CITY OF DURANGO

GRANDVIEW AREA PLAN

An Element of the Durango Comprehensive Plan



Adopted by The Durango City Council January 2004

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Executive Summary

In the coming months, the people of Durango and surrounding La Plata County will make annexation decisions that will impact the long-range character of the Grandview area, the City and the County. The decision to annex or not will impact the provision of water and possibly sewer services, transportation and connectivity, density, land use, open space and parks, and a host of other issues that will define how the Grandview area develops in coming years. These are not simple decisions. They must be considered in terms of costs and benefits, impacts, and the desires of the community members most affected by the decision. The City of Durango commissioned this planning effort, the Grandview Area Plan, and several related reports to address these issues.

Several things motivated the City of Durango to initiate this planning effort. One was a request for annexation by a landowner interested in developing a regional retail center. Another is the uncertain future of water availability which has caused some Grandview area residents to explore the idea of annexation. Finally, the pending completion of an analysis feasibility study by the Colorado Department of Transportation (CDOT) for highway improvements to US Highway 160 could dramatically change the traffic and land use patterns of this area.

Once the planning effort began, the Tierra Group LLC purchased two of the largest private properties in the planning area. Together with Mercy Hospital, the Tierra Group LLC is pursuing significant development proposals which include the relocation of the Hospital and hundreds of residential units and commercial development supportive of the Hospital and the new neighborhoods. This recent vision for a sizeable portion of the Grandview planning area also became a substantial influence in development of the plan and plan analysis.

The Grandview Area Plan is a vision for the next 20 years. The Plan attempts to organize the road network and traffic circulation more efficiently and guide future development in a more thoughtful manner than has occurred historically. The Plan also incorporates CDOT proposals for capacity improvements and traffic safety measures for US Highway 160 between US Highway 550 at Farmington Hill and State Highway 172. The proposed Plan includes provisions for a regional retail center and hospital campus, three school sites, roughly 5,467 units of single family and multi family housing, recreational amenities such as a regional park, local parks, pedestrian and bike pathways throughout the study area and extending outside the study area, and street circulation improvements.

Overall, the Plan proposes a greater level of compact development, better organization of land uses and more diverse housing styles than currently exists in the Grandview area. The Plan recommendations affecting future development are intended to promote more efficient use of the land, the creation of open space buffer zones to prevent development from sprawling into the County and a reduction in auto dependency by locating residences near jobs, schools and commerce. The land use recommendations also support a grid pattern of connectivity to encourage local traffic on local streets thereby promoting safety and preserving highway capacity for through trips.

The Grandview Area Plan document is divided into six chapters. The first three chapters are background material: introduction, existing conditions, and a description of the public process that was conducted to gain a community consensus on the issues and concerns of the area prior to drafting the Plan. Two public process sessions were conducted. One week was spent with various area residents at the beginning of this plan effort and another two days were spent with residents after the Tierra Group LLC and the Hospital made their intentions public.

Chapters 4 and 5 of the Plan are the heart of future land use and transportation planning in the Grandview area and contain future land use maps, proposed street hierarchy maps and policy recommendations for the planning area. Because of the large size of the planning area, approximately six square miles and roughly 3,562 acres (excluding right of way), the area was divided into five sub areas. Chapter 4 introduces each sub area, generally describes the existing conditions and details the proposed land uses for that area.

Within Chapter 4, several land planning techniques are discussed to accomplish the goals of the Plan. For example, the Plan recommends the establishment of a Transfer Development Rights (TDRs) program between the City and County. Potential development (typically numbers of dwelling units) is severed from a "sending site" and transferred to a "receiving site." Typically the sending site is an area where limited development is desired and the receiving site is an identified area that has the capacity to support greater levels of development. In the case of the Grandview Area Plan a buffer zone of undeveloped open spaces surrounding the east and south sides of the planning area as well as an area designated as a green buffer along US Highway 160 are recommended as sending sites. The receiving sites are identified for three sub areas in the planning area where infrastructure is proposed to accommodate a greater level of development than currently exists.

Another land use planning technique recommended in Chapter 4 is intended to support the tenets of traditional neighborhood development (TND) in order to support live/work development scenarios, reduce the dependency on the automobile for daily necessities and moderate consumptive land development patterns. It is one of the goals of the community to prevent further sprawl development into the surrounding county.

This Plan and the use of TND reinforce this goal by concentrating and planning for future development and attendant infrastructure within the Grandview planning area. In support of this philosophy, mixed-use and multiple-use land use designations are recommended for several sub areas to foster greater live/work opportunities and to provide existing residents with commercial resources near their neighborhoods. Three new school sites are proposed to support the new neighborhoods, and greater pedestrian amenities and bike path improvement are recommended for the entire planning area.

Finally, Chapter 4 addresses the proposal to relocate Mercy Hospital to the planning area as well as the interest to develop a regional commercial hub near the intersection of High Llama Lane and US Highway 160. The Chapter closes with a series of policy recommendations to implement the goals of the Plan.

Chapter 5, Street Circulation Plan, focuses on the proposed improvements to US Highway 160 and the effects of these improvements on the rest of the planning area. Because US Highway 160 forms the "spine" of this planning area and pending improvements to the highway will have significant impacts upon future development of the area, Chapter 5 and Appendix C suggest methods by which the City and the County can build a partnership with CDOT to facilitate a coordinated approach to highway improvements. Of importance is the recommendation to use existing County Roads 232 and 233 that parallel portions of US Highway 160 as future frontage roads when the highway is improved and access onto the highway is restricted.

In addition, Chapter 5 details recommended transportation improvements outside of the highway corridor. Because significant levels of new development will occur via an annexation and plan review process, the Grandview Area Plan



capitalizes on the City's ability to require a more efficient street circulation pattern that supports local traffic, pedestrian and bike amenities as well as street upgrades to the existing street network. Chapter 5 draws to a close with a series of policies recommended to facilitate the Plan's implementation.

The Coordinated Implementation Plan, Chapter 6, concludes the Grandview Area Plan. Chapter 6 provides policies that lay out a strategy for implementing the Plan and annexations, as well as highlighting several land planning strategies such as the development of a Transfer Development Rights program and special improvement districts.

The use of Intergovernmental Agreements is also recommended to facilitate working relationships with La Plata County to create a coordinated development review process that supports the goals of the Plan for those cases where a property owner is seeking development review prior to annexation. Agreements are also recommended for the provision of sewer services by the South Durango Sanitation District as well as the Loma Linda Sanitation District. Finally, a partnering strategy for CDOT is also recommended to ensure that the City of Durango and La Plata County are working in tandem with CDOT regarding highway improvements for the Planning Area.

Appendix E documents the Fiscal Analysis that was conducted to understand the costs and potential revenues associated with a planning project of this magnitude.

In summary, this is a general plan and site specific land planning should occur on a site specific basis, development by development. However, as the City of Durango contemplates annexation of all or some of this area, the adopted Grandview Area Plan can help shape growth in a manner that is consistent with the goals in this Plan which have been derived from the extensive Design Dialogue

sessions that were conducted with the community as well as goals that were established during the City's Comprehensive Plan process. If the policies recommended in this Grandview Area Plan are followed and consistently applied, this Plan will provide a tool against by which public actions can be measured and private proposals treated equitably.

1.0 Introduction

The City of Durango is in the process of evaluating the possible annexation of some or all of the Grandview area of La Plata County. The Grandview area consists of the area east of Farmington Hill straddling US Highway 160 to both the north and the south to the County Road 234 and State Highway 172 intersection. The former Artesian Valley Ranch and surrounding properties in the valley are included within the study area as well as properties north of County Road 233 extending east to County Road 234. South of US 160 the study area extends to County Road 220 and County Road 221. (See Figure 1.1 Map of Study Area)

I.I Purpose of This Plan

The City is conducting this planning analysis as a logical extension of the City's comprehensive planning process, and to respond to recent actions in the area, including: inquiries by property owners regarding annexation and water provision; a proposal for a regional retail center; the potential relocation of Mercy Hospital; and CDOT's ongoing Environmental Impact Statement of U.S. Highway 160, Durango's eastern gateway.

1.2 Process for Development of Plan

Development of the Grandview Area Plan is a three-phase process. Phase I was completed in spring of 2001 when the Durango City Council redefined the area as an Urbanizing Area, an area that is anticipated to experience urban development as adequate urban services are provided.

Phase 2 is the creation of the land use plan of the study area for adoption by City Council. The Land Use Plan element of the Grandview Area Plan examines existing land use patterns, and future land use opportunities. A Design Dialogue process was used to maximize public input in the development of the Plan. The Grandview Area Plan focuses on land use and transportation. A fiscal impact and growth financing plan is found in Appendix C. A municipal utility plan is being developed by the City's Public Works Department and will be a separate report.

Phase 3 of the process will include use of the adopted Grandview Area Plan in negotiations with landowners seeking annexation. The City may also use the Grandview Area Plan to comment on the CDOT Environmental Impact Statement for Highway 160 expansion and to inform discussions with CDOT regarding interim improvements.



Figure 1.1 The Grandview Area, circa 2004

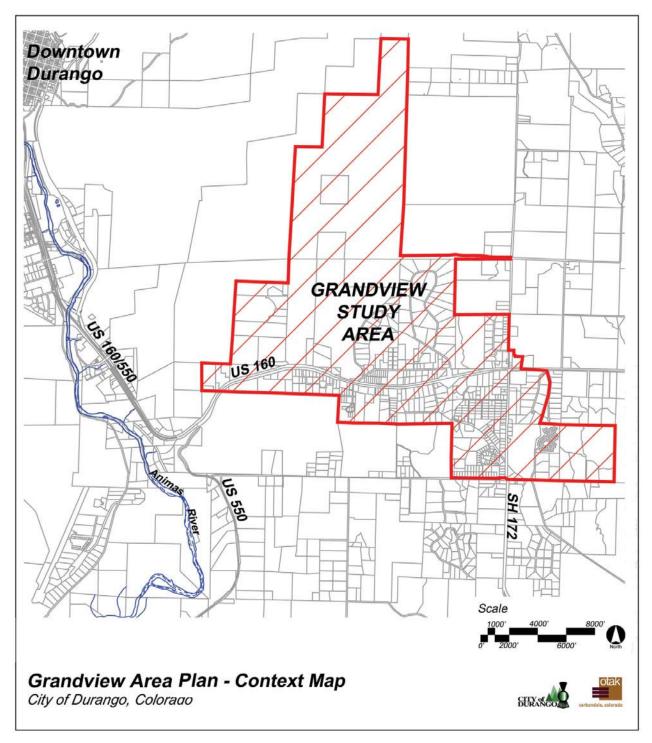


Figure 1.2 Map of the Study Area

"Introduction

1.3 City of Durango Comprehensive Plan Goals

The proposed Land Use Plan and the planning process for the Grandview Area Plan is consistent with the goals of the City of Durango Comprehensive Plan. Analysis of potential annexations must consider whether City policy can guide future development in a manner that is compatible and consistent with the goals of the City.

- Goal I: To maintain or improve the quality of Durango's natural resources.
- Goal 2: To maintain Durango's views of natural hillsides and mountains.
- Goal 3: To protect sensitive floodplains, hillsides, wetlands and wildlife habitat from inappropriate development.
- Goal 4: To maintain and enhance the diverse, small town character of Durango.
- Goal 5: To retain or enhance the aesthetic value of Durango's natural and built environments.
- Goal 6: To encourage public awareness and participation in community activities.
- Goal 7: To establish land use patterns that are coordinated with and make the most efficient use of community facilities while allowing for equitable funding strategies.
- **Goal 8:** To encourage the development of a variety of housing types for community residents.
- **Goal 9:** To promote the provision of adequate affordable housing opportunities for community residents.

- Goal 10: To promote a healthy, sustainable, balanced economy that capitalizes on the community's natural, recreational, cultural and human resources.
- Goal II: To preserve and enhance historic and cultural resources that symbolize the community's identity and uniqueness.
- Goal 12: To maintain a transportation system that safely and efficiently meets the needs of residents, businesses and visitors.
- Goal 13: To provide employees, residents and visitors with realistic opportunities to use alternative modes of transportation.
- Goal 14: To balance the demand for expanding urban development with the efficient provision of facilities and services.
- Goal 15: To maintain a system of open space throughout the planning area that serves as a visual and recreational amenity, and provides sufficient habitat to sustain healthy wildlife populations.
- Goal 16: To develop and maintain an interconnected system of parks, trails and other recreational facilities.
- Goal 17: To develop and maintain a trail system throughout the planning area that serves as a recreational amenity.
- **Goal 18:** To foster cost-effective public services and facilities that enhance the lives of community residents.

