

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

ACKNOWLEDGEMENTS

This project was conducted for the Federal Highway Administration's (FHWA's) Office of Planning, Environment, and Realty under the guidance of a work group including: Bruce Bender, Sharlene Reed, Candace Groudine, Brenda Kragh, Katiann Wong-Murillo, and Keith Moore. The report and case studies were prepared by ICF International. Contributing authors were: Shannon Cox, Alex Uriarte, Shilpa Trisal, Bonnie Chiu, and Alexander Bond. Development of the case studies would not have been possible without the voluntary contribution of time and information from staff at State departments of transportation, FHWA Division offices, consulting firms, and others. These individuals are acknowledged in the references associated with each case study summary.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

TABLE OF CONTENTS

Purpose and Organization of the Report	1
Relationship of this Report to Environmental Justice Reference Materials	1
What is Environmental Justice?	1
Effective Practices	7
Principle #1: Identifying Existing Minority and Low-Income Populations and Community Characteristics.....	13
Recommendations from FHWA’s 2011 “Guidance on Environmental Justice in NEPA”	13
Effective Practices from the Case Studies.....	13
Principle #2: Coordination, Access to Information, and Participation.....	15
Recommendations from FHWA’s 2011 “Guidance on Environmental Justice in NEPA”	15
Effective Practices from the Case Studies.....	15
Principle #3: Identifying Disproportionately High and Adverse Effects.....	24
Recommendations from FHWA’s 2011 “Guidance on Environmental Justice in NEPA”	24
Effective Practices from the Case Studies.....	25
Conclusions	30
Appendix A: Methods for Identifying Case Studies and Effective Practices	A-1
Appendix B: Case Study Summaries	A-4
Appendix C: List of Acronyms	A-45
References	A-48

PURPOSE AND ORGANIZATION OF THE REPORT

Transportation practitioners struggle with identifying and assessing environmental justice impacts as part of project reviews conducted under the National Environmental Policy Act (NEPA). The purpose of this report is to provide transportation practitioners with a reference of effective approaches in addressing environmental justice as part of NEPA through examples from 10 recent transportation projects.

The first section of the report defines environmental justice and provides an overview of related key legislation and guidance. Short summaries of each example project and compiled effective practices follow. A description of methods, longer case study summaries, and acronyms are provided in appendices.

RELATIONSHIP OF THIS REPORT TO ENVIRONMENTAL JUSTICE REFERENCE MATERIALS

There is extensive help for practitioners available through the Federal Highway Administration's (FHWA's) [Environmental Justice website](#).¹ This report supplements the following specific reference material:

- **Case Studies:** Full-length case studies providing additional context and details for the 10 projects highlighted in this report are available through the website.
- **Guidance on Environmental Justice and NEPA (2011 Guidance):** In December of 2011, FHWA issued this guidance advising practitioners on the process to address environmental justice during the NEPA review, including documentation requirements. This guidance supplements the FHWA Technical Advisory 6640.8A, which provides guidance for documenting the potential social, economic, and environmental impacts considered in the selection and implementation of highway projects. Where possible, connections are made between the effective practices used in the example projects and the 2011 Guidance.²
- **Environmental Justice Emerging Trends and Best Practices Guidebook:** In 2011 FHWA released this guidebook addressing foundational issues or emerging trends in environmental justice and highlighting noteworthy case studies and best practices that promote environmental justice in transportation decision-making. The guidebook does not focus on the NEPA review process specifically, but provides much of the background material highlighted in the next section.³

WHAT IS ENVIRONMENTAL JUSTICE?

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994, directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

greatest extent practicable and permitted by law. The FHWA remains committed to nondiscrimination and ensuring that every transportation project nationwide considers the human environment. Effective and equitable transportation decision-making depends on understanding and properly addressing the unique needs of different socio-economic groups.

Environmental justice is grounded in the practice of making sure that both benefits and burdens of transportation investments are shared as equitably as possible among all affected communities. Historically, low-income and minority communities have borne many negative effects of transportation projects and have gained few direct benefits. As a result, efforts to promote environmental justice in transportation focus on engaging these communities in transportation decisions. With an awareness and active promotion of the principles of environmental justice in transportation decision-making, practitioners can better avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.⁴

Environmental justice addresses persons belonging to any of the following racial and ethnic groups, as defined by the 1997 Office of Management and Budget (OMB) Policy Directive 15, "Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity":⁵

- **Black or African American** - a person having origins in any of the black racial groups of Africa.
- **Hispanic or Latino** - A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- **Asian** - a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- **American Indian or Alaskan Native** - A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- **Native Hawaiian or Other Pacific Islander** - A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

In addition, environmental justice addresses persons of low income:

- **Low-Income** - a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines (determined annually).

There are three basic principles of the United States Department of Transportation's (DOT's) strategy to address environmental justice:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- Prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations.

A summary of key legislation and guidance addressing environmental justice and the transportation decision-making process is provided in Table 1.

Table 1. Timeline and summary of civil rights and environmental justice legislation.⁶

Year	Legislation or Guidance
1964	Title VI of the Civil Rights Act prohibits recipients of Federal financial assistance from discriminating based on race, color, or national origin.
1968	23 U.S.C. 140-Nondiscrimination (amended in 1991) refers to State employment assurances. Refers to race, color, creed, national origin, or sex.
1969	NEPA requires Federal agencies to analyze the environmental impacts of their actions. Agencies must account for impacts on populations and consult the public throughout their analyses.
1970	The Federal Highway Act of 1970 requires that adverse economic, social, and environmental impacts of federally supported highway projects be fully considered during project development and that final project decisions are made in the best overall public interest. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 requires fair and equitable treatment of people displaced as a direct result of programs or projects undertaken by a Federal agency or with Federal financial assistance. Title VI Regulation 49 CFR 21 , “Nondiscrimination in federally assisted programs of the Department of Transportation (DOT),” was enacted to effectuate the provisions of Title VI of the Civil Rights Act of 1964 to the end that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the DOT.
1973	The Rehabilitation Act of 1973/Section 504 prohibits discrimination on the basis of disability in programs conducted by Federal agencies, in programs receiving Federal financial assistance, in Federal employment, and in the employment practices of Federal contractors.
1975	The Age Discrimination Act of 1975 prohibits age discrimination in programs receiving Federal financial assistance.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Year	Legislation or Guidance
1987	The Civil Rights Restoration Act of 1987 prohibits discrimination based on race, color, gender, national origin, age, or disability throughout an entire agency if any part of the agency receives Federal financial assistance.
1990	The Americans with Disabilities Act of 1990 (ADA) extended many of the protections and remedies of the Civil Rights Act to persons with disabilities, and broadened the Rehabilitation Act's provisions to entities that do not receive Federal funds.
1991	The Intermodal Surface Transportation Efficiency Act (ISTEA) made major changes to transportation planning and policy. It created flexible funding, enhanced the role of metropolitan planning organizations (MPOs), and strengthened the requirements for transportation planning and programming.
1992	The Office of Environmental Equity was established in the U.S. Environmental Protection Agency (EPA). (The Office was later renamed the Office of Environmental Justice.) This office was supported by a work group on environmental equity, which produced a report on examining environmental inequalities. Along with this office, EPA implemented a new organizational infrastructure to integrate environmental justice into their policies, programs, and activities.
1993	The National Environmental Justice Advisory Council was created. This Council represents the first time that representatives of community, academia, industry, environmental, and indigenous, as well as State, local, and tribal government groups, were gathered to discuss and suggest solutions to environmental justice problems.
1994	President Clinton signs Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations , which requires Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.
1997	The Council on Environmental Quality (CEQ) issues Environmental Justice Guidance Under the National Environmental Policy Act to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Year	Legislation or Guidance
1997	<p>The DOT Order on Environmental Justice to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5610.2) establishes as DOT policy the full consideration of environmental justice principles throughout the transportation planning and decision-making processes, and provides guidance to the operating administrations regarding implementation of these principles.</p>
1998	<p>The FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 6640.23) further specifies how highway projects should incorporate environmental justice in complying with EO 12898. It is intended to prevent and address disproportionately high and adverse effects on minority and low-income populations.</p>
1999	<p>The FHWA and the Federal Transit Administration (FTA) issue a memorandum, "Implementing Title VI Requirements in Metropolitan and Statewide Planning," which provides clarification for field offices on how to ensure that environmental justice is considered during current and future planning certification reviews.</p>
1999	<p>The EPA issues their "Final Guidance for Consideration of Environmental Justice in Clean Air Act 309 Reviews." This document provides guidance on reviewing and commenting on other Federal agencies NEPA documents to help ensure that environmental effects on minority communities and low-income communities have been fully analyzed. It is meant to be used internally by EPA reviewers.</p>
2001	<p>President Clinton signs Executive Order 13166, which requires Federal agencies to develop systems by which people with a limited ability to communicate in English can access the services of those agencies. Title VI Legal Manual, U.S. Department of Justice, Civil Rights Division, issues a manual intended to provide guidance on Title VI to Federal agencies and other interested entities.</p>
2005	<p>The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) is enacted; it places additional emphasis on environmental stewardship, the consideration of environmental issues as part of Metropolitan and Statewide Transportation Planning, and increases the importance of public participation in the planning process.</p>
2010	<p>The Obama Administration renewed the Federal Government's commitment to environmental justice by appointing a Senior Advisor on Environmental Justice at the EPA and reinvigorating the Environmental Justice Interagency Working Group (EJ IWG)—established by E.O. 12898—with an increased focus on public engagement.</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Year	Legislation or Guidance
2011	<p>On August 4, 2011, the Secretary of Transportation, along with heads of other Federal agencies, signed a Memorandum of Understanding on Environmental Justice and Executive Order 12898 (EJ MOU) confirming the continued importance of identifying and addressing environmental justice considerations in agency programs, policies, and activities as required by EO 12898. As part of the EJ MOU, each Federal agency agrees to review and update their existing environmental justice strategy as appropriate, and to publicize the updated strategy.</p>
2011	<p>In December, FHWA issued its “Guidance on Environmental Justice and NEPA.” This resource is meant to advise practitioners on the process to address environmental justice during the NEPA review, including documentation requirements. It supplements the FHWA Technical Advisory 6640.8A, which provides guidance for documenting the potential social, economic, and environmental impacts considered in the selection and implementation of highway projects.</p>
2012	<p>FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (6640.23A) establishes policies and procedures for the FHWA to use in complying with EO 12898. This directive updates FHWA Order 6640.23, “FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” dated December 2, 1998. It is intended to prevent and address disproportionately high and adverse effects on minority and low-income populations.</p> <p>The Final DOT Environmental Justice Order (Order 5610.2(a)) updates the DOT's original Environmental Justice Order (1997). The Order continues to be a key component of the DOT's strategy to promote the principles of environmental justice in all DOT programs, policies, and activities. It describes how the objectives of environmental justice will be integrated into planning and programming, rulemaking, and policy formulation. The Order sets forth steps to prevent disproportionately high and adverse effects on minority or low-income populations through Title VI analyses and environmental justice analyses conducted as part of Federal transportation planning and NEPA provisions. It also describes the specific measures to be taken to address instances of disproportionately high and adverse effects and sets forth relevant definitions.</p> <p>The Revised DOT Environmental Justice Strategy (March 2012) continues to reflect DOT's commitment to environmental justice principles and to integrating those principles into DOT programs, policies and activities. The updated strategy also relies upon existing authorities for achieving environmental justice as described by the EO, such as NEPA, Title VI of the Civil Rights Act of 1964 (Title VI) and related statutes, as well as the commitments and focus areas set forth in the EJ MOU.</p>

EFFECTIVE PRACTICES

This report supplements 10 detailed project case studies available on [FHWA's Environmental Justice website](#). Brief descriptions of these cases are provided in Table 2. Longer summaries are provided in Appendix B.

The case studies confirm that there is no uniform approach to addressing environmental justice in the NEPA review process. The approach and the depth of analysis are dependent on the nature of the proposed transportation project and how it would affect the community. Thoroughly analyzing issues of environmental justice combines enhanced public involvement and comparison of the distribution and scale of impacts and benefits. The case studies summarized in Table 2 represent effective practices in at least one of these aspects of environmental justice analysis—but not always both. The FHWA's 2011 "Guidance on Environmental Justice in NEPA" describes principles of addressing environmental justice as part of the environmental review. Following the summary table, the effective practices identified in the case studies are organized around three of those principles: (1) identifying existing minority and low-income populations; (2) explaining coordination, access to information, and participation; and (3) identifying disproportionately high and adverse effects.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Table 2. Case Study Descriptions and Effective Practices

Case Name	Case Description	Effective Practices
<p>Case #1: Removal of Los Primos Supermarket - Analyzing Impacts and Identifying Alternatives: Alston Avenue Project, Durham, North Carolina</p>	<p>Alston Avenue in Durham, North Carolina, runs through a historically Black/African American community with a growing Hispanic/Latino population. When the North Carolina Department of Transportation (NCDOT) proposed to widen an approximately 1-mile stretch of the corridor, an initial community impact assessment (CIA) was conducted. At that time, input received through public outreach did not lead the NCDOT to determine that the removal of Los Primos Supermarket would be an adverse impact on the community. As the study continued and the agency received additional input from the City of Durham and community groups, NCDOT determined that a closer look at potential implications of the loss of the Los Primos Supermarket was needed. The NCDOT conducted a series of supplemental studies and additional outreach to further describe the services provided by Los Primos, determine whether a new grocery store at a nearby location could provide the same services, and characterize the potential impacts of removing or relocating Los Primos on the surrounding low-income, minority community with high numbers of car-less households.</p>	<p>Interviews with community leaders; surveys given in multiple languages on location at community resources where impacts are expected; a detailed site comparison analysis considering factors such as visibility, accessibility, crime, and proximity to low-income and minority populations; extensive coordination with multiple agencies and departments; and flexibility in roadway design.</p>
<p>Case #2: Balancing the Environment and Economic Development: Middle Harbor Redevelopment Project, Port of Long Beach, California</p>	<p>The Middle Harbor Redevelopment Project in the Port of Long Beach (POLB), California, combines and upgrades the POLB's two aging, irregularly shaped marine container terminals to create one rectangular-shaped facility that would operate more efficiently, improve the environment, support the economy, and create thousands of new jobs. As part of the NEPA process, the POLB and the U.S. Army Corps of Engineers (Corps) conducted an environmental justice analysis to study the potential for the Middle Harbor Project construction and operations to result in disproportionately high and adverse human health or environmental effects on low-income and minority populations. The population in most of the Census block groups within the project study area exceeds 80-percent minority, and exceeds 10 percent low income. Disproportionately high and adverse impacts on environmental justice communities were related to construction noise, and cumulative impacts on air quality and health risk. This case highlights the POLB's Community Mitigation Grant Program that funds projects that would improve air quality in the region overall, ultimately contributing to mitigation of impacts</p>	<p>Addressing air-quality impacts as a result of project operations, including cumulative odor effects and cumulative health-risk effects associated with diesel particulate matter; defining the area of influence (study area); and development of a formal marketing plan to target audiences in order to successfully educate the community and solicit input from the community on the project and the Environmental Impact Statement (EIS)/Environmental Impact Report (EIR).</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Case Name	Case Description	Effective Practices
	<p>identified in the environmental justice analysis for the Middle Harbor Redevelopment Project and cumulative impacts from other ongoing port projects and operations. Despite associated impacts, the project received broad support and was approved on April 13, 2009. Project construction started in spring 2011.</p>	
<p>Case #3: Effective Outreach and Analysis Strategies for a Regional Study Area: North I-25 Project, Denver to Fort Collins Area, Colorado</p>	<p>The North I-25 project area, located in northern Colorado between Fort Collins and Denver, spreads over 61 miles north to south and 20 to 30 miles east to west, affecting 45 counties and communities. The project area is home to various environmental justice groups including a Hmong community, an Asian ethnic group from southern China and Southeast Asia, and Hispanic/Latino ethnic communities that required specialized outreach efforts. Given the large extent of the project area, each community had its own concerns and issues. Through consensus building and collaborative decision making, a preferred alternative that addressed the concerns of local stakeholders was identified. Each project alternative (known as packages) proposed multi-modal improvements involving bus, rail, and highway improvements on different alignments.</p>	<p>Strategies for public outreach at a regional scale, considering adverse and beneficial project impacts when determining whether impacts will be disproportionately high and adverse, and reaching out to limited English proficiency (LEP) populations.</p>
<p>Case #4: Bagley Pedestrian Bridge - "Connecting Neighbors": Ambassador Bridge Gateway Project, Detroit, Michigan</p>	<p>The largely minority Mexicantown community in Detroit, Michigan, was physically divided in 1970, when a section of freeway along I-75 was completed. During preparation of the Environmental Assessment (EA) for the I-75 Ambassador Bridge Gateway Project (Gateway Project) in the 1990s, the Michigan Department of Transportation (MIDOT) and the FHWA identified reconnecting East and West Mexicantown across I-75 as a "need" to be addressed. As Bagley Street is one of the main links between East and West Mexicantown, support for a pedestrian bridge spanning I-75 at this location was embraced by the community. The Mexicantown community was engaged throughout every phase of the Gateway Project, including the design of the Bagley Pedestrian Bridge. Successful completion of the Bagley Pedestrian Bridge Project signified positive changes to come for the Mexicantown community linking the east and west sides of the neighborhood once again. The public ceremony for the brand new landmark and tourist attraction was marked by the joining of U.S. and Mexican government representatives, along with visitors from across the State and Mexicantown residents, to unveil the two stunning new works of art that grace the bridge's eastern plaza.</p>	<p>Mitigation for barrier-type impacts associated with transportation projects, use of public art in transportation, use of a community ombudsman, techniques for addressing LEP, best practices in early and ongoing public involvement, and the importance of consistency in project staff.</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Case Name	Case Description	Effective Practices
<p>Case #5: Regional Tolling Analysis Informs NEPA Assessment of Cumulative Impacts on Low-Income Populations: Long-Range Transportation Plan, Dallas-Fort Worth, Texas</p>	<p>The North Central Texas Council of Governments (NCTCOG), the metropolitan planning organization (MPO) for the Dallas-Fort Worth area, studied the environmental justice impacts of the tolled highways and high-occupancy vehicle (HOV)/managed lanes in the region’s long-range plan. The Regional Tolling Analysis (RTA) was an outgrowth of the <i>Mobility 2030</i> plan, which was adopted in 2007, and was updated as part of the most recent metropolitan long-range transportation plan, <i>Mobility 2035</i>, adopted in 2011. A first of its kind in Texas, the RTA used information gathered from the travel demand model to evaluate impacts of proposed transportation projects with a pricing component (e.g., toll roads) on environmental justice populations throughout the NCTCOG metropolitan planning area. Because the projects involved tolling, low-income populations were the primary focus of the study. Using 16 dimensions of system analysis, the RTA found that any cumulative burdens were outweighed by cumulative benefits, and there would be no disproportionately high and adverse cumulative impacts on environmental justice populations. Information gained during the RTA is also included in individual environmental documents for roadway projects that have a tolling element. This does not replace the complete environmental justice analysis and associated public involvement conducted as part of the environmental review of projects.</p>	<p>Regional analysis of cumulative environmental justice impacts, use of travel demand models to analyze environmental justice impacts, impacts of toll roads on low-income populations.</p>
<p>Case #6: Building a Foundation for Meaningful and Active Participation: I-70 East Project, Denver Area, Colorado</p>	<p>The construction of I-70 near Denver, Colorado, in the 1960s, and the resulting split of predominantly minority and low-income surrounding neighborhoods, left a legacy of distrust for the Colorado Department of Transportation (CDOT). When CDOT set out to improve the I-70 East corridor in 2003, they knew they had to work proactively and collaboratively with these same communities to build their trust and ensure their active and meaningful participation in the environmental study. The outreach conducted for the project set new ground for CDOT. The emphasis of the outreach process was on gaining maximum participation from the local communities. This also meant educating the communities about technical areas such as noise and transportation design and how they affect lives. The case also included an extensive air-quality analysis, analysis of health-related impacts, and the evaluation of a community-based alternative.</p>	<p>Fully addressing impact-areas of concern to environmental justice communities (in this case air-quality and health-related impacts), the evaluation of a community-based alternative, and extensive public outreach conducted to build trust and create a truly inclusive process.</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Case Name	Case Description	Effective Practices
<p>Case #7: Mitigating Impacts on the Pleasant Hill Neighborhood: I-16/I-75 Interchange Project, Macon, Georgia</p>	<p>The community of Pleasant Hill in Macon, Georgia, was bisected by the construction of I-75 in the early 1960s. Forty years later, proposed improvements to the I-16/I-75 interchange had the potential to adversely impact Pleasant Hill once again. Thanks to the engagement of this historical Black/African-American community during the study of proposed improvements, with strong support from FHWA and the State DOT, potential adverse impacts of the selected alternative were minimized, and a mitigation plan was developed and incorporated into the project with a written commitment from all parties to its implementation.</p>	<p>Community engagement in design and selection of an alternative as well as in mitigation-plan development; recognition of cumulative impacts; and collaborative and pro-active participation of community leaders and FHWA representatives in assisting the State DOT project team.</p>
<p>Case #8: Preserving Community Cohesion through Southend Park Neighborhood Redevelopment: Newtown Pike Extension Project, Lexington, Kentucky</p>	<p>Davistown is one of the oldest Black/African-American communities in the Lexington, Kentucky area. During the preparation of the EIS for the project, it was determined that indirect impacts associated with the Newtown Pike Extension would be expected to increase the land value in Davistown and surrounding neighborhoods, and would effectively force out low-income residents through increased redevelopment pressures. Davistown residents had been adversely affected by decades of discussions around a potential Newtown Pike Extension through their neighborhood, resulting in a sense of distrust at the outset of the environmental study. The project team hired a community liaison and included community members on project advisory and steering committees to gain the trust of the community as well as their participation in decision making. With community participation, an innovative mitigation option was developed based on the use of a Community Land Trust to provide long-term, sustainable, and affordable housing to community residents so that they could remain in the area even as land values increase.</p>	<p>Intensive public involvement during corridor planning to define neighborhood visions, constraints, and opportunities; conducting a CIA and Socio-economic Baseline Analysis at the outset of the environmental study to help determine the level of analysis that would be needed and to identify potential issues early on; the use of a community liaison to facilitate communication between the project team and the affected community; and establishment of a land trust to ensure long-term, sustainable, and affordable housing for affected community residents.</p>
<p>Case #9: Extraordinary Outreach Guides Project Decisions and Avoids Environmental Justice Issues: Business 40 project, Winston-Salem, North Carolina</p>	<p>The NCDOT is proposing to improve a 1-mile section of Business 40 through downtown Winston-Salem. The project area is located in the heart of Winston-Salem and includes a large portion of downtown as well as the central neighborhoods that define the core area of this metropolitan region. Core neighborhoods include a mix of affluent and largely white populations, low-income populations, and minority populations. Other ongoing traffic improvements in the area have required a series of traffic detours and delays, and resulted in a sense of</p>	<p>Effective practices in addressing environmental justice include: early, phased, and extensive public involvement; door-to-door outreach; effective meeting practices; training of the outreach team; practical tips for public involvement; establishing</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Case Name	Case Description	Effective Practices
	<p>frustration for many residents. Extraordinary public involvement efforts, including a door-to-door survey through all neighborhoods with potential to be directly impacted by the project, were used early in the environmental study to understand public perspectives and build a foundation for project decisions. This outreach led to a largely supported decision to close this section of Business 40 for a period of 2 years during construction in lieu of a 6-year partial closure.</p>	<p>effective communication among the project team; and structured decision making.</p>
<p>Case #10: Building a Safer, More Reliable Bridge and Roadway while Avoiding Environmental Justice Impacts: SR-520: I-5 to Medina, Seattle Area, Washington</p>	<p>The SR 520: I-5 to Medina Project in Seattle, Washington, addresses the two key issues facing the SR 520 corridor: (1) bridge structures that are vulnerable to catastrophic failure, and (2) traffic demand that exceeds capacity. As part of the NEPA process, the Washington State Department of Transportation (WSDOT) and the FHWA conducted an extensive environmental justice analysis to study the potential of disproportionately high and adverse impacts on minority and low-income populations from: replacing the floating bridge and expanding the Portage Bay and Evergreen Point bridges, rebuilding the bridges over SR 520, expanding the capacity of SR 520 (from 4 to 6 lanes), and tolling. Most of the Census block groups within the study area have relatively low concentrations of minority and low-income populations, with the exception of a few block groups with relatively high concentrations of minority and low-income populations. Key environmental justice issues were related to tolling and impacts on resources important to Native American tribes. From the beginning of the environmental analysis and decision-making process, the WSDOT and FHWA developed and implemented an ongoing program to engage the public, provide information about the project, and reach out to all potentially affected members of the public, including low-income and minority populations and those with LEP. WSDOT coordinated with tribes through a government-to-government relationship.</p>	<p>Addressing project issues and concerns identified during public outreach as part of the environmental justice analysis; utilizing outcomes of outreach and research conducted for projects to inform outreach to low-income and minority populations for later project phases; techniques for addressing LEP; determining the need to expand the study area and identifying a travelshed for the purposes of environmental justice analysis; research, analysis, and public outreach as it relates to the equity of tolling projects; and working with tribes through a government-to-government relationship to identify, avoid, minimize, and mitigate impacts on important resources.</p>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

