

Chapter 3 Social, Economic, and Environmental Resources and Impacts

This chapter discusses the anticipated consequences to social, economic, and environmental resources within the study area from implementation of the improvements described in the previous chapter. This discussion presents only those issues where the effects of the 1999 EA Preferred Alternative differ substantially from the Preferred 3-Lane Alternative.

3.1 Visual Resources

According to the 1999 EA, the No Build Alternative would not affect any visual resources, or result in visual impacts within the study area.

The 1999 EA Preferred Alternative included the removal of landscaping at several businesses, the addition or modification of lighting, especially at signalized intersections, and a more urban roadway and streetscape with sidewalks and curb and gutter.

The Preferred 3-Lane Alternative will also require the removal of landscaping at several businesses and will provide additional lighting at signalized intersections and in the Village Center. The roadway section between Camino Español and El Paraiso includes a 4-foot landscaped parkway on both sides of the road. An 8-foot parkway is proposed to alternate with on-street parallel parking between Osuna Road and Schulte Road. Raised medians at intersections will also provide landscaping opportunities. The roadway sections north of Schulte Road will provide grass-covered roadway swales to convey roadway runoff to drop inlet locations. In general, the Preferred 3-Lane Alternative will provide additional vegetation along the roadway and will result in a more rural appearance throughout the project area than would have resulted from the 1999 EA Preferred Alternative. During the design charrettes, a rural appearance was identified as a desirable Village feature.

3.2 Traffic Operations

According to the 1999 Environmental Assessment (1999 EA), the No Build Alternative would result in traffic operations continuing to deteriorate with increasing traffic. Intersection movements would fall to unacceptable levels of service (LOS). LOS E or below is considered unacceptable in urban situations. The 4th Street mainline would continue to operate at an acceptable LOS throughout the corridor, although 4th Street would drop to LOS D in some areas.

The 1999 EA Preferred Alternative would have improved traffic operations. Under projected year 2020 travel demand, the roadway would operate at an acceptable LOS throughout the project area. Intersection deficiencies would be improved to LOS C or above by adding dedicated left- and right-turn lanes to those intersections projected to operate at unacceptable levels of service.

The Preferred 3-Lane Alternative will also operate at an acceptable LOS. A copy of the Supplemental Traffic Report completed in January 2001 is included in Appendix A. Because this alternative provides dedicated left- and right-turn lanes at major intersections, intersection operation will be improved over the no build, but not as much as with the 1999 EA Preferred Alternative. Operation at the Osuna Road/4th Street intersection will improve to a LOS D. All other intersections will operate at a LOS C or better. To platoon traffic to produce the needed gaps for traffic to enter the roadway from side streets and driveways, additional traffic signals will be installed at the west leg of the offset Schulte Road/4th Street intersection, the east leg of the offset Pueblo Solano Road/4th Street intersection, and at the Los Ranchos Road/4th Street intersection.

Concerns were raised after the public hearing for this project that the Preferred 3-Lane Alternative will displace traffic volumes from 4th Street onto surrounding north-south roadways

(especially Rio Grande Boulevard and 2nd Street) and impair the function of the other roadways. The Supplemental Traffic Report also contains analyses, performed with the approved metropolitan area transportation demand model EMME2 and demonstrated that only approximately 2,000 to 4,500 vehicles per day (depending upon location within the corridor) are displaced to other roadways. The roadways inheriting 4th Street vehicles were 2nd Street (500 to 1,400 vehicles per day), Edith Boulevard (350 to 1,000 vehicles per day), and Rio Grande Boulevard (250 to 600 vehicles per day). Based on the 1999 Traffic Flow Map for the Albuquerque Metropolitan Planning Area, this corresponds to approximate daily vehicle increases of 2 to 5 percent on 2nd Street, 2 to 18 percent on Edith Boulevard, and 4 to 11 percent on Rio Grande Boulevard; therefore, the traffic displaced from 4th Street was not considered substantial.

3.3 Land Use, Zoning, Acquisitions, and Relocations

According to the 1999 EA, the No Build Alternative would not affect existing land uses, zoning or neighborhoods within the project area. The No Build Alternative would not displace residents or businesses; however, it would not do anything to improve the business climate within the Village of Los Ranchos, particularly along 4th Street.

