

5.0 NEIGHBORHOODS & ENVIRONMENTAL JUSTICE

This chapter discusses the neighborhoods and impacts to neighborhoods in the Norfolk study corridor. In addition, this chapter addresses impacts to minority and low-income communities in accordance with the Presidential Executive Order 12898 on Environmental Justice. The potential neighborhood and environmental justice impacts of the No-Build, TSM and Preferred Alternative are presented.

5.1 Neighborhoods

5.1.1 Affected Environment

Neighborhoods within 1,000 feet on either side of the alignment were identified within the study corridor. As illustrated in Figure 5-1, the Preferred Alternative passes through 11 neighborhoods defined by the City of Norfolk. Each of these neighborhoods is represented by one or more civic leagues. These civic leagues are listed under each neighborhood. The following sections identify the general characteristics of each neighborhood.

Medical Center – is located on the western side of Smith Creek, west of downtown, and includes two distinct areas. The Atlantic City area, south of Brambleton Avenue, is characterized by a combination of waterfront warehouses, light industrial uses and medical research offices. The Atlantic City area is in the preliminary planning stages of redevelopment. Atlantic City also includes Fort Norfolk, a historic US Army fort. The Eastern Virginia Medical Center complex, located north of Brambleton Avenue and west of Colley Avenue, includes Sentara Norfolk General Hospital, Children’s Hospital of the King’s Daughters, the Eastern Virginia Medical School, Jones Institute for Reproductive Medicine, and the Medical Tower offices. The Preferred Alternative would run parallel to these neighborhoods along Brambleton Avenue.

Ghent – is comprised of four distinct neighborhoods; West Ghent, North Ghent, Ghent Square, and Ghent. The greater Ghent area is roughly bounded by Brambleton Avenue on the south, Granby Street on the east, and Norfolk Southern Railroad property on the north and west. Land uses within the Ghent area are predominantly single and multi-family residences, with some scattered commercial uses, churches and public open space. A portion of the area is a National Register Historic District. The Preferred Alternative would exist immediately adjacent to this neighborhood. This area is represented by the Ghent Neighborhood Civic League.

Downtown – is comprised of four core districts – Freemason/Granby Village; the Waterfront; the Regional Center District; and the Cultural Area District. Freemason/Granby Village, a National Historic District, is located in the western area of downtown. This first core district integrates residential land uses with retail and office uses, particularly along College Place and Granby Street. The second core district, the Waterfront, is characterized by Towne Point Park, Waterside, Port Norfolk Marina, National Maritime Center Nauticus, and the Battleship Wisconsin. With the exception of a proposed cruise ship terminal (to accommodate ocean liners), the development of the central Norfolk waterfront district is complete. The third district is the Regional Center district. This district, with Main Street as its spine, houses the major financial and business entities in the metro area, as well as many historic structures. The Cultural Area District, the last of the four core districts, is comprised of the area surrounding the Chrysler Museum, Opera House, and Scope/ Chrysler Hall Complex. The current land use pattern also includes some warehouse and light industrial uses. Overall, the primary land uses of the downtown are mixed use, institutional/ military, and commercial/ office, with mixed use as the predominant land use. The Preferred Alternative would be centrally located within the downtown neighborhoods. The downtown area is represented by the Downtown Norfolk Council.

Church Street Area – is bisected by Church Street, a commercial corridor for the neighborhood. The two primary land uses for the neighborhood are commercial/ office and medium density residential, located on either side of Church Street. Residential land uses include four public housing developments. This neighborhood also boasts the regional mail facility, as well as three shopping centers. The Preferred Alternative would be located immediately adjacent to this neighborhood. This area is currently represented by the Calvert Square Civic League and the Young Terrace and Tidewater Gardens Tenant Management Corporations.