PRINCIPLE #1: IDENTIFYING EXISTING MINORITY AND LOW-INCOME POPULATIONS AND COMMUNITY CHARACTERISTICS

RECOMMENDATIONS FROM FHWA'S 2011 "GUIDANCE ON ENVIRONMENTAL JUSTICE IN NEPA"

Using localized census tract data and other relevant information sources, gather data and list any readily identifiable groups or clusters of minority or low-income persons in the environmental justice study area. Small clusters or dispersed populations should not be overlooked.

(1) In the appropriate section of the NEPA document, typically the section regarding social and economic impacts, provide demographic information on the general population in the project study area. Social characteristics should include identification of the ethnicity, age, mobility and income level of the population. These data elements, while not all required for an environmental justice analysis, are important to provide context for understanding area demographics.

(2) When there are no minority or low-income populations in the study area, no environmental justice analysis is required.

(3) When it has been determined that there will be no adverse effects on identified environmental justice populations by the proposed project [based on the environmental justice analysis], the NEPA document should reflect that determination...

(4) When there are minority and low-income populations in the study area that may be adversely impacted, follow the next steps of the guidance to determine whether there is a disproportionately high and adverse impact on the population.

EFFECTIVE PRACTICES FROM THE CASE STUDIES

There were environmental justice (low-income and/or minority) populations identified in the study area for each of the projects highlighted in the case studies. Census data were used as a primary means of identifying these populations. Additional effective practices related to identifying environmental justice populations are described in this section.

USE UPDATED DEMOGRAPHIC DATA AND INFORMATION ABOUT COMMUNITY CHARACTERISTICS

The initial CIA for the Alston Avenue project in Durham, North Carolina (Case #1) was conducted in 2003. Project construction is not expected until 2014. Over the course of the study, the project team updated demographic data and information describing community characteristics multiple times. This was important as there was a trend of an increasing Hispanic/Latino population in the study area. As the

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Hispanic/Latino population increased, so did the importance of community resources and services that directly served that population.

USE A VARIETY OF SOURCES AND TYPES OF INFORMATION TO IDENTIFY AND CHARACTERIZE ENVIRONMENTAL JUSTICE POPULATIONS

A range of tools supplemented Census data for the I-16/I-75 project in Georgia (Case #7) to help the project team better understand the circumstances of the affected communities. Initially, field surveys were conducted to identify community facilities and land use, and to confirm the presence of minority and low-income populations. Visual surveys were done to confirm housing vacancy rates and conditions as well as potential visual impacts. A walking/windshield survey showed that streets were in poor condition. Interviews with local officials combined with public outreach meetings also allowed better understanding of the circumstances faced by communities. In addition, historic documents (transportation planning documents and aerial photography) and interviews with past residents of Pleasant Hill provided important information on past impacts of the construction of I-75 on the community.

An extensive public scoping process painted the picture of the community and guided public outreach for the Business 40 project in North Carolina (Case #9). This project was initiated with an extensive public scoping process that involved using Census data, windshield surveys, and talking to a broad range of community leaders and service providers to identify environmental justice populations and characterize the community. The initial scoping led to an unprecedented public outreach campaign including door-to-door surveys within an area of direct community impacts.

National and regional data were combined for the Regional Tolling Analysis conducted in Texas (Case #5) to understand where environmental justice populations were on a regional scale. Data from the national American Community Survey, which is updated every 3 years, was used to identify low-income and minority populations, then combined with the MPO's transportation survey zones (TSZs) for analysis purposes.

CONSIDER A STUDY AREA THAT WILL ADDRESS ALL POTENTIAL IMPACTS

The 2006 Draft EIS and 2010 Supplemental Draft EIS (SDEIS) prepared for the SR 520: I-5 to Medina project (Case #10) recognized that tolls associated with the build alternatives could negatively affect low-income individuals. While these tolls would have to be paid by all users of the new bridge except for vehicles in the HOV lanes (transit, emergency vehicles, and carpools with three or more people), they would represent a proportionally greater expense burden for low-income individuals than for other individuals. As part of the SDEIS, analysts determined the need to expand the study area of analysis for purposes of environmental justice. To identify SR 520 users who would be affected by tolling, environmental justice analysts examined the communities from which trips on the Evergreen Point Bridge originated (that is, the Evergreen Point Bridge travelshed). Extensive outreach was conducted to

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

gather opinions regarding tolling from the public in this travelshed. This analysis was key to determining potential impacts on travelshed users and potential measures to mitigate and/or minimize the burden that tolls would present on low-income and LEP populations.

PRINCIPLE #2: COORDINATION, ACCESS TO INFORMATION, AND PARTICIPATION

RECOMMENDATIONS FROM FHWA'S 2011 "GUIDANCE ON ENVIRONMENTAL JUSTICE IN NEPA"

The NEPA document should include in the appropriate section a discussion of major proactive efforts to ensure meaningful opportunities for public participation including activities to increase low-income and minority participation. Include in the document the views of the affected population(s) about the project and any proposed mitigation, and describe what steps are being taken to resolve any controversy that exists. Document the degree to which the affected groups of minority and/or low-income populations have been involved in the decision-making process related to the alternative selection, impact analysis, and mitigation.

EFFECTIVE PRACTICES FROM THE CASE STUDIES

Enhanced public involvement to ensure meaningful participation of low-income and minority populations in the environmental review process informs every aspect of the environmental justice analysis, from identifying populations and understanding what is important to communities, to characterizing impacts and developing appropriate mitigation measures. The case studies provide a wealth of information about both how to reach low-income and minority populations and how to use the information and input gathered from them.

EDUCATE COMMUNITIES ABOUT ENVIRONMENTAL JUSTICE AND THE ENVIRONMENTAL PROCESS

After the scoping phase for the I-70 East project (Case #6), six working groups were established to provide an opportunity for residents, businesses, stakeholders, and property owners to continue their participation and learn more about how the scientists, engineers, and planners would evaluate specific resources. Working groups were composed of members of the community who expressed interest in joining the groups at neighborhood and corridor-wide meetings held in predominantly environmental justice communities or who signed up on the project website. The working groups were used to solicit input, establish dialogue about specific issues, and educate the members about the resources that would be considered in the EIS. Innovative exercises were incorporated into the meetings, such as puzzles that helped participants gain an understanding of alternative packaging, and an exercise designed to help participants understand how the various alternatives would be screened by comparing the process to buying a car. The Community Impacts Working Group focused on the potential for

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

impacts on affected communities. One meeting of this group addressed environmental justice specifically. At this meeting, the project team showed an environmental justice video from the EPA. In addition, the project team gave a verbal presentation on environmental justice laws and regulations, provided a handout, and described how environmental justice would be addressed in the EIS. Members of the community also participated in an exercise that illustrated the use of population data similar to what is included in the draft EIS document.

BUILD TRUST THROUGH CONSISTENT AND ONGOING PARTICIPATION

Maintaining some consistency among those involved through the life of a project, and engaging the public frequently, helps to build trust in and recognition of the project team. This was accomplished in a variety of ways for the projects highlighted in the case studies.

A continuum of project-level and community leadership helped overcome challenges for the Ambassador Bridge Gateway project (Case #4). This project endured a number of challenges over its 16-year history: (1) a massive transportation project with a private bridge owner; (2) planning during three U.S. Presidential administrations, three Michigan gubernatorial administrations, and four Detroit mayoral administrations; and (4) design modifications to address stricter security criteria following the 9/11 terrorist attack. The constant factors over the 16-year project history included project leadership by the community and MIDOT staff. This project benefited from the continuum of project staff, consultants, and community leaders which contributed toward the success of the outreach program and, ultimately, the Bagley Pedestrian Bridge Project and the Gateway Project.

Commitment from key project staff was important for the I-70 East project (Case #6). Key team members were asked to come out to all meetings for this project. This commitment resulted in a recognizable face for the project and helped to build trust and a rapport with the community.

An ombudsman and strong representation from the affected community benefited both the Ambassador Bridge Gateway Project (Case #4) and the I-16/I-75 project (Case #7). Gateway Project staff found that an ombudsman was essential, particularly when there were issues that needed resolution with the community. Important characteristics in the ombudsman for this project were that he: understood spoken Spanish, was accessible to and trusted by the community, and had past experience with MIDOT and understood the transportation decision-making process.

A similar approach was used in the I-16/I-75 project. The presence of strong community representation, with understanding of both the neighborhood and past transportation projects, stimulated the Georgia DOT's (GDOT's) engagement with the community. It also facilitated the public participation process and communication between GDOT and the community.

A community liaison served as a facilitator for the Newtown Pike Extension project (Case #8). In this case, the project team faced a sense of distrust from residents of the Southend Park area. The project team understood that to engage the community in discussions of mitigation options would require

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

establishing trust in communication between the project team and the community and that a liaison could facilitate this process. A liaison was able to take the time to listen to the community and understand their concerns and was not perceived as having one-sided interests. For the Newtown Pike Extension project, the liaison successfully mediated the process and helped facilitate communication and community engagement.

Hiring staff from within the affected community benefited two projects: I-70 East (Case #6) and Business 40 (Case #9). To facilitate the initial phase of the community-outreach process for these projects, individuals living within the community were hired to assist with outreach efforts, including door-to-door outreach, block meetings, and neighborhood meetings. These individuals leveraged their existing relationships and community understanding to gain credibility and trust, and encouraged their neighbors to get involved in the project. The individuals from the community and DOT staff consistently wore orange for all public involvement activities. In this way, even if the community did not recognize a specific person, they were able to identify project staff.

BUILD TRUST THROUGH A CONSISTENT MESSAGE

Training, guidance from public involvement specialists, and the use of scripts ensured messages were consistent for the I-70 East project (Case #6) and Business 40 project (Case #9). All individuals hired from the community for the purposes of conducting surveys and supporting meetings for these projects were required to go through an extensive one-day training program to understand the project and their roles better. Each individual was provided a script regarding the project to ensure that everyone working in community outreach provided a clear, consistent, and concise message. For the Business 40 project, engineers and other technical specialists from the project team who needed to interact with the public were guided by the outreach team in their interactions. Engineers and lead-agency representatives speaking to the public were trained to reduce the use of acronyms and use terminologies easily understandable to the public—for example, using the word “ramp” instead of “interchange.” All lead-agency representatives and consultants who would be engaged with the public at any of the meetings for the I-70 East project were asked to commit to walking the neighborhoods to gain familiarity with the community. Also, they had to participate in door-to-door surveys for a day. The purpose was to ensure that all members of the project team who interacted with public shared the same clear message.

LEVERAGE “CHAMPIONS” AND ENSURE THERE ARE CLEAR COMMUNICATION CHANNELS WITHIN THE TRANSPORTATION AGENCY TO HELP OVERCOME OBSTACLES

The Newtown Pike Extension project (Case #8) benefited from “champions” of the project.

Adequately engaging communities and mitigating adverse impacts during the long process of design and implementation of transportation projects requires devoted personnel and considerable resources. Unexpected issues and challenges arise daily and can drag the process through unnecessary lengths of

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

time. The Newtown Pike Extension project benefitted from personnel capable of moving the project forward through legal and procedural requirements. These champions were ideally housed in the Kentucky Transportation Cabinet: as the State transportation department, they were best positioned to interact with local governments and the community as well as Federal authorities.

Effective and knowledgeable leadership guided the Business 40 project (Case #9) in an effective direction. One of the triggers for the extraordinary public involvement supporting the Business 40 project was the familiarity of the Division Engineer with the project area and his ability to communicate a need to NCDOT headquarters and have it supported. Without that awareness and communication, a different approach may have been used, the 6-year construction design approach may have been taken, and discontent on the part of the public could have caused slow-downs.

The team supporting the Business 40 project (Case #9) learned the importance of communication within the transportation agency. The Business 40 project team learned a lesson about lack of communication. The outreach team maintained a database of feedback received from the public during the survey and meeting process. That database was shared with NCDOT on a weekly basis, but the right people within the agency were not receiving and making use of this great data. The issue was corrected, but demonstrates the importance of setting up lines of communication within the agency and the various branches that will serve the project to ensure that public input is being considered in all aspects of project decisions.

USE PROFESSIONALS EXPERIENCED WITH PUBLIC INVOLVEMENT TO DESIGN AND GUIDE THE PUBLIC INVOLVEMENT PROCESS AND TO SERVE AS THE MAIN INTERFACE WITH THE PUBLIC

The reality is that not everyone is “a people person”. A skilled transportation engineer may not be the best person to put in the position of explaining a transportation project to the public, or to gather feedback from them. The success of the outreach effort conducted in support of the Business 40 project (Case #9) was due largely to the level of experience of the outreach team. With an effort of this scale, there were always moving pieces. The outreach team always had to be ready for something to go wrong. Because of their experience, the outreach team was able to position themselves, prepare for, and minimize any issues that arose.

ENSURE THAT ALL PERSPECTIVES ARE BEING HEARD

Early and broad outreach into the community for the Business 40 project (Case #9) disproved input from community leaders. Project decisions cannot be made based on assumptions about a community’s values, perspective, and preferences. These things cannot be learned behind a computer or through the collection of Census data, identification of community resources, and review of land use plans. Even talking to community leaders, which was done extensively during the scoping of the Business 40 project, is not enough; it requires going out into the community with a broad and deep reach, to listen directly to the public. This principle was proven in the early outreach conducted for

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Business 40. The expectation set by community leaders was that the public would favor a 6-year partial closure of the roadway for construction over a 2-year complete closure. The results of hands-on outreach proved that this was not the case.

Reaching out directly to those potentially impacted by the Alston Avenue project (Case #1) ensured potential impacts were understood. Extensive coordination early-on did a lot to head-off potential environmental justice issues associated with this project and build the trust of agency actions in the community. Despite this outreach, the NCDOT had not received the message from those participating in public involvement activities that potential impacts on Los Primos Supermarket would adversely affect the community. NCDOT recognized that participation in public meetings from the Hispanic/Latino segment of the low-income/minority community surrounding the project was very minimal. Instead of accepting the feedback the agency was receiving as comprehensive, NCDOT reached out directly to those who might be impacted—through interviews with community leaders, use of increased LEP resources, and a community survey conducted at the supermarket. The feedback through those activities provided a much different—and more complete—perspective about the importance of Los Primos Supermarket and elevated the need to avoid and minimize impacts on it.

SPEAK THE LOCAL LANGUAGES

It is important to identify the languages spoken by the community and provide language services for greater participation by the minority community. For the North I-25 project in Colorado (Case #3), the project team identified an Hispanic/Latino population and a Hmong population in the regional study area. To ensure effective communication, all materials for the project were translated into Spanish. In addition, for the Hmong community, materials were translated into Hmong. For the SR 520: I-5 to Medina project (Case #10), the project team sought-out opinions from the Spanish-speaking community. When invited Hispanic/Latino community members did not participate in the established focus groups, the project team reached out by telephone and gathered their input through surveys conducted in Spanish.

GO TO THE PEOPLE

Many of the projects highlighted in the case studies found it effective to go out into the community to seek input.

North I-25 (Case #3) project staff attended local events. The project team held small meetings within the environmental justice communities and went to local cultural events to provide information about the project. Conducting smaller meetings within the communities resulted in greater participation than other methods.

A community event hosted by the project team benefited the Newtown Pike Extension project (Case #8). The Community Unity Day was held at a neighborhood center. Approximately 150 people attended

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

to enjoy a cookout, play games, and hear more about the Southend Park Urban Village Plan concepts that were part of the project. Several former residents, and family members of current residents, came to the Community Unity Day and expressed interest in moving back into the neighborhood when homes become available. This first Community Unity Day was so successful that it is held annually.