The 1999 EA Preferred Alternative would require right-of-way acquisitions for roadway, intersection, transit, and stormwater system improvements. No buildings would be acquired and no relocations necessary. The proposed right-of-way acquisitions for roadway, intersection, and bus bays totaled 4.4 acres, and the proposed easements for stormwater system improvements totaled 14.4 acres. Any acquisitions would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended.

The 1999 EA Preferred Alternative proposed installation of curb and gutter, sidewalks, and intersection lighting, all of which conflicted with the Village of Los Ranchos' 1992 *Master Plan*. The Mayor and the Board of Trustees recognized these conflicts and formed a committee to revise the *Master Plan*. The *Village of Los Ranchos 2010 Master Plan* was adopted in December 1999. The *Master Plan* adopts rural design standards (i.e., no curb, gutter, sidewalks) for residential streets other than 4th Street. The *Master Plan* identifies 4th Street as the Village's main commercial corridor and identifies a policy to provide infrastructure to meet commercial goals.

The Preferred 3-Lane Alternative will require 4.3 acres of right-of-way for roadway improvements, intersection, and transit improvements (see Figures 3.2-1 through 3.2-4). No buildings will be acquired and no relocations necessary. Any acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended. The Preferred 3-Lane Alternative also proposes installation of curb and gutter, sidewalks, and intersection lighting in certain areas. However, the adoption of the *Village of Los Ranchos 2010 Master Plan* in December 1999 has eliminated any conflict with the Village of Los Ranchos' 1992 *Master Plan*.

The Preferred 3-Lane Alternative also proposes changes in drainage improvements over those recommended in the 1999 EA. Minor changes include the use of grass-covered roadway swales instead of curb and gutter to transmit runoff throughout most of the project area. However, changes in the provision of stormwater retention facilities have also resulted that are primarily the result of the completion of the *North Valley Drainage Management Plan* for the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) in December 2000 and are not the result of project design modifications. The recommendations of the *North Valley Drainage Management Plan* have been incorporated into this project and include installation of drop inlets and a storm drain trunk line along 4th Street and lateral lines to connect cross streets. These facilities will transport stormwater to a series of fenced, aboveground stormwater retention facilities located along the corridor that were identified and investigated in the 1999 EA. These

See Figure 3.2-1 Proposed Right-of-Way Acquisitions (Solar to Schulte)

See Figure 3.2-2 Proposed Right-of-Way Acquisitions (Schulte to Ranchitos)

See Figure 3.2-3 Proposed Right-of-Way Acquisitions (Ranchitos to Alameda)

See Figure 3.2-4 Proposed Right-of-Way Acquisitions (4th and Osuna Intersection)

retention facilities are capable of containing a 100-year rainfall event. Sixteen areas located every 600 ft (183 m) were included in the 1999 EA. However, all of these facilities may not be required. If all of these facilities are utilized, they will require 14.4 acres of easement along the corridor.

3.4 Socioeconomics

According to the 1999 EA, the No Build Alternative would allow the downward socioeconomic trends along 4th Street to continue. The economic, safety, and accessibility benefits that will result from project implementation would not be realized under the No Build scenario.

The 1999 EA Preferred Alternative would produce improvements in intersections, roadways and safety for vehicles as well as pedestrians. This could promote access to local destinations, and thus stimulate economic development, greater community cohesion and interaction among Village residents. Intersections and sidewalks will be upgraded to be in compliance with the ADA requirements. These improvements would provide enhanced access to those with mobility impairments, and improve accessibility for area pedestrians.

The amount of parking lost and/or displaced would be problematic under the 1999 EA Preferred Alternative. It was estimated that 95 parking spaces would be displaced in this alternative but it appeared that the businesses would have sufficient parking replacement space on the premises. Approximately 18 parking spaces at two businesses (Gemini Fireworks, 6525 4th Street and PPMSA Photo Service, 6519 4th Street) would be lost. Space for replacement parking at these businesses is available off-site. Under the Village's *Zoning Ordinance*, all parking spaces required for commercial parking shall be located on the same site as the building; remote or shared parking is a violation of the *Zoning Code*. However, on January 24, 2001, the Village approved a draft *Zoning Ordinance* for public release. In Section 16, Off-Street Parking, the ordinance requires a business provide adequate parking for its customers. This may be accomplished on the same site as the business or by an alternative-parking plan that allows a combination of on-site, off-site, shared, or on-street parking.