2.0 Overview of Grandview Study Area

2.1 Existing Conditions

The Grandview study area comprises approximately six square miles of land extending east from the existing City of Durango boundary along the north and south sides of US Highway 160 (US 160) between US Highway 550 (US 550) and State Highway 172 (SH172).

The study area is on the doorstep of the Florida Mesa, a productive farming/ranching area in La Plata County. The area is comprised of gentle rolling hills on stair-stepped mesa terrain. High desert vegetation with pinion/juniper forest is interspersed throughout with agricultural open areas. The Grandview Ridge bounds the study area to the west. The eastern edge is less defined, with low density residential subdivisions interspersed in a rural/agricultural landscape.

Although agricultural land uses have historically defined the Florida Mesa, the Grandview area has evolved into an eclectic pattern of land uses including residential, light industry and small local commercial activity. Development is concentrated along US 160 and SH 172 with transition into large lot residential developments. Small lot residential subdivisions are scattered throughout the landscape. The surrounding land is rural and agricultural in nature, but is under constant pressure from development. There are a few undeveloped large tracts remaining, such as the former Artesian Valley Ranch and the Crader property. Several locally serving commercial outlets such as a convenience store, a gas station, and a liquor store dot key intersections. An elementary school and fire station are located near the intersection of US 160 and SH 172.

The South Durango Sanitation District and the Loma Linda Sanitation District provide sewer

service to the majority of properties within the study area. When this annexation analysis was initiated, the Vallecito Water Company was planning to create a water district that would serve the Grandview area, but an inability to obtain financing led to the Water Company proposals' demise. At the time of this publication, La Plata County has approved the formation of a new water district, subject to a general election vote in November, 2004. No analysis of this water districts' impacts on this plan has as yet been conducted.

Oil and gas wells are found throughout the study area. Drilling windows are also mapped. According to the oil and gas activity map provided by La Plata County, there are approximately 17 gas wells and 12 drilling windows within the Grandview study area. The Fruitland Outcrop, a source of methane gas, lies underneath the Grandview Ridge. During the Design Dialogue, oil and gas interests pointed out that the State of Colorado Oil and Gas Commission regulates extraction and there is approximately a 50-year supply in this area. However, industry representatives believe that the gas industry can co-exist with future development. Currently in Durango, the city's oil and gas regulations allow for such installations only in the Industrial zone district. As property is annexed into the City, the City will need to regulate oil and gas drilling.

Gravel resources found in the Grandview Ridge are estimated to be a 60-year supply. Current gravel extractions are located on private property and expansion into BLM land is being contemplated. Access to one active quarry is currently off of US 160 west of High Llama Lane. The commingling of gravel trucks with general traffic poses some concerns.

2.1.2 Current Conditions in the Grandview Study Area

The 2000 population of the Grandview planning area is 923 people. There are 442 known

residential units in Grandview. Historically, the Florida Mesa area has been rural and agricultural in character. It has been the largest and most productive agricultural area in La Plata County. However, in recent years, its proximity to Durango, highway access and the large, open flat areas have made it attractive for residential and commercial development. County land use policies in the recent past hastened that transition in the area by making it easy to subdivide to three (3) acre lots through the Minor Exempt Subdivision process. That process was significantly revised in the late 1990's, making fewer properties eligible to use that process. Still, State law allows parcels of 35 acres or greater to be subdivided without local approval and many farm holdings have been dispersed using that method.

Water is a key issue for development in Florida Mesa. Development is dependent on wells. A recent study by the US Geologic Survey quoted in the County's Florida Mesa Land Use Plan states that the wells in the area are dependent upon water that percolates into the ground, the largest portion of which comes from irrigation water from farming. As more and more farms are lost to subdivision development and therefore less area is irrigated for agricultural use, water problems will become more apparent.

Another key issue identified in the County's Florida Mesa Land Use Plan is the potential for scattered commercial development to proliferate given the lack of traditional zoning. It is feared that this will undermine the rural character of the area. In addition, population growth brought on by the increasing residential and commercial development in the district is pressuring the County's road system.

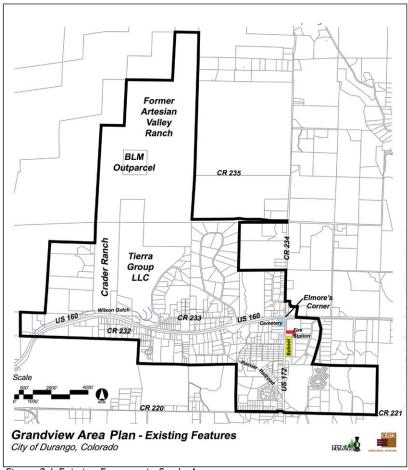


Figure 2.1 Existing Features in Study Area

2.1.3 La Plata County Demographics

La Plata County is comprised of 1,083,085 acres (1,692sq. miles). Of these 43% are private lands, 16% are tribal lands (Southern Ute and Ute Mountain Ute), and 41% are state and federal lands. The foremost issue that the county currently faces is population growth. Implications of growth include increased demand for services; infrastructure needed to serve development; changes to the environment; and impacts on the overall quality of life in the county. This information was provided by Southwest Colorado Access Network.

2.1.3.1 Population

In 2000 the county's population was 43,941. According to the 2000 Census the median age was 35.6. Males comprised 51% and females comprised 49% of the total population. The average household size was 2.43 people.

	<u>Total</u>
Residential Units	442
Land Use by Acreage	
Commercial	134
Agricultural	1828
Mixed Comm/Lt Industrial	92
Single Family	1445
Other & Exempt	<u>63</u>
Total Acres w/o ROW	3562

These numbers represent the amount of acreage devoted to a specific land use as identified by the county Assessor.

Table 2.1 Existing Land Use & Dwelling Units in the Grandview Study Area

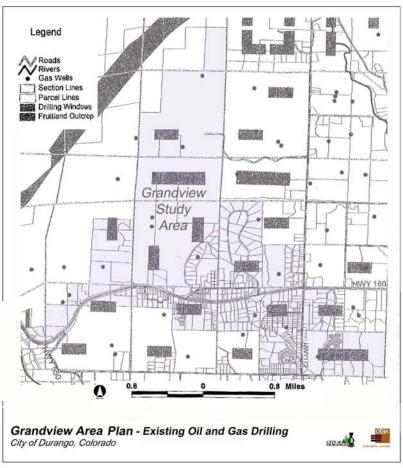


Figure 2.2 Oil & Gas Well Activity in Study Area

Between 1990 and 2000, La Plata County averaged 3.61% annual growth. The City of Durango grew by an average of 1.27% annually, and is experiencing rapid expansion of infrastructure such as transportation and water use in newly annexed areas. The Town of Bayfield is growing quickly as well. A primary goal for Bayfield is to provide for orderly growth in a way that does not adversely affect the community's small town character, while providing the infrastructure for expansion. In the Town of Ignacio population has been slowly declining but with the advent of casino gambling on the Southern Ute Reservation and other expanding tribal enterprises, that trend is likely to reverse. As residents of these two communities commute through the Grandview area to reach jobs and amenities in Durango, the growth and land use policies of these communities impacts the larger planning area.

2.1.3.2 Housing

According to the 2000 Census there were 20,765 housing units in La Plata County. Of these 83.5% were occupied and 16.5% were vacant. Of the total there were 12% used for seasonal, recreational or occasional use. In 1999 (latest figures available) only about 57% of families would be able to purchase a median priced home of \$154,450 in rural La Plata County. In Durango, about 57% of families would be able to purchase a median priced home of \$153,500. In Bayfield about 65% of families would be able to purchase a median priced home of \$122,650. In Ignacio about 78% of families would be able to purchase a median priced home \$72,000 [Source: Operation Healthy Communities].

2.1.3.3 Livable Wages

Operation Healthy Communities (OHC) has determined that in 2000 a minimum of \$9.67/hr provided a livable wage in Durango, \$9.32/hr in Bayfield, and \$9.32 in Ignacio for a single person renting a one- bedroom apartment. The median family income for La Plata County was estimated at

\$50,994 [Source: Housing and Urban Development].

2.1.3.4 Economic Trends

Historically, La Plata County developed as a result of resource extraction, including minerals and timber, and ranching. Since the 1970's La Plata County has been in transition from a traditional rural county to a more urban environment in which tourism is the current number one industry. People moving in for quality of life issues or "amenity migration" drove population growth in the 1990's.

Within La Plata County, Durango has developed as a tourist crossroads and regional trade center. Bayfield has served as a supply town and social center for area farmers and ranchers, and more recently as a bedroom community for Durango. Ignacio serves as a supply center for the surrounding reservation and ranches and is a crossroads for the gas and oil industry. The Southern Ute Tribal Headquarters is located just north of the town limits and provides administration and services to tribal members.

Data for Bayfield and Ignacio are relevant to the Plan because residents and visitors from both communities must travel through the Grandview area to access the City of Durango.

2.1.3.5 Income and Employment

In 2000 Total Personal Income (TPI) in La Plata County was estimated at \$1,209,549,000. Per Capita Personal Income (PCPI) was estimated at \$27,527.

The largest proportion (65%) of TPI is generated through employment earnings. Retired persons collect benefits that account for 12% (\$148,351,000) of TPI in La Plata County. Retirees make significant contributions to the economy by purchasing goods and services with income from outside sources (i.e. transfer



payments), bringing "new" money to circulate in the local economy. This new money also creates employment opportunities. The amenities that follow these individuals - higher end housing, fine restaurants, golf courses, and increased shopping opportunities- are on the rise.

The composition of the economy supports a low unemployment rate although seasonal fluctuations are generally seen in the winter months. The unemployment rate is going down, but still is not on a par with state unemployment rates. However, current figures are not available since the latest downturn in the Colorado economy.

The Center for Business and Economic Forecasting (CBEF) estimates that in 2000 there were 900 people commuting out of the county for work, and 5,559 people commuting into the county for work.

Wage and employment information can be used to measure the strength of the various economic sectors. The ratio of earnings to employment indicate which sectors are high earning sectors, on average, compared to those sectors which generate lower earnings.

About \$420.6 million (35%) comes into La Plata County as new dollars being drawn into the local economy through direct base industries such as regional goods and services (i.e. tourism) as well as government payments to retirees and others. Jobs relating to tourism, including those in construction and real estate, account for 25% (7,929) of total employment and 19% (\$146,158,000) of total employment income. Indirect base (supporting) industries account for another \$223.2 million (18.5%). Residential services provide about \$565.7 million (47%) in the local economy. Again, these numbers do not reflect the recent downturn in the state's economy.

2.2 Report Abstracts

Over the past several years a significant portfolio of information on the Grandview area has been developed. In addition to the City and County Plans, consultant reports and studies have documented the priorities and values of residents in La Plata County. This background information was intended to provide a starting place for the Area Plan. The documents that were identified include:

- Florida Mesa District Land Use Plan
- City of Durango Parks Open Space and Trails Master Plan
- 1997 Comprehensive Plan For The City of Durango
- La Plata County Trails Plan 2000
- Alternative Alignment Screening Report: US160 Conceptual Design
- The City of Durango Planning & Community Development LUDC – Chapter 27

A summary of these documents has been completed and is found in Appendix A.

Additional related background information was obtained from CDOT consultant URS
Corporation, local newspaper articles, January 9,
2001 Council Study Session Documentation and other information from City and County officials.

3.0 Public Process

3.1 The Design Dialogue

The City of Durango and their consultant, Otak, undertook a public process designed to engage community stakeholders in a discussion that would shape the land use plan and inform the process as a whole. Otak conducted two series of meetings where citizens who had a common interest in the study area were asked to participate and interact with the planning and design team in small group sessions, a process known as a "Design Dialogue". These short but intense work sessions are designed to allow stakeholder groups to participate with the design and decision making process up front. During these meetings the team recorded the input and illustrated plan concepts from the discussions, so that the ideas, suggestions and comments gathered could be developed into the final Grandview Area Plan. At the end of the series of meetings, an open house was held to present and confirm the concepts already received.

Two sets of Design Dialogue meetings were held. The first weeklong series of meetings was held in September of 2001. The design dialogue process culminated in an open house on September 11, 2001 as well as a presentation in a joint work session with the City Council and the Board of County Commissioners. A report, Grandview Area Plan Design Dialogue Report — September 11, 2001, was prepared for the joint work session that summarized the process to date and included all public comments that were recorded during the five days of meetings with community members. Due to the unfortunate timing of the open house and work session, a second set of meetings was held in November 2001.

While Otak was completing the draft land use plan and conducting the fiscal analysis of annexation, the ownership of the two largest parcels within the study area (the Mason and Artesian Valley Ranch properties) changed hands. As a result, the City requested a supplemental revision of the draft plan with community stakeholders in order to predict more accurately the cost and benefits of annexation of the new development as proposed. A second series of Design Dialogue meetings was therefore held on August 26 and 27 of 2002. A report, The Grandview Area Plan Supplemental Design Dialogue Report – August 29, 2002, was prepared and presented at a joint meeting with the City Council, Board of County Commissioners and Planning Commissioners.

