in order to achieve a good outcome.
- **The Community Is and Must Be Actively Involved Throughout *The I-81 Challenge* –** Participants reflected on I-81's history and emphasized that the process and ultimate decision for I-81 should take into account diverse perspectives and needs. Many suggested that *The I-81 Challenge* is and must be far more accountable to the public than the original decision to construct I-81.
- ***The I-81 Challenge* Could Be More Than Just Highway Planning –** Participants expressed hope that that *The I-81 Challenge* would catalyze thinking beyond I-81 road infrastructure and include thinking about multi-modal transportation planning (e.g. car, bike, pedestrian, transit), downtown redevelopment and land use, and regional economic development. Many indicated that if the I-81 planning process is not linked to broader regional goals, a significant opportunity will have been missed.

B. EMERGING COMMUNITY PRINCIPLES FOR *THE I-81 CHALLENGE*

As communities consider major infrastructure or development projects, it is often helpful to develop a set of principles, in addition to technical/environmental considerations, upon which both the formulation and the evaluation of alternative designs can, in part, be based. Community principles were mentioned in various ways during the focus group discussions as goals, values, or needs. These have been summarized and organized into a *preliminary* list of broad community-focused project principles. These principles will evolve and be vetted with a wider public audience as *The I-81 Challenge* progresses. Based on focus group findings, emerging community principles for *The I-81 Challenge* include the following (in alphabetical order):

Table 2: Draft Emerging Community Principles

<p>Enhance economic opportunity. The I-81 decision should result in enhanced economic opportunity for downtown, the city, and the region.</p>
<p>Enhance public safety. The I-81 decision should enhance public safety by improving access to downtown hospitals, improving traffic monitoring and enforcement, enhancing the safety and comfort of the driving public, and providing for the safety of those using alternative modes (including pedestrians and bicyclists).</p>
<p>Ensure region-wide mobility. The I-81 decision should ensure region-wide mobility by providing needed traffic capacity, maintaining reasonable travel times, avoiding a “shift” of an unreasonable amount of traffic congestion to other parts of the regional transportation network, and enhancing multi-modal transportation choices.</p>
<p>Fit within a regional vision for land use and economic development. The I-81 decision should support, or be consistent with, long-term community plans and visions at the regional, county, city, and community levels.</p>
<p>Preserve or enhance environmental health. The I-81 decision should mitigate adverse impacts to the quality of the environment and advance related environmental health goals for people in the region.</p>
<p>Preserve or enhance social fabric and community vitality. The I-81 decision should nurture and improve the social fabric, or the social make-up and shared values of the community; be a source of pride for the community; and make positive contributions to neighborhood, downtown, and regional aesthetics and vitality.</p>
<p>Share burden and benefits. The I-81 decision should not intentionally inflict unequal burdens or afford unequal benefits to any community or stakeholder group.</p>

C. EMERGING COMMUNITY IMPACT AREAS FOR EVALUATING OPTIONS

As *The I-81 Challenge* identifies a range of possible options over the next year, each option will need to be evaluated for its impacts on a yet-to-be-determined set of *impact areas* and *community criteria*. Through the focus groups, an initial and important list of *community impact areas* surfaced. These emerging community impact areas describe types of impacts that focus group participants suggested should be used to evaluate possible options. As *The I-81 Challenge* progresses, these community impact areas will be fleshed out and developed into measurable criteria for evaluating I-81 options. *The I-81 Challenge* expects that as this preliminary list evolves, both impact areas and specific, measurable criteria will be vetted with a wider public audience. Initial emerging community impact areas include the following:

Table 3: Draft Community Impact Areas for Evaluating Options

DRAFT PRINCIPLE	ENHANCE ECONOMIC OPPORTUNITY
Community Impact Area	Economic Development Impacts
Draft Specific Impacts To Be Evaluated	Economic conditions in downtown area/University Hill
	Economic conditions along I-81 corridor
	Economic conditions in the Central New York region
	Freight and through traffic mobility
	Employment and job creation
Community Impact Area	Financial Impacts
Draft Specific Impacts To Be Evaluated	Capital costs, affordability, fiscal responsibility
	Long-term operation and maintenance costs

DRAFT PRINCIPLE	ENHANCE PUBLIC SAFETY
Community Impact Area	Public Safety Impacts
Draft Specific Impacts To Be Evaluated	Highway safety (on I-81 and other regional highways)
	Safety of alternative modes of transportation (e.g. pedestrian, bicycle, public transit, etc.)
	Access to emergency services, such as hospitals, by service providers and the public
	Ability to provide emergency services

DRAFT PRINCIPLE	ENSURE REGION-WIDE MOBILITY
Community Impact Area	Transportation Network/Ease and Convenience of Travel Impacts
Draft Specific Impacts To Be Evaluated	Travel times (to/from suburbs and within/across city)
	Access to key destinations (e.g. airport, hospitals, downtown businesses, etc.)
	Visitor access to the city and key visitor destinations
	Volumes and congestion on highway system, secondary roads, city streets
	Alternative transportation (e.g. bike, pedestrian, transit, etc.)
	Through and local traffic

DRAFT PRINCIPLE	FIT WITHIN A REGIONAL VISION FOR LAND USE AND ECONOMIC DEVELOPMENT
Community Impact Area	Regional Land Use Patterns Impacts
Draft Specific Impacts To Be Evaluated	Local connectivity (e.g. linking University Hill with downtown)
	Land use and development within the city (e.g. open space, housing, business development, etc)
	Land use and development in suburban areas
	Land use and development in currently undeveloped, rural areas

DRAFT PRINCIPLE	PRESERVE OR ENHANCE ENVIRONMENTAL HEALTH
Community Impact Area	Environmental Sustainability Impacts
Draft Specific Impacts To Be Evaluated	Air quality (e.g. overall emissions and odor)
	Stormwater and water quality
	Noise
	Vehicle miles traveled
Community Impact Area	Environmental Health Impacts
Draft Specific Impacts To Be Evaluated	Air quality and noise on adjacent neighbors (downtown and in the suburbs)

DRAFT PRINCIPLE	PRESERVE OR ENHANCE SOCIAL FABRIC AND COMMUNITY VITALITY
Community Impact Area	Social Fabric and Community Character Impacts
Draft Specific Impacts To Be Evaluated	Adjacent communities and neighborhoods
	Important community landmarks, historic resources, and icons
	Aesthetics
	Community vitality (for downtown, adjacent neighborhoods, and the region more broadly)
	Community pride

DRAFT PRINCIPLE	SHARE BURDEN AND BENEFITS
Community Impact Area	Quality of Decision Impacts
Draft Specific Impacts To Be Evaluated	Distribution of the burden of impacts across stakeholders (e.g. suburbs, adjacent neighborhoods, low income communities, Onondaga Nation, etc.): <ul style="list-style-type: none"> • During construction • Long-term
	Distribution of benefits across stakeholders (e.g. suburbs, adjacent neighborhoods, low income communities, Onondaga Nation, etc.)
	Other planning and development initiatives and visions (e.g. county, city, region, etc.)
	Social fabric and community character

D. TESTING THESE FINDINGS

These findings are based on a synthesis of focus group participants’ responses to a series of questions about current uses and the future of I-81. These responses, along with areas where there are a range of viewpoints, are summarized per question in Section 4.

As *The I-81 Challenge* progresses, the above emerging principles and community impact areas will evolve, be expanded to include measurable criteria, and be vetted with additional community and

regional stakeholders. *The I-81 Challenge* expects that the findings will be amended, refined, and changed to reflect the input of this wider range of public stakeholders.

4. RESPONSES BY QUESTION

Focus group participants were asked to respond to a series of questions about their current use of I-81, the importance of I-81 to the region, specific impacts that they would like to have evaluated as options are developed, outcomes that they would like *The I-81 Challenge* to achieve, and suggestions for continued outreach to their peers and constituents. The focus group questions are attached as Appendix 2.

The I-81 Challenge consultant team analyzed the responses and, where possible, organized them into broad categories. These are qualitative evaluations. As indicated previously, the number of participants varied across focus groups. Frequency of responses may reflect this variation. However, the information gathered through the focus groups provides a baseline for further discussion and dialogue across the region.

A. CURRENT USE OF I-81

Focus group participants were asked to comment on how they currently use or experience I-81. Participants offered a range of uses from commuting to work and accessing or providing services throughout the region to living next to it or avoiding it completely. Across all focus groups, responses varied slightly, but top responses, which were raised at nearly all focus groups, can be categorized, in order of relative frequency³, as:

- ★★★★ To Access Downtown Syracuse (broadly)
- ★★★ For Business or Professional Uses
- ★★★ To Facilitate Regional Access
- ★★ By Perceiving It

★★★★ To Access Downtown Syracuse

Most participants commented that they use I-81 to access the downtown Syracuse area, including to commute to work both from the suburbs and within the city and to access services located in the downtown area, including medical facilities, shopping, restaurants, universities, and cultural and recreational activities, such as the Carrier Dome or the OnCenter. Some sample responses are included below.

- *I-81 is the main access to downtown from the north and south. – Lafayette focus group*
- *I am a daily user of I-81; it is tremendously convenient. It is an easy commute and I use it every day to get to work. – Leadership focus group*
- *It is the way to get to the hospitals. – Multiple focus groups*

³ In this summary, the number of stars indicates relative frequency of responses. Higher number of stars indicates higher relative frequency. Frequency was determined by totaling the number of similar responses.

- *People in the north feel that it is a vital commuting link; there are 100 ways to get out of the city but not as many to get in. – Camillus focus group*
- *It is the major roadway that gets people to the Carrier Dome. – MDA focus group*
- *Patients from the region use it to get specialty care at our hospitals. – University Hill focus group*

★★★ For Business or Professional Uses

Many participants added that beyond commuting, they use I-81 specifically for business or commercial purposes. This includes use of I-81 by emergency service providers, including police, fire, and ambulances, and public transportation operators. It also includes use by business owners or nonprofit program managers who meet clients and colleagues in areas throughout the region. Additionally, it includes business owners who use the highway to transport freight to areas within the city, region, and beyond.

- *We have partners from organizations all around the region so we meet in the city; I-81 is a key way for our constituents to come together. – Community Development focus group*
- *It is a main conduit for emergency vehicles. – Emergency Service Providers focus group*
- *It is a key route for moving goods throughout the region and beyond. – Environmental focus group*
- *We use it for business purposes because it does not have tolls. – Regional Economic Development focus group*

★★★ To Facilitate Regional Access

Many participants noted that they use I-81 to access points beyond downtown Syracuse including destinations along I-81 to the north and south of the city, the network to the east and west (I-90), local connectors (I-690 and I-481), and the airport. Participants stated that they rely on this access to shop, visit friends and family, support recreational and business activities, and for general business and personal travel into and out of the region.

- *Community members use it to get north to their camps or they use it to get to the mall. – University Hill focus group*
- *It is the way to the airport. – Multiple focus groups*
- *I use it to get out of the city to points north or south. – Multiple focus groups*
- *It connects people to their families. I use it to see my grandkids. – The Syracuse Housing Authority's I-81 Viaduct Committee focus group*

★★ By Perceiving It

Some participants explained that they “perceive” or “experience” I-81 more than use it. This includes living near it in buildings along the I-81 viaduct or in neighborhoods outside of downtown Syracuse; seeing it from their homes or through daily interactions; hearing it from their homes, businesses, or when they are outside; walking or driving under it; and avoiding it completely and

consciously opting to use city streets or alternate routes. This also includes historical experiences with I-81's impacts before, during, and after construction.