Brambleton Neighborhood – is located one mile east of downtown. The primary land use in this neighborhood is Norfolk State University, occupying approximately 125 acres in the southeast quadrant of the district. The University is surrounded primarily by residences including low-density wood-framed houses to the west and mixed single and multi-family to the north. Industrial land uses are located along the northern, and southern edges of the district. Residential structures vary from single-family units to duplex units to units in large complexes. The neighborhood also contains two schools, a library, a community center and a variety of neighborhood retail services. The Norfolk State University Station of the Preferred Alternative would provide access to and from this neighborhood. In addition, the proposed vehicle maintenance and storage facility would be located between the proposed LRT tracks and I-264, just east of Brambleton Avenue. This area is represented by the Tidewater Gardens, South Brambleton, and Central Brambleton Civic Leagues.

Middle Towne Arch/Stonebridge Crossing – is located directly to the east of Norfolk State University; this district is two miles east of downtown. Single family residential primarily characterizes the district, with some medium density residential located to the north of Princess Anne Road and in the eastern part of the district. Three public housing developments illustrate the residential portion of this district, as well as the established single-family Haynes Tract with high owner occupancy, and the single family detached housing district of Middle Towne Arch (located on the site of the former Liberty Park public housing site). The industrial and transportation uses are concentrated to the east of Ballentine Boulevard. The Ballentine Boulevard Station of the Preferred Alternative would be located to the south of this neighborhood and would provide access to and from this neighborhood. The civic leagues of Middle Towne Arch and Stonebridge represent the area.

Chesterfield Heights – is located southeast of Norfolk State University, this neighborhood is comprised of small single family homes set on small, narrow lots. The neighborhood is bordered by industrial activity to the south and west, and I-264 to the north. Because of this, the neighborhood is currently subjected to

substantial truck traffic. The Chesterfield Heights Civic League represents the area. The Preferred Alternative tracks and vehicle maintenance and storage facility would be located to the north of the Chesterfield Heights neighborhood.

Ingleside - is bound by Virginia Beach Boulevard to the north, the Elizabeth River to the south, the Norfolk Southern Railroad Sewell's Point Branch to the west and Broad Creek to the east. The land use pattern of this neighborhood is primarily single and multi-family residential, with some churches and educational facilities. This area is part of the Ingleside Civic League. The Broad Creek Shores Civic League is located immediately north of the neighborhood. The Preferred Alternatives would bisect this neighborhood, adjacent to I-264.

Poplar Halls– is bordered on the east by Military Highway and on the south by I-264. The land use pattern is primarily uninterrupted areas of low-density single family residential development. Some commercial and multi-family uses are scattered throughout the neighborhood. The Preferred Alternative would be built on the south side of this neighborhood. The Poplar Halls Civic League represents the area.

Glenrock-Military Circle – is located in the southeast quadrant of Norfolk. This district resides between I-64, I-264, and Military Highway. The southern portion of Glenrock-Military Circle is characterized by low-density residential, while the northern portion of the district consists of Military Circle Mall, a major shopping center for the region. Commercial development is also found along Military Highway and along the Poplar Halls Drive frontages. The Preferred Alternative would be located on the south side of I-264, just south of this neighborhood. The two civic leagues for this area are Military Circle and Glenrock.

Riverside – is located on the south side of I-264, between Military Highway on the west and I-64 on the east. Land uses include a mix of single and multi-family residential, churches, and light industrial uses. The Preferred Alternative would run on the north side of the Riverside neighborhood. The River Forest/Wayside Manor/Easton Place Civic League, Pleasant Point, and the Woodbine Civic League are in this area.

Newtown Road Area – is bisected by Kempsville Road on the eastern edge of Norfolk, between Newtown Road, Virginia Beach Boulevard, and I-64. The area south of I-264 is characterized by a combination of single family residential, churches and commercial land uses. A mix of medical facilities and offices are located north of I-264. Medical facilities include the Sentara Leigh Medical Center, the Tidewater Psychiatric Institute, and the Barry Robinson Center. The Preferred Alternative would run adjacent to Curlew Drive and terminate just before Newtown Road. The Hollywood Homes/Maple Halls, Easton Forest, and River Forest/Wayside Manor/Easton Place Civic Leagues are nearby this neighborhood.