The Alston Avenue project (Case #1) team found that community service centers were a good place to reach out to environmental justice populations. In the case of the Alston Avenue project (Case #1), outreach staff went to community service centers that could potentially be impacted by the project (the Los Primos Supermarket and the Durham Rescue Mission) to observe activities and talk with community members who relied on those centers.

The Business 40 project (Case #9) outreach team found it was effective to go where the people were. The team went to the local shopping mall on the busiest day of the year (Black Friday) to conduct surveys. They also set up tables at churches after Wednesday and Sunday services providing information to congregations, and distributed information at community events.

THINK ABOUT BARRIERS TO PARTICIPATION, INCLUDING LOCAL AND POLITICAL ISSUES, AND DESIGN APPROACHES TO OVERCOME THEM

During the environmental review for the North I-25 project in Colorado (Case #3), CDOT recognized that concern about a new immigration law might be keeping the Hispanic/Latino immigrant communities from actively engaging in the public process. Since communities shied away from a public forum, other methods of public outreach were used; such as, small meetings in the neighborhoods, dissemination of information through newsletters, postings at local businesses and gathering spaces, and identification of local leaders who could collect and report feedback.

USE A HIGH-TOUCH/LOW-TOUCH APPROACH TO DISSEMINATE INFORMATION

Most of the projects highlighted in the case studies used a wide variety of methods for reaching out to the public. For the I-70 East project (Case #6), this was called a “high-touch/low-touch” approach. A high-touch approach means that meeting reminders and project information are provided in more than one way. Whereas, for some non-environmental justice populations, an email blast or a flyer (low-touch approaches) may do; for the environmental justice population in the study area, it was determined best to post project or project-meeting information at various locations, such as recreational centers, churches, barber shops, beauty salons, etc., to encourage dissemination of information through word of mouth.

USE A MICRO TO MACRO OUTREACH STRATEGY

A variety of techniques were used to ensure meaningful involvement of the community for both the I-70 East project (Case #6) and the Business 40 project (Case #9). For both projects, the outreach process

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

was designed to be personal and extensive. It began on a one-on-one level and then expanded to bring together the many interests in the corridor. The process started with door-to-door surveys in affected neighborhoods (which were also predominantly low income and minority) then expanded into block meetings, neighborhood meetings, and corridor-wide meetings.

DESIGN AND CONDUCT MEETINGS FOR MAXIMUM PARTICIPATION

Meetings were designed to make participants comfortable for both the I-70 East project (Case #6) and the Business 40 project (Case #9). Some of the methods used in these projects were:

- Take care of people – Treat them as you would guests in your home.
- Greet visitors at the entrance. Do not allow guests to sign-in themselves – Write down their information for them so that guests with low-literacy are not made to feel awkward.
- Use a concierge to guide guests through the meeting – Show guests where to start, what they will see, information they should gather, people they should talk to.
- Get project staff out of their suits and ties – Have them dress in a project brand or color. Do not use titles on name tags.
- Set up the meeting space in a snake formation so that guests weave through all information before reaching the end.
- Use friendly/large-print project information boards.
- Provide a meal if possible. While guests are dining, encourage and record conversations about project-related topics.
- If possible, provide licensed and bonded daycare in an area that is visible to parents attending the meeting.
- Ask people how they want to be contacted in the future—and use that method.

Break-out sessions were effective for the Newtown Pike Extension project (Case #8). For the numerous public meetings held throughout the environmental study for this project, small discussion groups or “break-out” sessions were found to be especially effective as they helped to foster a less intimidating environment and encourage more openness on the part of the residents. Residents were encouraged to gather in neighborhood-defined groups during these break-out sessions to discuss issues and provide input to the planning process.

CONSIDER USING SURVEYS TO GATHER DIRECT INPUT ON SPECIFIC TOPICS

Door-to-door surveys informed the I-70 East (Case #6) and Business 40 (Case #9) projects. These surveys were used in neighborhoods that would be directly impacted. Practical aspects of conducting those surveys included:

- Taking the time to prepare the neighborhood for the survey reduced residents’ fear and made them more likely to answer their door and talk with outreach staff. Prior to conducting the

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

door-to-door survey, a plastic bag with project information and a notice that individuals would be circulating the area to conduct outreach was left on each door. Residents were also notified through a newsletter, newspaper articles, and interviews.

- All materials associated with the project, including clothing worn by the project team, pamphlets and flyers distributed, and bags with information left on doors, were in the same color. This way, people in the community began associating orange with the project; it became familiar and alerted community members as to whom they could reach out to about the project or when they were receiving information.
- To ensure their safety, staff members traveling door-to-door were instructed to “rattle gates” so that they would be aware of the presence of dogs. If they entered a home, staff left their project bag hanging on the outside of the front door; this way, another staff member circulating the area by van would know their whereabouts at all times and could check in if they were inside for too long. All staff traveled in pairs and carried a cell phone.
- The outreach staff were a reflection of the project and the DOT, so it was critical that they be courteous. Prior to conducting outreach, all staff were trained in basic courtesies.
- Survey staff were paid a relatively high hourly wage for the type of work they were conducting. As the survey staff built experience, they became more efficient and effective. The goal was to ensure that staff would stick with the project, to avoid having to continually retrain new staff and lose that efficiency. Spanish-speaking translators were made available to conduct surveys.
- A canvas bag branded with project information was offered to every household that opened its door, regardless of whether they completed a survey. In addition to information about the project, the bag included information about important community services and items like project magnets, pens, and other materials. These bags and other branded materials helped to spread the word about the project.

Surveys given at an impacted location informed the Alston Avenue project in North Carolina (Case #1).

Short surveys were conducted orally to gather information about how the Los Primos Supermarket was used by the community. Surveys were conducted at the supermarket and at other community service centers.

Both the CIA and the Southend Park Urban Village Plan prepared as part of the Newtown Pike Extension project (Case #8) used community surveys to profile residents and community relationships.

Development of the Urban Village Plan also included a household survey focused on assessing housing needs and housing affordability. Types of questions in the CIA survey included: length of residency, whether family lives in the neighborhood, likes and dislikes about the neighborhood, important community resources, mode of transportation to work, and familiarity with the project. In 2006, an additional survey was conducted as part of a social needs assessment, aimed at better understanding met and unmet needs of Southend Park area residents. The project team, under the supervision of an urban anthropologist, interviewed every person living in the Southend Park area. Questions were open-ended and respondents were encouraged to provide an oral history of the area. The interviews were

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

recorded, but kept confidential with only the anthropologist reviewing the content. This process gave neighbors who might have been shy in other settings a real voice, it allowed team members to really know the neighbors they interviewed and, as a result, personal bonds developed. A business survey was also conducted with businesses in and near the project area to better understand the potential impacts of the Newtown Pike Extension on local businesses.

SEEK AND APPLY INFORMATION FROM SIMILAR SITUATIONS

An Accelerated Construction Technology Transfer (ACTT) conference guided the approach used for the Business 40 project (Case #9). The initial public outreach and the resulting decision to close Business 40 for 2 years during construction may have been different without the ACTT conference convened at the outset of the project. Hearing effective practices from experts who had applied them in similar situations across the country provided critical help for NCDOT to conduct this project in a new and extraordinary way that diverged from the agency's standard operating procedures.

Early planning phases informed project development for the SR 520: I-5 to Medina project (Case #10). WSDOT utilized outcomes of outreach and research conducted early during the project to inform outreach to low-income and minority populations for later project phases. WSDOT has capitalized on information gained through the earlier public outreach and environmental analysis to inform its ongoing public-outreach program for the SR 520 program. For example, based on the demographic profile of the travelshed study area, WSDOT also translated information about electronic tolling into multiple languages.

ESTABLISH A COMMUNITY-OUTREACH PROCESS FEEDBACK LOOP

For the I-70 East project (Case #6), representatives from local jurisdictions, as well as business owners and members of the public including representatives from environmental justice communities, attended a Community Outreach Process Forum. The purpose of the forum was to solicit insights and suggestions on how to improve the community-outreach process. As a result of the forum, the study team began posting working-group minutes on the project website.

COMMUNICATE PROJECT BENEFITS TO THE PUBLIC AND USE INPUT FROM THE PUBLIC IN PROJECT DECISIONS TO GAIN SUPPORT

A marketing and education plan designed to share the benefits of the Middle Harbor Redevelopment project (Case #2) was important for community support and eventual approval. Early on in the environmental review process for the project, the POLB Communications Division devised a marketing plan with focused strategies and tactics based on the level of education needed among various target audiences, and focused key objectives to help concentrate outreach efforts. Through the intensive outreach activities to educate area residents and businesses, neighborhood groups, environmental activists, and port tenants, among other groups, the project was approved unanimously by the Board of

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Harbor Commissions on April 13, 2009, with overwhelming public support and testimony. The Long Beach City Council, which just years earlier had denied the approval of another major development project at the POLB, also voted unanimously to let the project proceed. Additionally, the POLB learned through the Middle Harbor outreach efforts, that the community is becoming more sophisticated and more interested in port projects. As a result of the Middle Harbor Project, the POLB is doing more outreach on other development projects, and have learned the value and need to be thorough in outreach activities, including “getting the word out” about POLB projects and activities, trying to reach as many people as possible.

Broad community support set the stage for local agency participation, partnerships, and commitment to implementation of the North I-25 project (Case #3). Extensive outreach was conducted to obtain consensus on a Preferred Alternative among the 45 communities and agencies (including CDOT and FHWA) for the North I-25 project. Extensive public outreach was conducted because of the need for broad community support and limited financial resources available for transportation improvements in the region. Broad community support is also more likely to attract funding.

PRINCIPLE #3: IDENTIFYING DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS

RECOMMENDATIONS FROM FHWA’S 2011 “GUIDANCE ON ENVIRONMENTAL JUSTICE IN NEPA”

As per FHWA Order 6640.23, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population.

(1) Environmental justice considerations should be summarized in the appropriate section of the NEPA document, such as the social-economic section of the environmental consequences chapter. References to other sections in the NEPA document can be cited, as appropriate. The beneficial and adverse effects on the overall population, and on minority and low-income populations in particular, need to be addressed under the applicable topics such as air, noise, water pollution, hazardous waste, aesthetic values, community cohesion, economic vitality, employment effects, displacement of persons or businesses, farms, accessibility, traffic congestion, relocation impacts, safety, and construction/temporary impacts.

(2) Compare the impacts on the minority and/or low-income populations with respect to the impacts on the overall population within the project area. Fair distribution of the beneficial and adverse effects of the proposed action is the desired outcome.

(3) Under NEPA, consideration must be given to mitigation (as defined in 40 CFR 1508.20) for all adverse effects regardless of the type of population affected. Discuss what measures are being considered for

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

alternatives to avoid or mitigate the adverse effects. Follow the protocol of avoidance first, then minimization, and finally measures to offset or rectify the adverse effects. Using opportunities to enhance and increase sustainability in communities and neighborhoods is desirable. Any activity that demonstrates sensitivity to special needs should be highlighted, such as accommodations for transit dependency or addressing the need for translators.

(4) If the effects remain adverse after mitigation is considered, then a determination must be made whether those effects are disproportionately high and adverse with respect to minority and/or low-income populations. If the effects on minority and/or low-income populations are disproportionately high and adverse even with mitigation and benefits to those populations taken into account, the next section must be followed.

(5) If there are no disproportionately high and adverse effects on minority and/or low-income populations once mitigation and benefits are considered, that determination should be stated in the document and the environmental justice evaluation is complete.

EFFECTIVE PRACTICES FROM THE CASE STUDIES

The projects highlighted in the case studies confirm that determining when projects have a disproportionately high and adverse effect on low-income or minority populations remains one of the more challenging aspects of the environmental justice analysis. The case study summaries and detailed cases available on FHWA's Environmental Justice website provide a description of the methods used in each case for the wide range of issues addressed. Some of the practices or approaches that were found to be effective are featured here.

WORK CLOSELY WITH OTHER JURISDICTIONAL AGENCIES AND PARTNERS

Close coordination with jurisdictional agencies supported the analysis of cumulative air-quality impacts for the Middle Harbor Redevelopment project (Case #10). Cumulative impacts for air quality were a particular concern to the environmental justice community surrounding the project. The lead agency coordinates many of their programs with the California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), the EPA, and others. POLB also provides information for and participates in most of the regional planning studies conducted by CARB, SCAQMD, EPA, and the Southern California Association of Governments (SCAG). This close coordination supported the use of a recent CARB study for the analysis of cumulative impacts for air quality.

Working closely with both the FHWA and the City of Durham through each step of the environmental study for the Alston Avenue project (Case #1) resulted in better solutions and environmental approvals. Keeping FHWA "plugged in" was critical for approval of final project decisions and the call of whether impacts on the environmental justice community were disproportionately high and adverse. The Alston Avenue area is a focus for many City departments that work on economic development,

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

infrastructure, community building, appearance, historic preservation, and other community improvement activities. The City of Durham was able to provide local insight about the needs and values of the community. In addition, they provided extensive input into design modifications that would make the project sensitive to the community needs and context, and acted as an advocate for the Hispanic/Latino segment of the population when that population did not fully participate in outreach activities. The discussions generated by the environmental justice issue within the City increased dialogue among City departments; such as, Economic and Workforce Development, Neighborhood Improvement Services, and Planning. It was important for NCDOT to work with the City to be a part of these discussions and ensure that the resulting project decision was consistent with their efforts and goals.

Interagency collaboration guided mitigation decisions for the I-16/I-75 project (Case #7).

Collaboration between FHWA, the Georgia Department of Transportation (GDOT), and the State Historic Preservation Office (SHPO) was important for development of appropriate mitigation for the Pleasant Hill Historic District impacted by the I-16/I-75 project. FHWA strongly supported community concerns and recognized the relevance of past impacts from I-75 on the community. FHWA's presence in community meetings and frequent interaction with the project team gave GDOT and the community the confidence and stimulus to correct prior impacts from a past State project. GDOT engaged the community of Pleasant Hill to a greater extent than it was used to.

Government-to-government coordination with Native American tribes for the SR 520: I-5 to Medina project (Case #10) was critical to understanding potential project impacts and appropriate mitigation.

The important cultural and fishery resources within the I-5 to Medina project study area created a need for very close coordination with area tribes. Working with tribes through a government-to-government relationship was critical for the project team to understand and characterize potential impacts of the project on the tribes and to define and come to agreement on measures that would avoid, minimize, and mitigate those impacts.

THE DETERMINATION OF ADVERSE IMPACTS IS CONTEXT SENSITIVE – USE PUBLIC INPUT TO UNDERSTAND HOW THE PROJECT AND IMPACTS WILL BE PERCEIVED AND TO GUIDE THE ANALYSIS

For the North I-25 project (Case #3), early input gathered on what is important to the environmental justice communities was used to determine what would be perceived as a disproportionately high and adverse impact—and to design a better project. The local agencies and communities were involved in data gathering at the local level. Different types of techniques were used to gain input and provide more information about the project: surveys, small meetings, setting up project information booths at cultural events, presentations to city councils, and public meetings and hearings. Through meetings and newsletters, the project team was able to both provide information on what the project impacts and benefits were to the community and also learn from the community what they thought was an impact and benefit. This feedback helped the team identify issues that were important to environmental justice

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

communities and benefits that would outweigh impacts. For example, while relocation is typically considered to be an adverse impact that uproots individuals and families from their communities, in the case of this project, being relocated from an existing location near a freeway or rail line was perceived as a positive impact.

For the SR-520: I-5 to Medina project (Case #10), concerns raised through public outreach shaped the depth and breadth of analysis. Community-concerns about tolling impacts on environmental justice populations helped to guide the analysis of the tolling component of the project. Specifically, because of the input provided by social-service organizations and advocates for low-income populations regarding the equity of tolling: (1) the environmental justice analysis addressed the topic of equity of tolling in great detail, and even included research as to how this topic has been addressed in other parts of the country for comparable programs; and (2) additional outreach specific to tolling effects on the Evergreen Point Bridge travelshed study area was included as part of the Final EIS. The tolling analyses conducted for the project as part of the various environmental documents, from the 2006 Draft EIS to the 2011 FEIS, was critical. Further, the analysis contributed to the development of mitigation measures to help address the impacts of tolling on low-income individuals.

FOR ANY POTENTIAL ENVIRONMENTAL JUSTICE ISSUE, BASE THE DETERMINATION OF IMPACTS ON COMPLETE ANALYSIS AND CURRENT INFORMATION

In the early stages of the environmental analysis for the Alston Avenue project (Case #1) the NCDOT did not recognize the Los Primos Supermarket as an environmental justice resource and its potential loss as a disproportionately high and adverse impact on the community. While the issue was raised by the City of Durham, feedback from the public did not elevate the issue at the time and much attention was focused on the Durham Rescue Mission, the Few Gardens housing development project, and other issues. Ongoing coordination with the City of Durham, ensuring demographic data and community context information was updated, and ensuring all perspectives were heard helped NCDOT recognize that there may be more of an issue associated with the grocery store than initially recognized. NCDOT commissioned a detailed study of the potential impact, including surveys, a thorough site-comparison analysis, outreach through community leaders, and seeking “on the street” input using LEP resources. The analysis demonstrated that removal of Los Primos Supermarket would result in a disproportionately high and adverse impact on the low-income and Hispanic/Latino community in the project study area.

The NCDOT also found that it was necessary to update the CIA over the course of the Alston Avenue project to understand changing community characteristics and new project information. In North Carolina, the CIA is treated as an ongoing analysis. For the Alston Avenue project, the NCDOT prepared a CIA early in the study process, and supplemented it as further information was gathered about the community and public input was received. This approach resulted in several supplements to the initial CIA. Since that time, North Carolina has updated its approach. Now a “Community Characteristics Report” is drafted early in project development to inform subsequent public involvement, analysis, and determination of impacts.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CONSIDER IMPACTS ON COMMUNITY FACILITIES AND MOBILITY NEEDS

During the North I-25 project (Case #3) feedback received during outreach to environmental justice communities was that they were concerned about impacts on community facilities frequented by them. It was important to look beyond impacts on residential areas and consider impacts on schools, places of worship, parks, health centers, and businesses frequented by an environmental justice community. Impacts on these communities through relocation or change in access, would affect the community that relies on these facilities.

When identifying mobility needs, the project team considered where community members need to go—employment, community centers, etc. Since car ownership is low within low-income populations, these populations rely more heavily on other modes of transportation. They use public transit for all their access needs from going to work, to a place of worship, a health center, and schools. Public transit facilities need to connect residential areas to employment centers, and community venues. Conceptual design for public transit stations considered the needs of people with disabilities, such as people in wheelchairs and people who are blind but walk with a guide dog or white cane.

PROPER IDENTIFICATION AND CHARACTERIZATION OF SOCIAL TIES IS IMPORTANT FOR THE IDENTIFICATION OF ADVERSE IMPACTS ON COMMUNITIES

In the case of the Newtown Pike Extension (Case #8), the project team went beyond using neighborhoods as the geographic area of reference for identification of environmental justice populations and for characterization of disproportionately high and adverse impacts. The interactions and interdependence between neighbors are an important factor in determining the geographic extent of impacts and in understanding the impacts of displacement on the social cohesion of communities and the importance of keeping communities together. The project team found it important to understand the characteristics of a community within the Davistown neighborhood: the area referred to as Davis Bottom, lower Davistown, and Southend Park area. This area had been identified in transportation plans as being a minority and low-income population. To understand the extent of interdependence within neighborhoods or within areas of neighborhoods, the Newtown Pike Extension project team conducted a CIA in 2003 and surveyed the Southend Park area in 2005. These studies generated information about the area not available through Census data, because some of the data was not collected at the geographic level needed to characterize sub areas of the neighborhood (e.g., poverty data for the Southend Park area) and because the type of data needed to understand community cohesion and define community boundaries is not typically collected by Census instruments. This care with properly identifying and characterizing interdependent communities allowed the project team to better understand the extent to which the Newtown Pike Extension would have disproportionately high and adverse impacts on the Southend Park area when compared to other communities.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CONSIDER BENEFITS AND MITIGATION IN THE OVERALL HARM ASSESSMENT

The North I-25 (Case #3) project team fully considered the totality of impacts and benefits; that is, they carefully identified benefits and mitigation and included those in the analysis of whether there are disproportionately high and adverse impacts. In the SR 520: I-5 to Medina project (Case #10), the benefit of the project to the overall population and mitigation for any negative impacts were also taken into consideration in the determination that there would not be disproportionately high and adverse impacts on environmental justice populations.