3.2 Design Dialogue Process and Participants

The City of Durango realizes that a successful outcome will involve a partnership between the public and private sectors and between the City, County and State governments. In such partnerships, public sector decision-makers desire to make informed decisions based on the best available information and after hearing from their constituents.

From September 6 to September 10, 2001 the project team held a series of meetings with groups of stakeholders who have like interests. This allowed the opinions of all parties to be heard in a constructive and non-confrontational atmosphere. During these Design Dialogue meetings the design team integrated the input of diverse parties into a plan concept through a combination of drawings and text.

A similar community dialogue was conducted in August 2002.

3.2.1 Participants

The following stakeholder groups, as identified by city staff and confirmed by City Council, were invited to participate in the Design Dialogue Process:

- Grandview Area Plan Steering Committee
- CDOT and URS, the consultant for Highway 160 planning
- Bureau of Land Management
- State Department of Wildlife
- · Gravel and oil and gas interests
- Grandview area small businesses
- Owners of undeveloped property in the Southfork area
- Representatives of the Durango design community
- Owners of property with frontage on Highway 160
- Owners of undeveloped property in Grandview
- South Grandview area neighborhood leadership
- North Grandview area neighborhood leadership
- County Road 220/221/222 and Highway
 172 area neighborhood leadership
- Durango area housing advocates
- Durango area environmental community representatives
- Florida Mesa Planning Committee
- Special Districts (Sewer, Water, School, Ditch Company)
- Parks & Forestry Board, Trails 2000, Regional Park Committee
- City and County staff
- The general public

3.3 Measures of Success

Project stakeholders and other community members that participated in planning for the Grandview Area Plan should be able to track the success of their work with quantifiable measures. The Grandview Area Plan will be a success when/ if:

 The Durango City Council and Planning Commission adopt the Plan

- La Plata County either adopts the Plan or agrees that it is an acceptable Plan.
- Project stakeholders and other community members acknowledge that they have been afforded ample opportunity to participate in the plan-generation process.
- All properties that are eligible for annexation eventually annex into the City of Durango.
- The City and Water District agree on specific service boundaries and service is provided to properties.
- Key open space in the Grandview Area is preserved and accessible for public use.
- Regional commercial uses are contributing tax revenue to the City.
- Growth does not cost the City of Durango more than the revenue generated by the growth.
- Streetscape amenities and transportation management measures are implemented.
- The proposed realignment of the intersection of Highways 160/550 has a design approved that provides for highway safety, pedestrian and bicycle safety and addresses access needs and aesthetics to the community's general satisfaction.
- Improvements to the Highway 160 corridor are completed in a manner beneficial to the City and the property owners.
- Gravel operations on the BLM property generate no new impacts to area residents or local traffic conditions.

For complete details on each of the Design Dialogue sessions, please refer to the reports generated for those meetings found in Appendix B.



4.0 Land Use Plan

4.1 Introduction

This chapter describes existing land use patterns, opportunities for change, and general land use recommendations for the Grandview area. The study area is divided into five sub areas for review of existing and future land uses. Figure 4.1 illustrates the five sub areas of the Grandview planning area. This Land Use Plan is to be used as a tool to guide future growth decisions within the area.

The Land Use Plan element first reviews the general land use opportunities that are applicable to the entire study area. This chapter then describes each sub area, the existing conditions, and the proposed land uses for build out. Comments and concerns expressed by participants in the Design Dialogue processes are woven throughout the Plan and played a significant role in the outcome of this Plan. Although the policies from the City of Durango's Comprehensive Plan are relevant for this Plan and remain applicable, new policies are recommended to ensure implementation of the Land Use Plan.

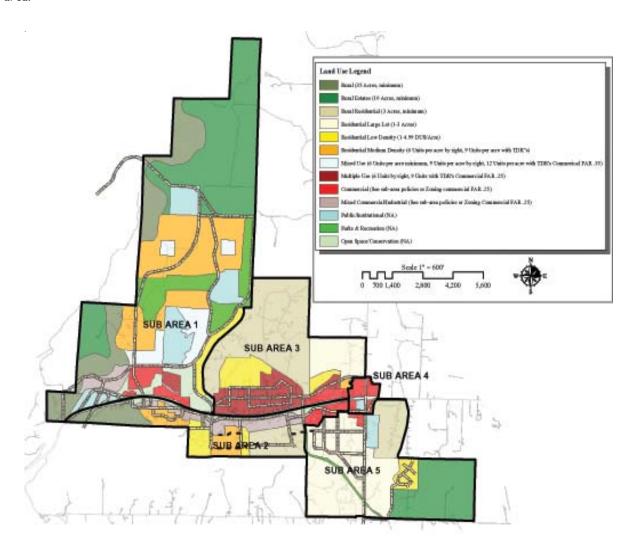


Figure 4.1 Grandview Area Sub Areas

4.2 Existing Conditions and Future Land Use

Table 4.1 displays, by sub areas, existing land use by acres as well as the approximate number of dwelling units that exist in the planning area. These numbers represent the amount of acreage devoted to a specific land use as identified by the County Assessor.

Table 4.2 charts the proposed lands uses and their acreage, commercial and industrial square feet of floor area, and the number of dwelling units all by sub area.

Table 4.3 is a table of the land use definitions for the proposed land uses in the Grandview Area Plan.

Table 4.1 Existing Conditions by Sub Area

Residential Units	Sub Area I 20	Sub Area II 84	Sub Area III 107	Sub Area IV 2	Sub Area V 229	<u>Total</u> 442
Land Use by Acreage						
Commercial	37	54	17	18	8	134
Agricultural	1514	0	129	0	185	1828
Mixed Comm/Lt Industrial	64	6	5	0	17	92
Single Family	157	295	550	0	443	1445
Other & Exempt	<u>0</u>	<u>41</u>	_2	<u>0</u>	_20	<u>63</u>
Total Acres w/o ROW	1772	396	703	18	673	3562

Table 4.2 Proposed Land Uses by Sub Area

Land Use by Acre at Build Out	Sub Area	<u> Sub Area I</u>	<u>I Sub Area I</u>	IISub Area IV	Sub Area	<u>V Total</u>
Residential	1184	255	526	0	642	2607
Commercial	45	39	32	14	0	130
Mixed Use	88	0	0	0	0	88
Multiple Use	13	0	132	0	0	145
Mixed Commercial/Light Industrial	37	74	0	0	0	111
Hospital	60	0	0	0	0	60
Schools	40	0	0	0	19	59
Public Facilites	31	0	0	4	0	35
Parks/Open Space/Conservation	274	28	13	0	12	327
Total Acres						3562
Proposed New Dwelling Units						
Low Density	253	184	385	0	305	1127
Medium Density/Multiple Use	2954	0	462	0	0	3416
Mixed Use	924	0	0	0	0	924
Total Dwelling Units	4131	184	847	0	305	5467
Proposed New Square Feet of Non-residential Floor Area						
Commercial	490050	424710	348480	152460	0	1415700
Mixed Use	1341648	0	0	0	0	1341648
Multiple Use	70785	0	718740	0	0	789525
Mixed Commercial/Light Industrial	402930	805860	0	0	0	1208790
Hospital	653400	0	0	0	0	653400
School	261360	0	0	0	124146	385506
Total Square Feet	3220173	1230570	1067220	152460	124146	5794569

Land Use	Density / Size Restrictions	Description
Rural	35 acres, minimum	Private land that will remain in parcels of 35 or more acres. Most of these parcels will receive no urban level services.
Rural Estates	10 acres, minimum	Private land that will remain in parcels of 10 or more acres. Most of these parcels will receive no urban level services.
Rural Residential	3 acres, minimum	Private land that will consist of lots typically served by wells and/or septic systems.
Residential - Large Lot	1 to 3 acres	Single family residential lots which typically are served by a public water and/or wastewater system.
Residential - Low density	1 to 4.99 Dus per acre	Single family residential lots ranging from 6,000 SF to 1 acre that receive full urban services. As policies are refined, this land use may be defined to include other dwelling types.
Residential - Medium Density	6 units per acre by right, 9 units per acre with TDR's	Single family residential lots smaller than 6,000 SF. Other dwelling types, including duplexes, triplexes, patio homes, mobile home parks, apartments and town homes permitted.
Mixed Use	6 units per acre minimum, 9 units per acre by right, 12 units per acre with TDR's Commercial FAR	A mix of residential and neighborhood serving commercial uses are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design.
Multiple Use	6 units by right, 9 units with TDR's Commercial FAR .25	Permits low intensity retail, neighborhood service, office and multi-family residential uses that are compatible with residential development. Also allows the development of a mixed use development.
Commercial	See sub-area policies or zoning Commercial FAR .25	Permits a wide range of commercial development (office, retail, service), with all operations and storage being contained within the primary buildings (<i>e.g.</i> , grocery stores, the mall, factory outlet stores, hotels, restaurants).
Mixed Commercial / Light Industrial	See sub-area policies or zoning Commercial FAR .25	Permits outside storage and display, but not outside operations (<i>e.g.</i> , office/warehouse uses, auto sales, auto repair shops, lumber yards, light manufacturing).
Public / Institutional	NA	Public and quasi-public uses, such as schools, government facilities, cemeteries, hospitals and churches.
Parks & Recreation	NA	Public and private land designated for passive or active recreational uses.
Conservation / Open Space	NA	Public or private land which will remain undeveloped as natural open space. Minor improvements such as trails and parking areas may exist to provide access.

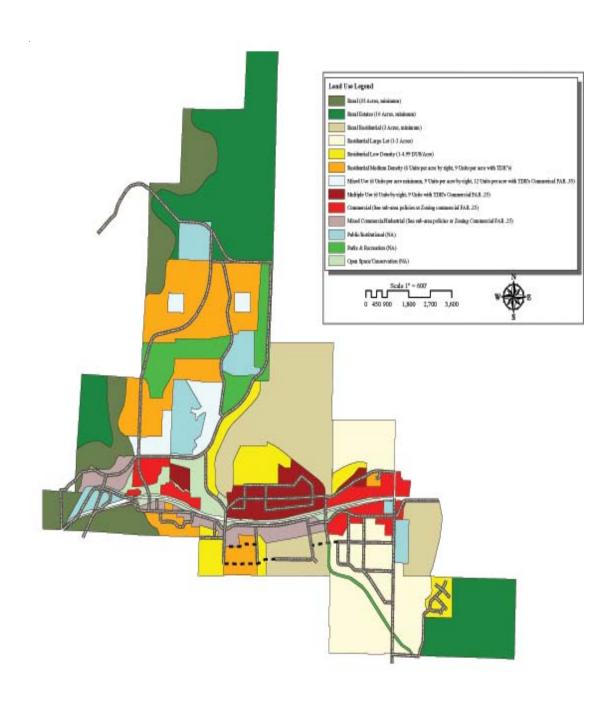


Figure 4.2 Future Land Use Map

4.3 Opportunities and Issues

The Grandview study area, because of its size and mixture of uses, contains many features that offer unique opportunities to the City of Durango. Rather than homogenous tract development, community stakeholders believe that this area offers an opportunity to create dynamic neighborhoods of varying character that will help establish a new vision for Durango. Large tracts of undeveloped land still exist, providing the opportunity to meet the City's goals for cutting edge urban design concepts, creative economic development, attainable housing, new school facilities, and park and recreational facilities.

The western boundary of the planning area is adjacent to BLM land that is a prime resource area (gravel, wildlife) but also a recreational outlet for residents. At the eastern end of the planning area is the busy intersection of US Highway 160 (US 160) and State Highway 172 (SH 172). SH 172 connects to the regional airport and US 160 is the primary travel route east from Durango. Improvements to this intersection could be used to create a new gateway at the eastern access point into the Durango area.

Providing a cornerstone for new development in the area is the proposed relocation of Mercy Hospital to the Tierra Group LLC property thus creating an anchor for development in the western portion of the Grandview area. One of the Hospital's goals for development is to create a "healing environment". According to hospital representatives, who participated in Design Dialogue meetings, the design will include open space, a healing garden and other indoor and outdoor areas creating a campus that focuses on healing of both the body and the mind. These design goals, combined with the associated uses that will gravitate to this regional industry, should quickly transform the area into a regional hub.

A proposed regional retail center off of High Llama Lane was one of the original issues that prompted the City of Durango to consider a study of the Grandview area. The City has also fielded annexation inquiries from property owners seeking to obtain a reliable source of water.

The ability to examine the entire study area as a whole provides the City with a basis by which to analyze potential traffic impacts, infrastructure demands and cost and revenue sources. It enables the City to guide new development that is compatible with surrounding land uses while encouraging progressive design concepts and a new design vernacular for the area.