5.1.2 Neighborhood Impacts

A. No-Build Alternative

No impacts would occur to neighborhoods if the No-Build Alternative were implemented. Under this alternative, residents would benefit from improved bus service and highway improvements, but would not benefit from the increased mobility and accessibility that the proposed LRT service would provide.

B. TSM Alternative

The TSM Alternative would increase the frequencies of bus operations (express bus, local HRT bus, and NET bus service) throughout the study area, and would provide greater park and ride facilities at the

Military Circle Mall and Harbor Park. Consequently, noise levels may increase in surrounding neighborhoods. However, the increased level service would provide area residents with greater mobility throughout the corridor.

C. Preferred Alternative

Impacts that will occur to neighborhoods from the operations of the LRT system will be limited to visual and aesthetic conditions identified in Chapter 7.0 and increased noise as discussed in Chapter 9.0. Minor increases in traffic volumes will occur around station areas, which have park and ride activity, however these changes are not anticipated to be substantial compared to the No-Build traffic projections.

The presence of LRT stations in neighborhoods will provide an alternative means of transportation, other than the automobile, between downtown Norfolk, residential communities, offices and other places of work, and retail and commercial developments in the project corridor. In downtown Norfolk, the LRT project will reduce the need for off-street parking, allowing for development to occur in areas that are currently in use as parking lots. As traffic in the downtown area is expected to increase by 2026, the Preferred Alternative could alleviate congestion on nearby roadways. Traffic and parking impacts to neighborhoods are discussed in greater detail in Chapter 4.

Specific negative impacts to the project area neighborhoods include:

- Relocation of the Kirn Memorial Public Library in downtown Norfolk
- Displacement of seven residential properties—3 on Curlew Drive and 4 on Bangor Avenue, and two businesses on Kempsville Road – in the Easton neighborhood.
- Displacement of one business on York Street in the downtown area

5.2 Environmental Justice

5.2.1 Applicable Legal Authority

Executive Order No. 12898 of February 11, 1994 entitled “*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*” requires that federal agencies consider and address adverse environmental effects of proposed federal projects on minority and low income communities. The order states:

To the greatest extent practicable by law ... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high adverse human health or environmental effects of its programs, policies and activities on minority populations and low income populations ... (Subsection 1-101).

Each Federal agency shall conduct its programs, policies and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, activities, because of their race, color, or national origin (Subsection 2-2).

Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable and readily accessible to the public (Subsection 5-5c).

The use of existing requirements and procedures, such as compliance with the National Environmental Policy Act (NEPA), to accomplish the goals of the Executive Order is encouraged whenever possible. Therefore, this section has been prepared both to meet the requirements of NEPA and to address the requirements of Executive Order 12898. The following issues are addressed:

- Opportunities for minority communities and low-income communities to participate in the preparation of the EIS.
- Characteristics of the affected communities.
- Effects on minority communities and low-income communities; and
- Mitigation measures which would protect minority communities and low-income communities.

5.2.2 Opportunities for Public Involvement by Minority and Low Income Communities

In accordance with Hampton Roads Transit non-discrimination policy, every effort was made to meet and distribute information to all segments of the affected portion of Norfolk's population. This included meetings with citizens groups, civic leagues, and church groups in identified low income and minority neighborhoods.

All persons, regardless of race, color, national origin or income status have been invited to attend all meetings regarding the Norfolk LRT project. A wide range of media announcements publicized and announced the meetings, including advertisements in local papers: the *Virginian-Pilot*, the *Compass*, the *Spartan Echo* (Norfolk State University paper), the *New Journal and Guide*, and advertising posters were placed around the Tidewater Community College, Norfolk Campus and on HRT buses to announce the meetings to the public. Outreach efforts, targeting low income and minority populations, have included various presentations to all of the civic leagues in the study area.

In addition, the LRT project brochures were circulated to over one thousand affected and interested individuals for public and agency review. Public Involvement and coordination efforts are described fully in Chapter 21.0.