HAVE THE STAFF WORKING CLOSELY WITH THE COMMUNITY MAKE A RECOMMENDATION REGARDING IMPACTS AND NEXT STEPS

The first CIA completed for the Alston Avenue project (Case #1) was informational and did not include a recommendation as to whether potential impacts on the environmental justice community would be disproportionately high and adverse. Over the course of the study, the NCDOT made changes overall in how CIAs were conducted and reported. In the supplements to the initial CIA, a “call” was made as to whether impacts were disproportionately high and adverse, and recommendations for next steps were documented. This is a positive shift in that it puts the judgment of impacts in the hands of the individuals who are most familiar with the project and the surrounding community.

WORK WITH THE STATE DOT AND THE COMMUNITY TO IDENTIFY AND ENSURE IMPLEMENTATION OF APPROPRIATE MITIGATION

Representatives of the Pleasant Hill neighborhood recognized early on that the proposed modifications to the I-16/I-75 Interchange project (Case #7) would improve traffic safety, and focused on the minimization and mitigation of impacts rather than on opposing the project itself. The mitigation plan was developed with input from the neighborhood in several meetings, where neighborhood representatives had the opportunity to provide feedback on draft mitigation plans proposed by the State DOT and FHWA and suggest alternative measures. The initial 1999-project concept went through several rounds of modifications thanks to this process, and several elements from the neighborhood’s own plan were incorporated into the mitigation plan. To ensure that the mitigation plan would be implemented and the final EA would transmit this assurance, the Pleasant Hill Historic District and Community Mitigation Plan was included as an appendix to the final environmental assessment and signed by representatives of transportation and community organizations.

IDENTIFY STRATEGIES TO ADDRESS ALL IMPACTS

For the I-16/I-75 project (Case #7), the project team made sure to develop mitigation measures to address not just direct and indirect impacts but also cumulative impacts from the construction of I-75 decades before the project. As stated in the EA: “In mitigating impacts of the current I-16/I-75

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Interchange Improvement project on the Pleasant Hill neighborhood, efforts will be made to address impacts caused by the original construction of I-75 through the neighborhood. Though the mitigation efforts today cannot undo past damage to the community, the proposed project will attempt to counter those impacts that can be reasonably addressed.” Similarly, a major component of the Ambassador Bridge Gateway project (Case #4), the Bagley Pedestrian Bridge, responded to a project need to mitigate impacts from a previous transportation project.

USE CREATIVE SOLUTIONS AND CONSIDER COMMUNITY ENHANCEMENT AS METHODS FOR MITIGATING PROJECT IMPACTS

The project team for the Newtown Pike Extension project (Case #8) found a solution that addressed displacements and community cohesion. The team understood that Southend Park residents had the desire to remain in the area, that they lived in a tight community, and that they were interdependent on each other for their daily needs. The main challenge in offering the community a feasible option to remain in the area was to guarantee affordable housing. The choice of a land trust was a way of achieving housing affordability. By not owning the land, only the house, the housing costs would be reduced for residents. Use of the land would be guaranteed by a renewable 99-year lease. The choice did find some resistance by residents. The idea of not owning the land, particularly for resident owners that had previously owned their land, was not an easy idea to accept. However, residents had a voice and a role in helping develop the redevelopment plan to address their concerns and gradually increased their acceptance of the proposed mitigation.

In the case of the Ambassador Bridge Gateway project (Case #4), an enhancement project served to bring a community together. The Bagley Street Pedestrian Bridge and the associated public art projects were designed specifically as community enhancement components. The public was involved in every aspect of the projects, including defining the need for the bridge, selecting an artist, providing input for the artwork, and celebrating the unveiling.

CONCLUSIONS

The effective practices from the 10 NEPA projects highlighted in this report can be used by transportation practitioners trying to identify; understand; and avoid, minimize, or mitigate environmental justice impacts as part of their transportation projects. While the case studies confirm that there is no uniform approach to addressing environmental justice issues, they also support a conclusion that early, extensive, and far-reaching engagement of minority and low-income populations as part of the NEPA review process is essential. Determining whether impacts are disproportionately high and adverse remains a difficult aspect of the environmental review process. While the community context and resources impacted varied across the cases, the common denominator to all successes was working closely with the public to understand and address their needs.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

APPENDIX A: METHODS FOR IDENTIFYING CASE STUDIES AND EFFECTIVE PRACTICES

This report supplements 10 project case studies available on FHWA's Environmental Justice website. The methods used to develop the case studies and report are summarized in this appendix.

IDENTIFYING CASE STUDIES

The first step was to conduct a broad scan to identify a minimum of 30 recent transportation projects that effectively addressed environmental justice in the NEPA review process. Potential cases were identified through a wide range of resources:

- A request posted on FHWA's online community of practice, "Re:NEPA"⁷
- A request sent by electronic mail to all FHWA Division offices
- Recommendations from the FHWA work group overseeing the task and other points of contact within FHWA Headquarters
- Review of material on FHWA's Environmental Review Toolkit State Practices Database⁸
- A review of projects listed on FHWA's Active and Inactive EIS list⁹
- A review of postings on the Context Sensitive Solutions website¹⁰
- A request sent by electronic mail through the American Association of State Highway and Transportation Officials' (AASHTO's) Center for Environmental Excellence (CEE)¹¹
- A request sent by electronic mail to a distribution list of individuals interested in community impact assessment (CIA) and context sensitive solutions (CSS)

The following basic project information for each suggested case study was captured in a database:

- Project type (widening, new location, intersection, bridge)
- Document type (categorical exclusion, environmental assessment/finding of no significant impact, environmental impact statement/record of decision)
- Status (environmental study in progress or complete, project complete, etc.)
- Location
- Highlights of the environmental justice analysis
- Lead agency
- Point(s) of contact
- Availability and accessibility of information

In addition to the basic project information, the database included a capture of the different aspects of the NEPA process where environmental justice was considered for each potential case:

- Scoping and information gathering
- Identification of populations protected by environmental justice

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

- Analysis of disproportionately high and adverse impacts
- Avoidance, minimization, or mitigation of impacts

The database also included an indication of what types of tools or approaches were used:

- Public participation
- Decision-making tools
- Linking phases of decision making (e.g., planning, programming, design)
- Interagency collaboration
- Monitoring and performance measurement

Finally, any specific issues that were a key component of the environmental justice analysis for each potential case were captured:

- Health-related impacts and risks
- Cultural resource protection
- Historic preservation
- Displacements and relocations
- Community integrity and preservation
- Community services
- Access for the transportation disadvantaged
- Social equity
- Natural environment
- Visual impacts
- Noise impacts
- Indirect and cumulative effects

SELECTING CASE STUDIES

Thirty-eight potential case studies were identified and captured in the database. The consultant team reviewed the information captured for each potential case and recommended 10 for full development. The goal was to collectively address a wide-range of issues, tools, aspects of the NEPA process, project types, locations, and document types in the selected set of cases, while avoiding duplication of the case studies already on the Environmental Justice website. The availability of information was also considered to the extent possible. Recommendations were presented to the FHWA work group which requested some additional information and refinements.

CASE STUDY DEVELOPMENT

The cases were intended to be comparable in the level of detail and flow of information to the existing cases on the Environmental Justice website. With that in mind, an annotated outline for the cases was prepared and approved by the work group. The outline was used as a guide for each case study.

The consultant team first requested and reviewed relevant documentation for each case study. The literature review was followed by interviews with those knowledgeable about each project. The goal was to conduct interviews with individuals from the State DOT, the FHWA Division office, and a stakeholder representative from the environmental justice community for each project. For various reasons, including lack of availability and the inability of the transportation agency to identify one individual who could provide a representative picture of the range of environmental justice issues, it was not always possible to interview a community representative. In some cases, consultants working on the project and representatives from other agencies were also interviewed. Interviewees were given a draft copy of the case study and were invited to make comments and corrections to ensure accuracy. At least one interviewee did provide comments on every draft case study. Each case study was reviewed by the FHWA work group and revisions were made.

PREPARING THE REPORT

The full case studies are detailed and include much of the surrounding project context. The goal of this report is to highlight the critical aspects and compile and summarize the effective practices documented in the cases. A secondary goal is to draw connections between the effective practices and the 2011 Guidance. An annotated outline was prepared and reviewed by the work group. The work group also reviewed and commented on a draft version of the report.

APPENDIX B: CASE STUDY SUMMARIES

The case study summaries highlighting how environmental justice was addressed during the NEPA reviews for 10 recent transportation projects are summarized in this appendix. The summary table in the report (Table 2) can be used as a “quick reference” by reader’s to help pinpoint which cases may be most helpful for addressing issues on their own transportation projects. The 10 summaries provided in this appendix are based on the longer, detailed case studies available on [FHWA’s Environmental Justice website](#), and should be referenced for further information. Supporting graphics are also available through the case studies on the Web.

CASE #1: REMOVAL OF LOS PRIMOS SUPERMARKET – ANALYZING IMPACTS AND IDENTIFYING ALTERNATIVES: ALSTON AVENUE PROJECT, DURHAM, NORTH CAROLINA

The North Carolina Department of Transportation (NCDOT) proposed to widen an approximately 1-mile stretch of Alston Avenue in Durham, North Carolina. Alston Avenue runs through a historically Black/African American community with a growing Hispanic/Latino population. Los Primos Supermarket, a grocery store in the project area, offers needed grocery services within the community as well as non-grocery services that are above and beyond what a typical grocery store would provide. These services are particularly important to the surrounding Hispanic/Latino population and are not provided to the same extent elsewhere in the community. An initial community impact assessment (CIA) was conducted in 2003. At that time, input received through public outreach did not lead the NCDOT to determine that the removal of Los Primos Supermarket would be an adverse impact on the community.

The 1990 Census data was used for the 2003 demographic assessment (the 2000 Census data was not yet released). The full 2000 Census numbers in the study area were examined in 2006. This examination documented a large increase in the number of residents (3,000 new residents) who identified themselves as of Hispanic or Latino ethnicity. The Census data was further substantiated by the growth in the enrollment of Hispanic/Latino students at the local elementary school and observations in the project area. In 2008, NCDOT, at the request of FHWA and the suggestion of the City of Durham, decided to conduct supplemental analyses, including surveys and interviews, to further investigate how potential impacts of the project on Los Primos could affect the surrounding Hispanic/Latino, low-income community with high numbers of car-less households.

A face-to-face interview-style survey was developed to focus on how community members utilize Los Primos Supermarket and obtain input from the community regarding the potential impacts of its relocation and the Alston Avenue widening overall. The brief survey was administered verbally in both Spanish and English as shoppers were entering or leaving the grocery store. Interviews of key community leaders were also conducted to gain additional information concerning the Hispanic/Latino population in the area of the project, how community members utilize Los Primos Supermarket, and the

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

potential impacts on the community of the grocery's relocation as well as the Alston Avenue widening overall. Interviewees included the owner/operator of the supermarket and representatives from several other organizations primarily serving Hispanic/Latino and low-income groups.

The supplemental analysis, reported in an environmental justice addendum, noted that the removal of Los Primos Supermarket would be expected to have disproportionately high and adverse impacts on the low-income residents of the area. Because of that conclusion, a post-hearing design concept was developed that would shift the right-of-way, proposed road surface, and infrastructure features of the Alston Avenue project to the southeast of the concept presented at the public hearing. The right-of-way in the post-hearing concept would still remove a portion of the supermarket parking area and relocate a bus stop, but would not physically affect the Los Primos Supermarket building. However, the shifted road and right-of-way would encroach further onto the properties of the Durham Rescue Mission, including impacts on two buildings, and also onto two minority-owned business properties on the east side of Alston Avenue.

In 2009, NCDOT studied the potential effects of the post-hearing design on community facilities and services, in particular the Durham Rescue Mission. The analysis included an interview with the Director for the Mission, a site visit during a public event at the facility, and the review of conceptual plans for expansion of the main building at the mission. It was determined that potential impacts on the Durham Rescue Mission would not affect the core programs and services of the Mission to the low-income and minority populations in the area of the project.

In 2011, NCDOT supplemented and compiled previous environmental justice analyses into one study. The 2011 study updated demographic data and information about community services and notable features in the study area. In addition, NCDOT conducted a detailed site-comparison analysis of the Los Primos Supermarket and a former Winn-Dixie grocery store site, which was identified as a potential relocation site for the store. To determine whether a relocation of the Los Primos Supermarket to the former Winn-Dixie site would result in impacts associated with the provision of services to environmental justice populations, the access and visibility, crime in the pedestrian travelsheds, vehicle ownership in the surrounding areas, and concentrations of low-income and minority populations of both sites were compared. NCDOT concluded that relocation to the Winn-Dixie site could result in impacts on vehicle-less, low-income, and minority residents in the project area.

Following the 2011 site comparison analysis, NCDOT planned to move forward with the post-hearing design alternative that would avoid impacts on the structure of Los Primos Supermarket. The plan was presented to the Durham City Council and the public was given an opportunity to comment during a community feedback meeting. After extensive coordination and follow-up discussions, the leadership of the Durham Rescue Mission indicated that they were amenable to impacts along their Alston Avenue frontage property as long as they could receive the equivalent amount of land contiguous to their current campus.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

NCDOT also conducted an updated traffic analysis and found that another alternative—a temporary road diet—would be feasible. Under this option, NCDOT would construct the project as proposed, with adequate pavement width to accommodate four lanes, but stripe the roadway for one through-lane in each direction, bicycle lanes, and on-street parking on both sides of the street. While this would not reduce the right-of-way impacts, this could help address some citizens’ concerns that a four-lane roadway would encourage speeding and be inhospitable to pedestrians and bicyclists. When future roadway capacity is needed, the road could be restriped for four through-lanes. This approach was also supportive and consistent with “new urbanism” goals developing within the City of Durham and with a new initiative in Northeast Central Durham, the “Northeast Central Durham Livability Initiative—A Partnership for Sustainable Communities.” The post-hearing design concept with the road diet was supported by the City of Durham. Right-of-way acquisition for this plan is expected to move forward at the end of 2012, with construction projected for 2014.

CASE REFERENCES

Letter from Ellen Beckmann, Transportation Planner, City of Durham, to Thomas J. Bonfield, City Manager, City of Durham. “Agenda Item U-3308 Alston Avenue Widening.” March 2011.

Personal interview. Beverly Robinson, Project Development and Environmental Analysis Branch, North Carolina Department of Transportation; Steve Gurganus, Human Environment Unit, North Carolina Department of Transportation; and Shannon Cox, ICF International. April 9, 2012.

Personal interview. Felix Davila, Division 5, Federal Highway Administration; and Shannon Cox, ICF International. April 13, 2012.

“STIP U-3308 Community Impact Assessment: Supplemental Environmental Justice and Limited English Proficiency Documentation, Widening of Alston Avenue (NC 55) from NC 147 to North of Holloway Street, Durham County, NC.” Prepared by Planning Communities, LLC for North Carolina Department of Transportation, Human Environment Unit. February 2011.

Telephone interview. Mark Ahrendsen, Director of Transportation, City of Durham and Ellen Beckmann, Transportation Planner, City of Durham with Shannon Cox, ICF International. May 7, 2012.

U.S. Department of Transportation Federal Highway Administration and North Carolina Department of Transportation. “Administrative Action Environmental Assessment and Draft Section 4(f) Evaluation.” Durham NC 55 (Alston Avenue) from NC 147 (I.L. “Buck” Dean Freeway) to US 70 Business/NC 98 (Holloway Street) Durham County. November 2005.

U.S. Department of Transportation Federal Highway Administration and North Carolina Department of Transportation. “Administrative Action Finding of No Significant Impact and Final Section 4(f) Evaluation.” Durham NC 55 (Alston Avenue) from NC 147 (I.L. “Buck” Dean Freeway) to US 70 Business/NC 98 (Holloway Street) Durham County. June 2007.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CASE #2: BALANCING THE ENVIRONMENT AND ECONOMIC DEVELOPMENT: MIDDLE HARBOR REDEVELOPMENT PROJECT, PORT OF LONG BEACH, CALIFORNIA

The Port of Long Beach (POLB) is the second busiest seaport in North America, just after the Port of Los Angeles (POLA), which the POLB adjoins, in San Pedro Bay in California. The POLB's Middle Harbor shipping terminals are old and require upgrades in order to improve efficiency and environmental performance. The Middle Harbor Redevelopment Project (Middle Harbor Project) was first proposed in 2001 to make those needed improvements. The environmental effects of the project were studied and reported in a 2008 combined Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR) in compliance with NEPA and the California Environmental Quality Act (CEQA).

IDENTIFYING MINORITY AND LOW-INCOME POPULATIONS

The area surrounding the POLB is largely minority and also has some areas where incomes are lower than those in the surrounding county. Impacts on low-income and minority populations were studied as part of the EIS/EIR. The purpose of the environmental justice analysis was to analyze whether the Middle Harbor Project would result in significant adverse human health or environmental effects on minority or low-income populations.

To conduct the analysis, an area of influence was defined that would encompass direct and indirect impacts. Demographic data describing the potentially affected populations in the area of influence were compiled using 2000 Census data. Minority and poverty data for individual block groups in the area of influence were presented in tabular format and graphic format. Minority and low-income populations in Los Angeles County, the City of Long Beach, and the State of California were used as reference populations for comparison.

ANALYSIS OF IMPACTS ON MINORITY AND LOW-INCOME POPULATIONS

The analysis used guidance from Executive Order (EO) 12898, the Council on Environmental Quality (CEQ) guidance on Environmental Justice, and POLB's Environmental Justice protocols, which are updated with each new EIS/EIR, as appropriate. The guidance documents suggested the examination of three key questions:

1. Is the proposed project a Federal project with significant adverse environmental impacts being proposed in a community composed largely of minority or low-income persons?
2. Would any significant adverse human health or environmental effects of the project disproportionately affect minority or low-income persons?
3. Would the percent minority persons and percent low-income persons in areas affected by significant impacts exceed the corresponding percentages for the general population, considered to be Los Angeles County in most cases?

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

The team evaluated whether unavoidable significant effects of the project, or those that would result in significant impacts even with application of feasible mitigation measures, would have the potential to result in disproportionately high and adverse effects upon minority and/or low-income populations. Potential beneficial effects of the Middle Harbor Project for low-income and minority populations were also evaluated. As feasible, and depending on the location and specificity of significant impacts, populations exposed to significant adverse effects were estimated using GIS tools applied to the Census data.

The analysis found that the project would result in activities during the construction phase that would exceed Long Beach Municipal Code (LBMC) maximum noise levels at locations in Census Tract 5760, immediately east of the project and within 1 mile of the POLB planning area. While the tract has a lower percent of minority residents than Los Angeles County, the percent minority exceeds 50 percent and, therefore, is considered a “minority population” as defined by CEQ (1997) guidance. Therefore, it was determined that this impact would represent a disproportionately high and adverse impact on minority and low-income populations. Temporary noise barriers and limitations on the time of day that pile-driving activities are allowed to take place were included as mitigation in the EIS/EIR, but, even after mitigation, construction-related noise impacts were considered significant and unavoidable.

The analysis also found that construction and operation of the Middle Harbor Redevelopment Project and related projects in the POLB and POLA region would increase the potential for cancer and chronic non-cancer health risks. The environmental justice analysis and a separate air-quality analysis in the EIS/EIR cited and relied on a California Air Resources Board (CARB) study, *Diesel Particulate Matter Exposure Assessment Study for the POLA and POLB*, which estimates that elevated levels of cancer risks due to operational emissions from POLB and POLA occur within and in proximity to the two ports. Chronic and acute non-cancer effects due to concentrations of diesel particulate matter (DPM) would also occur within and in proximity to the two ports. The environmental study found that, because the populations closest to the POLB are predominantly minority and low income, this elevated cumulative risk would represent a disproportionately high and adverse impact on minority and low-income populations.

In Spring of 2009, the POLB approved the framework for community mitigation grants program that contributes toward reducing the overall cumulative air-quality effects of the POLB, including the Middle Harbor Project and others. As of Spring 2012, the POLB had provided \$15 million in funding for the mitigation grant program; \$5,000,000 each to three program areas: Schools and Related Sites, Health Care and Senior Facilities, and Greenhouse Gases. The programs are designed to improve community health by lessening the impacts of port-related air pollution.