As part of the public process, citizens expressed support not only for a better organization of existing land uses and traffic circulation patterns but encouraged containment of development that has been allowed to filter into the rural countryside. Development policies address the need to preserve the rural nature of the County using the rural edges of Grandview to buffer the rural areas from proposed development in the urbanized incorporated area. The implementation of a Transfer Development Rights program, described later in this document, could assist in the preservation of a rural buffer.

In addition, the existing rural residential zone district in the City's land use code supports large lot residential land uses and the ability to maintain livestock and ranch/farm outbuildings on large parcels (one dwelling unit per 10 to 35 acres). The proposed land use map for the Plan supports this transition from urban to rural land use patterns.

Improvements to the road network create further opportunities. The Colorado Department of Transportation (CDOT) has begun to reevaluate the timeframe and extent of the US 160 corridor improvements. Many of the upgrades for safety and congestion management were to occur over a

longer time period than originally proposed when the planning process began in September of 2001, but recent initiatives and fund may bring about such improvements in the near and mid term. This Plan will provide guidance as CDOT plans improvements to US 160 through the Grandview area. There is an opportunity that did not exist prior to 2001 for this Plan to move out in front of other agency planning efforts providing a guideline for other agencies to consider in their work in the area.

The area offers ample opportunities for improved transportation connectivity. County roads parallel portions of US 160, which can be converted to frontage roads to provide internal circulation improvements today as well as when the highway is eventually expanded to four lanes and access is restricted. A former rail corridor bisects the planning area; the sections that have been preserved for public access offer pedestrian and bike path opportunities.

Although exciting opportunities exist for the redevelopment of this area, basic infrastructure is lacking in most of Grandview. There has been no central water system to date, and sewer has traditionally been provided by special districts or by septic tanks. Pedestrian amenities necessary to support increased vehicular traffic are non-existent and congestion and highway safety have become primary issues for resident s. The existing road network does not meet City standards. Finally, the eclectic mix of uses and the lack of traditional zoning in La Plata County pose a strong challenge for future planning and redevelopment efforts. However, with the adoption of a plan for growth and development, the City of Durango can work with developers and small property owners to ensure development is rational. The City can also ensure that the necessary infrastructure improvements are provided to support new

development.

4.4 General Plan Elements

The following Elements emerged during the Design Dialogue process as common themes for the study area.

4.4.1 Institutional

In the year following the September 2001 Design Dialogue, Mercy Hospital made arrangements to relocate to the former Mason Ranch property which was purchased by the Tierra Group LLC. Due to the associated activities that will locate near the hospital such as medical offices and other support services as well as the substantial residential development proposed by the Tierra Group LLC, the development planning for this area has shifted. US 160 safety and access issues, although important issues along the entire Grandview corridor, are critical issues to resolve within this area. A greater variety of mixed-uses are proposed and enhanced by the hospital's intention to develop a campus dedicated to wellness with an outdoor healing garden, complemented by open space and pedestrian friendly access to the traditional neighborhood village. Both the Tierra Group LLC and the hospital support a compact urban form and Traditional Neighborhood Development (TND) principles for their new development within the study area.

The School District participated in the Design Dialogue sessions and advocated for the need for additional schools in the Grandview area due to the increased level of residential development. The original plan proposed three new school sites in Sub Area I. However, further discussions with the School District have resulted in one large forty acre K-8 school site located on the east side of Sub Area I adjacent to the regional park.



Figure 4.3 Mercy Hospital Site

4.4.2 Regional Retail

A request to establish a regional retail center near the High Llama Lane intersection was the original impetus to study this area for possible annexation. Although the hospital and Tierra Group LLC are further along in their planning, a regional retail center is still being proposed at the western end of the study area. It is proposed that the retail will transition into a mixed commercial and office area adjacent to the proposed hospital.

The intent to locate such intensive land uses at the High Llama Lane intersection is accommodatable, given CDOT's intention to upgrade the intersection to a grade separated interchange as part of a US 550 and US 160 realignment. If regional retail development occurs prior to CDOT making this highway improvement, this Plan recommends that a full signalized intersection be



Figure 4.4 Regional/Retail Commercial

constructed or if traffic studies warrant, an interchange constructed as a requirement of the commercial development.

4.4.3 New Urbanism/TND/Urban Design

The City of Durango believes that Traditional Neighborhood Development (TND) principles, also referred to as new urbanism, should be applied within this Plan wherever appropriate. There are several opportunities within the study area to apply TND principles most notably in Sub Area I. The relatively undeveloped nature of the Crader and Tierra properties, the comprehensive planning effort for this area and the desire to entertain significant development presents a unique opportunity to implement TND principles from the beginning. In January 2003, the Tierra Group LLC commissioned a design charrette for their property. The outcome of that site-specific planning effort supported a Traditional Neighborhood Development pattern which included the relocated hospital, mixed-use commercial and other support services to the hospital, and traditional neighborhoods as well as park and recreation facilities and a school campus. The Grandview Area Plan supports the January

2003 concepts but provides guidance for new land uses in a more general manner. Site specific development should be reviewed on a development by development basis using the adopted Plan as a guide.

In addition, the conceptual streetscape designs and pedestrian amenities proposed in this Plan should be used as a guide for all future planning in the study area. Again, they are a foundation from which development may be further defined based upon review of site specific development proposals and specific traffic patterns. Please refer to Appendix D for recommended street design concepts.

In addition to the emphasis on TND principles for future development within the study area, the Plan recommends a more cohesive land use pattern along CR 233 suggesting new land use categories and requiring buffering to be implemented as land uses change or new development occurs. Changing the character of CR 233 to a frontage road and adding pedestrian and other amenities along the new frontage road will increase connectivity. Multiple-use is proposed along CR 233 which could provide residents with local serving commercial business thus reducing automobile dependence.

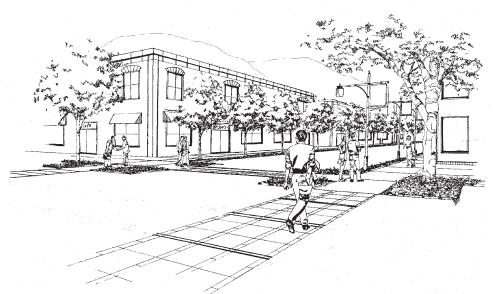
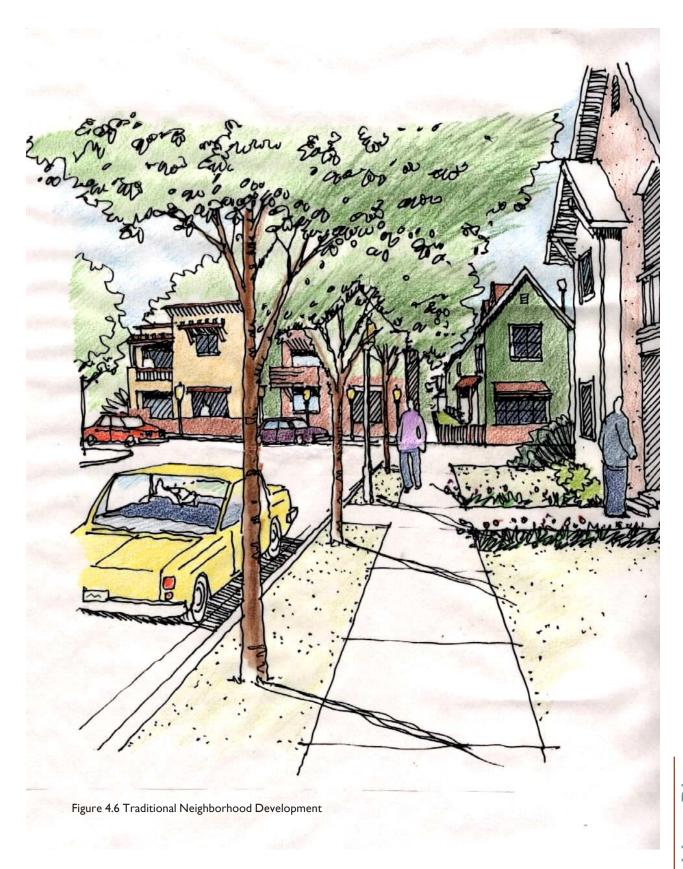


Figure 4.5 Urban Design Mixed Use Concept



4.4.4 Overlay District

It is often difficult to retrofit current zoning into areas currently developed. Therefore the City should consider an overlay district for those areas of the Grandview study area that are currently developed.

An overlay district can also facilitate an upgrade of the streetscape improvements and pedestrian amenities as areas are annexed. As significant frontage road improvements occur, the overlay district can guide improvements without requiring the property to be rezoned. The overlay district should incorporate new development standards for uses, bulk and mass. These standards should address specific issues of compatibility between existing and proposed land uses.

An overlay district could be tailored to the specific sub area as annexation occurs to best reflect the existing characteristics of the sub area as well as the recommendations of this Plan for the specific sub area.

4.4.5 Mixed-Use and Multiple-Use

During the Design Dialogues several themes emerged: live/work, less dependency upon the

automobile, better pedestrian amenities, and the ability to shop locally for small convenience items. The promotion of mixed-use and multiple use within this Plan is intended to meet the goals of providing more locally serving businesses that are within close proximity to residential neighborhoods and directly adjacent to some dwelling units. In addition, it is intended to provide a more compact pattern of land development and contain sprawl thus reducing the cost of infrastructure and providing transition zones from strict commercial and highway impacts to the more rural less dense portions of the study area.

The mixed-use land use classification differs from the multiple-use classification with regard to commercial allowable floor area and minimum and maximum residential densities. Multiple-use provides a lower floor area for the commercial component and a lower residential density. Both land use classifications can utilize transferable development rights to increase the density of a project.



Figure 4.7 Mixed Use Development

4.4.6 Transfer of Development Rights (TDR)

The City and County desire to develop a Transfer of Development Rights (TDR) pilot program for use in the Plan area. TDRs are a planning tool intended to preserve existing open space by "transferring" density from one area to another. In this case, it is proposed that density be transferred from within the County immediately surrounding the Grandview area to specific "receiver sites" within the study area. A base level of density will be set in the receiver sites, and then density can be increased through the use of TDR's. This creates a win-win partnership for the City and County. It saves money on infrastructure costs by creating a level of density that can be served cost effectively, creates an open space buffer adjacent to urban development and identifies receiver sites up front eliminating future political battles over density issues.

A successful TDR program can also be used entirely within the Grandview Area (both sending and receiving sites are within the Plan area). For example, rather than waiting for CDOT improvements to provide the proposed green buffer along US 160, development rights could be transferred off the edge of the highway into designated receiver sites within the Plan area.

In order to establish several receiver sites for TDRs within the Plan area, it is recommended for areas designated medium density residential that the baseline density be set at six dwelling units per acre with the ability to go up to nine dwelling units per acre with the purchase of TDRs.

Areas designated mixed-use and multiple-use could also become receiver sites. For mixed-use it is recommended that a baseline density be established at nine dwelling units per acre with the ability to increase the density to 12 dwelling units per acre with the purchase of TDRs and a minimum density requirement of six dwelling units per acre. For multiple-use it is recommended that

the baseline density be set at six dwelling units per acres with the ability to increase to nine dwelling units per acre with the purchase of TDRs.

4.4.7 Nonconforming Uses

Currently the City of Durango Land Use Code allows a nonconforming use to remain in operation but does not allow expansion of the use or structure, a change from one nonconforming use to another, and a discontinuation for longer than one year. However, as areas of Grandview annex into the City and the City applies zoning in conformance with the land use classifications that are recommended in this Plan, some existing uses will become nonconforming. In addition, these nonconformities may remain nonconforming for many years as the rate of transformation and build out might evolve slowly in some areas. It is not the desire of the City to plunge many businesses into nonconformity when looking at a 20 year planning horizon.

Therefore, it is recommended that the City review its nonconforming regulations and consider a nonconforming use policy which enables a use to continue and permits modest expansion in square footage or operations with the requirement that the expansions of space or of the use must comply with the pedestrian amenities, street design standards and other development standards recommended in the Plan as well as any necessary building or access reorientation for those properties along the proposed frontage road alignments. This could include closing access onto US 160 and the possible dedication of right-of-way for the frontage roads. If a nonconforming use ceases operation for a year or more, then the new use must conform to the land use classification and zoning that would ultimately be applied upon annexation.

4.4.8 Redevelopment Transitions

As parts of the Grandview area begin to annex into the City, as discussed in the previous section, some uses will become nonconforming.

Furthermore, there may be uses that, while conforming, the intensity of use recommended in the Plan may be different. For example there are several mobile homes parks along US 160 that the Plan recommends to become multiple-use. However, as land values increase reflecting a greater level of residential density, these parks may be eliminated.