5.2.3 Characteristics of Affected Communities

This section documents the characteristics of affected communities relative to minority status, income, and whether or not communities have access to automobiles. In order to identify minority and low-income communities that could be affected by the Preferred Alternative, a half-mile buffer area on either side of the proposed LRT alignment was used. Socio-economic data was compiled for each 2000 Census Block Group located partially or completely within the half mile buffer area. The Census Block Group was identified as the smallest geographic area for which socio-economic data could be obtained for the Norfolk area. Field visits ensured that the Census Block Group data were representative of homogenous socio-economic conditions and to determine whether or not any small pockets of minority or low-income persons existed in the study area. The compilation of Census Block Group data for this study area is referred to as the "project corridor" population. While the majority of the affected populations are located

within the City of Norfolk, two Census Block groups, 460.09:1 and 460.10:2, are located within the City of Virginia Beach, directly adjacent to the LRT alignment.

A. Minority Communities

Minority Communities were defined in accordance with the Department of Transportation's Order to Address Environmental Justice in Minority Populations and Low-Income Populations as published in the April 15, 1997 Federal Register. This final ruling defines minority as:

- African American (a person having origins of any of the African American racial groups of Africa);
- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or Pacific Islands); or
- American Indian and Alaskan Native (a person having origins in any of the original people in North America and who maintains cultural identification through tribal affiliation or community recognition).

In order to obtain a true count of persons for each of these minority communities and to avoid double counting of Hispanic persons¹, the Census Data File P-7 was used to obtain Non-Hispanic and Hispanic Persons by race. This methodology avoids the double counting of Hispanic populations amongst the Non-Hispanic race categories: White, African American, American Indian, Asian Pacific Islander, and Other and also provides sensitivity to persons who are of Hispanic origin, regardless of their racial categorization. The Non-Hispanic populations by race, and the total Hispanic population, regardless of race are included in Table 5-1.

A Block Group which has a minority composition of 50% or more is considered "predominately minority" and impacts to these communities must be assessed under the Environmental Justice Order to determine whether a disproportionate impact would occur to these residents. These Block Groups are shaded in Table 5-1. Block group 47.00:1 represents the temporary population of Norfolk State University, and therefore, it has no minority or low income status.

Using the U.S. Department of Transportation definition of minority, 53 percent of the population for the City of Norfolk are considered minority. In 2000, the largest minority population in Norfolk was African American persons, which accounted for 56% of the total population. The next most predominate minority community within the City of Norfolk were Hispanic persons at 2.1%, followed by Asian, Hawaiian and Pacific Islanders, who accounted for 1.6% of the total population. American Indian, Eskimo/ Aleutian and other minority races combined accounted for approximately 2.2% of the population.

Within the project corridor, 17,066 persons, or 62%, were minorities. Figure 5-2 identifies the 2000 predominately minority and/or low-income Census Block Groups within the study area. Table 5-1 provides further detail on the composition of the minority population within each Block Group. Non-Hispanic African American residents comprised the greatest number of minority persons with 15,510 residents.

¹ Hispanic persons are not identified as a race in the 2000 Census, but rather are dispersed among each of the 5 recognized races (White, Black, American Indian/Aleutian, Asian/Pacific Islander, or Other) in the P-06 "Persons by Race" Census Data File. In order to obtain the total population of Hispanic persons and the true count of persons by race not of Hispanic origin, the P-7 "Hispanic Origins by Race" Census Data File was used for this analysis.

Table 5-1
Demographic Composition by Census Block Group, 2000
LRT Project Corridor