INVOLVING MINORITY AND LOW-INCOME POPULATIONS IN THE NEPA PROCESS

The Middle Harbor Project outreach activities during the environmental review process (i.e., scoping, EIS/EIR hearings) were part of a larger outreach program for the project. The POLB Communications

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Division created a marketing plan to educate target audiences about the project and to receive community input on the EIS/EIR. Educating and informing target audiences, including neighboring residents and area residents and businesses, were cornerstones of the marketing plan and an ongoing theme of the outreach program. The marketing plan sought to address key issues, which included lack of awareness about the project in general, lack of understanding about economic benefits of the project, and lack of understanding about how the project's environmental mitigation measures will reduce pollution from existing levels. To ensure minority and low-income populations had access to information and opportunities for meaningful participation, additional information (besides minority and poverty data) was collected to support the POLB's public outreach program, including Census data on factors such as age, disability status, language spoken at home, and housing occupancy. This information was used to target appropriate methods of disseminating project information and soliciting input on the project and EIS/EIR, and to determine the need for and use of translation for persons whose first language is not English.

Despite associated impacts, the project received broad support and was approved on April 13, 2009. Project construction started in spring 2011.

CASE REFERENCES

Personal interview. Stacey Crouch, Senior Environmental Specialist, Port of Long Beach Environmental Planning Division; Andrew Lissner, PhD, and Lisbeth Springer, AICP, Environmental Consultant, SAIC; and Bonnie Chiu, ICF International. April 5, 2012.

Port of Long Beach and U.S. Army Corps of Engineers, Los Angeles District. "Middle Harbor Redevelopment Project Final Environmental Impact Statement (FEIS)/Final Environmental Impact Report (FEIR) and Application Summary Report (ASR)." Prepared by Science Applications International Corporation (SAIC). April 2009. Available: <http://www.polb.com/environment/docs>

Port of Long Beach. *re:port*. A Community Newsletter from the Port of Long Beach. Summer 2008.

Port of Long Beach. Middle Harbor Redevelopment Plan. Fact Sheet.

Port of Long Beach, Middle Harbor Project Website. Available at: <http://www.polb.com/about/projects/middleharbor.asp>.

Port of Long Beach, Community Mitigation Grants Program Website. Available at: <http://www.polb.com/environment/grants/default.asp>.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CASE #3: EFFECTIVE OUTREACH AND ANALYSIS STRATEGIES FOR A REGIONAL STUDY AREA: NORTH I-25 PROJECT, DENVER TO FORT COLLINS AREA, COLORADO

Interstate 25 serves as the primary north-south spine in northern Colorado, an area that has experienced steady growth in the last 3 decades. This corridor also serves as a major link in the nationwide interstate-highway system. As traffic volumes and safety concerns have increased on I-25 and connecting roadways, awareness of the need to plan for transportation improvements in this corridor has grown. In December 2003, by issuance of a Notice of Intent to prepare an Environmental Impact Statement (EIS), the Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) set out to identify and evaluate multi-modal transportation improvements along the 61-mile North I-25 corridor. A Draft EIS was released on October 2008, followed by a Final EIS in August 2011. FHWA and CDOT were the joint lead agencies under NEPA for the project. The Federal Transit Administration (FTA) was also a lead agency during the DEIS process.

The regional study area for the North I-25 project spans portions of seven counties and three transportation planning regions. Particular challenges CDOT had to overcome in addressing environmental justice issues were the very large, regional study area for the project with a widespread affected population, and a local and national political debate on the immigration policy. At the outset of the environmental study, CDOT was aware that extensive public outreach would be critical to arriving at a preferred alternative that would achieve project objectives and minimize harm on local communities.

IDENTIFYING MINORITY AND LOW-INCOME POPULATIONS

Data from the 2000 Census at the block level were used to identify minority populations. CDOT compared the percentage of minorities in each block to county averages. Minority populations were identified primarily in and around urban areas, although some were scattered throughout the regional study area. People of Hispanic/Latino ethnicity were the largest minority group present in the study area. A Hmong Community, a small Asian ethnic group from southern China and Southeast Asia, was identified in the northern communities of the regional study area.

To derive the low-income threshold, CDOT used a combination of Census average household size data at the block group level and low-income thresholds set annually by the Department of Housing and Urban Development (HUD) for the distribution and allocation of Community Development Block Grants. The percentage of low-income households in each block group was compared to county averages. Eligibility for the Free/Reduced Lunch Program was also obtained from the U.S. Department of Education, Institute of Education Sciences. Regional study-area schools where 50 percent or more of students were eligible for the Free/Reduced Lunch Program were evaluated. It was found that low-income populations tended to cluster around transportation routes.

In addition to minority and low-income residents, the environmental justice analysis also focused on businesses and community facilities frequented and owned by environmental justice populations. These

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

efforts included contacting local planners, non-profit organizations, health and human services, chambers of commerce, and housing authorities.

INVOLVING MINORITY AND LOW-INCOME POPULATIONS IN THE NEPA PROCESS

It was expected that participation in public outreach activities by the Hispanic/Latino community would be hindered by the political climate. Some of the public-involvement and specialized outreach activities occurred during consideration and then ultimate adoption of a stricter Colorado law related to immigration and during an electoral campaign where immigration was one of the key issues. Declining participation in planning processes already had been noticed by CDOT. Also, given the project scale, multiple phases, and the long horizon for implementation; many members of the Hispanic/Latino community may have considered public meetings as a low-priority event.

Extensive effort was made to inform and involve the Hispanic/Latino community throughout the project. Of particular importance, a well-connected community organizer assisted the project team in contacting political leaders who then recommended others to serve as liaisons. They identified community leaders affiliated with community organizations or churches, and also some government agencies that were active with low-income programs. Forty-two community and church leaders assisted with specialized outreach activities. These liaisons were asked to provide project information to their local communities and communicate any concerns or issues to the project team. Community liaisons also provided guidance on effective outreach strategies.

Specialized outreach efforts identified the potential for a Hmong population in the northern communities of the regional study area. Consultation with community leaders in the North Front Range revealed that the Hmong population consists of five clans with patriarchs. Hmong community leaders indicated that they would be more responsive to project fact sheets and surveys than community or small group meetings. Based on this information, the project fact sheet, a business survey, and travel survey were translated into Hmong and given to community leaders for distribution to the Hmong population.

Minority-owned businesses were initially identified through the Colorado Office of Economic Development and International Trade, Minority Business Office. To ensure adequate identification of minority-owned businesses and gather more specific employment information, a business survey was distributed to businesses along key roadway/rail corridors. Mailing addresses were obtained from parcel data and were extracted for first-, second-, and third-tier businesses from roadways. Using this method, surveys were delivered to 1,297 businesses. In addition to parcel-based mailings, an additional 100 surveys were hand-delivered and mailed to targeted locations within the regional study area. Targeted locations were identified using a combination of Census data, field observation, and input received from small group meetings. Business surveys were distributed in both English and Spanish.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

ANALYSIS OF IMPACTS ON MINORITY AND LOW-INCOME POPULATIONS

The project team followed CDOT's "Title VI and Environmental Justice Guidelines for NEPA Projects" to determine whether there was a disproportionately high and adverse impact on any environmental justice populations. These guidelines recommend identifying any areas where both adverse impacts are expected and an environmental justice population is identified. The next step is to analyze adverse impacts on minority or low-income populations in those areas compared to non-minority or non-low-income populations.

To better inform the decision regarding adverse impacts and benefits on environmental justice populations, the following input received during the public outreach was considered:

- The immigration policy is a concern for Hispanic/Latino populations throughout the regional study area. Hispanic/Latino populations may not use public transit if they have to show identification or are distrustful of authority. Some Hispanic/Latino travelers avoid using I-25 because they feel that Hispanic/Latino drivers are pulled over more frequently.
- Existing transit lines do not adequately serve minority and low-income communities.
- In addition to impacts on residences, impacts on community facilities must be addressed.
- Relocation from an existing area of high noise and traffic, for example, next to a freight line, was not considered an adverse impact by the environmental justice community.
- Introduction of commuter rail was seen as an overarching benefit.
- Some supported the tolling concept, but others felt that tolling would exclude citizens with lower incomes.

To help describe and determine whether there would be disproportionately high and adverse impacts on environmental justice populations, impacts associated with each of the components in an alternative (such as an interchange) were generally identified, (e.g., need for right-of-way to accommodate an interchange), the presence of any environmental justice communities or facilities used by the environmental justice communities was noted, and a description of whether any environmental justice populations would be affected was provided. Comparative tables were used to describe the level of impacts within environmental justice populations versus non-environmental justice populations for affected resources.

To identify benefits of the project, community facilities of importance to a minority or low-income population (identified by the environmental justice communities during outreach) that would be better served by the transportation improvements and other mobility or safety benefits that would occur to these populations were identified. The input received from the specialized outreach was a key to determining what the benefit would be.

A summary of adverse effects (after mitigation) and benefits of each alternative was provided in the EIS. In addition, newsletters (also translated in Spanish) with benefits and adverse impacts were distributed

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

to the environmental justice communities and public meetings were held. Contact was made with community leaders to inform them of the public meetings and flyers for the public meetings were placed in family health centers, medical clinics, places of worship, and libraries.

It was determined that the Preferred Alternative would have noticeable impacts on relocations, noise, visual quality, air quality, and community cohesion. Clear benefits included enhanced regional connections between communities, improvements in mobility and access to specific community facilities, improved safety and emergency vehicle access, and improved mobility to transportation-disadvantaged populations.

STRATEGIES TO ADDRESS IMPACTS

Some of the minimization and mitigation measures to reduce adverse impacts within all groups, including minority and low-income populations, included development of quiet zones to reduce noise impact and use of special track-work to reduce vibration impacts.

Mitigation measures designed specifically to address impacts on environmental justice populations were also recommended in the EIS, including, for construction-related impacts: the provision of reduced-price bus passes during construction, acceptable access modifications, and translated information on construction processes and alternate modes available during construction and pre-opening day. Ways to make potential tolling more equitable were recommended. A context-sensitive approach to project design and mitigation was encouraged to ensure that project elements enhance the community. This would include involving the public in the development of rail- or bus-station design treatments and incorporating safe pedestrian connections to the community.

Mitigation would reduce impacts, but impacts on noise, visual quality/aesthetics, traffic circulation, and air quality would still occur for all environmental justice and non-environmental justice groups. When considered in totality, impacts and benefits from the Preferred Alternative would be distributed equally across minority and low-income as well as non-minority and non-low-income residents; and disproportionately high and adverse effects on minority and low-income populations would not occur.

CASE REFERENCES

Colorado Department of Transportation. Final EIS for the North I-25 project. Website accessed April 23, 2012 at <http://www.coloradodot.info/projects/north-i-25-eis/Final-EIS>

Jacobs. Technical Memorandum: Environmental Justice. Prepared for the North I-25 EIS. 2011.

Colorado Department of Transportation (CDOT). 2005b. CDOT's Title VI and Environmental Justice Guidelines for NEPA Projects – Rev.3. May 27 2011.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Phone Conversation between Ms. Carol Parr at CDOT, Gina L. McAfee at Jacobs with Shilpa Trisal at ICF International. April 11, 2012.

Phone Conversation between Ms. Monica Pavlik at FHWA with Shilpa Trisal at ICF International. April 13, 2012.

CASE #4: BAGLEY PEDESTRIAN BRIDGE – “CONNECTING NEIGHBORS”: AMBASSADOR BRIDGE GATEWAY PROJECT, DETROIT, MICHIGAN

Since the 1920’s, Mexicantown in Southwest Detroit, Michigan has attracted Hispanic/Latino families to work in the automobile and other industries in the region. The community of diverse ethnic groups opened businesses like specialty grocery and retail stores, barbershops, and restaurants. However, the construction of I-75 and I-96 in 1970 split both the residential and commercial elements of the Mexicantown community.

In the 1990s, an Environmental Assessment (EA) was prepared for the Ambassador Bridge Gateway Project (Gateway Project). The purpose of the Gateway Project was to address long-term congestion issues and provide direct access improvements between the Ambassador Bridge, I-75, and I-96. As part of the EA, the Michigan Department of Transportation (MIDOT) and the Federal Highway Administration (FHWA) identified reconnecting East and West Mexicantown across I-75 as a “need” to be addressed.

The Bagley Pedestrian Bridge Project, an important non-roadway element of the Gateway Project, was designed to reconnect the two sides of the Mexicantown community. As Bagley Street is one of the main links between East and West Mexicantown, support for a pedestrian bridge spanning I-75 at this location was embraced by the community. The Mexicantown community was engaged throughout every phase of the Gateway Project, including the design of the Bagley Pedestrian Bridge.

BAGLEY PEDESTRIAN BRIDGE DESIGN

MIDOT’s goal for the pedestrian bridge was to design and construct a dramatic and significant structure, one that could become a focal point for the community, and a landmark or beacon for motorists as they crossed over the Ambassador Bridge. MIDOT conducted a National design competition for development of a “signature” pedestrian bridge. An award of \$5,000 was made to the top five submissions, and the winner of the competition became part of the design team and overall design contract for the Gateway Project. The competition further engaged the community by utilizing a renowned panel of experts, from locally recognized art and architectural colleges and universities from the Detroit metropolitan area, to judge the competition.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

BAGLEY PEDESTRIAN BRIDGE PUBLIC ART PROJECT

During the design phase, MIDOT decided to incorporate public art with the bridge by sponsoring a public art competition to select and commission an artist to design a mural and free-standing sculpture for the East Apron of the newly constructed Bagley Pedestrian Bridge. The Bagley Pedestrian Bridge Public Art Project ultimately helped to reconnect neighbors.

The Public Art Selection Committee (PASC) was formed to provide input and direction for the public art program for the project. The seven voting members of the PASC and eight non-voting members provided guidance from the art profession as well as input on community interests, project history, process, design, and construction of the project. Detroit Artist, Hubert Massey, was selected from 46 applicants to create the artwork.

Hubert Massey commenced a series of meetings and forums with the PASC and neighborhood residents. Young college students and school-age children from the community were engaged to assemble the final mural for placement on the wall of the Bagley Pedestrian Bridge, and most of the project's budget went directly back into the local Michigan economy for fees, services, rentals, and materials. Public forums were attended by community residents and MIDOT staff, which included local artists. Discussion topics at these forums included the history of Mexicantown, how the community was once a thriving Spanish-speaking community when it was divided by the adjacent opening of I-75 and I-96 in 1970, and how the construction of the pedestrian bridge would begin to mend the division of the community, and bridge the small downtowns that have developed on either side of the freeway. The conversations that took place during the public meetings and forums inspired the design of "The Spiral of Life," a 40-foot long by 5-foot high tile mosaic spanning the eastern wall of the bridge; and "Spiral Kinship," a 12-foot tall metal sculpture.

BRIDGE MAINTENANCE AND ENHANCEMENTS

A maintenance agreement was developed for the Bagley Pedestrian Bridge for snow removal, and decorative lighting was added to the bridge and apron areas to enhance pedestrian safety and use of the facility. These components were identified as priorities for the community.

The completed Bagley Pedestrian Bridge is a "signature" bridge for its stunning introduction to Detroit as motorists depart the Ambassador Bridge and proceed on to U.S. freeways. It is the first cable-stayed bridge in Michigan, spanning 420 feet and supported by 15 tension cables radiating from a 150-foot concrete pylon, and incorporates extensive landscaping and other architectural treatments as context-sensitive-design elements. The pedestrian bridge provides a critical connection for local residents between the small downtowns that have continued to grow on the east and west sides of the freeway.

Successful completion of the Bagley Pedestrian Bridge Project—recognized as mitigation for community cohesion and socio-economic impacts caused by the completion of construction of I-75 and I-96 in

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

1970—signified positive changes to come for the Mexicantown community linking the east and west sides of the neighborhood once again. The public ceremony for the brand new landmark and tourist attraction was marked by the joining of U.S. and Mexican government representatives, along with visitors from across the State and Mexicantown residents, to unveil the two stunning new works of art that grace the bridge's eastern plaza. The event, cosponsored by MIDOT, the Southwest Detroit Business Association, and the Detroit Consulate of Mexico, coincided with the celebration of Cinco de Mayo in Mexicantown.

CASE REFERENCES

Federal Highway Administration. "Ambassador Bridge/Gateway Project FONSI." October 1997.

Letter from Dave Calabrese, Field Operations Group Leader, Federal Highway Administration (for James J. Steele, Division Administrator) regarding "Re-evaluation of the Environmental Assessment (EA) For the I-75 Ambassador Bridge/Gateway Project, City of Detroit, Wayne County, Michigan, C.S. 82194, J.N. 37795." January 15, 2004.

Michigan Department of Transportation and Southeast Michigan Council of Governments, in cooperation with the U.S. Department of Transportation, Federal Highway Administration and the Federal cooperating agencies (U.S. General Services Administration and U.S. Customs). "Environmental Assessment & Programmatic Section 4(f) Evaluation, Ambassador Bridge/Gateway Project, Wayne County, Michigan." January 1997.

Michigan Department of Transportation and Southeast Michigan Council of Governments. "Ambassador Bridge/Gateway Project, Major Investment Study, Final Report." Prepared by Corradino Group. June 1996.

Michigan Department of Transportation and Southeast Michigan Council of Governments. "Ambassador Bridge/Gateway Project, Environmental Assessment, Re-evaluation Report." Prepared by Corradino Group. August 1999.

Michigan Department of Transportation. Press Release—"MDOT opens state-of-the-art pedestrian bridge, reunites Detroit's Mexicantown community." May 5, 2010.

Personal interview. Andy Zeigler (*Retired*), Project Manager for the Gateway Project which included the Bagley Pedestrian Bridge, Michigan Department of Transportation; Lori Noblet, Environmental Justice and Planning Specialist, Michigan Department of Transportation; Denise Brazer, Planning Technician, Michigan Department of Transportation; Brenda V. Peek (*Retired*), Communications Specialist, Michigan Department of Transportation; Ruth Hepfer, Engineer, Federal Highways Administration; Eric Polvi, P.E., HNTB Corporation; Cory Lavigne, Architect, In-Form Studio; and Bonnie Chiu, ICF International. April 5, 2012.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Personal interview. Lori Noblet, Environmental Justice and Planning Specialist, Michigan Department of Transportation; and Bonnie Chiu, ICF International. April 4, 2012.

Polvi, Eric R., P.E., with Andrew J. Zeigler, LLA, and Regina M. Flanagan, MLA, ASLA. “The Ambassador Bridge Gateway Public Art Project Case Study Connecting Neighbors through Public Art.” In Response to the Call for Papers: Art in Transportation Intermodal Transfer Facilities, Sponsoring Committee: AP045 – Intermodal Transfer Facilities. November 15, 2010.

Michigan Department of Transportation. Request for Qualifications. Public Art. 2008.

CASE #5: REGIONAL TOLLING ANALYSIS INFORMS NEPA ASSESSMENT OF CUMULATIVE IMPACTS ON LOW-INCOME POPULATIONS: LONG-RANGE TRANSPORTATION PLAN, DALLAS-FORT WORTH, TEXAS

The Dallas-Fort Worth Metroplex spans 12 counties in north central Texas. The North Central Texas Council of Governments (NCTCOG) is the metropolitan planning organization (MPO) for the Dallas-Fort Worth region. The regional long-range transportation plan, *Mobility 2035*, includes a substantial number (1,435 lane-miles) of tolled roadway. Toll roads present a unique set of environmental justice issues as low-income persons are least able to pay tolls. However, toll facilities can provide unprecedented access and congestion relief to the general public, including to low-income populations.

Environmental justice impacts of tolling are typically a component of NEPA analysis during project development. However, the number of tolled facilities proposed in Dallas-Fort Worth raised important questions about the equity of the planned system as a whole: Would the proposed right of ways displace people? Would certain neighborhoods benefit more than others? Would people in low-income communities have to pay a disproportionate share of their income to have regional mobility?

With the large number of interconnected toll facilities, individual project analyses did not address the potential cumulative impact of tolling. In 2006, NCTCOG, the Texas Department of Transportation (TxDOT), and the Federal Highway Administration–Texas Division (FHWA-TX) jointly decided to conduct a tolling analysis for the entire region. This analysis was updated for the most recent metropolitan transportation plan, *Mobility 2035*.