- *I hear it every day and all night. I look out of my window and I see it. – Syracuse Housing Authority's I-81 Viaduct Committee focus group*
- *I walk under it every day. – University Hill focus group*
- *I remember when it was constructed and my family was told to move. – Environmental focus group*

Other Current Uses raised by a few participants during focus groups include:

- Working on it
- Living under it
- As a device for planning (for example, urban planning and scenario planning)
- Studying it
- For advertising
- For giving people directions and visitor access

B. CURRENT CONDITION OF I-81

Focus group participants were asked to share their perspectives on the current condition of I-81. Participants commented on physical conditions, such as interchanges and ramps, temporal conditions, such as during winter or storm events, and symbolic conditions, such as the historical memories and associations that I-81 produces. Top responses across focus groups included conditions related to:

- ★ ★ ★ ★ Maintenance and Construction (Traffic)
- ★ ★ ★ Interchanges and Ramps
- ★ ★ ★ Physical Structure
- ★ ★ Functionality

★ ★ ★ ★ Maintenance and Construction (Traffic)

Most participants observed that portions of I-81 are perceived to be under almost continuous maintenance and construction. Many explained that construction leads to traffic congestion, unpredictability, delays, and accidents.

- *You can't keep windows open because the dust from construction comes in. – Adjacent Neighbor focus group*
- *There are two seasons in Syracuse: construction season and winter. – University Hill focus group*
- *There are always traffic delays on I-81; this is why I prefer city streets. – Regional Economic Development focus group*
- *Construction is a fact of life on I-81. – Multiple focus groups*
- *Seasonal maintenance needs seem to be getting worse. – Downtown focus group*

★★★ Interchanges, Ramps, Shoulders

Many participants commented on I-81 interchanges, particularly with I-690, and exit ramps, particularly in the viaduct section. They noted that the condition of the interchanges are perceived to be intimidating or dangerous due to speeding, truck traffic, etc. Some participants observed that the interchanges and minimal shoulders can pose safety challenges for drivers and emergency service providers.

- *From a citizen perspective, some of the merges and interchanges are scary; there are a lot of vehicles and a lot of decisions have to be made quickly. – Downtown focus group*
- *Nobody drives the speed limit on I-81 unless there is traffic, and then they drive below the speed limit. – TNT focus group*
- *The road design makes it difficult to patrol in certain areas of the highway. – Emergency Service Providers focus group*
- *Connections between 81 and 690 are incomplete and problematic. – Multiple focus groups*

★★★ Physical Structure

Many participants commented on the physical structure of I-81 and observed that the structure itself is a barrier in multiple ways. Some explained that it is a physical barrier that impedes connectivity between University Hill Area and the downtown area for drivers, pedestrians, and development. Others commented on the aesthetics of I-81 in the downtown area and called it a visual barrier that has a negative impact on both residents and visitors, conveying a sense of darkness, emptiness, and a general sense of lack of safety and comfort. Some also explained that I-81 is a symbolic barrier that reminds them of the past decision and process to build the highway and the impacts that this decision has had on the community since.

- *It is big, ugly, and rusty. – Multiple focus groups*
- *It is a physical and psychological barrier that separates the city from the Hill. – Regional Economic Development focus group*
- *It hurt the City when it went up and continues to divide the city. The city lost viable neighborhoods, economies, and social fabric. – Syracuse Housing Authority's I-81 Viaduct Committee focus group*
- *It's ugly, huge, and dominated by cars. – Lafayette focus group*

★★ Functionality

Some participants noted that I-81 is functional for them and the region. They observed that while there is construction and traffic, compared to other locations, it works well for the region. Others pointed to some of the benefits that I-81 brings, including scenic views of the city and rural areas, business along the I-81 corridor, and easy access to destinations inside and outside of the region.

- *One of the most spectacular views that Syracuse has is on I-81 coming from the south as you approach the city. – TNT focus group*

- *It is the easiest way to get into the city. – Camillus focus group*
- *I drive it often to see family and friends. – Adjacent Neighbor focus group*
- *It is in fair to good condition. – Major Employers focus group*

Other Current Conditions raised by a few participants during focus groups included conditions related to:

- Challenges with winter and inclement weather (e.g. icing on the deck, increasing risk of already difficult entrances and exits)
- Stormwater runoff and drainage leaks (e.g. water pouring off of certain sections onto cars and pedestrians below)
- The high volume of freight and truck traffic on I-81
- Signage deficiencies which can impede visitor access
- Environmental health impacts of I-81 (e.g. air quality, noise, odor, and potential health effects ranging from general discomfort to asthma and respiratory problems)
- Limits that the location and use of I-81 have on expanding public and alternative transportation options

C. IMPACTS TO BE EVALUATED

Focus group participants were asked to list impacts that they believe are important to evaluate during *The I-81 Challenge*. The following chart summarizes the range of impacts raised at each focus group. Some impacts, such as alternative highway/roadway impacts, economic development impacts, and impacts on social fabric/community character were raised at nearly all focus groups, while others, such as suburban impacts, adjacent neighborhood impacts, and impacts on future generations, were raised at only a few focus groups. While further consideration and input about the range of impacts to evaluate is needed, this list provides a preliminary snapshot of concerns that diverse stakeholders have about the future of I-81.

Table 4: Suggested Impacts to be Evaluated

	City & County executives	Town: Camillus	Town: Minoa	Town: Lafayette	Town: Cicero	Regional Economic Development	Downtown	University Hill	MDA	Local development & real estate	Major local TNT facilitators	SHA's I-81 Viaduct Committee	Adjacent Neighbors	Environmental organizations	Community development NGOs	Civic & planning organizations	EMS	CENTRO	
ECONOMIC IMPACTS																			
Economic conditions in Syracuse & region	X	X	X	X		X	X	X	X		X	X		X		X	X	X	X
Freight businesses		X										X		X			X	X	
Job creation												X			X				
Financial viability		X			X	X			X		X	X	X	X			X	X	
Ongoing maintenance					X						X			X	X				
Visitor access							X	X									X		
PUBLIC SAFETY IMPACTS																			
Access to EMS				X			X	X				X					X	X	X
Roadway safety			X	X				X	X			X		X		X		X	X
TRANSPORTATION NETWORK/EASE AND CONVENIENCE OF TRAVEL IMPACTS																			
Access to downtown		X	X	X	X		X	X	X		X		X		X			X	
Regional highways	X	X	X	X	X	X	X		X		X	X	X			X	X		X
City road system	X		X		X		X	X	X				X			X		X	X
Connectivity downtown			X				X	X			X	X		X			X		
Commute	X	X	X	X	X		X	X			X	X				X	X	X	X
Convenience of travel					X		X	X	X		X	X	X			X		X	
Public transportation					X						X			X	X				
Regional mobility		X				X													

	City & county executives	Town: Camillus	Town: Minoa	Town: Lafayette	Town: Cicero	Regional Economic Development	Downtown Syracuse	University Hill	MDA	Local development & real estate	Major local employers	TNT facilitators	SHA's I-81 Viaduct Committee	Adjacent Neighbors	Environmental organizations	Community development NGOs	Civic & planning organizations	EMS	CENTRO
--	--------------------------	----------------	-------------	-----------------	--------------	-------------------------------	-------------------	-----------------	-----	---------------------------------	-----------------------	------------------	------------------------------	--------------------	-----------------------------	----------------------------	--------------------------------	-----	--------

REGIONAL LAND USE PATTERNS IMPACTS

Transit		X					X	X	X		X					X	X		X
Downtown housing												X	X			X	X		
Revitalization downtown				X		X	X	X				X			X		X		X
Sprawl	X				X														
Suburban (general)	X		X	X	X			X								X	X	X	
Walkability	X					X	X	X			X	X			X				

ENVIRONMENTAL SUSTAINABILITY AND HEALTH IMPACTS

Air quality	X	X				X						X		X	X	X	X	X	
Environment (general)	X	X	X			X	X					X	X	X	X	X	X	X	
Environmental health									X			X	X		X	X			
Noise						X		X				X	X					X	
Stormwater												X	X		X	X			

SOCIAL FABRIC AND COMMUNITY CHARACTER IMPACTS

Aesthetics		X				X		X				X							X
Adjacent neighbors	X			X				X					X			X			
Quality of life						X	X	X											
Community character				X	X		X	X	X			X	X	X		X			X

QUALITY OF DECISION IMPACTS

Accountability												X		X					
Burden of construction			X					X				X			X	X			
Future generations						X													
Low income residents						X										X			
Onondaga Nation		X																	
Public support						X	X							X	X		X		

Priorities

Focus group participants were asked to prioritize potential impacts by selecting the one or two impacts that they thought would be most important to evaluate. The results across focus groups are summarized below.

★★★★ Economic conditions in Syracuse & region (impacts and opportunities)

★★★ Downtown connectivity
 Regional mobility (commuting times, ease, impacts on adjacent road networks)
 Access to Emergency Management Services (EMS)
 Roadway safety
 Land Use (compatibility with complementary/supportive development plans and visions)

★★ Community character
 Environmental (storm water, air quality, noise and odor)
 Financial viability
 Regional highways
 Revitalization downtown
 Transportation opportunities (public and alternative transportation)
 Quality of Life

★ Adjacent neighbors
 Aesthetics
 City road system
 Low income residents
 Ongoing maintenance
 Public support
 Suburban (general)
 Visitor access

D. IMPORTANCE OF I-81 TO THE REGION

Focus group participants were asked if and why I-81 is important to the Central New York region. Across all focus groups, almost all participants believe that I-81 is important to the region and responses converged around two reasons:

★★★ Center of the Region

Many participants explained that I-81 runs through the core of the region: the City of Syracuse. Many diverse participants noted the city is the anchor of the Central New York Region and that a vibrant Syracuse is important for the sustainability of the region. Many focus groups see *The I-81 Challenge* as an opportunity to revitalize downtown Syracuse, which would in turn, benefit the region as a whole by creating jobs, supporting regional industry, attracting employers and employees, moving goods and providing services within the region and beyond, and supporting an improved quality of life.

★★ Symbolic Importance

Some participants also commented on the symbolic importance that I-81 has to Syracuse and the region. They observed that this is an opportunity to reflect on how the decision about I-81 was made in the past and the positive and negative impacts that this had on the community. They also noted that it is important that the future decision be more inclusive, reflect a shared community goal and vision, and consider the wide range of impacts that any changes could have on the people of the region. Some noted that if done right, the ultimate decision for the future of I-81 can be a source of pride for the community and a positive model of how a city can use innovation, new ideas, and regional collaboration to achieve positive community outcomes.

E. OUTCOMES OF A GOOD DECISION

Focus group participants were asked what a successful I-81 decision would achieve. Responses across all focus groups were similar and included (in order of relative frequency):

- ★★★★ Improves Connectivity and Transit
- ★★★★ Supports Economic Growth
- ★★★ Balances Burdens and Benefits
- ★★★ Helps Create a Vibrant Community
- ★★ Is Financially Viable
- ★★ Improves Health of the Environment
- ★★ Enjoys Community Support

★★★★ Improves Connectivity and Transit

Most participants observed that a good outcome for I-81 would be that travel improves or is not made worse for residents, visitors, and through traffic. Participants stated that a good outcome would result in fewer delays, more predictability, shorter commuting times, more transit options, and few unintended impacts on other parts of the transportation system, such as I-481, the city grid, or suburban streets.