The Preferred 3-Lane Alternative will produce improvements in intersections, roadways and safety for vehicles as well as pedestrians. This could promote access to local destinations, and thus stimulate economic development, greater community cohesion and interaction among Village residents. Intersections and sidewalks will be upgraded to be in compliance with the ADA requirements. These improvements will provide enhanced access to those with mobility impairments, and improve accessibility for area pedestrians.

The Supplemental Traffic Report in Appendix A contains an assessment of parking impacts resulting from the Preferred 3-Lane Alternative. Business owners were contacted at locations where parking impacts occur to determine how many available and required parking spaces exist on their property. Then it was determined how many spaces will be lost as a result of the Preferred 3-Lane Alternative and how best to utilize available space for replacement parking. In all but one circumstance, the reconfiguration of parking spaces maintained or added parking spaces to these businesses. The reconfiguration solutions included parallel parking, realigning parking spaces to angle parking, shared parking, and parking along the sides and backs of businesses. In one instance, parking in front of a building (the El Camino Diner, 6800 4th Street) was lost; however, there was still enough available parking to exceed the business owner's required parking space amount.

3.5 Water Quality and Drainage

According to the 1999 EA, the No Build Alternative would not impact surface water or groundwater. Runoff would remain along the roadway, or on adjacent properties until it infiltrates the soil, or evaporates.

The Preferred 3-Lane Alternative also proposes changes in drainage improvements over those

recommended in the 1999 EA. Minor changes include the use of grass-covered roadway swales instead of curb and gutter to transmit runoff throughout most of the project area. However, changes in the provision of stormwater retention facilities have also resulted that are primarily the result of the completion of the *North Valley Drainage Management Plan* for the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) in December 2000 and are not the result of project design modifications. The recommendations of the *North Valley Drainage Management Plan* have been incorporated into this project and include installation of drop inlets and a storm drain trunk line along 4th Street and lateral lines to connect cross streets. These facilities will transport stormwater to a series of fenced, aboveground stormwater retention facilities located along the corridor that were identified and investigated in the 1999 EA. These retention facilities are capable of containing a 100-year rainfall event. Sixteen areas located every 600 ft (183 m) were included in the 1999 EA. However, all of these facilities may not be required. If all of these facilities are utilized, they will require 14.4 acres of easement along the corridor.

The Village of Los Ranchos will work with AMAFCA to coordinate their efforts to utilize stormwater water retention facilities previously proposed in the 1999 EA. Where possible, areas previously identified in the 1999 EA will be utilized. No environmental impacts were identified with these areas in the 1999 EA. If alternatives areas are needed, the Village of Los Ranchos commits to coordinate with AMAFCA to obtain the appropriate environmental clearances for those areas.

3.6 Hazardous Materials

According to the 1999 EA, the No Build Alternative would not impact any hazardous materials. No additional rights-of-way would be acquired, and existing soils would remain undisturbed. Any unknown hazardous materials that may have migrated into the existing rights-of-way would remain undisturbed in the No Build scenario.

To identify problems or potential problems associated with hazardous materials, Wilson & Company completed an Initial Site Assessment (ISA) Report for the study area. As a result of the ISA, problems or potential problems related to hazardous materials and past and current land uses were noted on nine properties within the project area that may potentially impact project construction. Kleinfelder completed a Preliminary Site Investigation (PSI) at these nine locations in January 2001. Soil borings collected samples at these locations within the existing roadway right-of-way. The PSI focused on assessing the presence of contaminants in the upper soil zone to a maximum depth of 15 feet (4.6 m) below ground surface. No groundwater was encountered in any of the borings.

In general, the PSI did not reveal any areas of great concern. Although measurable petroleum hydrocarbon concentrations were recorded at one site, gasoline concentrations at this location did not exceed the New Mexico Environment Department (NMED), Underground Storage Tank Bureau (USTB) action levels. Arsenic levels that exceeded the Environmental Protection Agency's Site Screening Level (SSL) parameters were detected at an additional site. SSL are risk based screening standards, but they do not trigger the need for response actions or define "unacceptable" levels of contaminants. The elevated levels of arsenic were attributed to natural erosion of volcanic deposits in soil.

The 3-Lane Preferred Alternative will require right-of-way acquisition at six properties assessed in the ISA. Right-of-way acquisitions will vary between 4 and 16 feet at these six sites. Testing within the existing roadway right-of-way occurred at five of these sites during the PSI. Testing in front of the sixth site was not recommended in the ISA because right-of-way acquisition was not proposed at that time. Although this site is an existing gas station with four registered

underground storage tanks, the NMED, USTB has no records of a known or suspected release occurring at this site.