REGIONAL TOLLING ANALYSIS METHODOLOGY

The current regional tolling analysis (RTA) (published in March 2012) took 9 months to complete and required involvement of eight staff members on a part-time basis. NCTCOG used its travel demand model to process data for the RTA. NCTCOG’s model is a proprietary system built on the TransCAD platform. Although not specifically designed to perform analysis for an RTA, the model proved to have the best available information on topics related to the potential impact of tolls on environmental justice communities. Modeling software uses information on trip generation, trip attraction, mode choice, and

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

route assignment to forecast traffic congestion and other measures of performance on the transportation system. For this analysis, the region is divided into transportation survey zones (TSZs), often referred to as traffic analysis zones (TAZs) in other areas of the country, which vary in size but closely resemble Census block groups. The model forecasts travel between TSZs based on the historical travel patterns of residents of the Dallas-Fort Worth region.

Because the TSZs line up closely with Census boundaries, the results from the model produce information that can be analyzed for environmental justice impacts. Because the model records the TSZs where trips originate, it can evaluate the impacts on travel from that TSZ. The basic idea of the RTA was to compare the impacts of the entire system shown in the plan with a system with no additional tolled facilities. For control, a “no-build” scenario is also discussed. Any changes to forecast impacts could be attributed to the toll roads.

DATA USED

For the current RTA, data gathered during the development of *Mobility 2035* consisted mostly of information from the American Community Survey (ACS), which is collected by the US Census Bureau. The ACS asks questions formerly found on the Census long form, and is compiled on a rolling 3-year basis. Census information was paired with TSZs used in the travel demand model. Environmental justice TSZs were identified based on the CEQ guidance document *Environmental Justice: Guidance Under the National Environmental Policy Act*. TSZs were considered to contain environmental justice populations if:

- The non-white population is greater than 50 percent.
- 50 percent or more of the households in the TSZ are in Census Block Groups where the median income is lower than the 2009 poverty threshold of \$22,000.

RESULTS OF RTA ANALYSIS

The RTA found that building the tolled system did not place undue burdens on any environmental justice protected areas or classes. The toll system does not cause a disproportionately high and adverse impact on environmental justice populations. In cases where there was an impact on environmental justice populations, the benefits were determined to outweigh any impacts. Therefore, no remediation or mitigation was recommended.

This conclusion was reached by analyzing 16 different dimensions of potential impacts. Most of the evaluation criteria mirror information found in NCTCOG’s Congestion Management Process (CMP), but instead look at impacts on environmental justice TSZs. Additional criteria—particularly the regional origin-destination study—required a specialized set of queries on the model data. None of the criteria had a pre-determined threshold of “disproportionate” impact. The criteria and analysis results were:

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

- Access to jobs – More jobs are accessible from environmental justice areas by a 30-minute drive and 60-minute transit trip.
- Regional congestion – Environmental justice populations have lower congestion than non-protected populations, although traffic increased for all groups.
- Average travel time – Travel time went up for all groups.
- Daily vehicle miles traveled – Arterial and collector roads will experience less congestion for all groups using those facilities.
- Average loaded speed – No difference was observed between environmental justice and non-environmental justice groups.
- Morning peak period roadway trip length – No difference was observed between environmental justice and non-environmental justice groups.
- Morning peak period roadway trip speed – Speeds increased for all groups.
- Morning peak period transit usage – Transit use is higher for all groups.
- Morning peak period transit trip times – Trip times are higher for all groups.
- Morning peak period transit trip lengths – Trip lengths are longer for all groups.
- Morning peak period transit trip speeds – Trips are faster for all groups.
- Congestion levels – Environmental justice TSZs are projected to have fewer “no congestion” and “severe congestion” TSZs, but more “light to moderate congestion” TSZs than the non-environmental justice areas. The construction of additional facilities in the 2035 build network would reduce the percentage of environmental justice TSZs with severe congestion.
- Regional origin-destination study – Priced facilities would increase accessibility for environmental justice populations.

CONNECTION WITH NEPA

A NEPA review contains: (1) a discussion of the regional cumulative effects; and (2) a project-specific analysis. The project-specific review discusses tolling-equity issues from the proposed project only on the directly impacted user, while the regional component looks at equity and mobility in a more comprehensive view. Examples of tolling topics found in the project-specific component include: available alternative travel options, toll-collection policies, anticipated toll rates, and methods of toll collection.

Meanwhile, the regional tolling component looks at the cumulative impacts of the entire tolled system, and how the tolling aspects might affect environmental justice groups throughout the region. The impact of a project on the full regional system was already disclosed during the RTA, so the regional component is simply summarized from the full RTA and included in the cumulative-effects section of a NEPA document.

Required documentation in a NEPA report has been significantly reduced by the RTA. Prior to the RTA, a NEPA report on the cumulative regional impacts of tolling was often more than 50 pages in length. This

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

analysis could be a laborious task, due to specialized data collection. After the RTA, the level of effort required for the study is substantially reduced. Further, the documentation included in the NEPA report is much shorter—in the range of four to five pages for the regional component. The simpler documentation is due to the ability to refer to the RTA for methodology discussion and select out only the part of the analysis that pertains to the project.

Data generated during the RTA has also been useful during right-of-way acquisition and construction phases of the process. Because information is already gathered on the areas of the City with protected populations, right-of-way purchases in protected areas can be given advance scrutiny. Similarly, remediation actions during construction (signage, access, noise) can be identified in advance, and their impacts minimized.

CASE REFERENCES

Telephone Interview, Barbara C. Maley, Environmental and Transportation Planning Coordinator, Federal Highway Administration—Texas Division; and Tom Breuchert, Environmental Team Leader, FHWA—Texas Division. July 13, 2012.

Telephone Interview, Brandy Huston, Environmental Affairs Division, Texas Department of Transportation. July 24, 2012.

Telephone Interview, Jacob Asplund, Transportation Planner; Nathan Drozd, Transportation Planner; and Sandy Wesch, Project Engineer North Central Texas Council of Governments. July 31, 2012.

CASE #6: BUILDING A FOUNDATION FOR MEANINGFUL AND ACTIVE PARTICIPATION: I-70 EAST PROJECT, DENVER AREA, COLORADO

Interstate 70 and I-25 are main thoroughfares in the Denver, Colorado, metropolitan area, intersecting just north of the city. When I-70 was constructed in the 1960s, several neighborhoods were divided, including the largely minority and low-income neighborhoods of Elyria and Swansea and Globeville. These neighborhoods continue to bear the burden of cumulative impacts resulting from various types of industrial and transportation uses. In July 2003, the Colorado Department of Transportation (CDOT) and Denver’s Regional Transportation District (RTD) began a joint study for the I-70 East Corridor Environmental Impact Statement (EIS). CDOT knew they had to work proactively and collaboratively with these same communities to build their trust and ensure their active and meaningful participation in the environmental study. A unique approach to working with the public was used throughout the I-70 East environmental study. That approach was developed through the scoping process and was a part of every aspect of the study, from identifying alternatives to analyzing impacts and mitigation strategies.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

SCOPING PROCESS

The public scoping process began with an analysis of the neighborhoods and businesses within the project area in an effort to develop a logical community-outreach boundary. Based on available information about the demographic make-up of the corridor and familiarity with communities and neighborhoods in the corridor, specific outreach programs were designed to reach Hispanic/Latino and Black/African American populations and neighborhoods. A comprehensive public scoping process was developed that ensured every neighborhood within the project area would have ample opportunities to provide input to the study, including door-to-door outreach to more than 26,000 households, followed by 28 block meetings, 12 neighborhood meetings, 8 business meetings, 12 stakeholder meetings, and 2 corridor-wide meetings. Total attendance at the public scoping meetings exceeded 1,000, with an overwhelming participation by the environmental justice populations.

The project team also conducted several driving/walking surveys and collected data from area residents as part of the public outreach process. During this outreach process, the project team identified specific neighborhood features, properties of interest, information on the social organization of the community, and perceptions of existing neighborhood transportation problems.

The results of the public- and agency-scoping processes helped CDOT and RTD define the corridor purpose and need as well as understand the values expressed by residents and employees within the corridor. Nine major project goals were established related to providing reasonable access to transportation facilities, the ninth objective of the project specifically called out minimizing adverse effects on minority and low-income populations.

IDENTIFICATION OF ALTERNATIVES

The initial draft EIS examined four build alternatives. Environmental justice and community concerns were considered throughout the development of alternatives. Community input during the alternative-development process led to the identification of the realignment alternatives analyzed in the draft EIS. Community concerns related to safety, noise, and other issues were also incorporated into the project objectives and screening criteria.

ANALYSIS OF IMPACTS

APPROACH OVERVIEW

In the analysis of impacts reported in the EIS, a separate section addressed environmental justice. The effects of each alternative relative to low-income and/or minority populations were reviewed, then the following three questions related to impacts on low-income or minority populations were addressed:

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

1. Are there elements of adverse impacts that would have particular effects on low-income and/or minority populations? For example, property would be acquired for all alternatives. Acquisition of property from Swansea Elementary School could have particular impacts on low-income and minority populations.
2. Would adverse impacts be predominantly borne by low-income and/or minority populations, or would adverse effects be appreciably more severe or greater in magnitude than any adverse effects that would be suffered by the non-minority and non-low-income population? (In other words, would the effects on low-income and minority populations be disproportionately high and adverse compared to the effects on the general population?)

To determine the distribution of adverse effects for the draft EIS, the project team mapped the project construction limits for each alternative and determined, using Census data, the percentage of low-income and minority populations within 300 feet. The team also considered whether particular impacts would be concentrated in a specific area (e.g., relocations in Elyria and Swansea or Globeville), and whether those areas have high percentages of low-income and/or minority populations.

3. Would the benefits provided by an alternative be equally available to low-income and/or minority populations, at the same time as other populations? For the draft EIS, the analysis of the distribution of benefits was qualitative, but took into account input received from the public. The project team also considered whether benefits were widespread or directed to particular areas with high concentrations of low-income and/or minority populations (e.g., Elyria and Swansea or Globeville).

In the environmental justice analysis, CDOT considered impacts prior to any proposed mitigation measures (e.g., noise barriers), although standard construction and operation measures, such as dust suppression measures to reduce particulate emissions, were incorporated. For each alternative, the discussion included a summary of effects, effects on low-income and/or minority populations, distribution of adverse effects, and access to benefits. Input gathered at the various meetings was used to inform the discussion of impacts on low-income and/or minority populations. Some of the key issue areas that had the potential to affect environmental justice communities are summarized below in the next sections.

EFFECTS OF TOLLED EXPRESS LANES

Effects of tolled express lanes on minority and low-income populations were analyzed in accordance with CDOT's 2006 guidelines, *Possible Environmental- Justice Issues Related to Express Lanes*. The topics addressed were: (1) financial equity of express lanes on low-income populations, (2) physical access to express lanes for low-income and/or minority populations, (3) redistribution of traffic into low-income

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

and/or minority neighborhoods, and (4) proportional sharing of the benefits of the tolling revenue to low-income and/or minority populations.

The draft EIS relied on equity studies conducted on managed-lane projects implemented in other States. CDOT did not consider equity to be a major issue or obstacle in implementing pricing on the express lanes. CDOT will consider options to reduce initial enrollment costs for low-income drivers so as not to exclude low-income drivers from participating in the managed-lane program. CDOT will also consider the means for electronic toll collection and provide arrangements for individuals who may not have a credit card or bank account. If a preferred alternative includes tolled express lanes, the design of these lanes will take into account access to and exit in a way that ensures low-income and/or minority communities have equitable access.

Detouring traffic on local streets (also known as “spilling”) due to motorists attempting to avoid tolling corridors was not expected to be an issue along I-70 East because of the nature of the corridor.

If the preferred alternative includes tolled express lanes, the final EIS would include a detailed financial analysis of the ability of the toll revenue to pay the capital and operating expenses due to the tolling system. If this analysis suggests there would be disproportionately high and adverse effects on low-income and/or minority populations resulting from any discrepancy between toll revenues and the incremental costs of implementing toll lanes, then CDOT would propose appropriate mitigation measures. CDOT would also examine whether the benefits of establishing tolled lanes, such as improved reliability, reduced travel time, and improved incident management response, would be equitably received.

CONSTRUCTION-PERIOD IMPACTS IN LOW-INCOME COMMUNITIES – DURATION OF CONSTRUCTION NOISE, LIGHT, GLARE, DUST, AND TRAFFIC DISRUPTIONS IN THE VICINITY OF ELYRIA AND SWANSEA

The draft EIS found that noise and dust during construction could be particularly problematic for people who do not have air conditioners and would most likely ventilate their homes by opening windows. The analysis concluded that, under some of the alternatives, adverse impacts would be borne predominantly by low-income and minority populations. As mitigation, dust suppression measures were proposed to control dust impacts. In addition, it was proposed that nighttime construction be minimized and fuel specifications adhered to so that emissions from construction equipment would be reduced.

LONG-TERM NOISE

For operational noise in the vicinity of residential areas and parks, noise walls were provided as mitigation. Noise walls were provided under various alternatives for low-income and minority communities. In addition, noise barriers were considered for schools and parks in the environmental justice communities.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

NEIGHBORHOOD AMENITIES DISPLACEMENT AND NEIGHBORHOOD COHESION

Effects on local amenities in the environmental justice neighborhoods were evaluated. Four main neighborhood amenities were identified: neighborhood markets, Denver Rescue Mission Ministry Outreach Center, Swansea Elementary School, and Stockyards Post Office. Alternatives were evaluated based on impacts on these amenities. The analysis concluded that, under some of the alternatives, adverse impacts would be borne predominantly and disproportionately by low-income and minority populations. Relocation of these amenities was considered as potential mitigation.

Effects of the new noise walls, viaduct, and traffic diversions on neighborhood cohesion were also considered. To reduce these effects, holding urban-design workshops and encouraging local residents and businesses to provide input and advice on the design of nonstructural design elements of the highway during the final design stages of the project were considered as mitigation.

AIR QUALITY

One of the concerns frequently mentioned in scoping meetings and public comments was the effects of each alternative on air quality. Coordination among the FHWA, EPA, CDOT Air Quality Specialist, Colorado Air Pollution Control Division, and other air quality agencies was required to establish the methodology for evaluating air-quality issues associated with the project area.

An Air Quality Compliance Committee was formed and met seven times to guide the analysis process. Based on this process, the air-quality analysis was focused on carbon monoxide, ozone, particulate matter, and mobile-source air toxics (MSATs). The draft EIS noted that motor vehicle emissions in the study area would not result in any exceedance of the established air-quality threshold; therefore, no direct project air-quality mitigation is necessary.

CURRENT HEALTH CONDITIONS

Due to concerns expressed by the public during scoping, the project team investigated studies of current and recent health conditions within and near the project area. This information was included in the EIS in the “Social and Economic Conditions” chapter. The project team identified peer-reviewed works that have been performed using information from the study corridor and that have been conducted by major agencies responsible for public health, including the Colorado Department of Public Health and Environment (CDPHE), the EPA, and the Center for Disease Control’s Agency for Toxic Substances and Disease Registry. The EIS summarized findings of the CDPHE study, finding in general that other factors were responsible for increased health risks.

RELOCATIONS

Home prices in the Globeville, Elyria, and Swansea neighborhoods are relatively low compared with other neighborhoods in the study area. Thus, residents of these neighborhoods who are displaced may not be able to afford to move to other neighborhoods in Denver after receiving fair market value for their property, or they would be forced to trade off location for individual house characteristics (e.g., a smaller house). Depending on the alternative, anywhere from 8 to 93 units could be displaced. It was determined that relocation assistance provided under the Uniform Relocation Act would be adequate to address these concerns, using FHWA's housing-of-last-resort provisions. In addition, CDOT right-of-way staff would make every effort to relocate people within their current neighborhoods (if desired). CDOT would also provide assistance to people who are relocated to find services in their new communities.

ACCESS TO CONSTRUCTION ALERTS

Some people in the corridor do not speak English, and some may not be able to read in any language. To address this issue, information about road closures, access restrictions, and construction progress would be distributed through the use of several different channels. All of these forms of notification would be in English and Spanish, except for variable signage.

In summary, the draft EIS noted that some adverse effects would affect all populations equally, and only affect low-income and/or minority populations to the degree that they are geographically specific and located close to low-income and/or minority populations. Other adverse effects would affect predominantly low-income and/or minority populations. The nature and extent of impacts varied among the alternatives, but no alternative was completely without adverse effects that affect predominantly low-income and/or minority populations. It was also noted that all alternatives would entail construction spending that would lead directly to creation of construction jobs. These jobs would be available to people regionally, including low-income and minority populations. Mitigation measures would reduce impacts, but some adverse impacts would remain. Refinements to the alternatives and identification of impacts and mitigation would continue following the draft EIS.

EVALUATION OF A COMMUNITY-BASED ALTERNATIVE

Since completion of the initial draft EIS, the lead agencies have been working to develop a preferred alternative. As part of this analysis, input was received from a Preferred Alternative Collaboration Team (PACT). The PACT included representatives from various public agencies in the area, local business, and community representatives, including some from environmental justice communities. After considering input from the PACT and additional outreach conducted within the community by the City and County of Denver (CCD), the project team has taken a closer look at the options that may be feasible along the current alignment. The team also reexamined the reasons previous alternatives were eliminated and examined a suggested alternative from the environmental justice communities of Elyria and Swansea.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

The Elyria and Swansea alternative would realign the highway to avoid extensive residential effects and impacts on an existing school that would result from a wider highway. No viable options to relocate the school were available. The affected environmental justice communities urged that the school not be relocated and other design alternatives be considered. This additional analysis has resulted in two build alternatives, the Revised Viaduct (North and South) and Partial Cover (North), in addition to the No-Action Alternative. These alternatives will be evaluated in a recirculated draft EIS, which was underway at the time this case study was prepared.

CASE REFERENCES

Colorado Department of Transportation. *Draft EIS for the I-70 East Project*. Available: <<http://www.i-70east.com/>>. Accessed: June 11, 2012.

Telephone interview. Ms. Carrie Wallis (Atkins) and Ms. Shilpa Trisal (ICF). April 16, 2012.

Telephone interview. Mr. Kirk Webb (Colorado Department of Transportation) and Shilpa Trisal (ICF). April 16, 2012.

Telephone interview. Jumetta Posey (Neighborhood Solution) and Shilpa Trisal (ICF). May 14, 2012.

CASE #7: MITIGATING IMPACTS ON THE PLEASANT HILL NEIGHBORHOOD: I-16/I-75 INTERCHANGE PROJECT, MACON, GEORGIA

The Pleasant Hill neighborhood is a predominantly Black/African-American community just south of the junction of I-16 and I-75 in Macon, Georgia. It was organized in 1872 and is on the National Register of Historic Places. When I-75 was constructed in 1962-63, the neighborhood was split in two, a west and an east side, and approximately 133 houses and 2 churches were demolished. The division of the community into two sides separated residents from schools, churches, the community library, the Linwood Cemetery, and the Booker T. Washington Community Center. Many residents left the community, circulation (moving from one side to the other) within the neighborhood drastically decreased, and the number of deteriorating structures increased.

Forty years later, proposed improvements to the I-16/I-75 interchange had the potential to adversely impact Pleasant Hill once again. The I-16/I-75 interchange project was proposed to add lanes, reconstruct bridges, widen shoulders, and develop a Collector/Distributor (C/D) system removing local traffic from the interstate main-line system. The project was expected to improve the Level of Service (LOS) of freeway segments and ramp junctions, and reduce crash and injury rates. Potential improvements were studied in an environmental assessment (EA) by the Georgia Department of Transportation (GDOT) and the Federal Highway Administration (FHWA). The environmental justice analysis was one part of the broader analysis of community impacts, which also included noise and visual effects, displacement of structures, and impacts on community cohesion.

THE PLEASANT HILL COMMUNITY

For the I-16/I-75 interchange project EA, the characteristics of the Pleasant Hill community were evaluated. In 2000, Pleasant Hill had a population of 1,611 people (982 on the west side, 629 on the east). Over 95 percent of the population was Black/African American. The east side was identified as having median household income below the poverty level. Median household income was substantially higher on the west side. Between 1990 and 2000 the neighborhood had experienced a population decrease of 22 percent. In 2000, 23 percent of homes were vacant and 70 percent of occupied homes were rented. A 2006 windshield survey showed that about 75 percent of homes were in good condition with most of the others in need of minor repairs. Streets were in very poor condition, and many areas lacked sidewalks.