- *Improve accessibility within the city and from the highway. – Downtown focus group*
- *Ease traffic congestion during rush hour. – Lafayette focus group*
- *Preserve the relatively efficient flow of traffic. – Camillus focus group*

- *It needs to be coupled with a public transportation option that is different than it is today. What we have is not really working, but we need something that moves people more effectively. – University Hill focus group*

★★★★ Supports Economic Growth

Many participants commented that a good outcome would include economic growth opportunities for the downtown Syracuse area, suburbs along the I-81 corridor, and the Central New York region as whole. Participants also commented that a good outcome would be a revitalized downtown Syracuse with more jobs, recreational opportunities, and higher quality of life.

- *We need to spur economic development in Syracuse. – Multiple focus groups*
- *Increase the population downtown and within the city. It is a regional problem if Syracuse fails. – City and County Executive Leadership focus group*
- *An attractive cityscape that is aesthetically pleasing and maintains the "20-minute city". – MDA focus group*
- *Downtown grows as a residential community, more mixed use, a self-sufficient neighborhood, mixed socially, easier to get around, and shopping. – Minoa focus group*

★★★ Balances Burdens and Benefits

Many participants also noted that a good outcome would not benefit one segment of the community at the expense of another. Participants acknowledged that there is not likely to be a solution that makes everyone happy, but they hoped that an outcome would balance the burdens and benefits of construction, maintenance, daily experiences, and secondary benefits.

- *Preserve accessibility without disrupting the community. – Adjacent Neighbors focus group*
- *This will have a benefit for the whole community. – Camillus focus group*
- *Want to improve the whole community. – Minoa focus group*
- *People will not say that we should have done it differently. – Downtown focus group*
- *We don't have unintended consequences. – multiple focus groups*

★★★ Vibrant Community

Many participants also suggested that a good outcome would support a vibrant, socially diverse community with thriving neighborhoods. Participants commented that they would like to see more connections between University Hill and the downtown area.

- *Transforms Syracuse and makes people feel part of a city that they like. – Transit focus group*
- *Helps to reweave the social fabric of the community. – Syracuse's Public Housing Authority's I-81 Viaduct Committee focus group*

- *The end result needs to be better than what we start with. It needs to be an improvement for the community. – Regional Economic Development focus group*

★★Financial Viability

Some participants suggested that a good outcome would be one that does not leave Syracuse or the region in debt or a precarious financial situation. They did not want to see the region unable to support other projects in the future because they spent too much money on developing or maintaining an I-81 alternative.

- *Does not tie our hands in the future. – Multiple focus groups*
- *This project needs to be realistic and meet its target completion budget. – Regional Economic Development focus group*

★★Improves Environmental Health

Some participants noted that a good outcome would improve air quality, storm water management, noise pollution, and environmental health, particularly for those living near the highway.

- *Does not transfer environmental health problems from one community to another. – Environmental focus group*
- *Less asthma and respiratory disease in our communities. – Syracuse’s Housing Authority I-81 Viaduct Committee focus group*
- *Does not leak during every storm event. – Civic Organizations focus group*

★★Enjoys Community Support

Some commented on the past I-81 decision-making process and noted that they would like this process to engage a range of citizens and build community support for the final outcome. They emphasized that they do not want a decision to hurt the community, and want decision making to be transparent and responsive to community interests and concerns.

- *This project should bring the community together. – Downtown Focus group*
- *It should be a source of pride for the community. – Multiple focus groups*
- *Identify other “packages” that we can develop simultaneously to improve Syracuse. – University Hill Focus group*

Other good outcome suggestions included:

- Improves walkability
- Supports transportation alternatives
- Promotes mixed use development
- Increases open space
- Increases density

- Protects against suburban sprawl
- Reuses/recycles existing structure and materials in a useful way
- Employs innovative technologies and materials

F. ONGOING ENGAGEMENT SUGGESTIONS

Focus group participants also offered a range of suggestions for reaching out to the community including:

- ★★★★ Arrange multiple, small meetings to share and gather information
- ★★★★ Travel to constituents, rather than ask them to come to you

Focus group participants generally recommended against starting large-scale public workshops too soon. The participants felt that a series of smaller group meetings over the coming months would help to create interest in the process and provide citizens with background information before engaging in large workshops.

Other suggestions:

- Seek agenda spots on scheduled organization and community meetings
- Ask the public to react to ideas, not just ask them hypothetical, open-ended questions
- Use radio, print, social media

Focus group participants offered suggestions on what other community stakeholders should be engaged in this process including:

- Public officials (at city, county, state, and federal levels)
- Media
- Schools
- Trucking companies
- Communities to the north and south of Syracuse
- Train companies (CSX)
- Bus companies
- Residents

5. CONCLUSIONS AND NEXT STEPS

The first round of focus groups indicated that there is general agreement among diverse stakeholders about a range of issues related to the future of I-81. There are also some different perspectives that must be further explored and considered.

Focus group participants expressed a shared belief that I-81 has both positive and negative characteristics. Also, participants generally agreed that I-81 is important to Syracuse and the region because of its role in the region's history, its role in facilitating mobility throughout the region, and its contributions to quality of life, economic development, and environmental sustainability. Additionally, focus group participants from both suburban and urban areas indicated that a vibrant and functional downtown Syracuse is vital to the region. They indicated shared support for finding a solution that helps to ensure a sustainable downtown Syracuse that will benefit the region as a whole.

Participants were also united in their emphasis on evaluating the wide range of impacts. However, different focus groups prioritized different impacts. Focus group participants who lived in suburban communities raised concerns about the potential impacts of differing options on suburban roadways and highways that might become alternative routes for I-81 traffic, including I-690 and I-481. Urban dwellers expressed more concern about impacts on downtown connectivity and mobility. Focus group participants in suburban communities also raised questions about the impact of I-81 options on suburban growth opportunities, while others focused on impacts in terms of encouraging urban density.

The I-81 Challenge will need to explore these areas of agreement and disagreement with additional community stakeholders before a decision about the future of I-81 can be made. The focus groups are the first step in a multi-year public engagement strategy around the future of I-81. *The I-81 Challenge* will use the information gathered through the focus groups to tailor presentations, meeting formats, and locations; identify additional stakeholder groups; and employ diverse outreach strategies to reach a wide range of I-81 stakeholders.

To stay involved in *The I-81 Challenge*, anyone can visit www.thei81challenge.org for copies of reports and presentations, meeting schedules, and to request additional information. If you have comments on the document or suggestions for improvement, please contact the SMTC at contactus@thei81challenge.org.

ADDENDUM

Summary of Additional Focus Groups, Winter/Spring 2010

In the winter and spring of 2010, the NYSDOT and SMTC met with three additional focus groups. These groups were convened based on the suggestions of SAC members and the findings of the initial round of focus groups. The groups included representatives of freight carriers; arts, cultural, and tourism organizations; and educational institutions from outside University Hill.

As with the initial round of focus groups, SAC member agencies aided the SMTC in compiling the invitee lists. Each list was not meant to be all encompassing, but included a sample of community members representing a specific stakeholder perspective. As with the initial round of focus groups, invitations were distributed via postal mail. Invitees were asked to RSVP to their respective group.

Groups met for an hour-and-a-half at the SMTC’s offices in downtown Syracuse. The freight carriers group met on February 18, 2010. The arts, cultural, and tourism and non-Hill educational institutions met on June 3, 2010. Each focus group followed the same agenda as the initial round of focus groups. The SMTC recorded notes of participant responses without attribution to individuals or their organizations.

Altogether, these focus groups brought 20 additional participants to *The I-81 Challenge*. The list of participants has been added to Appendix 1.

Table A1: Focus Groups and Number of Participants

Focus Groups	Number of Participants
Freight carriers	3
Arts, cultural, and tourism organizations	10
Non-Hill educational institutions	7
<i>Total Participants</i>	<i>20</i>

FINDINGS

Focus group participants were asked to respond to the same series of questions used in the initial round of focus groups. Their responses have been summarized below.

A. Current Use of I-81

Participants reported using I-81 for the following reasons:

Business or Professional Uses

- *Freight movement* – Participants reported that many freight carriers use I-81 through the city in an effort to reduce mileage. Participants noted that driver experience, perceptions of

congestion, and time of day are also important in determining whether a driver chooses I-81 or an alternate route.

- *Commute* – Many participants reported using I-81 daily to access jobs or schools across the region.

Access

- *Regional access, particularly to downtown* – Participants reported using I-81 or I-690 as prime means of access to different parts of the community, including downtown (e.g. for arts and cultural events or school). Participants noted that people are often intimidated by driving on city streets.
- *Interstate access* – Participants also reported that people use I-81 to access points out-of-state via the interstate network and the airport.

Regional marketing – Participants noted that a location at the crossroads of two major interstates is a ‘selling point,’ and that some businesses and institutions locate in the region precisely because of the access that Central New York’s highways provide.

Perceptions – Participants noted that I-81 hinders walkers; visitors to downtown often want to walk from hotels to tourist destinations, but I-81 presents safety and aesthetic concerns. Participants also mentioned that I-81 splits the city.

B. Current Condition of I-81

When asked about the current condition of I-81, participants noted the following:

Safety – Participants routinely mentioned safety as a concern with I-81. In particular, participants reported feeling that ramps on and off the viaduct are dangerous, especially where there are multiple merges and short weaving distances.

Traffic/Congestion – Participants often mentioned congestion as an issue on I-81. Participants reported that access to and from I-81 during the peak hours and during special events can be difficult, particularly at the Adams/Harrison ramps. Participants also noted issues during construction.

Navigation/Function – Many participants noted that I-81 can be difficult to navigate, as the merges can be confusing and counterintuitive, signage is intermittent, and it is difficult to find alternate routes.

Physical structure – Participants called the viaduct an ‘eyesore’ which makes a negative impression on visitors, a deterrent to walking, and a barrier between downtown and University Hill.

Other – Participants also noted that, in its rural stretches, I-81 affords a beautiful drive, and that compared to some other interstates, I-81 is well-maintained.

C. Impacts to Be Evaluated

Participants suggested using the following criteria to evaluate eventual options for I-81. Priority criteria, identified by the groups by show of hands, are bolded.

- **Ease of access** to jobs, hospitals, special events, institutions inside the city, and points outside the city (including levels of projected congestion)
- **Aesthetics** (perceptions of downtown attractiveness, pedestrian-friendliness, safety)

- **Economic development** opportunities
- **Freight business** (e.g. mileage and travel time)
- **Navigability**
- Safety on the highway and throughout downtown
- Environmental quality (air quality, noise, adjacent historic sites/buildings)
- Connectivity between parts of city
- Image of the region (i.e. ability to attract and retain population)
- Physical form/built environment
- Length of construction
- Transit options and traffic on other roads
- Future maintenance needs
- Costs and availability of financing

D. Importance of I-81 to the Region

Participants roundly agreed that I-81 is important to the Central New York region for several reasons:

Access – Participants suggested that I-81 is critical in terms of moving people around both intraregionally and interregionally. They noted that the region's short commutes are appealing and one of the reasons why people stay here. Participants also noted the access that I-81 provides to the region's major cultural and economic drivers, including SU and the fair.