Tract: Block Group	White	African American	Hispanic¹ (Regardless of Race)	American Indian/ Eskimo/ Aleutian	Asian/Pacific Islander	Other Races	Total	Percent Minority²	Predominately Minority³
39.00:1	331	15	6	0	0	0	352	6.0	No
40.02:1	967	77	22	0	24	0	1,096	11.8	No
40.02:2	485	63	27	7	8	36	626	22.5	No
40.02:3	903	12	45	9	33	5	1,007	10.3	No
42.00:1	14	821	0	0	0	7	842	98.3	Yes
45.00:1	13	1,082	0	0	0	0	1,095	98.8	Yes
46.00:1	10	439	0	7	0	0	456	97.8	Yes
46.00:2	0	1,720	14	0	5	23	1,762	100	Yes
47.00:1	0	0	0	0	0	0	0		
47.00:2	14	1,789	88	0	0	24	1,915	99.3	Yes
48.00:1	48	1,279	11	0	0	30	1,368	96.5	Yes
49.00:1	940	161	21	0	48	31	1,201	21.7	No
49.00:2	502	993	12	0	17	47	1,571	68.0	Yes
64.00:1	575	901	7	0	5	45	1,526	62.3	Yes
64.00:2	138	1,744	57	0	0	45	1,927	92.8	Yes
69.01:2	383	325	17	0	88	59	872	56.1	Yes
69.01:3	230	805	32	0	23	12	1,102	79.1	Yes
69.02:1	455	317	18	0	5	9	795	42.8	No
69.02:2	1,492	357	57	5	24	8	1,952	23.6	No
70.02:1	451	1,358	107	0	19	81	2,016	77.6	Yes
70.02:2	559	799	0	0	51	19	1,428	60.8	Yes
460.09:1	940	17	0	0	47	19	1,023	8.1	No
460.10:2	1,015	436	48	0	39	61	1,599	36.5	No
Project Corridor	10,465	15,510	589	28	436	567	27,531	62.0	Yes
Norfolk	109,980	101,585	8,781	894	7,062	6,101	234,403	53.1	Yes

Source: U.S. Bureau of the Census, File 3 (SF 3) Sample Data, Compiled by URS Corp, May 2003.

Notes:

¹ regardless of race (Hispanic populations subtracted from other races)

² Minority as defined by U.S. Department of Transportation, April 15, 1997: Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations. This DOT Final order defines minority as 1) Non-Hispanic: African American, Asian American, American Indian and Alaskan Native, and 2) Hispanic (regardless of race).

³ Fifty percent or more of the total population is defined as predominantly minority²

B. Low-Income Communities

Two measures for defining affected low-income communities were used: 1) poverty thresholds from the U.S. Bureau of the Census and 2) poverty guidelines from the U.S. Department of Housing & Urban Development defined as 80% or less of the county's median household income. Within the Hampton Roads Area, counties do not exist, therefore, 80% or less of the respective city's median household income is used in this analysis. For purpose of the analysis, a Census Block Group was considered low-income if the Block Group met *either* of these two criteria. Table 5-2 identifies each Block Group, the median household income, and the percentage of persons living below the poverty level during the 2000 Census. As noted by shading in Table 5-2, several Block Groups can be defined as low-income based on the 2000 Census reporting of persons below the poverty level or median household income.

**Table 5-2
Low Income Populations by Census Block Group, 2000**

Tract: Block Group	Number of Households	Median Household Income	Low- Income ¹	Population	Persons Living Below Poverty	Percentage of Persons Living Below Poverty	Greater Percentage than the City Average ²
39.00:1	168	\$50,398	No	352	12	3.4	No
40.02:1	633	\$37,381	No	1,096	163	14.9	No
40.02:2	374	\$28,750	No	626	172	27.5	Yes
40.02:3	634	\$41,106	No	1,007	100	9.9	No
42.00:1	325	\$7,372	Yes	842	385	45.7	Yes
45.00:1	436	\$35,882	No	1,095	227	20.7	Yes
46.00:1	176	\$23,417	Yes	456	97	21.3	Yes
46.00:2	597	\$9,329	Yes	1,762	1,070	60.7	Yes
47.00:1	0	\$0	-	0	-		
47.00:2	193	\$19,615	Yes	1,915	286	14.9	No
48.00:1	434	\$10,746	Yes	1,368	816	59.6	Yes
49.00:1	758	\$44,485	No	1,201	150	12.5	No
49.00:2	195	\$59,063	No	1,571	3	0.2	No
64.00:1	588	\$52,931	No	1,526	43	2.8	No
64.00:2	756	\$25,125	Yes	1,927	535	27.8	Yes
69.01:2	355	\$22,829	Yes	872	181	20.8	Yes
69.01:3	368	\$34,583	No	1,102	198	18.0	Yes
69.02:1	223	\$36,618	No	795	127	16.0	No
69.02:2	813	\$40,991	No	1,952	220	11.3	No
70.02:1	748	\$38,452	No	2,016	107	5.3	No
70.02:2	595	\$48,566	No	1,428	47	3.3	No
460.09:1	405	\$65,900	No	1,023	37	3.6	No
460.10:2	583	\$37,011	No	1,599	210	13.1	No
Project Corridor	10,357	\$33,502	No	27,531	5,186	18.8	Yes
Norfolk	86,210	\$31,815	-	234,403	40,857	17.4	-