As part of the public involvement program, the project team held neighborhood meetings throughout the study area. After the first meeting with the Pleasant Hill Neighborhood, a neighborhood representative was invited to be part of the Citizens Advisory Committee (CAC). After having three meetings in Pleasant Hill, the neighborhood formed the Pleasant Hill Neighborhood Improvement Group (PHNIG) and requested a fourth meeting in 2006. Led by a neighborhood resident with experience in transportation projects, this group became a pro-active community liaison for GDOT from then on, stressing the past impacts that I-75 had on the community and forwarding suggestions for alternative modifications and mitigation measures that would be acceptable to the community. The leader of PHNIG's past experience with transportation projects and residence in the community allowed him to help PHNIG be an effective instrument for merging project goals with community concerns.

IDENTIFICATION AND DEVELOPMENT OF ALTERNATIVES

Based on an initial GDOT concept developed in the mid-1990s, a project team developed 10 different alternatives. The team also developed a set of evaluation criteria used to compare alternatives in work sessions with FHWA and Bibb County, through numerous public meetings, and with input from the CAC. Each element of the evaluation criteria was given a qualitative rating from excellent to unacceptable. The selected alternative (Alternative 9) was the only one that did not receive a rating of unacceptable in any of the criteria elements while still providing safe and efficient operational traffic movements.

In developing Alternative 9, several modifications were made in coordination with the PHNIG to minimize impacts on the community. These modifications included the use of a graded slope rather than retaining walls to create more useable green space and generate less visual intrusion into the neighborhood, and a couple of modifications to roads.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

ANALYSIS OF IMPACTS AND MITIGATION MEASURES

In Pleasant Hill, the project was expected to result in relocations, visual impacts, and impacts on community cohesion, but mitigation was included in the project to ensure that no disproportionately high and adverse impacts would occur.

RELOCATIONS

The project would impact 31 residential structures in Pleasant Hill. Eleven of these structures were vacant, so 20 relocations would be required. This number included those that would be impacted because of the expanded footprint introduced by the mitigation measures. An assessment of available housing in the Pleasant Hill neighborhood and Macon found comparable replacement dwellings.

VISUAL IMPACTS

The existing interstate facility was visible from neighborhood residences and roads. The highway expansion would deteriorate the viewshed of residences. The project team proposed to build noise/visual barriers as part of the mitigation of visual impacts, along both sides of the highway. Although project implementation without the noise barriers would have resulted in a negligible increase in noise, combined noise/visual barriers were included to reduce noise levels that were already high, under the no-action alternative. When combined with other proposed measures, such as a linear park and greenspace adjacent to the noise/visual barrier, the quality of the view from residences would improve.

COMMUNITY COHESION

Expansion of the highway would have direct adverse impacts on neighborhood social cohesion by further intrusion into (or effects on) the neighborhood and further division of west and east sides. Some residences would be relocated, separating residents from their neighbors. The impact would be reduced by the fact that some relocations would occur to vacant lots within the same community. In addition, several mitigation measures would provide opportunities for community interaction to foster greater community cohesion. These include: a linear park, a heritage tour, and new and wider sidewalks.

CUMULATIVE IMPACTS

The project team made an effort to better understand past impacts of the construction of I-75 on the Pleasant Hill neighborhood. The project team studied past documents that indicated that the current east and west sections of Pleasant Hill were connected by many pathways before construction of I-75, making travel through the neighborhood easy. A review of aerial photography allowed for an estimate

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

of the number of structures displaced. An interview with a previous resident of the neighborhood who was displaced by the original construction of I-75 allowed for additional characterization of displacements as mostly single-family homes and some duplexes. This effort allowed a better understanding of adverse impacts the community would face with the interchange improvement project and without proper mitigation.

MITIGATION

The development of mitigation measures was done in collaboration with the PHNIG. Mitigation measures included modifications to the preferred alternative and measures to offset adverse impacts. Measures proposed by the Historic Preservation Division of the Georgia Department of Natural Resources, such as the relocation of historic structures, were also discussed with the neighborhood.

Measures included in the mitigation plan were: a linear park along the east side of I-75 with a multi-use trail, noise/visual barriers, a heritage tour and historic documentation, improvements to local streets and sidewalks, reconstruction of a pedestrian bridge over I-75, replacement of an open-channel concrete drainage ditch with a grass-covered culvert, and widening of the Walnut Street bridge to include 10-foot-wide sidewalks.

These community mitigation plan measures were incorporated into the selected alternative (Alternative 9). Many of them supported actions that had already been identified by the Pleasant Hill neighborhood as goals to be pursued and had been incorporated in the Pleasant Hill Neighborhood Plan. The mitigation plan was revised several times, since its first conceptualization, as a result of discussions with PHNIG.

Representatives of FHWA, GDOT, and PHNIG signed the Pleasant Hill Historic District and Community Mitigation Plan, which was attached to the EA. This was considered by all parties to be an important commitment to the mitigation measures, and reassurance that no significant impacts would be left unaddressed. A Finding of No Significant Impact (FONSI) was signed in 2010.

CASE REFERENCES

Georgia Department of Transportation. "I-16/I-75 Interchange Environmental Assessment and Finding of No Significant Impacts (EA/FONSI)." 2010.

Telephone interview. Ms. Katy Allen (FHWA) and Alex Uriarte (ICF). May 1, June 5 and June 26 2012.

Telephone interview. Mr. Jonathan Cox (GDOT) and Alex Uriarte (ICF). May 30, 2012.

Telephone interview. Mr. Peter Givens (PHNIG) and Alex Uriarte (ICF). May 4 and May 31, 2012.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CASE #8: PRESERVING COMMUNITY COHESION THROUGH SOUTHEND PARK NEIGHBORHOOD REDEVELOPMENT: NEWTOWN PIKE EXTENSION PROJECT, LEXINGTON, KENTUCKY

Newtown Pike is a major artery for north-south traffic through Lexington, Kentucky. Increased traffic congestion and pedestrian issues in downtown Lexington during the 1980s and 1990s stressed the urgency of routing traffic away from the downtown area. The Newtown Pike Extension project, led by the Kentucky Transportation Cabinet (KYTC) and studied in an environmental impact statement (EIS), was designed to divert traffic from the busy Central Business District. The greatest impacts would be felt by Davistown, one of the lowest income neighborhoods of Lexington.

THE DAVISTOWN NEIGHBORHOOD

The neighborhood of Davistown began in 1855 as a community of Black/African-American workers on the Lexington railway system. It soon became the residence of Black/African-Americans who moved to the city following emancipation in 1866. Davistown was once the most densely populated neighborhood in Lexington but is now relatively sparsely populated. Residents gradually left the neighborhood through the decades as some properties were converted to commercial uses. A little over 40 percent of the residents of Davistown were Black/African American in 2000, with almost all the rest being White. Data from the 1990 Census showed the poverty rate in Davistown as being 74 percent for the population and 100 percent for children under 18.

THE SOUTHEND PARK AREA

Within Davistown lies the 25-acre Southend Park area. Although part of Davistown, it has been recognized for decades as a distinct and impoverished area. Because of its lower altitude when compared to surrounding areas, it is also known as lower Davistown or Davis Bottom. Like Davistown, there has been a gradual process of departure in the Southend Park area. In 2006 there were 27 occupied housing units in Southend Park, down from 88 in 1980, 76 in 1990, and 48 in 2001. A 2005 door-to-door survey of the Southend Park area provided demographic data for comparison with State and county data and revealed much higher percentages of residents who are minority and low income in Southend Park than in the county and State: 40 percent of residents were minority and 90 percent low income.

In addition to Census data and information from previous transportation plans, the Newtown Pike Extension project team conducted studies that helped focus on the Southend Park area. For the Corridor Plan, the project team conducted public meetings, focus groups, and a windshield survey; and identified the Southend Park area as in need of redevelopment. In the community impact assessment (CIA), the project team identified the specific residents that would be directly impacted by the project and their characteristics, and characterized neighborhoods/areas indirectly impacted by the Newtown

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Pike Extension. Later, the project team interviewed each person living in the Southend Park area to provide input to the social needs assessment. These studies helped focus on the Southend Park area and how it would be adversely impacted.

IDENTIFICATION OF ALTERNATIVES

Proposals from the 1960s and early 1970s ran the Newtown Pike Extension directly through the Southend Park area and displaced up to 140 families. In 1977, the Kentucky Department of Transportation (now the KYTC) endorsed an alignment slightly to the east of previous alignments and with considerably fewer displacements (36 families). By 1997, when the project obtained new funding, the railroad spur that ran parallel to Combs Street had been abandoned, facilitating the use of the alignment along that street. The three build alternatives analyzed in the EIS are slight variations along that alignment and took into account project impacts on two 4(f) sites, one of which was the Southend Park, a recreational facility located on the western portion of the Southend Park area. So, the immediate considerations that led to the build alternatives considered were the abandoned rail spur and the need to avoid the Southend Park 4(f) site. However, impacts on communities had been also taken into consideration, in the sense that alternatives crossing through the Southend Park area had been considered in the past and abandoned, at least in part due to the impact on neighborhoods such as Davistown.

ANALYSIS OF IMPACTS

The Corridor Plan recognized the lack of affordable housing in the project area, the poor conditions of existing housing, and recommended the development of new housing to accommodate existing and new residents. The CIA identified and described both the direct and indirect impacts of the road on the communities. Both studies made use of extensive public involvement in identifying impacts, including public meetings, focus groups, household surveys, and a housing finance study.

IMPACTS ON LAND VALUES AND DEVELOPMENT OPPORTUNITIES

While the Newtown Pike Extension would result in some displacements of both residential and commercial properties in Davistown and two other neighborhoods, the main impacts identified were the indirect impacts of the road. The Newtown Pike Extension build alternatives would generate development opportunities for the surrounding neighborhoods. Areas along intersections with the new road would have greater visibility and land value. Although increases in land value can have a positive impact on neighborhoods, in the case of the low-income community of Davistown, the CIA conducted in 2002 determined that it would likely displace residents, especially low-income renters. The CIA also identified the absence of replacement housing in areas neighboring the Southend Park area. Without mitigation, build alternatives would accelerate expulsion of Southend Park area residents through increased land values and redevelopment. At the same time, the no-action alternative would see the

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

decline and eventual disappearance of the Southend Park area: uncertainty had been stifling housing and infrastructure improvements and imposing an unfair burden on the neighborhood.

IMPACTS ON COMMUNITY COHESION

The Southend Park community expressed interest in remaining in the area. Project surveys had also identified the high level of interdependence among its members. Nearly half of the residents had family in the area and low-income neighbors often share resources. Both the build alternatives and the no-action alternative would result in the disruption of family and community ties. In addition, because of lack of replacement low-income housing in the neighborhood (as elsewhere in Lexington), residents would lose the opportunity to walk to major service-job providers in the downtown area and at the University of Kentucky, and would be forced to cut ties with a location where many had been residing for decades. Because these impacts would be largely concentrated in the low-income, minority area of the Southend Park neighborhood, the project team concluded that, without mitigation, the benchmark for disproportionately high and adverse impacts had been met.

MITIGATION

RE-DEVELOPMENT PLAN

The project team determined that a redevelopment option that was capable of keeping residents in the Southend Park area was necessary. Due to the low-income level of the residents and the lack of affordable decent, safe, and sanitary replacement housing in the project area, last-resort housing provisions were adopted. These included:

- Rental assistance subsidy
- Construction of a new replacement dwelling (through the Southend Park Urban Village Plan)
- Change in status of the displaced household from tenant to homeowner (when possible)
- Creation of a community land trust to protect neighborhood boundaries from undesired development and to remove the cost of land from the base house price to preserve affordability

SOUTHEND PARK URBAN VILLAGE

With the intention of creating long-term, sustainable, affordable housing and preserving community cohesion, the project team developed the Southend Park Urban Village plan in close collaboration with the neighborhood liaison and residents. Three Urban Village concepts were developed and presented to residents in a series of three public meetings. Comments received by the residents led to the choice of one of the three concepts proposed.

The Urban Village consists of a redevelopment effort in the 25 acres that constitute the Southend Park area. While 27 residential structures and 4 active commercial enterprises in Davistown would be

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

displaced by the Southend Park Urban Village; displaced residents, both from the urban village and from the road construction, would be offered affordable housing in the Urban Village. The Urban Village would include about 100 housing units. Replacement housing would be enough to accommodate all those displaced by the roadway and the Urban Village itself, as well as others wishing to return to or become new neighbors in the Village. The section 4(f) Southend Park would also be rebuilt as part of the Urban Village Plan. In addition to residential properties, commercial properties were included in the Urban-Village Plan. Zoning for the area would change from light industrial to residential and mixed use.

COMMUNITY LAND TRUST

The project team considered that affordability and community cohesion would be destroyed if a traditional transfer of ownership to displaced residents took place. For this reason, a land ownership project team evaluated several alternatives for potential land ownership. The evaluation concluded that a community land trust was the best way to ensure long-term, sustainable, and affordable housing for the residents.

To guide the formation of the land trust, a steering committee was formed with representatives of the Southend Park area, Lexington citizens, local and State agencies, and the Nathaniel Mission. Through a series of 21 meetings, the steering committee developed the Community Land Trust By-Laws. The Community Land Trust was structured so that resident owners will own their homes with a joint renewable 99-year lease on the land.

PREFERRED ALTERNATIVE

The choice of the preferred alternative was guided more by safety and traffic considerations, than by impacts on the Southend Park area. With the development of the Southend Park Urban Village Plan and the community land trust as mitigation for direct and indirect environmental justice impacts, the Newtown Pike Extension project would not have an unfair burden on any neighborhood.

CASE REFERENCES

Federal Highway Administration and Kentucky Transportation Cabinet. Newtown Pike Extension. Lexington, Fayette County, Kentucky. Final Environmental Impact Statement. Section 4(f) Evaluation. 2007.

Federal Highway Administration in consultation with Kentucky Transportation Cabinet. Newtown Pike Extension. Lexington, Fayette County, Kentucky. Record of Decision. 2007.

Clay-Young, Pam. "How We Got From There to Here: A History of the Newtown Pike Extension Project." 2012.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Newtown Pike Extension website: www.newtownextension.com.

Lexington Fayette Urban County Government. Southend Park Urban Village Plan. 2003.

Logsdon, Phil. "Without an Unfair Burden." Newtown Pike Extension Project. Kentucky Transportation Cabinet. 2011.

CASE #9: EXTRAORDINARY OUTREACH GUIDES PROJECT DECISIONS AND AVOIDS ENVIRONMENTAL JUSTICE ISSUES: BUSINESS 40 PROJECT, WINSTON-SALEM, NORTH CAROLINA

The North Carolina Department of Transportation (NCDOT) is proposing to improve a 1-mile section of Business 40 through downtown Winston-Salem. The project area is located in the heart of Winston-Salem and includes a large portion of downtown, as well as the central neighborhoods that define the core area of this metropolitan region. The Direct Community Impact Area is the area surrounding the project that is likely to be directly affected in any way during, throughout, and after project construction. The Direct Community Impact Area includes a mix of affluent and largely white populations, low-income populations, and minority populations. Neighborhoods in the southeastern portion of the Direct Community Impact Area are identified as areas with primarily low-income and minority populations, while neighborhoods in the northwestern portion of the Direct Community Impact Area are generally identified as affluent.

When the environmental study for the Business 40 improvement project was initiated, there were several recently completed and ongoing projects in and around Winston-Salem. The NCDOT Division Engineer recognized the extent of transportation work that was already occurring, and the resulting stress and frustration felt in the community because of closures, delays, detours, and other inconveniences associated with construction. The Division Engineer understood that this frustration would be further compounded by a major project like the proposed improvements to Business 40, with associated closures on a major transportation route in the heart of the city. He conveyed the need for an extraordinary public-involvement and outreach approach early on. That need was further supported by: (1) the head of NCDOT's Human Environment Section and (2) the Board of Transportation member representing the district that included Winston-Salem. Through their combined support and help from FHWA, an Accelerated Construction Technology Transfer (ACTT) conference was convened.

ACTT conferences are sponsored by FHWA and are meant to bring together a panel made up of experts from across the country who have dealt with a similar challenging project issue. This case brought together experts who had worked on a highway project through the heart of an urban area with potential options for closure and impacts on the surrounding community. These experts shared their lessons learned and helped to chart a path forward for the Business 40 project. The resulting public outreach effort was unprecedented in the state of North Carolina.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

DEVELOPMENT OF A PUBLIC INVOLVEMENT PLAN

Typically, public outreach for an environmental study in North Carolina begins with the development of a public involvement plan, or PIP. While the PIP can be adjusted during the course of study, it basically outlines the scope of public involvement activities that are planned as part of the study process. For this project, the outreach team requested, and NCDOT approved, substantial funding to complete early information gathering and outreach to inform the development of the PIP. This initial information gathering was intended to help the outreach team get to know the area and the people. It involved conducting a “windshield survey” (visual survey conducted by car) through every street in the Direct Community Impact Area. The outreach team was looking for potential gathering places, meeting sites, community features, and important places in the community. They talked with 85 formal and informal leaders in the community, including hospital staff, the Department of Housing and Urban Development, downtown businesses, the police department, the metropolitan planning association, bus drivers, schools, and neighborhood associations to find out what issues were important to people in the area, best methods for outreach, potential leaders who could provide inroads to hard-to-reach groups, and places for meetings. Armed with this information, they were able to create a PIP to guide ongoing outreach.

SURVEYS

A decision needed to be made, early on in the project study, whether the construction of the project should be designed to take place over 2 years, with full closure of a section of Business 40, or 6 years, with partial closure of the highway. Early conversations with community leaders as part of the development of the PIP indicated that the community would prefer a 6-year partial closure approach. However, NCDOT and their outreach team moved forward with an intensive strategy to find out what a broader spectrum of the community preferred.

DOOR-TO-DOOR OUTREACH

NCDOT used a different approach for reaching out to “Core Neighborhoods” and “Surrounding Neighborhoods.” The Core Neighborhoods were those that directly or indirectly touched the Business 40 project or had primary arteries that could be designated as an alternate route. These neighborhoods were contacted through an unprecedented door-to-door outreach process.

To conduct the outreach, the consultant team hired 75 individuals from the community. These individuals were identified through the resources gathered in the development of the PIP and through partnership with the Winston-Salem Urban League. Prior to knocking on doors, the core neighborhoods were prepped through a newsletter, newspaper articles, interviews, and materials left on doors that survey staff would be visiting, what they would look like (orange shirts), what information they would be collecting, and for what purpose. When there was no answer at a door, information was left indicating

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

that the project team had visited, when (and between what hours) they would return, and other options for participating in the survey.

The project team was inundated by community members interested in sharing their input through the survey process. Because of the level of interest and the length of time people wanted to talk, the survey period was extended. Ultimately, the door-to-door survey, performed by the trained outreach specialists, contacted more than 30,000 households in the Core Neighborhoods with a response rate of 42 percent. Surveys were collected at the end of each day and results were input into a database. This information was used to develop a summary of the transportation characteristics and issues disclosed by each neighborhood and served as a scoping document for further public outreach.

CORPORATE INTRANET SURVEYS

Large corporations and governmental entities in the study area were asked to post the project survey on their Intranet to provide easy access to individuals who might be affected by the proposed improvements. Approximately 30 employers distributed surveys to their workers. A total of 1,777 responses were received. Responses were recorded in the project database.

INTERCHANGE RAMP SURVEYS

In an effort to contact the motorists/commuters that use Business 40 but do not reside in either the Core or Surrounding neighborhoods, an interchange ramp survey was conducted. Surveying was undertaken at each of the six interchanges located within the limits of the project. Surveying was completed during both morning and evening peak commuter hours. Motorists were stopped at the ends of the interchange off ramps. Drivers at each intersection were given a short three question survey to complete and return by mail. Over 2,950 surveys were distributed, with more than 25 percent of them being returned. The responses for each survey were incorporated into the project database.

SURVEYS AT GATHERING PLACES

Surveys were also conducted from gathering places. For example, space was rented at the regional mall (Hanes Mall) the Friday after Thanksgiving (Black Friday). Surveys were also conducted at local churches following Wednesday fellowship dinners and Sunday services.

Responses from all of the surveys were captured in the project database. Addresses of respondents captured in the database were compared to project mapping using a geographic information system (GIS). Residences within the Core Neighborhoods that did not participate in a survey were visited a second time.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

MEETINGS

A variety of meetings were held within Core and Surrounding neighborhoods to provide project updates and solicit additional information from area residents and businesses. The meetings included presentations to stakeholders, neighborhood and corridor-wide meetings, and working groups.