Economic Development – In addition to supporting the region's economic drivers by providing access, participants noted that I-81 and the mobility it provides are critical in terms of enticing economic development in the future. Participants also noted that I-81 is important in terms of moving freight.

E. Outcomes of a Good Decision

Participants suggested the following outcomes of a good decision:

Improves accessibility/mobility

- Maintains travel distances and times
- Improves efficiency
- Reduces congestion
- Improves ease of use (navigability)

Fosters a vibrant community

- Increases community viability (economically, quality of life, aesthetically)
- Helps revitalize downtown, having positive effect on entire region
- Integrates downtown with the rest of the county
- Improves the image and self-image of the community

Supports economic growth

- Increases economic development of the city and county

Enjoys community support

- Evolves from general community consensus
- Fosters sense of community ownership
- Achieves multiple regional goals (e.g. develop viable waterfront, green solutions)

- Maintains all the existing advantages of I-81 while improving the city
- Builds the best system

F. Ongoing Engagement Suggestions/Other Information Desired/Comments

Participants made the following suggestions regarding future outreach for *The I-81 Challenge*:

Methods

- Make website more interactive, allowing people to provide feedback (and distribute business cards with the address)
- Make the myths into bookmarks
- Focus on face-to-face engagement
- Use word of mouth
- Get media involved, direct traffic to website
- Post regular progress updates online

Particular outlets

- Use the library delivery system to deliver materials
- Place informational materials in places like MOST or Syracuse Stage
- Use the Motor Truck Association weekly newsletter
- Distribute materials at fair and other special events

Particular target groups

- People other than car drivers
- 40 Below
- Southside Innovation Center
- Senior citizens groups
- Towns
- School districts

Information requests

- Pass-through numbers
- Accident rates
- Case studies from other cities
- Remaining lifespan and safety of existing structures

Questions

- Why does this process take so long?
- How much effort are we going to put into maintaining I-81 now?

CONCLUSIONS

The participants of these focus groups generally confirmed the findings of the previous round. Participants stressed the importance of I-81 as a thoroughfare for freight. They also highlighted the use of I-81 as a marketing tool for the region and a way for visitors to access events and venues downtown. In keeping with these uses, participants emphasized the importance of navigability both on the highway and the local street network surrounding it.

Appendix 1: List of Participants

David Ashley, Greening USA
Kristen Aust, Bryant & Stratton College
Carl Austin, Jr., Bowles & Company
Sandra Baker, Oncenter Complex
Vicki Baker, PENNY
Maxine Bandoh, SHA - Citywide Council
Deborah Banks, SHA - Citywide Council
Rev. Roosevelt Baums, Eastwood TNT
Sandra Barrett, Onondaga Citizens League
Eric Beattie, Syracuse University
Brian Benedict, St. Joseph's Hospital Health Center
Pat Body, TNT Northside
David Bottar, Central New York Regional Planning and Development Board
Steve Brady, Upstate Medical University
Deraux Branch, CENTRO
Andy Breuer, Hueber-Breuer
Vince Cama, KSER
Tom Cambiar, Resident of Lofts on Willow
Diane Carlton, Upstate American Planning Association
Michael Chellis, Tarpending Trucking Company, Inc.
John Clark, Pyramid Brokerage
Greg Collins, The Penn Traffic Company
Dennis Connors, OHA
Mary Ann Coogan, Camillus
Nancy Corgel, Syracuse University College
Dawn Daggett, Westside TNT
Curt Dailey, Onondaga County Sheriff
Elizabeth Dailey, Onondaga County Public Library
Jeffrey Daly, Syracuse Fire Department
Joe Debray, CNYRTA
Jerry Dellas, Crouse-Marshall Business Improvement District
Alberta DeStefano, NEHDA
Tony DiGregorio, Onondaga County Emergency Management
Brian Donnelly, Onondaga County Department of Transportation
Dick Donovan, Village of Minoa
Carol Eaton, Convention and Visitors Bureau
Jason Eaton, Eastside TNT
James Effinger, CNYRTA
Erik Eure, Syracuse United Pastors
Jae Evangelisti, Eastside TNT

Roger Evans, NYS Department of Labor
Brother Ed Falsey, Franciscan Collaborative Ministries
Robert Fanelli, Town of Geddes
John Feltman, NYS Department of Environment Conservation
Jim Fayle, Empire State Development Corporation
Louis Fournier, Sutton Real Estate
Mary Beth Frey, Samaritan Center Cathedral Square Neighborhood Association
Karen Gahl-Mills, Syracuse Symphony Orchestra
Chris Geiger, Barrington Broadcasting
Anthony Geiss, Town of Van Buren
Barrie Gewanter, CNY Chapter NYCLU
Dereth Glance, Citizens Campaign for the Environment
Christa Glazier, University Hill Corporation
Joe Grant, SUNY-Oswego
Robert Green, Village of Skaneateles
Beverley Griffin, Eastside TNT
Jeff Grimshaw, SUNY-Oswego
Lyle Halbert, The Salvation Army
John Hammill, Columbia College
David Hawthorne, CNYRTA
Larry Higbee, Higbee, Inc.
David Holder, Syracuse Convention & Visitors Bureau
Chuckie Holstein, FOCUS Greater Syracuse
Joe Hucko, Washington Street Partners
Sonya Hunter, SHA - Citywide Council
Peter Kapcio, Eric Mower and Associates
Steve Kearney, City of Syracuse Economic Development
Bob Kertulis, Crouse Hospital
Maren King, SUNY-ESF Center for Community Design Research
Dan Kinsella, Village of Fayetteville
John Kitchen, Hutchings Psychiatric Center
Frank Kobliski, CNYRTA
Nicholas Kochan, Village of Liverpool
Andres Kwon, ACTS
Michael Laflair, Housing Visions Unlimited
Joe Laguardia, Lakefront Development Corporation
Rich Landerkin, CNYRTA
Michael Lazar, Town of Dewitt
Larry Leatherman, MOST
Bill Lee, Downtown TNT
Rick Lee, CNYRTA
Michael Lefancheck, Baldwinsville Police /Onondaga County Chiefs of Police Association

Pat Leone, Town of Cicero
Walt Lepkowski, Town of Clay
Ed Levine, Galaxy Communications
Danny Liedka, Village of East Syracuse
Ted Limpert, Downtown Committee
Martha Loew, Sierra Club
Lionel Logan, Partnership for Onondaga Creek
Greg Loh, Eric Mower and Associates
Joanie Mahoney, Onondaga County
Michael Mancini, Empire State College
Dave Mankiewicz, Downtown Committee of Syracuse
Kerry Mannion, Town of Dewitt
Steve Markley, Syracuse Model Neighborhood Corporation
Anthony Marshall, Harris Beach
William Meyer, Onondaga County Legislature
Ed Michalenko, Town of Dewitt
Hazel Miller, SHA – Citywide Council
Maria Miller, Verizon
Rasta Muhammad, SHA – Citywide Council
Glenn Murdock, Valley TNT
Dan Murphy, National Grid
Mark Muthumbi, Excellus BCBS
Frank Mento, Clough Harbor and Associates
Pete O'Connor, City of Syracuse
Bob Oberst, Westside TNT
Paul O'Mara, Night Hawk Transport
Tony Ortega, Armory Square Association
John Paddock, Onondaga Community College
Tom Pelis, SUNY Upstate
Eric Persons, Syracuse University
Bob Petrovich, S & W Development
Dick Platten, Village of Jordan
Louise Poindexter, Partnership for Onondaga Creek
Norm Poltenson, CNY Business Journal
Mary Price, The Rescue Mission
Mary Beth Primo, Onondaga County Office of Economic Development
Mark Paul Serafin, Village of Manlius
Tom Quinn, Community General Hospital
Kathy Rapp, Onondaga County Legislature
Barb Rauscher, Valley TNT
Douglas Reicher, Christopher Community
Richard Riccelli, Riccelli Enterprises

Tony Rivizzigno, Gilberti, Smith, Stimziano, & Heintz
Chrissie Rizzo, American Friends Service Committee
Dick Robb, Town of Dewitt
Van Robinson, Syracuse City Council
Philip Rougeux, New York State Police
Jim Rosier, East Genesee Regents
David Rufus, Southeast Gateway CDC
Nancy Rurkowski, Bristol-Myers Squibb
Shannon Ryan, Spanish Action League
Karen Ryan, Village of Manlius
Lisa Sasser, Syracuse Opera
Al Sauer, Syracuse University
Dave Schneckenburger, Thompson & Johnson Equipment Co.
Vito Sciscioli, Syracuse 20/20
Nate Scranton, Syracuse VA Medical Center
Arlayne Searle, Harrison House Tenant Association
Carl Sharak, Valley TNT
Rob Simpson, Metropolitan Development Association
Carl Smith, Valley TNT
David Smith, Upstate Medical University
Paul Soper, Architecteam
Bob Stapleton, Hutchings Psychiatric Center
Diann Stroman, SHA - Citywide Council
Tim Sullivan, Village of Jordan
Norm Swanson, Woodbine Group
Carol Sweet, Arts and Cultural Leadership Alliance (ACLA)
Mark Territo, Town of Clay
David Tessier, Town of Manlius
Mark Tetley, Town of Manlius
Bob Trachtenberg, CNY Technology Development Organization
Shannon Trice, Syracuse Police
Merike Treier, Downtown Committee of Syracuse
Rachna Vas, Cornell University Cooperative Extension
Joanne Vinciguerra, SHA - Citywide Council
John Walsh, City of Syracuse Parks, Recreation, and Youth Services
Caroline West, Valley TNT
Jerry Wickett, Town of Marcellus
Rich Wiese, Northside TNT
Robert Wolf, Village of Minoa
Randy Wolken, MACNY
Jeffrey Woodward, Syracuse Stage

Appendix 2: Focus Group Agenda and Interview Protocol**I. Welcome and Introductions****II. What is *The I-81 Challenge*? (15 minutes)**

- What is going on?
- Why now?
- Who are the players?
- What is the purpose of this session?

III. Facilitated Discussion (70 minutes)

1. What are the ways you and your organization's members currently use I-81? (round robin)
2. What concerns or impacts should be evaluated when considering the future of I-81? (open discussion)
3. Of these different kinds of impacts, given what you know to date, what two are most important to you today? (round robin)
4. Why is the future of I-81 important to the region? (open discussion)
5. If the I-81 challenge were to lay out key goals for what the I-81 decision should ultimately achieve, what should those goals be? (open discussion) [i.e., weave the downtown together, reduce traffic, increase economic development, etc.]
6. There are a variety of tools that the I-81 Challenge can use to engage people, such as websites, newsletters, fact sheets, public workshops, presentations, and/or a regional advisory group, just to name a few. What advice do you have for how the I-81 Challenge can best engage you and your constituents in the coming months and years?
7. What specific information would you like provided or questions answered in the coming months?
8. The I-81 Challenge will be hosting workshops this coming winter to kick off the process with the general public. What should these initial workshops cover in terms of information and education? In terms of activities at or goals for the meeting?
9. Anything else you would like to add?