Source: U.S. Bureau of the Census, File 3 (SF 3) Sample Data, Compiled by URS Corp, May 2003.

¹ Low-income is defined as median household income equal to or less than \$25,452 (80% of City of Norfolk median household income of \$31,815)

² The City-average percent of persons below the 2000 federal poverty guidelines was reported as 17.4% for the City of Norfolk

³ The 2000 Census provides no income data for Block group 47.00:1.

The 2000 median household income for persons living within the project corridor is above the City of Norfolk's poverty guidelines (80% of median household income). Approximately 5,200 people in the study area are living below poverty, which constitutes 18.8 percent of the population in the project corridor. Figure 5-2 illustrates the location of low-income block groups along the corridor.

C. Access to Automobiles

Table 5-3 identifies the vehicle ownership for the Census Block Groups in the project corridor. Block groups that have been identified as either minority or low-income are shaded in the table. A significant percentage, 17.6%, of the housing units within the project corridor does not have access to cars.

Table 5-3
Occupied Housing Units¹ without Access to Cars

Block Group	Total Occupied Housing Units without Cars	Total Occupied Housing Units	Percent of Occupied Housing Units without Access to Cars
39.00:1	22	168	13.1
40.02:1	67	633	10.6
40.02:2	37	374	9.9
40.02:3	82	634	12.9
42.00:1	242	325	74.5
45.00:1	140	436	32.1
46.00:1	63	176	35.8
46.00:2	270	597	45.2
47.00:1	0	0	-
47.00:2	92	193	47.7
48.00:1	300	434	69.1
49.00:1	39	758	5.2
49.00:2	17	195	8.7
64.00:1	20	588	3.4
64.00:2	174	756	23.0
69.01:2	68	355	19.2
69.01:3	53	368	14.4
69.02:1	19	223	8.5
69.02:2	26	813	3.2
70.02:1	40	748	5.4
70.02:2	11	595	1.9
460.09:1	16	405	4.0
460.10:2	23	583	4.0
Project Corridor	1,821	10,357	17.6
City of Norfolk	14,662	86,210	17.0

Source: U.S. Bureau of the Census, File 3 (SF 3) Sample Data, Compiled by URS Corp, May 2003.

¹ Occupied housing Units, as defined by the Census, are the usual place of residence of the person or persons living there.

5.2.4 Effects on Minority Communities and Low-Income Communities

A. No-Build Alternative

The No-Build Alternative would not result in physical impacts to communities along the LRT corridor. Under the No-Build Alternative, low-income and minority residents would benefit from highway improvements and improved bus service in the study area, however, the social and economic benefits that the Preferred Alternative would provide such as increased mobility and an alternative, affordable means of transportation would not be provided.

B. TSM Alternative

The TSM Alternative would not result in physical impacts to communities along the LRT corridor. The improvements in bus service (express bus, local HRT bus and NET service) associated with the TSM Alternative may increase noise levels, but would provide area residents with increased mobility throughout the corridor and an alternative, affordable means of transportation.

C. Preferred Alternative

Impacts to minority and low-income communities are likely to occur from the daily operations of the LRT, and during construction. These impacts are summarized in Table 5-4. The LRT project would have an environmental justice impact due to the disproportionate wetland impacts in minority/low income communities. HRT will mitigate wetland impacts through the purchase of wetland credits from an approved mitigation bank and/or provision of in-lieu fee to the Elizabeth River Restoration Trust.