Although no sites exist within the project area that are currently known to be contaminated with hazardous materials in levels that will induce regulatory action, the area has a long history of hazardous material usage. As a result, a cautious project approach will be utilized. The Village of Los Ranchos will require the contractor to develop a safety and health program to inform employees and subcontractors of the possibility of encountering hazardous materials. The plan will also state that if previously undiscovered contamination is encountered during project construction, work will be stopped immediately and the necessary steps will be followed for the proper treatment and disposal of hazardous materials, as identified within current NMSHTD policy and guidelines. If soil on property scheduled for acquisition is contaminated with petroleum hydrocarbons in a quantity or concentration which may adversely affect human health, public welfare, or the environment, the NMED Ground Water Bureau Protection and Remediation Bureau will be notified within 24-hours as required by 20 NMAC 2.6.1203.

3.7 Existing and Planned Utilities

According to the 1999 EA, the No Build Alternative would not impact any existing or planned utilities. Other than possible short-term interruptions in service, no impacts to underground utilities; such as gas, phone, water, or sewer, were expected to occur from the construction of the 1999 EA Preferred Alternative.

The Preferred 3-Lane Alternative will offset the roadway 16 feet to the west between El Paraiso and Nara Visa and will require that existing utility poles, lighting fixtures, and mailboxes along the west side of 4th Street be relocated. Other utilities also may require slight adjustments. Utility coordination was initiated as part of the planning process and will continue throughout the course of the project. Schedules for any utility adjustments will be closely coordinated to minimize interruptions and inconvenience to customers.

3.8 Ambient Noise

According to the 1999 EA, the No Build Alternative would allow current and future noise levels to continue to exceed the Noise Abatement Criteria (NAC) established by the FHWA. STAMINA modeling for existing traffic conditions predicted noise impacts at a large number of residences and commercial facilities within the study area. It was recommended that noise mitigation methods be investigated, because current noise levels exceed the NAC, and future traffic growth would result in even higher levels.

Noise levels in the 1999 EA Preferred Alternative are projected to approach or exceed the NAC throughout most of the project area, but no substantial (10 dBA) increases in traffic noise levels are predicted by the analysis. The results of the noise analyses are presented in Table 1 in Appendix C.

Only one area was found that met these criteria: a relatively dense residential area on the west side of 4th Street near Wayne Road. STAMINA was then used to determine if a noise wall constructed in this area could produce a 5 dBA noise reduction at these properties. One home experienced a 5 dBA reduction in noise levels (from 72 dBA to 67 dBA) by extending an existing wall an additional 50 ft (15.2 m) to the south. Raising the existing 6 ft (1.8 m) wall to 8 ft (2.4 m) would reduce noise levels by 1 to 2 dBA for homes within the Compound de Don Diego subdivision located north of this house. These subdivision homes would not receive a 5 dBA reduction in noise levels but levels would be lowered from 66 dBA at two homes nearest 4th Street to 64 dBA and 65 dBA; therefore levels would not approach or exceed the NAC. Total wall length would be 280 ft (85.3 m) and 8 ft (2.4 m) in height.

The results of a cost effectiveness analysis suggested that modifying the wall would be cost effective. However, the decision must also consider the desires of the affected community. The decision to modify the wall would be made after affected individuals have had an opportunity to respond to the proposed wall following the public hearing process.

Although noise walls will not be constructed within the majority of the project area, other noise reduction measures will be integrated into project design. Noise reduction benefits have been documented when a courser aggregate mix is used for the roadway surface. To mitigate noise, as much as is feasible, these types of road surfaces will be used on this project.

A noise analysis was conducted for the Preferred 3-Lane Alternative using STAMINA and the results are presented in Table 1 in Appendix C. The Preferred 3-Lane Alternative reconstructs the roadway in a slightly serpentine manner and compresses traffic from four to three lanes. As a result, the roadway is actually moved away from most of the receptors along the roadway. In addition, traffic volumes are very slightly reduced with the Preferred 3-Lane Alternative. These factors result in a slight reduction of noise levels at many receptors. At several of the receptors, the noise levels increased by 1 or 2 decibels as a result of the roadway moving closer to the receptors. However, all changes in noise levels were small and the noise abatement plan discussed earlier is still applicable and will be followed.