IV. Wrap Up

STAY INVOLVED

Learn more: www.theI81challenge.org

Contact us: contactus@theI81challenge.org



Syracuse Metropolitan Transportation Council
126 N. Salina Street, Suite 100
Syracuse, NY 13202
P: 315-422-5716 F: 315-422-7753



NYS Department of Transportation
333 E. Washington Street
Syracuse, NY 13202
P: 315-428-4409 F: 315-428-4417

Preliminary Focus Group Meetings

For this first round of focus group meetings, *The I-81 Challenge* is reaching out to a wide range of stakeholders from throughout the City of Syracuse and Onondaga County. We are using these meetings with a sampling of representatives of existing agencies and organizations as a starting point for a regional dialogue that will continue over the next several years. This initial round of focus groups is not meant to be all-encompassing. It is our intention to widen the audience in coming months with larger public workshops, additional focus group meetings, and other means of outreach.

The first round of focus group meetings will be held in September and October with:

- City and county executive leadership and representative leaders from the City of Syracuse Common Council and Onondaga County Legislature
- Town supervisors, village mayors, and planning board chairs
- Regional economic development organizations
- Downtown Syracuse businesses and residents
- University Hill institutions and businesses
- The Metropolitan Development Association
- Representatives of the local development and real estate sectors
- Major local employers
- City of Syracuse TNT facilitators
- The Syracuse Housing Authority's I-81 Viaduct Committee
- Representatives of neighborhoods adjacent to the I-81 viaduct
- Environmental organizations
- Community development and social service organizations (non-governmental)
- Civic and planning organizations
- Emergency service responders
- The Central New York Regional Transportation Authority (CENTRO)

Appendix 3: Summary of Responses from the Online Questionnaire

The Syracuse Metropolitan Transportation Council (SMTC) wants to hear your thoughts about the future of I-81 as part of *The I-81 Challenge*. As you may know, the New York State Department of Transportation (NYSDOT), together with the SMTC, is currently in the very preliminary stages of planning for the future of I-81. We are calling this effort *The I-81 Challenge*. The NYSDOT and SMTC want to engage the region's citizens, organizations, and governments early and throughout this planning process. This questionnaire is not intended to be statistically significant. The input gathered through this questionnaire will help shape I-81 Challenge public participation events in the coming months and years. It will also help to provide a foundation for the development and evaluation of options for the highway. All questions are optional, and all responses are confidential. SMTC may provide a summary of responses without individual attribution.

1. Please enter your name (optional).
2. Please enter your zip code.
3. Please enter your affiliations. Include as many as apply (eg. member of an organization, resident, student, business owner, retired, Syracuse commuter, etc).
4. How do you currently use I-81?
5. How would you describe the current condition of I-81?
6. Why is the future of I-81 important to you?
7. Why is the future of I-81 important to the region?
8. What impacts should be evaluated when considering the future of I-81 (eg. traffic, air quality, noise, etc.)?
9. What would a successful I-81 decision achieve (eg. support economic development in the region, improve walkability in downtown Syracuse, improve commuter experience, support freight movement, receive broad support from the community, etc.)?
10. There are a variety of tools that *The I-81 Challenge* can use to engage people (eg. websites, newsletters, fact sheets, public workshops, presentations, surveys, open houses, etc.). What advice do you have for how *The I-81 Challenge* can best engage you in the coming months and years?
11. As *The I-81 Challenge* progresses over the coming months and years, a lot of information about I-81 will be considered. What types of information would you like to learn more about?
12. What groups, organizations, agencies, and people do you think should be involved in *The I-81 Challenge*?
13. Is there anything else you would like to add?
14. If you would like to receive periodic updates and announcements about *The I-81 Challenge*, please enter your e-mail address.

Thank you for your input. For more information about *The I-81 Challenge* please visit www.theI81challenge.org

Summary of Responses from the Online Questionnaire (as of October 25, 2009)

Total Responses: 44

Current Uses

Online questionnaire participants' responses regarding current use of I-81 were similar to focus group responses. Participants responded that they use I-81 for commuting to work; accessing services, such as shopping, the airport, and hospitals; accessing recreational areas; facilitating regional and out-of-state travel; and for visiting family and friends in locations throughout the region. Respondents also reported walking or bicycling under it or avoiding it completely.

Current Condition of I-81

Online questionnaire participants' responses were similar to focus group responses. Participants commented on physical conditions, such as interchanges and ramps, and temporal conditions, such as safety issues during winter or storm events. Online questionnaire participants commented more frequently on the aesthetics of I-81 than their focus group counterparts. Responses regarding conditions included the following:

- "Falling apart, too narrow to pull off, outdated."
- "Too much construction! It is always being worked on."
- "An eyesore."
- "Crowded at peak times, difficult to maintain."
- "Adequate when there is no construction but very slow and frustrating during times of when there is no construction, it works fine."
- "Fair"
- "Deteriorating"
- "It works, though it is ugly and unnecessary."

Importance of I-81

Online questionnaire participants' responses were similar to focus group responses. Respondents commented on the importance of I-81 to their personal quality of life, the economic sustainability of the region, and the transport of goods throughout the region. Respondents also commented on the symbolic importance of I-81, including both past and future symbolic impacts. Comments included the following:

- "It signifies future development or lack of."
- "It is integral to the regional economy, but it is also a burden on city mobility. It is a big impediment to non-automobile transportation in the city of Syracuse."
- "The decision we make now is one we will have to live with for the next fifty-plus years. We have an unusual opportunity to change the face of our city and re-evaluate our priorities."

- “I-81 is a major north/south transportation route through Central New York for all of New York State and directly supports the local and regional economy.”
- “It is a physical barrier that contributes to cultural, racial and communal barriers as well. It is also an eyesore for the city.”
- “I want Syracuse to be an economically and culturally rich city.”
- It affects the future of the whole county.
- I-81 enables expedient access to downtown and routes traffic through the city that would otherwise congest and overwhelm Dewitt

Impacts to be Evaluated

Online questionnaire participants’ responses were similar to focus group responses and included a range of suggested impacts to be evaluated, including:

- Accessibility (to downtown and services)
- Aesthetics
- Air quality
- Alternate road and city streets
- Economics
- Environmental health
- Financial viability
- Mobility throughout the region
- Noise
- Pedestrian safety
- Roadway safety
- Social fabric and community character
- Suburban quality of life and roadway impacts
- Urban design

Outcomes of a Good Decision

Online questionnaire participants’ responses were similar to focus group responses and included a range of suggested outcomes. These outcomes included improving connectivity and transit, supporting economic growth, balancing burdens and benefits, improving health of the environment and people, and eliciting community support. Outcomes suggested by respondents included the following:

- “Improve everyone's impression of the city.”
- “Have economic benefits for the city and the region.”
- “Improve commuter experience and safety.”
- “Improve walkability in downtown Syracuse, achieve an aesthetic improvement for the city, receive support from the community.”

- “A successful decision will engage the community appropriately, reconnect the University Hill and downtown in some fashion, and provide better infrastructure for the community as a whole. It will clearly communicate with the community what the objectives of the replacement components are and why the method going forward is the best solution.”
- “Healthier community. There are a number of factors in this city that contribute to chronic illness and air quality and continuing noise levels are paramount for the immediate community living under I-81.”
- “A successful decision will create an impact that will generate growth, inspire pride in the community, and allow for beauty to be cultivated.”
- “I think that a successful I-81 decision will achieve something that benefits everyone.”

Ongoing Engagement Suggestions

- Keep the process open and transparent
- Use presentations to educate public audiences
- Web-based tools (website, questionnaires, listservs, e-mail newsletters)
- Include elected officials
- Include TNT groups
- Include downtown hospitals and universities
- Include young people

Appendix 4: Frequently Requested Information on *The I-81 Challenge*

While the focus groups provided an opportunity for the project team to give participants a brief overview of *The I-81 Challenge*, participants often asked for clarification or additional information. Many of the participants' questions were answered in the focus groups by the SMTC and NYSDOT. Answers for other questions, however, will need to be developed through further research, data analysis, modeling, and outreach. A list of the commonly-asked questions from the focus groups is provided below:

Land Use Questions

- What impact has I-81 had on population decline in Syracuse? Is there a correlation between I-81, urban and county growth rates, and population redistribution?
- What are the land use challenges that Syracuse is facing and must deal with to ensure a viable future?
- What are alternative transportation opportunities for the region?

Study Questions

- What are the boundaries of the study?
- What options are on the table? What options are off the table?
- Why is the scope of the study as it is?
- What is the current/future cost of maintaining I-81 in its current state?
- Can city roads be altered as part of the decision?
- How much traffic was I-81 originally designed to carry? How much traffic does it actually carry?
- What are the costs associated with current health impacts of I-81?
- What are the climate impacts of I-81 use?
- How many trucks use I-81?
- Can there be a designated lane for trucks?
- How much of the traffic on I-81 is through traffic? How much is local?
- What impact does the highway system have on businesses throughout the region?
- What will traffic impacts look like on other roads?
- Is there a point when the cost of maintaining I-81 will be prohibitively expensive?
- What happens to I-81 over the railroad just south of the Dome?
- Are there other cities facing the same issues with their infrastructure? How are they handling the process?
- What will the impacts be on the "20-minute city?"
- What will the options cost?
- What are the possible funding scenarios (i.e. How much of the funding will come from local, county, state, and federal sources)?

Process Questions

- How do we design a process that people will want to be involved with over a long period of time?
- Why will it take so long to make a decision?
- How will a decision about I-81 be made?
- When will a decision be made?
- Does SMTC or NYSDOT have a preferred option at this time?
- How will we determine that the region is in agreement?
- What do other stakeholders in the community think (universities, hospitals, downtown, suburbs, emergency service providers, elected officials, etc.)?
- How do you frame the conversation so that it includes not only transportation, but also land use and other important topics for the region?
- How are you involving elected officials?

Implementation Questions

- How will the decision impact city streets, I-690, and I-481 during construction?
- How will traffic be rerouted during construction?
- How will you mitigate the air quality impacts of construction on residents?
- How long does it take to dismantle a mile of highway?
- How long will construction take?
- Who will pay for the final option?
- How is the federal government involved? What do federal incentives and requirements look like? Will federal regulations require the integration of transportation, land use, and the environment?

Appendix 5: Supplemental Materials: Fact Sheet and Frequently Asked Questions

FREQUENTLY ASKED QUESTIONS (FAQs) ABOUT *THE I-81 CHALLENGE*

August 2009

- Has a decision about I-81 already been made?
- Is there already funding for the I-81 solution?
- Why are you planning for I-81 now?
- Is the viaduct safe?
- Who makes the ultimate decision about what happens to I-81?
- What is the SMTC?
- What is the decision-making process?
- Who will be involved in this process?
- Will the process be inclusive?
- How can I be involved in the process?
- How will my input really be used?
- How will the public's interests be considered in this process?
- How will economic, social, aesthetic, land use, urban design, environmental, and other impacts of potential options be addressed?
- How much is the eventual I-81 project going to cost?
- Who is going to pay for the eventual I-81 project?
- When would any construction, whatever that may be, likely take place?
- Why does this process take so long?
- Will transit be considered as part of the process?

Has a decision about I-81 already been made?

Although many people have ideas about the future of the highway, no decision has been made about I-81. All options for the future of the highway are currently on the table. The I-81 decision-making process, being called *The I-81 Challenge*, is designed to inform the public about the highway and the I-81 planning effort, as well as gather public input. This public input will be used by the New York State Department of Transportation (NYSDOT) and SMTC to help identify the range of options that will eventually be analyzed. Options will be narrowed down during later stages of the project development process.

Is there already funding for the I-81 solution?