Mobile home parks have traditionally offered a lower cost housing unit but without stability, as most people do not own the land and many homes are "pre-HUD" and cannot be relocated. As this trend continues, a number of affordable units are lost from the community. The City should include this issue in their affordable housing policies and consider options to assist the residents of mobile home parks. One idea that could be explored is to establish a loan fund to support a resident buy down of their mobile home park. For example, it is common that residents own their home but not the land. An attainable housing fund could enable the homeowners to buy the land from the park owner and subdivide the park into lots for individual purchase by existing residents. Purchase of individual parcels ultimately pays back the fund. This type of buy down program not only preserves attainable housing but encourages home owners to upgrade their older mobile homes. In some examples, mobile homes have been pulled off the site and owners have constructed a "stickbuilt" home.

As redevelopment occurs around existing land uses, particularly uses that are not going to evolve in the near future such as large lot subdivisions, it will be important for the City to employ Planned Development techniques for site specific developments to ensure that uses are buffered from possible increased traffic, noise and other impacts. Buffering of existing subdivisions is important throughout the Grandview Area. The applicant for a new subdivision or new development may either create lots along the

property line that are not less than one-half the average size of the adjacent subdivided property or create a buffer zone with an enlarged set back and adequate screening.

It is important to recognize that mixed-use can be used as a buffer from impacts of the highway, and provide a transition from the strict commercial uses of Sub Area I.

4.4.9 Housing

As discussed in the Design Dialogue session for Housing Advocates, it is estimated that up to 44% of the local community cannot qualify for home loans based upon median income and local housing costs. This Plan recommends a mixture of housing types and product to support diversity and affordability. It also recommends that senior housing be located near activity centers and recreational amenities including open space and trails.

The Plan proposes several areas for medium density housing and promotes mixed housing development patterns and the use of TND principles versus a traditional suburban layout to facilitate a diversity of homes and a range of prices. Costs to develop can be reduced and a mix of housing prices and densities may appeal to a broader range of home buyer. In addition, there is a potential for a future housing authority to serve a redevelopment function in the Grandview Area as a greater level of density is proposed in areas that are already developed. Finally, the use of TDRs encourages increased density and helps to reduce infrastructure costs as well as preserving open space, which should assist all in providing quality affordable dwelling units.

Finally, the Plan recommends the City require a certain percentage of attainable housing to be included in new subdivisions and multi-family development proposals. One mechanism to achieve this goal outside of the annexation process



Figure 4.8 Above Garage Lofts in a TND

is through the adoption of an inclusionary housing standard.

4.4.10 Buffer Zone/Joint Review IGA

A common expression made during the Design Dialogue meetings was the desire and necessity to prevent the urbanization that has historically spread into the County thereby compromising the rural character of the County. It is therefore important to encourage joint review for properties that are not annexing and adoption of this Plan by both the City and the County. Several recommendations are made suggesting the adoption of Intergovernmental Agreements (IGAs) that can establish a joint review process between the City and the County. These IGAs should ensure that future growth occurs consistent with the recommendations of the Plan even if certain areas of the Plan have not yet been annexed.

A buffer zone should also be identified that rings the Plan area and becomes the sending site for TDRs not only to conserve open space around the Grandview area but to further define the Urbanizing Area from the rural County. The City and County should map the buffer zone and utilize a joint development review process to ensure that

new development or redevelopment within the buffer zone is consistent with the Plan and is not negatively influenced by new development pressures in the Grandview area as well as the ultimate improvements to US 160.

4.4.11 Plan Amendments

During the public process associated with the development of this Plan, several properties adjacent to the study area were discussed in a general manner. This discussion focused primarily upon either the property owners desire to be included within the Plan or the effect future development within the Plan area may have upon adjacent properties. In particular there is a large state land board parcel directly east of the upper portion of Sub Area I. This property could eventually be included within future planning of this northern portion of the sub area. A property owner of a parcel adjacent to the southern boundary of Sub Area V expressed an interest to be included within the Plan. The property was originally considered as a neighborhood park but was eliminated from the study area in order to focus park resources in Sub Area I. However, if adjacent properties are to be considered for development planning in the future either by the private or public sector, a Plan amendment and Land Use Map amendment will be required.

4.4.12 Transportation Improvements

CDOT has been planning for improvements to US Highways 160 and 550 through the Grandview area since 1996. When the Grandview Area Plan process commenced in the summer of 2001, CDOT was completing an Environmental Assessment (EA) and preliminary engineering for the expansion of US 160 and the relocation of US 550. As a result of the findings of the EA process, the agency commenced an Environmental Impact Statement process (EIS) in 2003. The EIS process is ongoing and is expected to be completed in late 2004.

Conceptual CDOT plans presented in 2001 included expanding US 160 to four lanes with a center landscaped median, improved vertical and horizontal alignment based upon a higher design speed, access control, provision of frontage roads, and improvement to the intersections of US 160 with SH 172 and CR 233. US 550 south of US 160 would be shifted to the east to the Southfork area and a new trumpet interchange with US 160 would be constructed. The determination that an EIS is required will necessitate the consideration by CDOT of all reasonable alternatives for the improvement of US 160 and US 550; thus details of specific improvements are no longer predictable.

When CDOT began its analysis of improvements to US 160 and US 550, the agency was required by the National Environmental Policy Act (NEPA) and related Federal Highway Administration (FHWA) and CDOT regulations to consider local land use plans in its decision making process. NEPA requires consistency with local plans and/or justification for actions that might impact those plans and proposals for mitigating those impacts. At the time of the CDOT EA, the adopted local

plan for the Grandview area was the Florida Mesa District Land Use Plan, adopted by La Plata County in 1998. This plan foresaw mixed-use and light industrial land uses along the highway in addition to increases in residential density.

The adoption of an amendment to the City's Urbanizing Area to include Grandview and planning and development efforts within that boundary has substantially changed the nature and intensity of land use adjacent to US 160 between SH 172 and US 550. Any subsequent NEPA clearance sought by CDOT will have to consider this change.

As Grandview is proposed to be a significant destination, with regional institutional, commercial, and parks and recreation land uses as well as over 5,000 homes, CDOT design parameters for the state highways in the area should evolve. Design speed, character of highway cross sections, access control, landscaping, and pedestrian and bicycle amenities adjacent to a regional center are quite different from those adjacent to rural land. Should a significant portion of the urbanizing area annex to the City of Durango, the City should be a partner with CDOT during the highway planning and project development process. This partnership may go so far as to include the negotiation of a formal Participating Agency Agreement between CDOT and the City for the NEPA process. Although participating agencies are typically federal resource agencies, the designation of a local government as a participating agency in the NEPA process is not without precedent.

Please refer to Chapter 5 for specific transportation improvement recommendations to support the proposed land use plan as well as complement CDOT improvements for US 160.

4.4.13 Parks & Open Space

Additional park facilities and open space conservation are high priorities for the City. Preservation of open space and conservation of wildlife habitat are important to local residents.

The Plan recommends a regional park and several neighborhood parks in Sub Area I. The park land is located on the east and west edges of Sub Area I adjacent to the school campus and is recommended to serve as an extension of the school campus.

4.4.14 Utilities (Water & Sewer)

Most homes and businesses in the Grandview area obtain potable water from wells. A few have to truck water in because of the lack of a good groundwater supply. Access to City water is one of the major motivations for property owners to seek annexation into the City.

Most homes and businesses in the Grandview area lie within one of the two local sanitation districts. The South Durango Sanitation District serves the western two thirds of Grandview, roughly to the top of the hill on US 160. The remaining eastern

one third of the area is served by the Loma Linda Sanitation District. There are homes and businesses within the districts that are on septic systems. The sanitation districts indicate that they have adequate capacity and/or capital improvement plans in place to accommodate the growth forecasts in the Grandview Area Plan.

The City of Durango Public Works Department is developing conceptual plans and estimating the cost, by sub area, of providing water service to Grandview. Public Works is also coordinating with the Sanitation Districts regarding the cost and other issues surrounding the provision of sanitary sewer service. These analyses will be provided by the City in a separate report.

As annexation occurs, the City and the South Durango Sanitation District should consider negotiating an agreement regarding operations and the potential takeover of South Durango Sanitation by the City. If and when annexation begins to occur in areas covered by the Loma Linda Sanitation District, comparable agreements should be negotiated.



Figure 4.9 Pocket Parks Surrounded by Residential Development

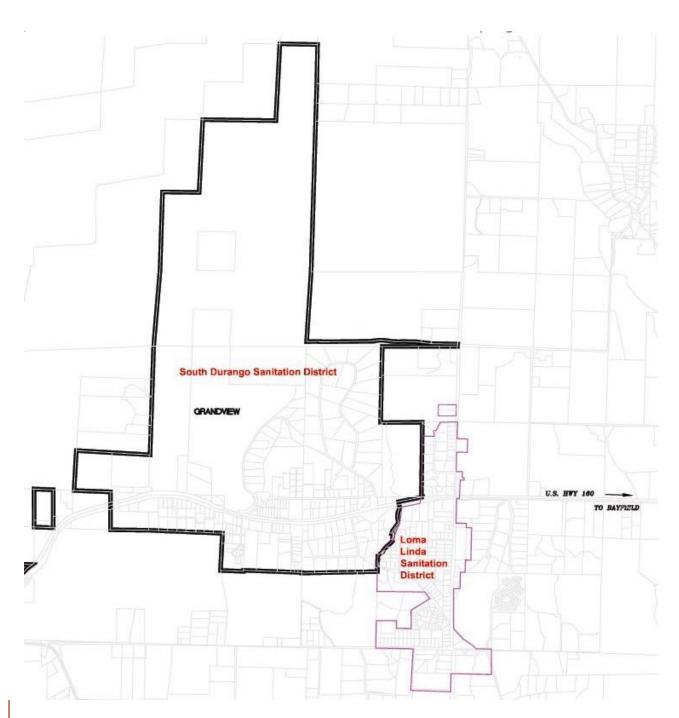


Figure 4.10 South Durango Sanitation District & Loma Linda Sanitation District Boundaries

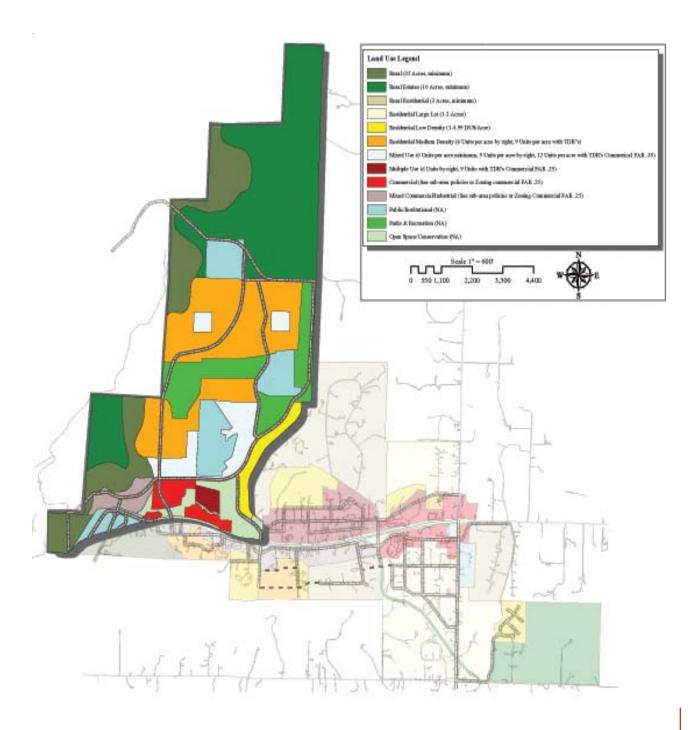


Figure 4.11 Sub Area I Land Use Plan

4.5 Sub Area I

4.5.1 Existing Conditions – Sub Area I

Sub Area I is a wide valley that is north and perpendicular to US 160. Several rural homesites and ranches are spread throughout the landscape. The former Artesian Valley Ranch (AVR) encompasses approximately 991 acres. The former AVR is home to a winter elk herd and has significant open space that is valued by surrounding residents. The ranch sits between Grandview Ridge to the west and State School land and other rural properties to the east. A 40-acre BLM outparcel is surrounded by ranch property. Several years ago La Plata County approved development for the Artesian Valley Ranch; however that approval has since expired. The Crader property and former Mason Ranch also dominate this sub area between US 160 and AVR. Oil and gas wells are scattered throughout.