Other impacts may occur in low-income and/or minority communities throughout the corridor, however the majority of these impacts can be mitigated or are not disproportionate among race, color, origin, or low-income populations.

**Table 5-4
Impacts to Minority and Low-Income Communities**

Area of Impact	Preferred Alternative
Transportation	Improved transit service that will result in improved mobility of minority and low-income populations.
Land Use & Economic Activity	Potential to stimulate development, redevelopment and additional jobs; will provide a benefit to the community from a land use and economic perspective.
Acquisitions and Displacements	No properties will be displaced in minority or low-income communities.
Neighborhoods	No disproportionate impacts will occur.
Soils	No impact will occur.
Visual & Aesthetics	The vehicle maintenance and storage facility will be located in a minority and low-income community, however views of the facility, visible from Norfolk State University, would be blocked by landscaped screening. As a result, no disproportionate impacts will occur to minority or low-income populations
Air Quality	No air quality violations will result at intersections in the study area.
Noise & Vibration	Without mitigation, 14 housing units in low income/minority neighborhoods and 53 housing units in non-minority/non-low income neighborhoods would be impacted by

Area of Impact	Preferred Alternative
	LRT related noise. HRT has committed to mitigating all noise impacts. The LRT would have no vibration impacts. Therefore, no disproportionate impact would result.
Ecology	No impact will occur.
Water Resources	A disproportionate impact to wetlands will occur in minority and/or low-income Block Groups. Block Group 46.00:1 (Ohio Creek) would have 0.6 acres of wetland impacts; Block Group 64.00:1 (Moseley Creek) would have 0.63 acres of impacts; and 70.02:2 (Broad Creek) would have 0.10 acre of impacted wetlands. All impacts to wetlands will be fully mitigated.
Historical Resources	The Downtown Norfolk Historic District, part of which is located in minority Block group 49:00.2 would have indirect visual impacts from the LRT project. Nevertheless, impacts would not be disproportionate amongst minority and low-income communities. A Memorandum of Agreement has been drafted that includes provisions for continuing consultation with the SHPO and the City of Norfolk regarding the design of above-ground elements of the Norfolk LRT in an effort to avoid, minimize, or mitigate these effects.
Parklands	Visual impacts would occur to the MacArthur Memorial Park. No impacts would occur to parklands in minority and/or low income neighborhoods.
Section 4(f) Involvement	No impacts to 4(f) resources would occur
Contamination	In the study corridor, 3 contaminated sites have been identified in low income and minority Block Groups (49.00:2; and 47.00:2). Non minority or middle income Block groups have 2 leaking underground storage tank sites and 1 registered underground storage tanks that may require removal. Construction of the LRT may require the clean up of these sites. As a result, no disproportionate impacts would occur to minority or low-income populations.
Energy	No impact would occur.
Construction Impacts	Impacts would not be disproportionate amongst minority and low-income communities.

Source: URS Corp. compiled May 2004

The Preferred Alternative would also have a positive impact on the study corridor, especially minority and low-income communities. These positive impacts, or benefits, include:

- Increased mobility and access to jobs through LRT and enhanced bus feeder service;
- Opportunity for an alternative and affordable means of transportation not currently available;
- Public infrastructure investment which often serves to stimulate development and redevelopment efforts;
- Increased employment opportunities during construction of the project and secondary economic benefits associated with long-term station area development; and
- Improved air quality as the Preferred Alternative would reduce regional vehicle miles traveled.

5.2.5 Mitigation Measures

A. No-Build Alternative

The No-Build Alternative would not result in a disproportionate or adverse impact to minority-and low income populations.

B. TSM Alternative

The TSM Alternative would not result in a disproportionate or adverse impact to minority-income populations.

C. Preferred Alternative

As identified in Section 5.2.4, environmental justice impacts would only result from disproportionate wetland impacts to low income/minority communities. All impacts to minority and low-income census block groups, due to the implementation of the LRT project, will be fully mitigated. The respective chapters in this FEIS provide detail on the mitigation strategies. The active involvement of the minority and low-income populations throughout the project corridor will continue during future design phases of the project.