The only funding available for I-81 right now is for planning. This planning money is being used for *The I-81 Challenge*, including a comprehensive corridor study, public involvement, and computer modeling. There is no funding for the design, removal, construction, or reconstruction of I-81 at this time. Securing adequate capital funding requires a preferred option (or a short list of preferred options) and the development of a financial plan, which are several years away.

Why are you planning for I-81 now?

I-81 was built in Onondaga County in the 1950s and 1960s. This means that portions of I-81 are nearing the end of their lifespan. In particular, it is the deteriorating condition of the 1.4-mile elevated section of the interstate in the City of Syracuse (the viaduct) that is the primary motivation for studying the future of I-81 at this time. The New York State Department of Transportation (NYSDOT), which owns the road, recognizes that it will take several years to reach a decision about the future of the highway. Given this timeline, it is important to start this process now.

Is the viaduct safe?

The viaduct is safe. The NYSDOT inspects and maintains the 124 bridge spans that make up the viaduct on a regular basis. However, all of these bridges are nearly 50 years old. The time and cost associated with maintaining them in safe condition is growing. Within the next few years, a more comprehensive solution for dealing with the aging viaduct must be found.

Who makes the ultimate decision about what happens to I-81?

The decision about what happens to I-81 will involve many parties:

- The NYSDOT owns the road and will therefore have ultimate responsibility for any decision about the future of I-81. The NYSDOT will be responsible for overseeing the decision-making process and, eventually, construction.
- The Syracuse Metropolitan Transportation Council (SMTC), the metropolitan planning organization (MPO) for the greater Syracuse area, will also play a major role in the decision-making for I-81 (see “What is the SMTC?” for more information). The SMTC consists of member agencies that have a stake in transportation decisions in Central New York. These entities, through the SMTC, plan transportation projects and make transportation investment decisions for the greater Syracuse area. In addition to managing technical and public involvement aspects of the I-81 planning effort, the SMTC will be responsible for approving the capital program for federal funding, the Transportation Improvement Program (TIP), which will ultimately include funds for an I-81 project once a decision has been reached. The SMTC will have the opportunity to approve or disapprove the TIP that includes the eventual I-81 project funding. A consensus of SMTC member agencies is required for TIP approval (as well as all major SMTC actions). The TIP is made available for public comment prior to approval.
- Because federal money will be expended, the federal government, through the Federal Highway Administration (FHWA) and other federal agencies, will also have a role in the I-81 decision-making process. The FHWA will oversee the adherence to federal transportation planning and design regulations throughout the process.
- Because this project has the potential to profoundly impact everyone who lives in the Syracuse metropolitan area, the public will also play a role in the ultimate decision about I-81. The public will be central to the development of options for the future of the highway, as well as the process to narrow those options down to the one preferred option.

What is the SMTC?

The SMTC is the state-designated metropolitan planning organization (MPO) for Onondaga County and small portions of Madison and Oswego Counties. In this capacity, the SMTC does transportation planning for the metropolitan planning area. The SMTC is also responsible for administering federal transportation funds for the area through the Transportation Improvement Program (TIP). The SMTC's member agencies include:

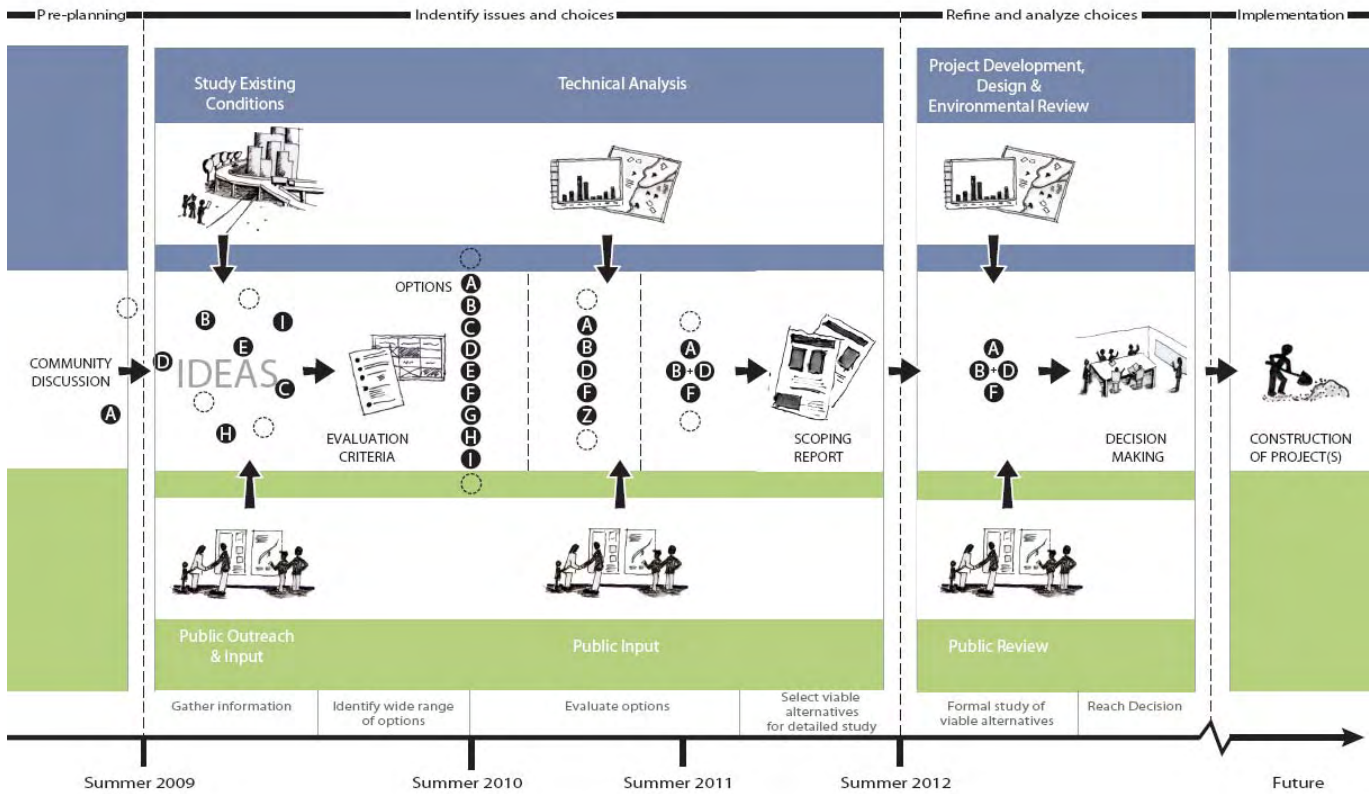
- Central New York Regional Planning and Development Board (CNYRPDB)
- Central New York Regional Transportation Authority (CNYRTA)
- City of Syracuse
 - Office of the Mayor
 - Common Council
 - Planning Commission
- Empire State Development Corporation
- Metropolitan Development Association (MDA)
- New York State
 - Department of Environmental Conservation
 - Department of Transportation
 - Thruway Authority
- Onondaga County
 - Office of the County Executive
 - Legislature
 - Planning Board/Syracuse Onondaga County Planning Agency (SOCPA)
- Federal Aviation Administration (FAA)*
- Federal Highway Administration (FHWA)*
- Federal Transit Administration (FTA)*
- Madison County Board of Supervisors*
- Oswego County Legislature*

* denotes non-voting/advisory members

What is the decision-making process?

Over the next several years, *The I-81 Challenge* will advance the community discussion that has already started about the future of I-81. Information about the existing conditions of the highway and the regional transportation system will be collected. An understanding of the community's values, goals, and ideas will be developed through a regional public involvement process. All of this information will be used to generate a wide range of options for the future of the highway and a set of criteria for evaluating them. The broad range of options will be narrowed down to a small number of viable alternatives through a combination of technical analysis and continued public involvement. Later, the viable alternatives will be refined and analyzed in further detail, and a formal environmental review process, including official public hearings, will begin. That process will ultimately lead to a decision and to a project or projects that can be implemented. A graphic illustrating this process appears on page 4.

The I-81 Challenge



Who will be involved in this process?

The NYSDOT and SMTC are leading the process of planning for the future of I-81. These agencies are being assisted by a Study Advisory Committee, consisting of representatives of SMTC member agencies such as the City of Syracuse, Centro, Syracuse-Onondaga County Planning Agency, Onondaga County, the Central New York Regional Planning & Development Board, and the Metropolitan Development Association. To ensure that all interested persons, organizations, and agencies have an opportunity to be involved in this process, the SMTC and NYSDOT, with the assistance of the Study Advisory Committee, have designed a comprehensive public participation effort. There will be numerous opportunities for community involvement over the coming months and years, including workshops, open houses, focus groups, surveys, and other events that have yet to be planned. Information on these public involvement opportunities will be posted on our web site, www.theI81challenge.org, as they evolve.

Will the process be inclusive?

Since the start of the public participation effort earlier this year (2009), the SMTC and NYSDOT, with the assistance of the Study Advisory Committee (SAC), have been identifying potential stakeholders in the I-81 process, including difficult to reach and typically underrepresented communities. Throughout this process, we will take a proactive approach to reaching out to these groups - both the NYSDOT and the SMTC believe that collecting input from a broad and diverse community is essential to the success

of this process. If you have a question about the representation of a specific community in this effort, feel free to contact the SMTC at contactus@theI81challenge.org.

How can I be involved in the process?

You can begin to be involved in this process right away by joining our mailing list at www.theI81challenge.org. By joining the mailing list, you will receive periodic updates about public workshops and other opportunities to be involved. Small focus groups will begin this fall, and the first set of public workshops will follow. You can also provide comments to the SMTC and NYSDOT at any time at contactus@theI81challenge.org.

How will my input really be used?

As a community member, you can impact this process in several important ways. First, you can educate yourself about the highway and the process by visiting our web site at www.theI81challenge.org and participating in our public involvement opportunities as they arise. If you choose to express your issues and ideas through public workshops, open houses, questionnaires, and other mechanisms, your input will help guide the development of options for the future of the highway. Just as importantly, your input will help inform the evaluation criteria that will be used to narrow down the potential options for the future of the highway. The decision-making process graphic on page 4 illustrates how public input will be used in each phase of the decision-making process.

How will the public's interests be considered in this process?

The National Environmental Policy Act (NEPA) and the State Environmental Quality Review Act (SEQRA) are two powerful regulations designed to ensure that impacts to human and natural environments are considered throughout the planning process. These laws were not in place when decisions about the original construction of I-81 were made. Today, they ensure that the public interest is deliberately considered before a decision of this magnitude can be reached. In keeping with these regulations, the I-81 decision-making process will include multiple and varied means of public involvement.

In addition, SMTC member agencies and public comment are incorporated into the Transportation Improvement Program (TIP) approval process. For more information on this process, see "Who makes the ultimate decision about what happens to I-81?"

How will economic, social, aesthetic, land use, urban design, environmental, and other impacts of potential options be addressed?

In addition to examining the impacts of potential options on the transportation system, the I-81 decision-making process will study and take into consideration the likely economic, land use, community, and environmental effects of varying options.

How much is the eventual I-81 project going to cost?

Currently, there is no identified solution, or set of solutions, for addressing the long-term future of I-81. Therefore, no valid cost projections can be made. Cost will be one of many factors considered in the process of evaluating future options.

Who is going to pay for the eventual I-81 project?

As noted above, there is currently no identified solution for addressing the long-term future of I-81. Until the nature of a proposed solution is better understood, it is impossible to know what the eventual cost will be and through what mechanisms the project will be financed. For that matter, since there will be new federal transportation legislation when a decision is reached, we do not know now what specific funding programs will be available.