Holding the neighborhood meetings after the door-to-door survey was part of the design of the public involvement plan to build from micro to macro. First, individual preferences were gathered through the survey, then neighborhood preferences, then corridor-wide preferences. Results from each stage were shared to help participants understand the broad spectrum of feedback.

CORRIDOR-WIDE MEETINGS

Corridor-wide meetings were conducted at major project milestones or for specific topics and provided opportunities for the community to interact with the Business 40 project team and discuss project issues and recommendations. Lessons learned and effective practices from the I-70 East project in Colorado influenced the design of the corridor-wide meetings. During that project, it was found that in a typical open-house format, minority, low-income, LEP, and elderly participants often walked into an open house, looked around, and left without talking to any project staff or sharing their comments and thoughts. The Business 40 corridor-wide meetings were designed using the concept of church ice cream socials to help the general public interact with the engineers and to feel comfortable at discussion tables.

WORKING GROUPS

The Working Groups, which are ongoing, consist of local citizens that want to be more involved in the project. They are designed to allow smaller group discussion of project topics with the local community. The groups are divided into three major topic areas in response to suggestions submitted by the public. The initial discussion topics were suggested by residents, business owners, corridor stakeholders, and NCDOT project participants. The working groups are the Bridge and Design Group, the Traffic Group, and the Community Issues Group. Each group discusses issues and approaches to various project concerns. Members of the project team facilitate the meetings to assure the group achieves each meeting's stated goal. Meeting notices and meeting minutes are posted on the project website, and meetings are open to anyone.

PRINTED MATERIALS AND OTHER MEDIA

In addition to the surveys and meetings, the project team communicates with the public through a project website (www.business40nc.com), newspaper advertising, newsletters and mailings, flyers and posters, radio, and television.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

NEXT STEPS

The results of the surveys and initial stakeholder, corridor-wide, and neighborhood meetings revealed a strong preference (67.3 percent) from within the community for the 2-year full closure option. This result was not what was expected after talking with the Chamber of Commerce and other community leaders during initial information gathering, and proved the importance of going out into the community.

The outreach tools and techniques continue to be implemented on the Business 40 Project for the ongoing environmental study. The public involvement program has allowed, and will continue to allow, the community to help determine how the Business 40 improvements are planned, designed, and constructed. Continued engagement of the public through workshops, neighborhood meetings, and working group meetings will help NCDOT identify and address potential community impacts throughout the project development process.

CASE REFERENCES

North Carolina Department of Transportation. "Business 40 Project Website." Available: <http://www.business40nc.com>

Personal interview. Anne Morris, Anne Morris & Associates, LLC. June 25, 2012.

Personal interview. Beverly Robinson, Project Development and Environmental Analysis Branch, North Carolina Department of Transportation; Steve Gurganus, AICP, Human Environment Unit, North Carolina Department of Transportation; Michael Penny, PE, Project Development Engineer; Drew Joyner, PE, Human Environment Section; and Shannon Cox, ICF International. April 9, 2012.

Personal interview. Felix Davila, Division 5, Federal Highway Administration; and Shannon Cox, ICF International. April 13, 2012.

Personal interview. Jumetta Posey, Neighborhood Solutions and Anne Morris, Anne Morris & Associates, LLC. July 13, 2012.

Transportation Research Board, National Cooperative Highway Research Program. Report 710: "Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking." April 2012. Available: <http://www.trb.org/Main/Blurbs/166872.aspx>

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

CASE #10: BUILDING A SAFER, MORE RELIABLE BRIDGE AND ROADWAY WHILE AVOIDING ENVIRONMENTAL JUSTICE IMPACTS: SR-520: I-5 TO MEDINA, SEATTLE AREA, WASHINGTON

The SR 520: I-5 to Medina Project in Seattle, Washington, addresses the two key issues facing the SR 520 corridor: (1) bridge structures that are vulnerable to catastrophic failure; and (2) traffic demand that exceeds capacity. As part of the environmental review the Washington State Department of Transportation (WSDOT) and the Federal Highway Administration (FHWA) conducted an extensive environmental justice analysis to study the potential of disproportionately high and adverse impacts on minority and low-income populations.

PROJECT ALTERNATIVES AND STATUS

Potential environmental justice issues were first reported in the 2006 Draft Environmental Impact Statement (DEIS). A Supplemental Draft EIS (SDEIS) for the I-5 to Medina project was prepared in 2010, preparers were informed by the 2009 Environmental Justice Discipline Report. The Final EIS was published in Spring 2011. The Record of Decision (ROD) was issued in summer 2011.

DEMOGRAPHIC ANALYSIS

The 2009 Environmental Justice Discipline Report used multiple study areas. To determine the effects of project construction and operation, the project study area included the area within an approximately 0.5-mile radius of the construction limits of the project. The 2000 Census block groups making up the study area were used for the demographic analysis to identify low-income and minority populations.

To identify SR 520 users who would be affected by tolling, a travelshed was identified. WSDOT placed video cameras on SR 520 at on- and off-ramps and on the mainline during the morning and evening peak periods as well as midday and weekends. The Washington State Department of Licensing provided WSDOT with the addresses associated with the registered owners of each videotaped vehicle. Using those addresses, analysts developed a map of the Evergreen Point Bridge travelshed. 2000 Census information was used to identify low-income, minority, and LEP populations in the travelshed.

OUTREACH AND COORDINATION

Two types of impacts became particularly important in the environmental justice analysis: impacts associated with tolling, and impacts on resources important to Native Americans. Outreach and coordination conducted to support those two areas of analysis are further summarized from the 2009 Environmental Justice Discipline Report.

OUTREACH TO SUPPORT THE TOLLING ANALYSIS

The Tolling Implementation Committee conducted public outreach to evaluate tolling as a means of financing a portion of the SR 520 Bridge Replacement and HOV Program. Public-outreach activities included hosting open houses, conducting telephone and Web surveys, attending public committee meetings, maintaining a project Web site, and interviews of staff from agencies that serve low-income, minority, or limited English proficiency (LEP) populations.

To understand how tolling of the existing Evergreen Point Bridge might affect low-income or minority populations, environmental justice analysts conducted a telephone survey of 685 individuals who use the Evergreen Point Bridge two or more days a week. Three hundred and eighteen respondents qualified as a member of a population protected under environmental justice laws and guidance. In addition to demographic questions, survey respondents were asked how their travel behavior would be affected by a toll on the Evergreen Point Bridge and if they would be likely to have difficulty obtaining a transponder.

Because the license-plate videotaping used to define the travelshed did not capture regular transit users who travel across the Evergreen Point Bridge, analysts conducted a transit intercept survey in June 2008. From the survey of 422 transit users on the Evergreen Point Bridge, nearly 3 percent of respondents had household incomes below the Federal poverty level and nearly 23 percent of the respondents were minority. Six percent spoke a language other than English at home. Transit-intercept survey questions were similar to those asked during the telephone survey.

To collect more detailed information about how tolling might affect low-income or minority populations, analysts conducted two focus groups comprised of survey respondents who indicated a willingness to participate and others who were recruited through social-service agencies that serve environmental justice populations in the Evergreen Point Bridge travelshed study area.

To collect information on how tolling might affect LEP populations, researchers conducted six telephone interviews in Spanish with Evergreen Point Bridge users (note that these interviews were meant to be consistent with, but shorter than, the focus group meetings).

COORDINATION WITH NATIVE AMERICANS

The I-5 to Medina: Bridge Replacement and HOV project site is located in an area of central Puget Sound that several Native American tribes have occupied. The Muckleshoot Indian Tribe and Snoqualmie Nation were involved as cooperating agencies during the NEPA process. WSDOT also consulted with the Confederated Tribes and Bands of the Yakama Nation, the Tulalip Tribes, the Suquamish Tribe, and the Duwamish Tribe, as part of the consultation under Section 106. Input from tribes provided important information on natural, cultural, and archaeological resources in the study area that WSDOT incorporated into the environmental and design process.

ANALYSIS OF IMPACTS ON ENVIRONMENTAL JUSTICE POPULATIONS

To identify the ways in which the project would specifically benefit or adversely affect low-income or minority populations in the study area, environmental justice analysts examined the discipline-specific reports prepared for the SDEIS and outcomes from the public involvement process. After identifying adverse effects and benefits, analysts isolated project effects that would affect people differently. Next, analysts determined whether low-income or minority populations would experience disproportionately high and adverse effects because of the project. For the effects of project construction and operation on the project study area, analysts used GIS data to map the adverse effects over Census block groups. This allowed a comparison of the poverty and minority status of those who would be affected by the project with those who would not be affected by the project. The analysts assessed the possibility that LEP populations would be disproportionately affected. In addition, analysts considered the following:

- Would measures to avoid or minimize disproportionately high and adverse effects be implemented?
- Are there any project benefits that would affect low-income or minority populations?
- Did WSDOT modify the project to avoid or minimize disproportionately high and adverse effects?

The burden of tolling on low-income populations and impacts on important resources to Native American tribes were two areas of impact determined to potentially have disproportionately high and adverse effects.

EFFECTS OF TOLLING

The effects of tolling were studied throughout the NEPA review of the SR 520 project. A conclusion was made in the SDEIS that there would be unavoidable disproportionately high and adverse impacts from tolling on low-income populations. However, between the SDEIS and Final EIS, new information became available that provided a basis for changing that conclusion. First, there were substantial improvements to alternatives to paying the toll, including new investments in transit services across SR 520 and rideshare and vanpool options. As a result of these improvements, fewer low-income populations would be adversely affected by the toll than previously assumed, because there would be more affordable alternatives to paying the toll. According to guidance that WSDOT received from FHWA, this minimizes the effect of the toll on low-income populations.

Second, FHWA provided WSDOT with guidance that overall project benefits, including those that apply broadly to all users, should be considered in determining whether there is a disproportionately high and adverse effect on low-income or minority populations. Coupled with the new actions taken to provide more affordable alternatives to paying the toll, along with the targeted outreach to environmental justice populations and other mitigation measures, analysts determined that the overall project benefits

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

offset the adverse effects of the toll on low-income populations. Analysts conclude that there would be no disproportionately high and adverse effect as a result of the toll.

EFFECTS ON NATIVE AMERICAN TRIBES

In the SDEIS, it was determined that, if not avoided or minimized, some construction effects would have disproportionately high and adverse effects on a minority population:

- Because project construction would adversely affect ancient burial grounds of significance to Native American tribes, a minority population would predominately bear construction effects on Foster Island.
- Because project construction and operation would adversely affect the usual and accustomed fishing areas of tribes, a minority population would experience the adverse effect on fishing and the effect would be appreciably more severe than effects on the general population.

For the Preferred Alternative in the Final EIS, WSDOT made a number of design refinements to minimize effects on Foster Island. FHWA and WSDOT also actively engaged in government-to-government consultation with the Muckleshoot Indian Tribe, to determine appropriate mitigation for the project's effects on resources protected by treaty fishing rights. In the Final EIS, WSDOT committed to continuing to work through government-to-government consultation with the Muckleshoot Indian Tribe on an agreement to fully and fairly resolve issues associated with the impacts of the project on treaty rights. As a result, WSDOT determined that there would not be a disproportionately high and adverse effect on tribal fishing as a result of the Preferred Alternative.

RECORD OF DECISION

Shortly after the release of the Final EIS in June 2011, FHWA signed the ROD on August 4, 2011, which allowed WSDOT to further the design for the I-5 to Medina: Bridge Replacement and HOV Project and obtain construction permits. In addition to the ROD, two separate agreements were developed:

- To address cultural resources effects, tribes were consulting parties to the Section 106 Programmatic Agreement to satisfy the requirements of the National Historic Preservation Act (NHPA). The agreement includes development of a separate Foster Island Treatment Plan to mitigate for adverse effects on Foster Island. It also includes development of an archaeological treatment plan to address further cultural resources analyses as project design and construction progress.
- WSDOT and FHWA are engaged in government-to-government consultation with the Muckleshoot Indian Tribe to determine appropriate mitigation for the project's effects on resources protected by treaty fishing rights. A Memorandum of Agreement documents FHWA's and WSDOT's commitment to a set of specific mitigation measures. WSDOT and FHWA are also engaged in consultation with the Suquamish Tribe to develop a coordination plan that would

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

avoid and minimize potential temporary effects on their protected resources during construction.

The ROD includes FHWA's conclusion that, considering mitigation, the Selected Alternative would not disproportionately affect low-income or minority populations. The ROD also lists many commitments made by WSDOT and FHWA to surrounding communities before, during, and after project construction.

REFERENCES

Personal interview. Allison Hanson, WSDOT; Jenifer Young, WSDOT; Randy Everett, FHWA; Jamie Strausz-Clark, PRR, Inc.; Suanne Pelley, WSDOT; and Bonnie Chiu, ICF International. May 17, 2012.

United States Department of Transportation, Federal Highway Administration. SR 520, I-5 to Medina: Bridge Replacement and HOV Project Record of Decision. Available: <http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm#ROD>. August 2011.

Washington State Department of Transportation, Sound Transit, and Federal Highway Administration. SR 520 Bridge Replacement and HOV Project EIS: Appendix G, Addendum to Environmental Justice Analysis. Prepared by Parametrix, Inc. and CH2M HILL. Available: http://www.wsdot.wa.gov/NR/rdonlyres/60E02674-4049-41F0-A13F-B3DE282C5F3E/0/SR520DEIS_AppendixG_Addendum.pdf. March 3, 2006.

Washington State Department of Transportation, Sound Transit, and U.S. Federal Highway Administration. SR 520 Bridge Replacement and HOV Project EIS: Appendix G, Environmental-Justice Analysis. Prepared by Parametrix, Inc. and CH2M HILL. Available: http://www.wsdot.wa.gov/NR/rdonlyres/3AC56536-C713-4E0E-92EF-AB046153D7C9/0/SR520DEIS_AppendixG.pdf. March 3, 2006.

Washington State Department of Transportation and Federal Highway Administration. SR 520, I-5 to Medina: Bridge Replacement and HOV Project: Environmental Justice Discipline Report. Prepared by PRR, Inc. and Parametrix, Inc.; CH2M HILL; HDR Engineering, Inc.; Parsons Brinckerhoff; ICF; Jones & Stokes; Cherry Creek Consulting; and Michael Minor and Associates. Available: http://www.wsdot.wa.gov/NR/rdonlyres/BE2A35CA-8EA3-408D-AC25-F62CA5CB9EE6/0/Att7_EnvJust_DR.pdf. December 2009.

Washington State Department of Transportation and Federal Highway Administration. SR 520, I-5 to Medina: Bridge Replacement and HOV Project Final Environmental Impact Statement and Final Section 4(f) and 6(f) Evaluations. Environmental-Justice Discipline Report Addendum and Errata. Prepared by consultant team: Parametrix, Inc.; CH2M HILL; HDR Engineering, Inc.; Parsons Brinckerhoff; ICF; Jones & Stokes; Confluence Environmental Company, Inc.; Michael Minor and Associates; PRR, Inc.; and Critigen. Available: <http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm#ROD>. May 2011.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Washington State Department of Transportation and Federal Highway Administration. SR 520, I-5 to Medina: Bridge Replacement and HOV Project Supplemental Environmental Impact Statement and Section 4(f) and 6(f) Evaluations. Available: <http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm>. January 2010.

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

APPENDIX C: LIST OF ACRONYMS

Accelerated Construction Technology Transfer (ACTT)

American Association of State Highway and Transportation Officials (AASHTO)

American Community Survey (ACS)

Americans with Disabilities Act of 1990 (ADA)

California Air Resources Board (CARB)

California Environmental Quality Act (CEQA)

Center for Environmental Excellence (CEE)

Citizens Advisory Committee (CAC)

City and County of Denver (CCD)

Collector/Distributor (C/D)

Colorado Department of Public Health and Environment (CDPHE)

Colorado Department of Transportation (CDOT)

Community impact assessment (CIA)

Congestion Management Process (CMP)

Context sensitive solutions (CSS)

Council on Environmental Quality (CEQ)

Department of Housing and Urban Development (HUD)

Diesel particulate matter (DPM)

Environmental Assessment (EA)

Environmental Impact Report (EIR)

Environmental Impact Statement (EIS)

Environmental Justice Interagency Working Group (EJ IWG)

Federal Highway Administration (FHWA)

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Federal Transit Administration (FTA)

Finding of No Significant Impact (FONSI)

Geographic information system (GIS)

Georgia Department of Transportation (GDOT)

High-occupancy vehicle (HOV)

Intermodal Surface Transportation Efficiency Act (ISTEA)

Kentucky Transportation Cabinet (KYTC)

Level of Service (LOS)

Limited English proficiency (LEP)

Long Beach Municipal Code (LBMC)

Memorandum of Understanding on Environmental Justice and Executive Order 12898 (EJ MOU)

Metropolitan planning organization (MPO)

Michigan Department of Transportation (MIDOT)

Mobile-source air toxics (MSATs)

National Environmental Policy Act (NEPA)

National Historic Preservation Act (NHPA)

North Carolina Department of Transportation (NCDOT)

North Central Texas Council of Governments (NCTCOG)

Office of Management and Budget (OMB)

Pleasant Hill Neighborhood Improvement Group (PHNIG)

Port of Long Beach (POLB)

Port of Los Angeles (POLA)

Preferred Alternative Collaboration Team (PACT)

Public Art Selection Committee (PASC)

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

Public involvement plan (PIP)

Regional tolling analysis (RTA)

Regional Transportation District (RTD)

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

State Historic Preservation Office (SHPO)

Supplemental Draft EIS (SDEIS)

Texas Department of Transportation (TxDOT)

Transportation survey zones (TSZs)

U.S. Army Corps of Engineers (Corps)

U.S. Environmental Protection Agency (EPA)

United States Department of Transportation (DOT)

Washington State Department of Transportation (WSDOT)

Environmental Justice and NEPA in the Transportation Arena: Project Highlights

REFERENCES

- ¹ United States Department of Transportation, Federal Highway Administration. “Environmental Justice” Available: http://www.fhwa.dot.gov/environment/environmental_justice/.
- ² United States Department of Transportation, Federal Highway Administration. “Guidance on Environmental Justice in NEPA.” Memorandum from Gloria M. Shepherd, Associate Administrator for Planning, Environment, and Realty to Directors of Field Services, Division Administrators, and Federal Lands Highway Division Engineers. December 16, 2011. Available: http://environment.fhwa.dot.gov/projdev/guidance_ej_nepa.asp
- ³ United States Department of Transportation; Federal Highway Administration; Office of Planning, Environment, and Realty. “Environmental Justice Emerging Trends and Best Practices Guidebook.” Prepared by ICF International. November 2011. Document Number: FHWA-HEP-11-024. Available: http://www.fhwa.dot.gov/environment/environmental_justice/resources/guidebook/
- ⁴ United States Department of Transportation; Federal Highway Administration; Office of Planning, Environment, and Realty. “Environmental Justice Emerging Trends and Best Practices Guidebook.” Prepared by ICF International. November 2011. Document Number: FHWA-HEP-11-024. Available: http://www.fhwa.dot.gov/environment/environmental_justice/resources/guidebook/
- ⁵ Executive Office of the President, Office of Management and Budget, Office of Information and Regulatory Affairs. “Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.” Federal Register Notice. October 30, 1997. Available: http://www.whitehouse.gov/omb/fedreg_1997standards
- ⁶ Updated from: United States Department of Transportation; Federal Highway Administration; Office of Planning, Environment, and Realty. “Environmental Justice Emerging Trends and Best Practices Guidebook.” Prepared by ICF International. November 2011. Document Number: FHWA-HEP-11-024. Available: http://www.fhwa.dot.gov/environment/environmental_justice/resources/guidebook/
- ⁷ United States Department of Transportation. Federal Highway Administration. “Re:NEPA.” Available: <https://www.transportationresearch.gov/dot/fhwa/ReNepa/default.aspx>
- ⁸ United States Department of Transportation, Federal Highway Administration. “Environmental Review Toolkit: State Practices Database.” Available: <http://environment.fhwa.dot.gov/strmlng/es3stateprac.asp>
- ⁹ United States Department of Transportation, Federal Highway Administration. “Environmental Review Toolkit: Active and Inactive EIS List.” Available: http://environment.fhwa.dot.gov/projdev/active_eis.asp
- ¹⁰ United States Department of Transportation, Federal Highway Administration. “Context Sensitive Solutions.org”. Available: <http://contextsensitivesolutions.org/>

¹¹ American Association of State Highway and Transportation Officials. “Center for Environmental Excellence.” Available: <http://contextsensitivesolutions.org/>