The Tierra Group LLC recently purchased the southern end of AVR and also acquired the Mason property via a land trade that provides the Tierra Group LLC a ten year option to buy the northern end of the sub area which is the northern end of the former AVR property. The current focus for development is on the former Mason property and the southern end of the former AVR property for a total of 682 acres. The Tierra Group LLC, in pursuit of development in the southern end of this sub area, consulted the Crader family in order to incorporate their ranch properties into the build out vision for this valley. To that end, the Tierra Group LLC and the Crader family conducted a design charrette for their properties in January of 2003.

Primary access to the area is from County Road 233 (CR 233). A signalized intersection at CR 233 is to be constructed by the Tierra Group LLC. The area around the High Llama Lane intersection is being considered by CDOT for a possible grade separated interchange to be realigned with US

550. However, if commercial development is proposed before CDOT's interchange improvements, and there are no monies allocated for the interchange, this Plan recommends a full signalized intersection on to US 160 near High Llama Lane to accommodate future growth. Significant commercial development may not be allowed until such time as the interchange is constructed.

This area is attractive to regional retail development. The properties are large acreages, undeveloped, close to Durango, and accessible from US 160. The C & J Gravel gravel quarry, west of this sub area, has its own access onto US 160. The Plan proposes access for the quarry from the High Llama Lane intersection/interchange.

At the southern end of this sub area, there are several small commercial uses scattered along US 160. An abandoned rail corridor traverses the southern end as well paralleling the highway. Wetlands are present in Wilson Gulch and adjoining properties.

4.5.2 Opportunities and Issues

This sub area plan proposes a regional retail center composed of commercial, office and mixed-use intended to support and complement the Mercy Hospital relocation. Mixed commercial/light industrial uses are proposed for the western portion of the sub area. A large school site is located within Sub Area I as well. In order to support TND principles, medium density residential development is proposed north of the hospital campus. The provision of medium density housing facilitates affordable or attainable housing, thereby encouraging a diversity of residents that will contribute to a balanced neighborhood.

The northern half of Sub Area I, north of the boundary with the BLM parcel that is surrounded by the former AVR property, is proposed as Rural Estates, one dwelling unit per 10 to 35 acres, in

order to preserve open space and wildlife habitat and provides a transition from the more developed portion of the sub area. If a greater level of development is proposed for the northern portion of this valley, a map amendment, as well as a Plan amendment, will be required. Code language should also be adopted to ensure clustering of development and other wildlife friendly requirements such as specific fencing that supports migration, seasonal trail closures, kenneling of dogs, etc.

One hundred and sixty-five (165) acres of parkland are proposed for active recreational use within this sub area including two park areas (one on the eastern edge and one on the west) with a connecting green belt. One school site is proposed adjacent to the parks to facilitate an efficient use of common infrastructure.

As development is proposed on Ewing Mesa, an opportunity exists for future development in Sub Area I to connect roads and trails onto the Mesa. Trail and road connections are conceptually identified that could connect to Ewing Mesa as well as to other public lands adjacent to Sub Area I.

As stated earlier in this document, there is a unique opportunity to plan for long-term development in this undeveloped area to provide a mix of uses that support City goals. The retail uses combined with office and mixed-use both adjacent to the hospital campus and supported with a pedestrian trail network to the parks, schools, and housing creates an integrated pattern of land uses that encourage non-auto oriented movement between uses. The mix of uses provides the ability to share infrastructure such as roads, parking, open space and park amenities, and utilities.

Development of this area must be closely coordinated with CDOT and existing property owners to ensure that the elements of this Plan are accomplished. Adequate provision for access into

the sub area is critical as well as circulation within the sub area. It will be important for the City to carefully review and analyze proposed development on a site specific basis to make certain that impacts are mitigated and development occurs in a cohesive manner. For example, some existing uses along US 160 use the highway for access. The City, working with CDOT, should require a reorientation of the highway access to frontage roads as redevelopment and US 160 improvements occur.

4.5.3 Specific Sub Area Plan Elements

Descriptions of each of the land use elements specific to this sub area are presented below. These elements emerged during the Design Dialogue process and subsequently from community meetings and staff analysis. They reflect the synthesis of community vision for the area.

4.5.3.1 Hospital and Medical Office Campus

The former AVR and Mason properties constitute a specific area of concern and opportunity. During the first series of public meetings, the Grandview Area Plan Steering Committee encouraged an AVR development proposal that considered the rural character of the area. Property Owners suggested cluster development to balance open space with the property owner's development value of the land.

The purchase of the AVR and Mason properties and anticipated relocation of Mercy Hospital changed the original plan premises significantly. During the second Design Dialogue in August of 2002 (which preceded the design charrette conducted by the Tierra Group LLC and the Crader family), an overflow crowd at a public open house supported the hospital relocation and other development ideas proposed for this area.



Figure 4.12 Mercy Hospital Campus

The hospital campus will attract support businesses that will relocate to this area. Both the property owners and the hospital desire a compact development that incorporates new street design standards, compact, walkable neighborhoods, and connectivity for pedestrians throughout this sub area.

4.5.3.2 Regional Retail/Office Center

The Plan proposes a regional retail center in the vicinity of the current High Llama Lane alignment near the US 160 intersection. However, CDOT is planning a significant realignment of the US 160/550 interchange that will affect the High Llama Lane intersection.

The Plan envisions approximately 45 acres of regional retail flanking High Llama Lane and commercial land continuing to exist along US 160. The uncertain nature of the timing of CDOT's highway improvements does not interfere with this sub area plan. Although road improvements will be required, the regional retail center is planned in a location that best utilizes existing road networks and can take advantage of the long term highway

improvements proposed by CDOT.

Retail uses are clustered at the southern end of Sub Area I. A large open space corridor that preserves the character of Wilson Gulch is also proposed. Access to gravel resources is through the commercial uses rather than residential neighborhoods and the road network will be designed to accommodate this mix of traffic.

4.5.3.3 Mixed-Use

For this sub area the Plan proposes a mixed-use land use classification, including commercial and residential. The allowable floor area ratio for commercial use in this classification is .35:1. The residential density shall be established with a use by right of nine dwelling units per acre (the minimum is six dwelling units per acres) which can be increased up to 12 dwelling units per acre with the purchase of TDRs.

The mixed-use land use classification is proposed as a transition area from the strict commercial uses of the retail center into the hospital campus.



Figure 4.13 Mixed Use Development

4.5.3.4 Business / Light Industrial Park

The plan incorporates 37 acres of Mixed Commercial / Light Industrial property. This area was originally shown as commercial, however, the intersections could not support the traffic volumes and the new land use was chosen to decrease the traffic generated. The inclusion of the Mixed Commercial / Light Industrial land use also allows for the potential development of a small business park, which is a need that was identified during the public review process.

4.5.3.5 Schools and Other Public Uses

The Plan sets aside approximately 40 acres of land for one new K-8 educational facility. The school site is located on the east side of the sub area adjacent to the proposed regional park and south and east of medium density residential neighborhoods.

The school will enhance the active mix of uses located in this sub area, add to the diversity of the neighborhood and support the mixture of housing product. A separate pedestrian trail and sidewalks will connect through this sub area to the school

and the rest of the area.

A 40-acre BLM parcel is also designated as Public on the Land Use Map. It is anticipated that this parcel will be utilized for a public purpose, which may include parkland. The land needed for the potential future interchange is also shown as public.

4.5.3.6 Pedestrian Ways, Connectivity

Pedestrian and bike connections are important amenities that are necessary for any redevelopment or new development in the Grandview study area. Retail commercial, offices, and the hospital are sited in a compact form that encourages pedestrian and neighborhood connectivity. A trail is proposed in Wilson Gulch to connect the Animas River trail system with Sub Area I. The Plan proposes conversion of the old rail corridor, with preservation of the trestle, as part of that trail connection. This trail is also intended to extend into other sub areas and east toward Bayfield.

Pedestrian connections are also planned to the school sites, from residential neighborhoods to the

retail commercial center, and to a potential park and ride lot west of the intersection of High Llama Lane/US 160. A utility easement provides an opportunity for an east/west pedestrian connection between the parks. The new road network will include sidewalks and landscaping that will also enhance pedestrian connections to the schools and parks, other uses throughout this sub area and into other sub areas. Street and pedestrian design concepts are found in Chapter 5 and in the appendix.

It is proposed within this sub area that pathways connect to future recreational amenities along the Grandview Ridge. The potential exists to connect across Grandview Ridge to Ewing Mesa and downtown Durango.

4.5.3.7 Access, Intersections and Streets

This sub area is proposed to be connected to US 160 via CR 233 and a realigned High Llama Lane. The Plan recommends ample pedestrian connections as well as a new road network that maximizes internal access without requiring the use of US 160. Gravel pit access, as mentioned previously, takes advantage of the relocated High Llama Lane intersection and new road network planned for the regional retail center. It will be important to utilize street design concepts that support both gravel trucks and bike users along this alignment.

The relocation of Mercy Hospital will require a full movement signalized intersection at the west end of CR 233 and US 160, at the boundary with Sub Area III. It is proposed that this intersection be



Figure 4.14 Parks and Pedestrian Ways Adjacent to Housing

constructed by the Tierra Group LLC. Based upon traffic projections, this Plan recommends that development of the regional retail center be required to construct a grade separated interchange near High Llama Lane if CDOT has not already completed those highway improvements. In the interim, the Plan recommends a full signalized intersection relocated to the east of the existing High Llama Lane intersection to ensure safe access and appropriate intersection capacity as the surrounding area develops.

As mentioned previously in this Plan, there is also the possibility to connect Grandview and Ewing Mesa over Grandview Ridge. This Plan shows a conceptual alignment. Rights-of-way should be secured during the development review process.

Finally, it is recommended that County Road 235 (CR 235) be upgraded to connect to County Road 234 (CR 234) providing another access for Sub Area I. The existing topography and existing alignment may require significant upgrades to accommodate future traffic. The character of this roadway should be consistent with the desire to provide arterial access to Grandview, not a highway through Grandview.

4.5.3.8 Park and Ride/Transit

A park and ride/intercept lot is recommended just west of the US160/High Llama Lane intersection until the interchange is constructed. It is also proposed that the intercept lot be integrated with the interchange when built. The interim park and ride provides an opportunity to encourage alternative transit. Although CDOT has acquired this parcel for right-of- way purposes, the actual improvement may be years away.

Transit connections will be enhanced in response to the increased level of development. Local

transit providers recognize the need to expand the service boundary to the Grandview area particularly with the relocation of Mercy Hospital. In addition, internal transit loop systems should be provided by the developer of large properties.

4.5.3.9 Parks and Open Space

The Plan recommends approximately 274 acres of park and open space land in Sub Area I. The park and open space are to be comprised of 165 acres devoted to regional park use and facilities, and approximately 69 acres of additional land set aside for conservation and open space. The locations of the regional park lands provide a buffer to the existing neighborhood to the east and a connection to Grandview Ridge and other pedestrian amenities.

There are other possible recreational amenities within this sub area: potential bike/hike connections to Grandview Ridge and the pedestrian/bike path slated for Wilson Gulch and the old rail corridor. In addition, a 640 acre State Land Board parcel is located east of the study area. The Plan preserves the possibility to link the State Land via the trails to Grandview Ridge.

The Plan recommends preserving existing high quality wetlands at the southern end of the valley and incorporates them into the Wilson Gulch open space. All uses are designed to maximize the road network necessary to support the new development but to enable containment of that network in a manner so as not to bisect important open space.

The Plan identifies slopes greater than 30% and recommends a rural residential classification to reduce impactive hillside development. To enhance the open space between Sub Area I and the neighbors to the east, the Plan provides a low density residential buffer between Sub Area I and the existing neighbors.

4.5.3.10 Housing

The Plan proposes medium density residential for the bulk of residential land uses in the sub area. This land use classification is recommended to become a receiver site for TDRs. Therefore density may be increased from six dwelling units per acre to nine dwelling units per acre with the purchase of TDRs. The use of TDRs may encourage increased density and a reduction in housing costs. Using medium density residential as a potential receiving area should bolster the pilot TDR program because of the potential for strong development pressure in this study area due to controlled access off of US 160, planned infrastructure improvements to support future growth and other public amenities that support housing.

The location of multi-family within a mixed-use land use classification provides a transition from the commercial retail uses to the single-family residential neighborhood. The multi-family housing is located within walking distance of shopping and the school sites. A small neighborhood commercial node is proposed in the middle of the medium density residential neighborhood as well.