3.9 Air Quality

All alternatives were assessed for effects on levels of carbon monoxide (CO) in the project area by performing a project-level air quality analysis. The analysis was prepared in accordance with EPA's procedures outlined in the document, *Guideline for Modeling Carbon Monoxide from Roadway Intersections, November, 1992*. The analysis included the use of two models: MOBILE5A and CAL3QHC. MOBILE5A (MOBILE), a mobile source emissions model developed by EPA, was used to generate vehicle emission factors specific to Bernalillo County utilizing local information on fuel characteristics, temperatures, and project area speeds (see Appendix C). MOBILE5A input parameters provided by the Albuquerque Air Pollution Control Division (APCD) for Air Quality Impact Assessment Modeling within Bernalillo County (8/98) were used for the analysis. MOBILE5A input and output parameters are included in Appendix C.

CAL3QHC estimates pollutant concentrations for a one-hour period based on a supplied background concentration. A background value of 2.8 parts per million was used. To obtain the eight-hour concentrations necessary for comparison with the NAAQS, a persistence factor of 0.59 was applied to one-hour concentrations. This persistence factor was recommended by APCD based upon a historical comparison of the ratio of measured eight-hour to one-hour concentrations at the same monitor.

The results of the air quality analyses are presented in Table 2 in Appendix C. The analysis for the No Build Alternative and the 1999 EA Preferred Alternative are compared to the Preferred 3-Lane Alternative in Table 2. It is important to note that the implementation year analysis for the No Build and the 1999 EA Preferred Alternative were performed for the year 2000, while the implementation year used for the Preferred 3-Lane Alternative was 2002. Because of the different years of analysis, the results are not directly comparable; however, the intent of the implementation year analysis is to determine if violations of federal standards will occur in the year the project is anticipated to be constructed. No violations of standards resulted in any of the implementation year analyses; therefore, the results need not be directly comparable.

The results of the design year analyses (2020) for all alternatives are included in Table 2 in Appendix C. The values presented in Table 2 are higher than those found in the 1999 EA. This is because an error was found in the original analysis. The eight-hour background figure used in the 1999 EA was mistakenly reduced by a persistence factor. This resulted in the use of a 1.7 ppm background value instead of the 2.8 ppm that should have been utilized. All values have been

revised to reflect the higher background value. The relationships between build alternatives and no build alternatives were unaffected by these changes.

With the No Build Alternative, carbon monoxide levels are expected to remain relatively constant or decline slightly in the study area through 2020. This may be attributed to newer cars replacing older cars in the general vehicle fleet with correspondingly less emissions of CO. Traffic increases in the area are not large enough to overwhelm these fleet effects. Therefore, no air quality impacts would occur with the No Build alternative.

According to the air quality modeling analysis, although traffic operations are improved in several areas with the 1999 EA Preferred Alternative, these improvements translated to only slight changes in air quality. The results are presented in Table 2 in Appendix C.

The Preferred 3-Lane Alternative reconstructs the roadway in a slightly serpentine manner and compresses traffic from four to three lanes. As a result, the roadway is actually moved away from most of the receivers along the roadway. In addition, traffic volumes are very slightly reduced with the Preferred 3-Lane Alternative. The result of these modifications on air quality are presented in Table 2 in Appendix C. Table 2 shows that CO levels at most of the receivers along the roadway are slightly reduced over the No Build and 1999 EA Preferred Alternatives.

Local consultative efforts to demonstrate that the new 3-lane alternative is not a significant change in design and scope from the conforming program have begun. That consultative process continues with the submittal of this reassessment and supporting documentation to FHWA who will submit it to the EPA for review and approval. As an option, FHWA and the EPA may choose to wait until the MTP 2025 has been approved. Appendix B contains the report, with all supporting analyses and documentation submitted to the Transportation Conformity Technical Committee in February 2001 and the committee's response.

At the request of the Village of Los Ranchos, the Middle Rio Grande Council of Governments (MRGCOG) performed a regional mobile emissions analysis for the year 2020 based on a reduction in capacity on 4th Street. According to the analysis, the 3-lane alternative would add approximately 0.02 tons per day of carbon monoxide to Bernalillo County emissions in the year 2020. After consideration of all planned and programmed projects, Bernalillo County is expected to have 1.89 tons of CO per day remaining (headroom) under the recently approved CO emissions budget for the year 2020. Because the modifications to the 4th Street project utilize only 0.02 tons of CO per day headroom (approximately one percent of the total headroom), this project does not threaten the exceedance of Bernalillo County's approved CO emissions budget. Therefore, the changes to the 4th Street project scope produce no substantial changes to regional air quality.