However, transportation projects of this size usually are paid for with some combination of federal and state funding. Under current highway funding programs, the federal government typically pays 80% of project costs, and state or local entities are responsible for the remaining share.

When would any construction, whatever that may be, likely take place?

It is unlikely that construction of any kind, other than regular maintenance, will begin in the near term. The decision-making process, including federally-mandated environmental review, is estimated to take at least several years.

Why does this process take so long?

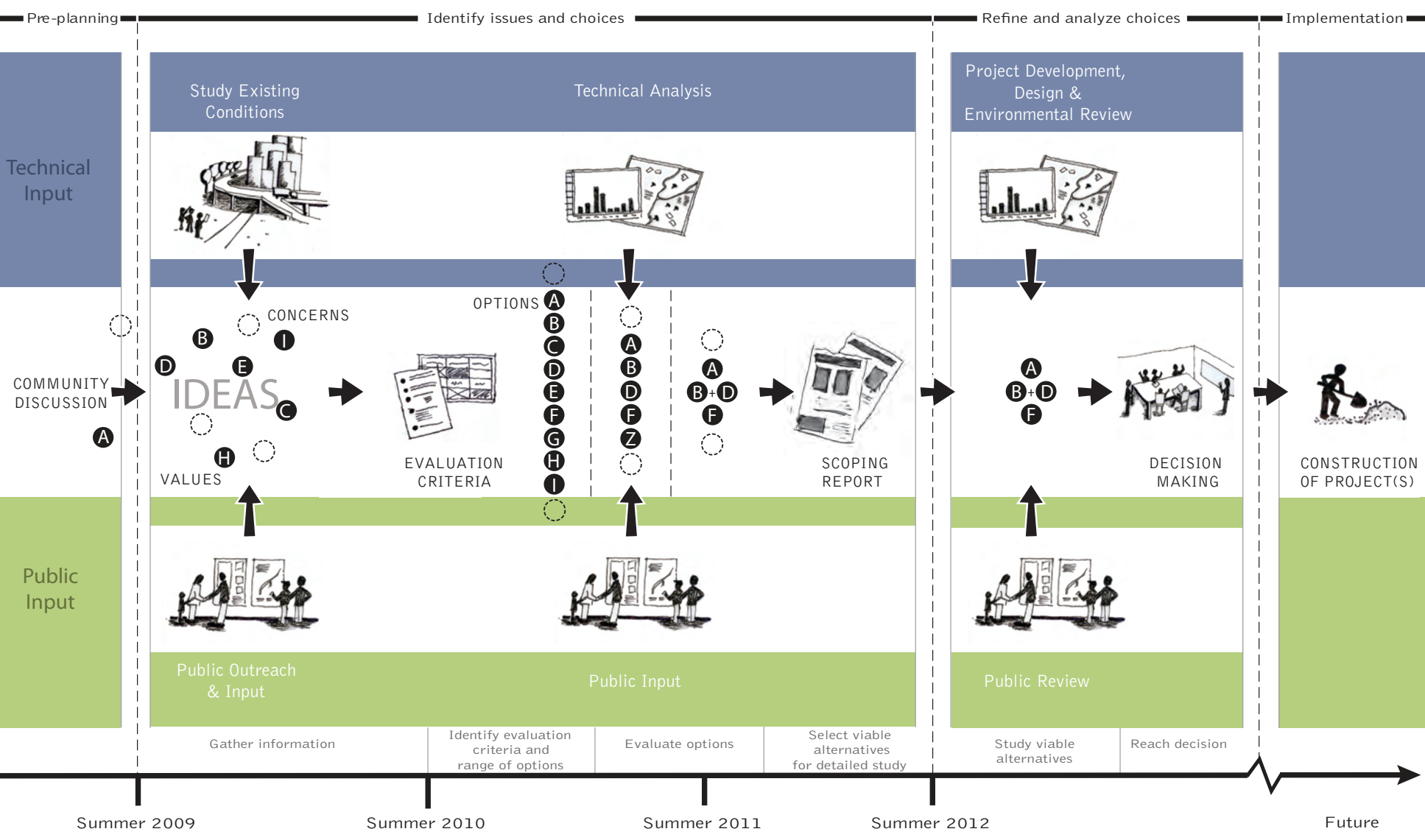
Resolving a question as complex as what to do with I-81 in Central New York, and doing so well, takes time. This process involves federal, state, and local agencies and the public. It will require adherence to federal and state environmental regulations (NEPA and SEQRA), which are designed to deliberately consider the public's interest and apply to all large projects of this kind. Many people's voices will need to be heard. Impacts of potential options will need to be studied. Tradeoffs between potential options will need to be weighed. Ultimately, a preferred option is several years away.

Will transit be considered as part of the process?

Public transportation, in addition to other ways of moving people, will be considered as part of the development and evaluation of options for the future of the highway. This approach is supported by federal transportation policy.

HOW WILL DECISIONS ABOUT THE FUTURE OF I-81 BE MADE?

DISPELLING I-81 MYTHS



Over the next several years, *The I-81 Challenge* will advance the community discussion that has already started about the future of I-81. Information about the existing conditions of the highway and the regional transportation system will be collected and an understanding of the community's values, goals, and ideas will be developed through a regional public involvement process. All of this information will be used to generate a wide range of options for the future of the highway and a set of criteria for evaluating them. The broad range of options will be narrowed down to a small number of viable alternatives through a combination of technical analysis and continued public involvement. Later, the viable alternatives will be refined and analyzed in further detail and a formal environmental review process, including official hearings, will begin. That process will ultimately lead to a decision, and to a project or projects that can be implemented.



Myth #1: The solution for I-81 has already been determined.

Although many people have ideas about the future of the highway, no decision has been made about I-81. All options for the future of the highway are currently on the table. The I-81 decision-making process, being called *The I-81 Challenge*, is designed to inform the public about the highway and the I-81 planning effort, as well as gather public input. This public input will be used by NYSDOT and the SMTC to help identify the range of options that will eventually be analyzed. Options will be narrowed down during later stages of the project development process.

Myth #2: The solution for I-81 is six months away.

Resolving a question as complex as what to do with I-81 in Central New York, and doing so well, requires much longer than six months. Because this process involves federal, state, and local agencies and the public, it will, by necessity, take a significant amount of time. It will also require adherence to federal and state environmental regulations (NEPA and SEQR), which are designed to deliberately consider the public's interest and apply to all large projects of this kind. Many people's voices will need to be heard. Impacts of potential options will need to be studied. Tradeoffs between potential options will need to be weighed. Ultimately, a preferred option is several years away.

Myth #3: There is capital funding for I-81 right now.

The only funding available for I-81 right now is for planning. This planning money is being used for *The I-81 Challenge*, including a comprehensive corridor study, public involvement, and computer modeling. There is no funding for the design, removal, construction, or reconstruction of I-81 at this time. Securing capital funding requires a preferred option (or a short list of preferred options) and the development of a financial plan, which are several years away.

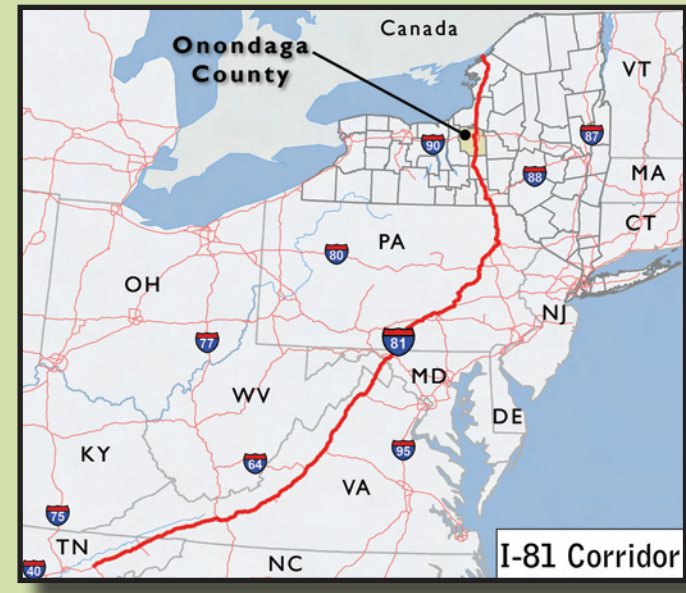
Myth #4: This effort is all about the viaduct.

While the elevated portion of I-81 through the City of Syracuse may be the impetus for this effort, it is not the sole focus. This process will consider the future of I-81 throughout Onondaga County. By necessity, the process will include special attention to the portions of the highway which receive the most use, and this will include the 1.4-mile viaduct, a highly complex section of the highway that crosses 18 city streets and interchanges with I-690.



SOME BASIC FACTS ABOUT I-81 NOW

Traffic: Anyone who commutes to work on I-81 realizes that this road carries a large portion of the region's traffic. Currently, there are approximately 100,000 cars and trucks per day on the most heavily-traveled portion of I-81 in the City of Syracuse. Traffic decreases to approximately 65,000 cars per day at the northern interchange with I-481, and to 40,000 cars per day at the southern interchange with I-481. In comparison, I-690 carries more cars and trucks per day on its most heavily-traveled segment: over 120,000.



Role and Function: I-81 serves two major transportation functions. First, I-81 is one of the Syracuse metropolitan area's major commuter corridors. I-81 provides direct access from suburban and rural communities to downtown Syracuse, the city's hospitals, Syracuse University, and SUNY-ESF. The Greater Syracuse Economic Growth Council reports that five of the region's 10 largest employers are located adjacent to I-81. Second, I-81 is an important national and international trade route. In terms of long-distance hauling, I-81 provides a major alternative to congested I-95. According to the I-81 Corridor Coalition, it has been estimated that 12% of the United States' Gross Domestic Product travels on some portion of the I-81 corridor. I-81 also serves as an important connection to the east-west route of I-90.