Figure 4.15 The Greater South Fork Ranch Area

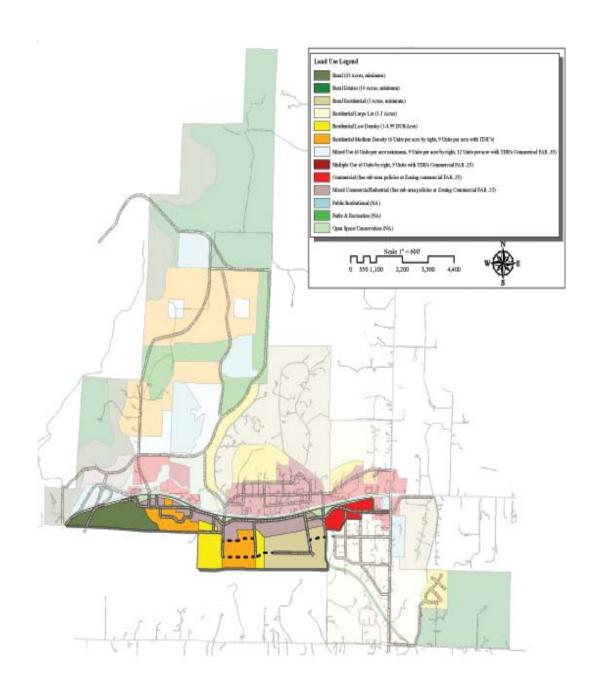


Figure 4.16 Grandview Area Future Land Use Plan - Sub Area II

4.6 Sub Area II

4.6.1 Existing Conditions - Sub Area II

Sub Area II encompasses a strip of land along the south side of US 160, stretching nearly from Farmington Hill to Elmore's Corner. It is a fairly narrow strip of land, only about a half mile deep, bordered roughly at the ridgeline one can see from the highway.

This area contains a mixture of commercial, light industrial and residential uses. Commercial enterprises, including the Grandview Store, a restaurant, several building supply enterprises and manufactured home sales outfits, and several used car lots line the highway. Areas of residential housing exist behind the commercial/light industrial uses. Several mobile home parks are located on the west end of the study area off of County Road 232 (CR 232). Several subdivisions were platted on the hillside to take advantage of the views. A larger lot (3 acres or larger) subdivision, Valle Escondido, is located in the eastern portion of the sub area. In addition to the subdivisions, there are home sites scattered throughout the area.

Like the north side of US 160, there are many driveways that access directly onto the highway. Access will be restricted as part of CDOT's planned upgrades for US 160. CR 232 parallels US 160 through a portion of this sub area, and could be extended to create a frontage road.

4.6.2 Opportunities and Issues

The pending CDOT improvements will create an opportunity to improve access, parking and circulation, and neighborhood connectivity for the mix of business and residential traffic. Improved traffic circulation will support future development within this area. The Plan recommends maintaining the existing light industrial/commercial land uses along the highway and incorporating low and

medium density housing behind the light industrial uses. The light industrial/commercial businesses transition into the medium and low density residential land uses to buffer the commercial and roadway impacts from the residential uses.

Implementing City street standard concepts, consolidating highway access and shifting traditional business access points will be required for redevelopment. In addition, as land use transitions from current uses to those proposed by the Plan, it may be necessary for the City of Durango to reevaluate the non-conforming use policy to facilitate a smooth transition as discussed previously. Planned Development strategies that establish dimensional requirements for a specific development and are sensitive to specific site constraints should be used to provide a smooth transition and adequate buffer between the areas designated for different uses.

4.6.3 Specific Sub Area Plan Elements

Descriptions of each of the land use elements specific to this sub area are presented below. These elements emerged during the Design Dialogue process and subsequently from community meetings and staff analysis. They reflect the synthesis of community vision for the area.

4.6.3.1 Frontage Roads and Access

It is the goal of CDOT to limit driveway access onto US 160 for safety reasons. This presents an opportunity for CDOT and the City to improve safety and circulation in this sub area. This Plan proposes to extend an upgraded CR 232 east to SH 172 and to create an intersection on the west end with a realigned High Llama Lane. This new frontage road will allow access points onto US 160 to be limited.

In order to facilitate movement on or off of the "frontage road", the Plan recommends a right-in, right-out intersection with US 160 at the former

east end of CR 233. Access onto the west end of the frontage road will occur from an intersection at US 160 and a realigned High Llama Lane. Another signalized intersection is proposed midway with US 160/CR 233 and an extended CR 232.

This proposal also allows for a green buffer to be created between US 160 and the businesses located along an extended CR 232. The internal road network of this sub area can be upgraded by connecting existing lanes and drives together and linking them with the realigned CR 232.

It is proposed that the frontage road and access be developed by CDOT as part of US 160 upgrades. However in the interim, the City, County and CDOT can work with individual property owners to begin to secure rights-of-way and to reorient new development off of the highway.

4.6.3.2 Future Mixed Commercial/Light Industrial Uses

Mixed Commercial/Light industrial uses are proposed on the south side of the highway and organized around the frontage road. This area has traditionally provided this type of service and it is logical to continue to support these uses as they provide an important service to the region. These uses will also help provide a buffer to the highway from the residential uses proposed behind. The Plan proposes the extension of the road network to support the existing and proposed uses in this area. In addition, the provision of a frontage road will increase traffic safety and encourage a more cohesive business district.

4.6.3.3 Housing

Medium density residential uses are recommended, in some areas of this sub area, behind the mixed commercial/light industrial areas accessed off of the new frontage road. Because the topography does not lend itself to large commercial or light industrial uses or large lot subdivisions, clustered housing should be tucked into the hills on this side

of US 160.

The medium density housing in Sub Area II will enable an affordable housing product adjacent to existing service areas and in close proximity to the proposed commercial center just across the highway in Sub Area I.

Design standards for landscaping as well as Planned Development review criteria should be used to ensure that medium density housing is compatible with adjacent less dense residential developments.

4.7 Sub Area III

4.7.1 Existing Conditions – Sub Area III

Sub Area III is a sizeable area of land on the north side of US 160, extending from the western intersection with CR 233 east to CR 234. Although some of the properties access directly onto US 160, CR 233 provides primary access to most of the area. CDOT's long-range plan for US 160 proposes to restrict access onto the highway. This plan recommends using CR 233 as a frontage road servicing properties adjacent to US 160.

This area contains a mixture of residential, commercial and light industrial uses. As with Sub Area II, Sub Area III is characterized by commercial uses along US 160, shifting to residential uses further from the highway. Residential areas closer to the highway tend to be medium- to low-density, on ½ -acre or larger lots. The northern portion of this sub area is characterized as rural residential with homes on 8-acres or larger parcels in the La Paloma Subdivision. The Palo Verde Subdivision located on the western edge of Sub Area III and the Durango Heights Subdivision located on the eastern edge both have lots that are three-acres or larger in size. Oil and gas wells are scattered throughout.

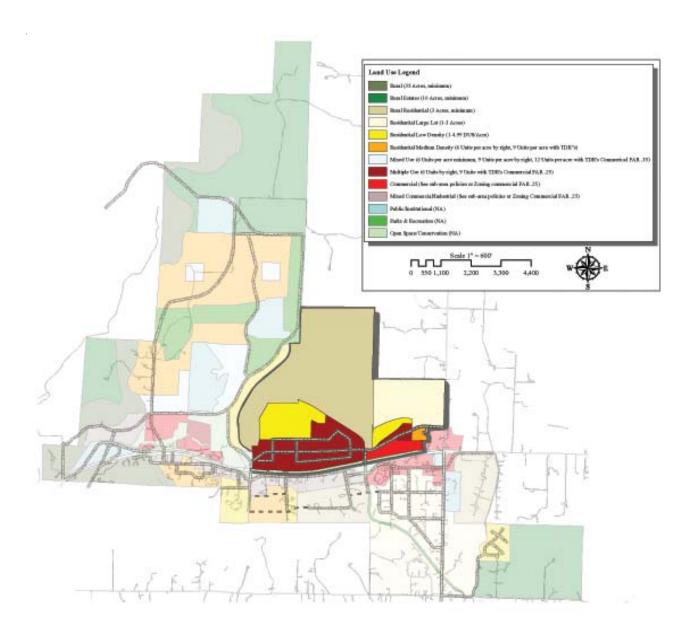


Figure 4.17 Sub Area III

4.7.2 Opportunities

The proposed Plan utilizes the existing road network to reduce the need to carve new roads out of the land. CR 233 parallels US 160 through a large portion of the sub area and provides an opportunity to create a new frontage road when access is restricted onto US 160. With the opportunity to focus the neighborhood onto CR

233 and away from US 160 and implement street and pedestrian design standards, it is possible to transform this sub area into a locally serving commercial area that is more pedestrian oriented. Furthermore, as the area's land uses become better organized and future amenities and improvements are installed, redevelopment opportunities will be enhanced. For example, there are approximately 82 acres of undeveloped land

that would gain direct access onto an extended CR 233. This access will enable the development of a mixture of residential densities. Transforming CR 233 into the new frontage road could provide a greater green buffer to be created between US 160 and the existing development along the highway.

The recommended land use designations for this sub area recognize the existing uses particularly the large lot subdivisions on the north boundary. Multiple-use (commercial and residential) designations are concentrated along CR 233. Commercial uses are proposed south of the CR 233 extension to CR 234.

4.7.3 Specific Sub Area Plan Elements

Descriptions of each of the land use elements specific to this sub area are presented below. These elements emerged during the Design Dialogue process and subsequently from community meetings and staff analysis. They reflect the synthesis of community vision for the area.

4.7.3.1 Transportation/Connectivity

In order to improve not only the connectivity within each sub area but in between sub areas, this Plan proposes extending the current alignment of CR 233 east to connect into CR 234. The western

end of CR 233 will intersect the new road accessing Sub Area I. This connection provides an alternative to US 160 for local residents to access the regional retail area, hospital, and other activities planned for Sub Area I. Using existing CR 233 as a frontage road for the highway prevents an additional roadway from being carved out of the landscape.

CDOT proposes a signalized intersection at the west end of CR 233 and US 160. In addition, the Plan proposes a right-in, right-out intersection at the east end of CR 233 and US 160. Because of the parallel nature of CR 233 to US 160, the Plan proposes that CR 233 be upgraded at the time CDOT proposes improvements to US 160.

This Plan proposes generous setbacks from US 160 to accommodate hard surface, separated bicycle and pedestrian path improvements. Street treatments should strive to balance vehicular, pedestrian and bicycle traffic.

Near the existing east end of CR 233, a pedestrian underpass is proposed under US 160 to connect the two areas of the Grandview study area. This proposed connection, to be accomplished during the US 160 highway improvements, will provide a greater degree of safety for pedestrians and



Figure 4.18 Low Density Housing

cyclists crossing the highway.

Street design concepts for pedestrian amenities and the frontage road are found in Chapter 5 and in the appendix as well as specific design standards proposed for pedestrian/bike paths within the setback from US 160 and other pedestrian/bike ways.

4.7.3.2 Vegetated Buffer

Using this Plan as a foundation for future decision making, the City of Durango should negotiate with CDOT for desired improvements at the time CDOT considers upgrades to US 160. Due to CDOT's analysis and preparation for timely improvements, this Plan proposes several recommendations to ensure that CDOT improvements are compatible and advance the street and pedestrian amenities that are envisioned and desired for this area.

A significant improvement that could occur as part of the highway improvements is a green buffer along US 160 between the edge of pavement and development oriented toward the new frontage road. The green corridor is proposed to be wide enough to accommodate a bike/pedestrian path that can extend all the way through Grandview. The provision of curb and gutter on US 160 would enable additional landscaping to be installed. The green space will provide a buffer from high-speed traffic and provide a safety zone between the highway and development.

The proposed buffer along the north side of US 160 is wider than on the south side due to structural and topographic constraints on the south side.

4.7.3.3 Multiple-Use and Commercial

The Plan recommends this sub area as the area within Grandview for small multiple-use oriented businesses. This sub area lends itself to a mixture of locally serving businesses and office space due to its close proximity to a variety of residential land uses and its adjacency to Sub Area I.

Using the new frontage road as a focal point, a spine for this neighborhood, the Plan proposes to strengthen the existing commercial uses with locally serving commercial, office and residential uses creating a multiple-use neighborhood.

Multiple-use is proposed in between the two intersections with US 160. The floor area ratio and residential density of the multiple-use is .25:1 and a maximum of six dwelling units per acre which can be increased up to nine dwelling units per acre with the purchase of TDRs.

4.8 Sub Area IV

4.8.1 Existing Conditions – Sub Area IV

Sub Area IV is the eastern boundary of the Grandview study area. It is comprised of the intersection of US 160, SH 172, and CR 234, known as Elmore's Corner, extending for approximately ¼ mile in all directions from the intersection. This area holds a mixture of scattered residential units, with locally serving commercial uses, and a cemetery on the southwest corner. SH 172 leads south to the Durango La Plata County Airport, while CR 234 leads north to Florida Road.

The US 160/ SH 172/ CR 234 intersection is currently a signalized intersection that is slated for upgrades when CDOT makes improvements to US 160. As the major crossroads at the eastern edge of the study area, this intersection has the potential to grow into an active commercial center.