The Village of Los Ranchos de Albuquerque, based upon the analyses, has determined that no meaningful increases in carbon monoxide levels result at either the project level or the regional emissions scale from the 4th Street project change in scope. The Transportation Conformity Technical Committee concurred with the above findings, and determined that selecting the 3-lane alternative does not constitute a significant change in the project scope, design or timing, nor would there be a meaningful increase in carbon monoxide.

Provisions of transit, pedestrian, and bicycle facilities within a roadway corridor generally result in improved air quality by encouraging modes of travel other than vehicular. The Village of Los Ranchos has made efforts to provide these facilities, where possible, within the confines of the 4th Street corridor. Additional bus pull-outs are being provided to support transit along the corridor. Pedestrian paths and sidewalks are being provided throughout the 4th Street corridor where presently there are none. The close proximity of businesses makes acquiring the additional right-of-way needed for bicycle lanes prohibitive. However, a widened (4.5 ft) shoulder can accommodate intra-Village bicycle trips in the northern section and a shared pedestrian/bicycle

path in the southern portion provides connectivity to existing trails. This portion of 4th Street is not designated as an existing or planned bicycle route, lane, or trail on the Long Range Bikeway System map for the Albuquerque Urban Area (map dated April 3, 2001).

3.10 Pedestrian, Equestrian, Bicycle, and Transit Facilities

According to the 1999 EA, the No Build Alternative would not have any impacts on the existing pedestrian and bicycle facilities. The undesirable current conditions that exist for pedestrians and bicyclists would continue.

With the exception of improving connections to the bicycle network in the southern project area, improved bicycle facilities were not proposed as a part of the 1999 EA Preferred Alternative; however, existing and proposed bicycle facilities would not have been affected by this alternative. Although no provisions for additional facilities would have been provided, existing bicycle and equestrian crossings would have been delineated with crosswalks and signage.

Sidewalk improvements between Solar Road and Mullen Road will construct a facility of extra width (12 feet [3.7 m]) on the west side of the roadway to accommodate a shared pedestrian and bicycle facility. Although Guadalupe Trail is a bicycle route throughout this area, Guadalupe Trail is discontinuous between Solar Road and Mullen Road. As a result, 4th Street is used to connect the two discontinuous pieces of Guadalupe Trail. However, with proposed 4th Street roadway improvements, there will be insufficient width for bicycles and motor vehicles to safely share the roadway. To prevent excessive right of way acquisition and to eliminate the need for bicyclists to enter the roadway for a short distance and then cross the roadway to connect to Guadalupe Trail, a shared pedestrian and bicycle facility will be constructed. The shared facility will be striped and signed to minimize conflicts between bicyclists and pedestrians. Pedestrian improvements are also planned for the east side of 4th Street between Alamosa Road and Solar Road.

This shared pedestrian and bicycle facility will provide a connection for bicycles between the discontinuous portions of Guadalupe Trail by using the extra width shared facility and residential streets (Solar Road, Harmony Lane, Floretta Road, Kensington Drive, and Grecian Avenue). Although the connection is provided, it requires approximately 0.8 mi (1.3 km) of out-of-direction travel by bicyclists, which is not recommended by the City of Albuquerque. During final design, the City of Albuquerque has agreed to work with project designers to further improve this connection and minimize out-of-direction travel.

The 1999 EA Preferred Alternative would provide curb and gutter and sidewalk to improve pedestrian facilities throughout the entire corridor. In addition, the sidewalks would have been compliant with ADA and resultant regulations; therefore, handicapped access along the corridor would have been improved. Curb and gutter would effectively separate pedestrians and vehicles and would, therefore, have increased safety for pedestrians.

Sidewalks north of Schulte in the 1999 EA Preferred Alternative were replaced with hard-surfaced paths; however, these paths will be compliant with ADA and resultant regulations.