CURRENT CONDITIONS

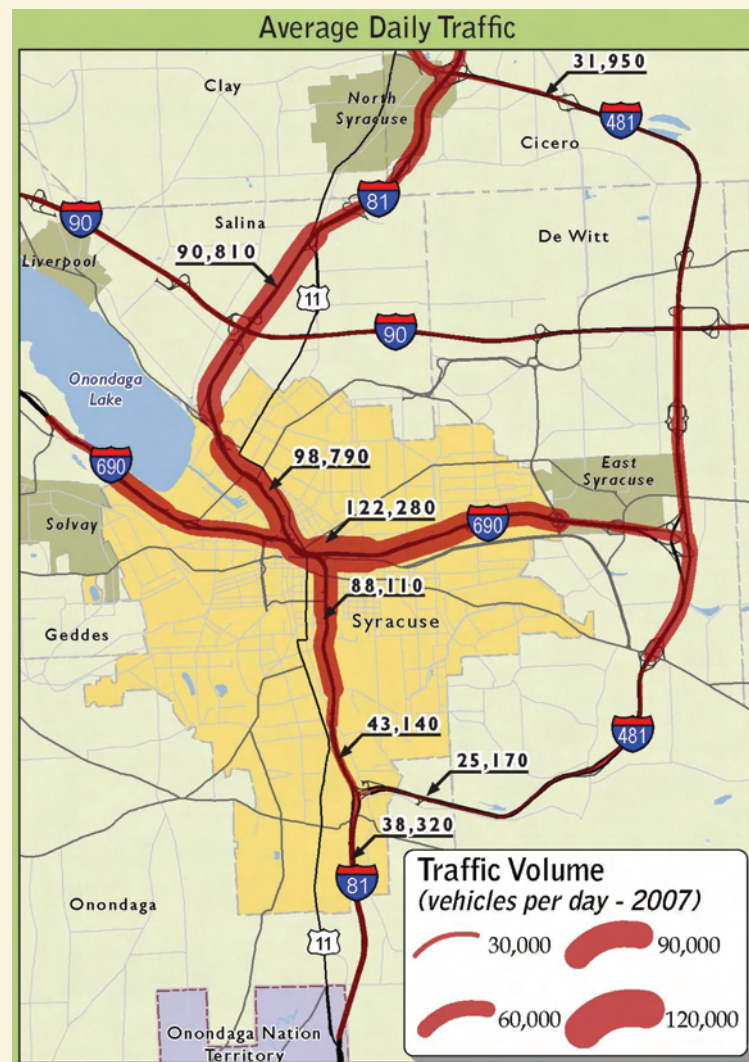
Safety: For most of the I-81 corridor, accident rates are below the state-wide average for similar interstate systems. However, accident rates from the I-481 interchange north of the city to the I-690 interchange and from the Adams Street exit to the I-481 interchange south of the city are slightly above the statewide average. The accident rate on the viaduct portion of I-81 is more than double the statewide average. Due to its tight curves and narrow shoulders, large portions of the viaduct are difficult for emergency responders.

Capacity: I-81 generally has sufficient capacity to handle existing traffic volumes north and south of the city. However, in the central portion of the corridor, particularly near downtown, the highway is well over its design capacity during the peak hours. Any disruption due to maintenance or accidents can cause severe traffic congestion for the entire region, as this route is a key in the region's highway network.

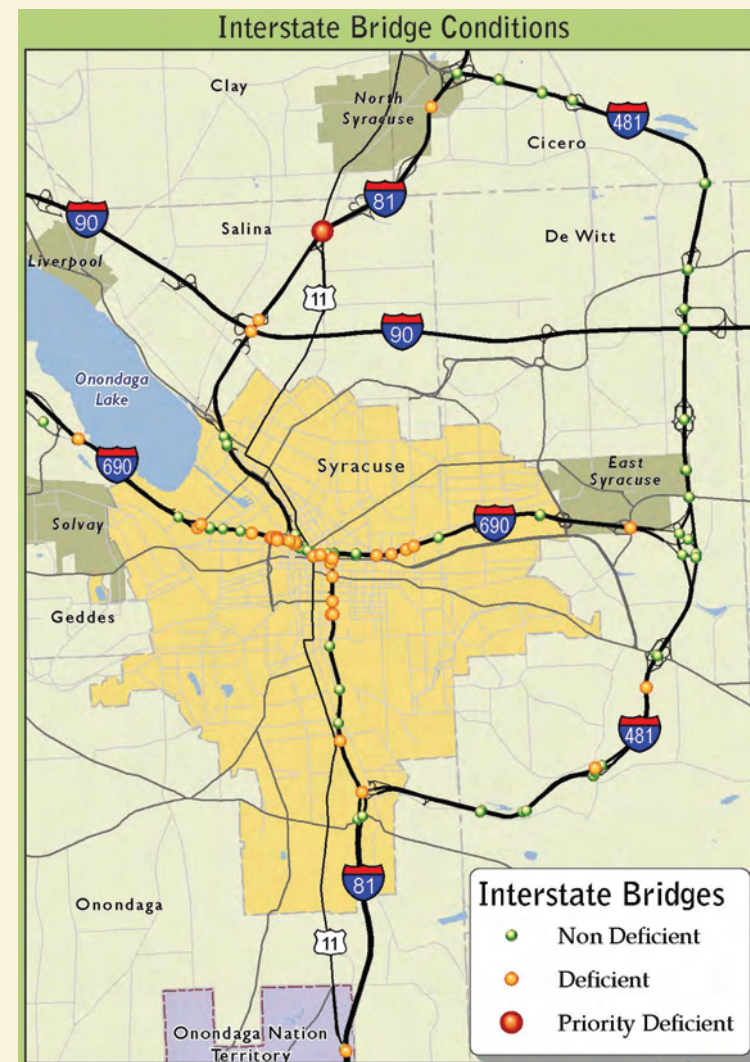
Highway Design: When I-81 was constructed in the 1950s and 1960s, highway design standards were different from today. Although the highway met the design standards of its era, I-81 does not meet current standards for high-speed freeways. This is true particularly in the urban sections, where physical constraints forced engineers to design the highway with tight curves, narrow lanes, short weaving distances, and minimal shoulders. In fact, this portion of I-81 has a speed limit of 45 mph, the lowest on the entire 850-mile corridor from Canada to Tennessee.

Operational Issues: The narrow width and high traffic volumes on the urban sections of I-81 pose significant operational challenges. It is difficult to conduct routine maintenance during daytime hours on I-81 in downtown Syracuse, as construction translates into major congestion. When accidents occur, limited shoulder width means that disabled vehicles are forced to remain in the travel lane, blocking traffic and creating additional hazards. Likewise, snow removal and stormwater runoff are recurring problems.

Structural Issues: While *The I-81 Challenge* will study all of I-81 between the I-481 interchanges, the major reason for the urgency of this effort is the condition of the viaduct portion of I-81 in downtown Syracuse. Altogether, the viaduct has a total of 1.4 miles of bridges, with 124 individual bridge spans. The structures are approximately 50 years old and show signs of age and deterioration, as illustrated in the photo at right. NYSDOT frequently inspects these bridges and makes routine repairs to protect the traveling public. However, it is critically important to begin a serious effort to address these pieces of infrastructure to assure the safety and efficiency of the future regional transportation network.



The traffic volumes on the Syracuse region's interstate highway network vary from about 25,000 vehicles per day on the more lightly traveled portions of I-481 to over 122,000 vehicles per day on I-690 just east of I-81. These substantial variations in traffic indicate that many drivers use the interstates for relatively short trips. The highest volume on I-81, nearly 99,000 vehicles per day, occurs just north of the I-690 interchange. The highest volume on the viaduct is 88,000 vehicles per day.



The deficiency ratings shown on this map indicate that many of the interstate bridges in the region are deficient in some aspects. The high number of deficient bridges is a reflection of the region's aging infrastructure. NYSDOT routinely conducts bridge inspections and repairs to maintain a safe highway system. For example, they have a construction project under contract to address the single priority deficient bridge shown above. Still, the number of these aging structures indicates that it is time to begin a regional effort to plan for the future of our interstate system.



This map shows locations on the Syracuse region's interstate highway network that experience traffic congestion during either the morning or afternoon peak hours according to the SMTC's regional transportation model. Locations noted with "severe congestion" are places where the modeled traffic volume exceeds the theoretical capacity of the roadway. The I-81 Challenge will examine traffic congestion in more detail in terms of exact location and duration.



The I-81 Challenge

A Brief Transportation Overview

WHAT'S HAPPENING WITH I-81?

As many people in Onondaga County are learning, portions of I-81 are nearing the end of their lifespan. This is particularly true of the elevated sections of the highway in downtown Syracuse. Over the next decade, these portions of the road will need to be replaced, reconstructed, removed, or otherwise changed. Given this reality, the Syracuse region, including the road's owner, the New York State Department of Transportation (NYSDOT), is faced with a challenge: what should be done with I-81?

As many residents of the community know, this discussion has already started. In fact, government officials, local organizations, and members of the public have already offered numerous ideas about the future of I-81: remove the elevated portion (the viaduct) and replace it with a boulevard, route traffic onto I-481 and decommission I-81 between the I-481 interchanges, bury the elevated portion underground and cover it with a park, or rebuild the viaduct at a higher elevation with a more attractive design. Ultimately, the region is still several years from a final decision on the future of I-81 – a choice this large must involve the whole community in a thoughtful, deliberative dialogue. But these ideas provide a starting point for the official I-81 decision-making process, which is beginning right now.

This official decision-making process, *The I-81 Challenge*, is being led by two entities, the New York State Department of Transportation and the Syracuse Metropolitan Transportation Council (SMTC), the region's metropolitan planning organization. Together, these two entities are trying to engage a broad cross-section of community members in developing and evaluating options for the future of the highway.

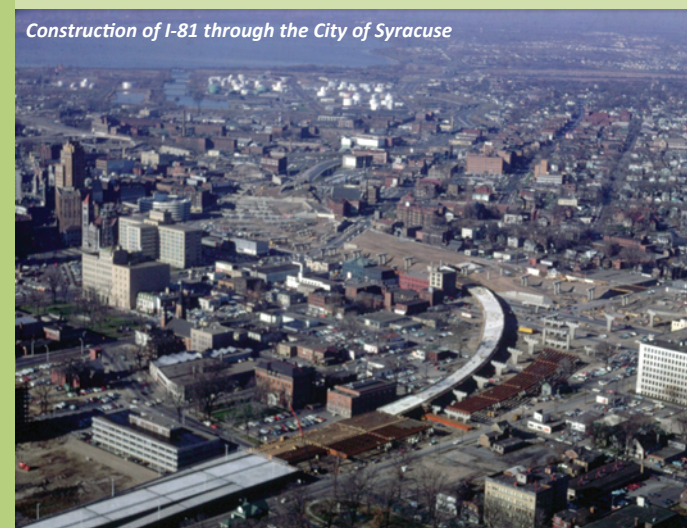
This fact sheet gives a brief introduction to the I-81 decision-making process and the highway itself. But it can't tell you everything you want to know about I-81. That's why there will be many more opportunities, spread over the next several years, to get involved. To learn more, visit www.theI81challenge.org.

Get involved. Ask questions. Educate yourself about the process and the facts. The future of the community is in all of our hands.

BRIEF HISTORY

I-81 was built in Central New York during the 1950s and 1960s for two main reasons: to carry through traffic between Pennsylvania and Canada and to bring local traffic in and out of the City of Syracuse. The highway was the product of a vigorous federal road-building program that included the construction of many miles of interstate highways in every state across the country.

The idea of the proposed highway, particularly through downtown Syracuse, was controversial. Local residents, business interests, and leaders had differing opinions about the highway's design and location. Many issues, including economic growth, property taxes, housing, and community development, were divisive. Ultimately, the decision was made to construct the highway with its current alignment and, by the late 1960s, I-81 was completed through Onondaga County.



HOW DO I STAY INVOLVED?

Learn More: To learn more about *The I-81 Challenge* and opportunities to get involved, visit our web site at www.theI81challenge.org.

Contact Us: Send us comments at contactus@theI81challenge.org or contact us directly at the SMTC. You can also join our mailing list at www.theI81challenge.org.

Request a Presentation: To request an informational presentation about *The I-81 Challenge* for your small group of under 30 people, contact us at contactus@theI81challenge.org. The presentation includes background information on the I-81 planning process, a short summary of case studies, and a review of information we have learned from the public to date.

Syracuse Metropolitan Transportation Council
126 N. Salina Street, Suite 100
Syracuse, NY 13202
P: 315-422-5716 F: 315-422-7753

NYS Department of Transportation
333 E. Washington Street
Syracuse, NY 13202
P: 315-428-4409 F: 315-428-4417

April 2010



Deterioration on underside of bridge deck