In addition, additional shoulder width was provided in the section from Schulte Road to Ortega Road. Although designated bicycle lanes will not be provided, the 4.5-foot paved roadway shoulders north of Schulte Road will allow bicyclists to make trips between destinations within the Village. In the 3-Lane Preferred Alternative, the roadway shoulders have been widened to meet FHWA requirements for bicyclist use. The economic importance of the roadway to the Village imposed constraints upon the type of bicycle facilities provided. Provision of dedicated bicycle lanes would have required the acquisition of additional properties. As a result, loss of Village gross receipt revenues and the impact to businesses through acquisitions and relocations of

businesses could be quite substantial. This portion of 4th Street is not designated as an existing or planned bicycle route, lane, or trail on the Long Range Bikeway System map for the Albuquerque Urban Area (map dated April 3, 2001).

As a result of public involvement efforts since the Public Hearing, local equestrians and the Albuquerque Recreational Trail Committee (GARTC) specifically identified equestrian crossings at Solar Road, Pueblo Solano, Roehl Road, Chamisal Lateral, Chamisal Wasteway, and Ortega Road. They have requested that no obstructions or safety hazards be designed or implemented in those equestrian use areas. The Village will comply with this request.

Currently, Route 10, a regular bus service route, provides transit service on 4th Street. The transit service travels from downtown Albuquerque to just past Alameda Boulevard where it turns around. It is the only transit in the area providing service north of Comanche Road. Route 10 currently provides 30 bus stops within the 4th Street project limits. According to John Parker, Service Developer for the SunTran Bus System, it is one of the busiest bus routes in the City of Albuquerque. It is also one of two routes that is operational on Sunday. SunTran data indicated that an average of 4.5% of all ridership throughout the city utilizes Route 10 servicing 4th Street. Also, ten percent of the total bike rack utilization is on Route 10. Transit improvements will consist of providing a total of 28 bus pull-outs in the locations as described in the 1999 EA. Since transit provisions are unchanged from the 1999 EA Preferred Alternative, no additional consultations occurred.

3.11 Summary

The following table summarizes the environmental effects as determined by the social, economic, and environmental analyses conducted for this project.

**Table 3.11-1
Summary of Environmental Effects**

Environmental Issue	No Build Alternative	1999 EA Preferred Alternative	Preferred 3-Lane Alternative
Visual Resources	No effect	Removal of landscaping Lighting modifications at major intersections and Village Center More urban roadway and streetscape	Removal of landscaping Lighting modifications at major intersections and Village Center Landscaped parkways provided for more rural and unique roadway and streetscape
Traffic Operations	LOS D or better	LOS C or better	LOS D or better
Land Use, Zoning, Acquisitions, and Relocations	No right-of-way required	4.4 acres of right-of-way 14.4 acres of easements No relocations	4.3 acres of right-of-way 14.4 acres of easements No relocations
Socioeconomics	Downward socioeconomic trends to continue	Access and roadway improvements 18 parking spaces reduced at 2 businesses	Access and roadway improvements Parking reduced at 1 business Additional on-street parking provided
Water Quality & Drainage	No improvements	Use of stormwater retention facilities requires 14.4 acres of easements	Use of stormwater retention facilities requires 14.4 acres of easements or less
Hazardous Materials	No effect to hazardous material sites	Subsurface testing with existing right-of-way at nine locations No areas of great concern identified	Right-of-way acquisition at six locations assessed in ISA Contractor must develop safety and health program
Existing & Planned Utilities	No effect	Short-term interruptions in service	Short-term interruptions in service 16-foot offset to the west requires additional utility relocation

Table 3.11-1 (continued)
Summary of Environmental Effects

Environmental Issue	No Build Alternative	1999 EA Preferred Alternative	Preferred 3-Lane Alternative
Ambient Noise	Current and future noise exceedances to continue	Future noise exceedances expected Noise abatement recommended at one location Use of noise-reducing pavement	Future noise exceedances expected Noise abatement recommended at one location Use of noise-reducing pavement
Air Quality	Air quality to remain constant or decline slightly	Slight improvement to air quality	Improvement to air quality as a result of lower traffic volumes and serpentineing of roadway No meaningful increases in carbon monoxide levels at project or regional level
Pedestrian, Equestrian, and Bicycle Facilities	Undesirable conditions to continue	Pedestrian improvements planned at intersections and between Solar and Mullen Roads and between Alamosa and Solar Roads ADA-compliant sidewalks throughout the entire corridor.	No changes from 1999 south of Schulte Road North of Schulte Road, ADA-compliant hard-surfaced paths Additional paved shoulder width for bicycle use for intra-Village trips