4.8.2 Opportunities

This sub area has been included in CDOT's plan for upgrades to US 160. This is the edge of the study area and the land east of this intersection is relatively rural in nature therefore creating a natural buffer that should be maintained to help contain the denser redevelopment to the west within the study area. This intersection can define the new City boundary and provide a unique statement for the east entrance to the City.

4.8.3 Specific Sub Area Plan Elements

Descriptions of each of the land use elements specific to this sub area are presented below. These elements emerged during the Design Dialogue process and subsequently from community meetings and staff analysis. They reflect the synthesis of community vision for the area.

4.8.3.1 Gateway

It is recommended that this intersection become recognized as the eastern gateway into the City of Durango. US 160 is the eastern portal to the Durango area from all points east and the regional airport is located approximately 5 miles south, on SH 172. The Plan proposes to begin the green buffer on both sides of US 160 at this intersection. Because the highway improvements propose a divided highway from this location to the west, there is the potential to include plantings to create a boulevard treatment not only at this intersection but extending west down the highway. Establishing a boulevard, lowering highway speed limits, developing appropriate signage, and promoting sensitive land use treatments, including public art on all four corners and in the medians, would create a unique and attractive entry for the City.

4.8.3.2 Commercial Uses

The plan proposes commercial land use on all four corners and preservation of the cemetery. Commercial land uses are proposed to the north of the intersection and along the extended CR 233 heading west through Sub Area III.

4.8.3.3 Transportation/Connectivity

The Plan supports the concept of a park and ride facility at the northeast corner of the US 160/SH 172 intersection to intercept commuter traffic from Bayfield to the east and traffic arriving along SH 172 from the south. The new frontage road (extended CR 233) is proposed to connect into CR 234 just north of this intersection.

An important pedestrian connection is proposed in the Plan from the north side of the highway to the elementary school and fire station south of the intersection via an upgraded at-grade crossing at the intersection.

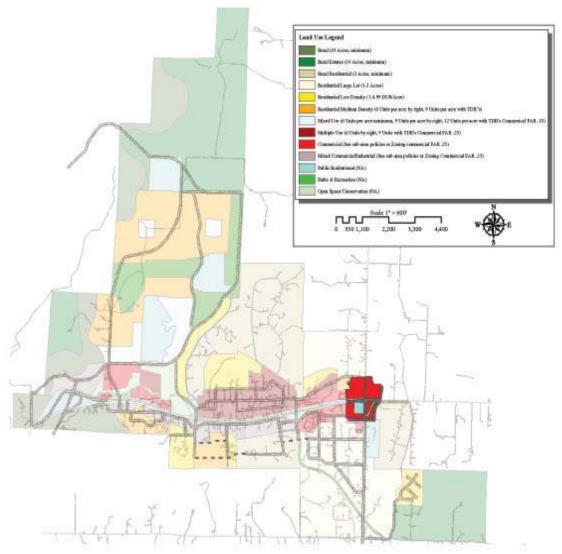


Figure 4.19 Sub Area IV

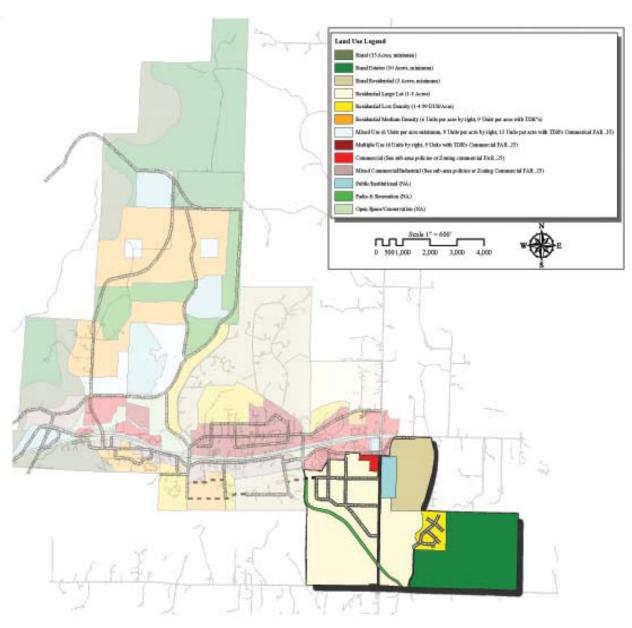


Figure 4.20 Sub Area V

4.9 Sub Area V

4.9.1 Existing Conditions - Sub Area V

The southeast portion of this sub area has developed into a variety of residential densities. Many parcels have been subdivided for low-density residential development with very little connectivity between neighborhoods. One small mobile home park adds to the residential make-up

of this area. There are some mid-sized parcels left on the edges of this sub area. An elementary school and fire station are located on the east side of SH 172 close to the US 160/SH 172 intersection.

County Road 221 (CR 221) forms the southern boundary of this sub area to the east of SH 172 and County Road 220 (CR 220) to the west of SH 172.

On the east side of SH 172 a rural, sparsely developed, land use pattern still exists. Recently, an affordable, single-family residential subdivision has been developed. However, very little vehicular or pedestrian connectivity has been provided to this new neighborhood. A large vacant parcel adjacent to this new subdivision to the east has been promoted for higher density affordable housing.

SH 172 is a rural highway that bisects this sub area north to south. However, the portion within the study area, from the US 160 intersection to the CR 220 and CR 221 intersection, takes on the characteristics of a suburban arterial due to the density of land uses adjacent to the right-of-way. Realignment of the highway to the east was discussed in the Design Dialogue sessions. That realignment is not reflected in this Plan but the potential improvements for this portion of SH 172 are discussed in Chapter 5.

4.9.2 Opportunities and Issues

There is a former rail corridor that bisects some of the neighborhoods from the northwest to the southeast. The corridor ties into the proposed right-in right-out intersection and pedestrian underpass on US 160 near this intersection. The properties on the east edge of this sub area have retained a more rural character providing a buffer into the county from the study area.

4.9.3 Specific Sub Area Elements

Descriptions of each of the land use elements specific to this sub area are presented below. These elements emerged during the Design Dialogue process and subsequently from community meetings and staff analysis. They reflect the synthesis of community vision for the area.

4.9.3.1 Street Connectivity

The proposed plan recommends incorporating a modified grid pattern of roadways to facilitate

vehicular and pedestrian circulation within the neighborhoods. The connectivity between neighbors reduces heavy traffic flows on specific streets and encourages pedestrian use between neighborhoods. The Plan proposes several connections onto the proposed frontage road (CR 232) to enhance internal circulation and reduce the emphasis on SH 172. If a traditional grid pattern is laid over the existing lot lines, roads and cul-de-sacs, connectivity between residences and neighborhoods appears to be achieved with relative ease. As new development occurs within this sub area, it is recommended that opportunities be found to connect existing roadways (or pedestrian connections at a minimum) in this area.

4.9.3.2 Pedestrian/Bike Connections

The former railroad alignment provides a unique opportunity to enhance the pedestrian connectivity within the neighborhood providing an off road alternative between SH 172 and US 160. The Plan recommends conversion of the rail corridor into a pedestrian/bike path which will tie into the right-in right-out intersection on US 160 and the proposed pedestrian underpass. To safely extend the trail on the rail corridor further into the County, a pedestrian underpass should be considered underneath SH 172 near the southern boundary of this sub area.

4.9.3.3 Buffer Zone with County

Transitions between "urban" and "rural" need to be better defined to curb sprawl. The recommended TDR program could help maintain a buffer between the study area and the more rural county land. The eastern and southern portions of this sub area have been identified as buffer zone areas and are potential sending sites for a TDR program. Intergovernmental Agreements with La Plata County can also help facilitate a buffer zone surrounding the Grandview study area.

4.9.3.4 State Highway 172

This portion of the highway as it traverses the sub area is a narrow, busy, straightaway with many



curb cuts including access to an elementary school, fire station, and a moderately dense residential development to the west of the road. Pedestrian amenities are undefined. When CDOT proposes an upgrade to the highway, the City or County should require significant upgrades to the pedestrian amenities that reflect the urban service characteristics of this alignment.

In order to achieve the conversion of State
Highway 172 into an urban service highway with
pedestrian oriented features and perhaps
realignment, the City should adopt formal
comments that could be presented to CDOT if
and when CDOT proposes highway improvements
for this stretch of SH 172.

4.10 Recommended Policies – Grandview Land Use Plan

Policies are statements prescribing a course of action to accomplish a vision. The following policies apply to the Grandview Area. They prescribe public and private actions in addition to those listed in the City-wide sections of the Comprehensive Plan that will help achieve the vision for this area.

4.10.1 Annexation

4.10.1.1

Require that annexations are compliant with the Grandview Area Plan, the Future Land Use Map Figure 4.1 and the Durango Comprehensive Plan.

4.10.2 Natural Environmental

4.10.2.1

Classify areas with a slope of 30% or greater as Rural on Future Land Use Maps.

4.10.2.2

Limit development in wetlands as well as development that impacts wetlands.

4.10.2.3

The City should develop and adopt wetland protection standards. Items addressed should include delineation, setbacks and buffers, education and mitigation measures.

4.10.2.4

The city should develop and adopt air quality standards.

4.10.2.5

Coordinate with La Plata County and the State to implement effective strategies to improve air quality.

4.10.2.6

Promote better air quality through monitoring, prohibiting new wood burning fireplaces, and other appropriate measures.

4.10.3 Land Use

4.10.3.1

Promote the development of land uses that are consistent with the Future Land Use Map Figure 4.1 and the Plan policies.

4.10.3.2

Establish land use criteria, zoning and a development review process that encourages mixed-use and multiple-use development in a compact format.

4.10.3.3

Adopt a Transfer of Development Rights program in conjunction with the County. The TDR program should consider the establishment of TDRs for residential density as well as commercial and industrial square footages.

4.10.3.4

Establish densities for mixed-use in Sub Area I, at the time of annexation, with a required minimum density of six dwelling units per acre and a use by right of nine dwelling units per acre which can be increased to 12 dwelling units per acre through a Transfer of Development Rights program established in conjunction with La Plata County.

4.10.3.5

Establish densities for multiple-use in Sub Area III, at the time of annexation, with a use by right of six dwelling units per acre which can be increased to nine dwelling units per acre through a Transfer of Development Rights program established in conjunction with La Plata County.

4.10.3.6

Adopt Traditional Neighborhood Development principles that reflect the tenets of new urbanism as defined by the Congress for the New Urbanism.

4.10.3.7

New residential development, where appropriate given the existing land uses, shall be in the form of neighborhood clusters, centered around a civic space with the furthest home being not more than ¼ mile from it. Each neighborhood should be a minimum size of 40 acres.

4.10.3.8

Encourage upper floor residential units over the commercial and office uses in the mixed-use and multiple-use areas.

4.10.3.9

Encourage the development of a neighborhood-scale commercial development in the center of each neighborhood.

4.10.3.10

Promote a mix of dwelling types and sizes in new residential areas; discourage the formation of new residential areas having a uniform housing type and size throughout.

4.10.3.11

Promote the development of good quality housing for all income groups through zoning, design review

and building regulations, consistent with efforts to increase the City's affordable and attainable housing stock.

4.10.3.12

Utilize Planned Development criteria to vary density, mix of use, and dimensional requirements, and address compatibility with adjacent uses, sensitivity to topographical constraints, preservation of open space, and development of trails systems.

4.10.3.13

Determine the environmental, visual and functional impacts through site plan review of proposed development or redevelopment for all uses except single-family homes. Cut-and-fill impacts should be carefully reviewed.

4.10.3.14

Require redevelopment of existing properties to be consistent with the adopted Grandview Area Plan and also consistent with city standards.

4.10.3.15

Create an Overlay District to facilitate redevelopment that is consistent with the plan and addresses uses, bulk and mass, as well as street and pedestrian standards, where appropriate.

4.10.3.16

Adopt a standard for nonconforming uses that allows expansion of the structure(s) but requires pedestrian and street improvements and other development standards that are consistent with the Plan. However, when a use is discontinued for more than one year or is proposed to change, the use must come into conformity.

4.10.3.17

Develop a review process to ensure that as redevelopment occurs the transition of uses and buffers between existing and proposed uses are adequate to mitigate impacts caused by new development and/or redevelopment.



4.10.3.18

Require new development to create lots along the property line that are not less than one-half the average size of the adjacent subdivided property or create a buffer zone with an enlarged set back and adequate screening.

4.10.3.19

Establish a development review process for gas/oil extraction activities. Develop criteria and standards for drilling and operation that reflect the developed nature of the area.

4.10.3.20

Require buffers, vegetation, water treatment, dust control, noise control and other measures as deemed necessary to protect the physical and social environment where mineral extraction will be carried out.

4.10.3.21

Create and implement Intergovernmental Agreements between La Plata County and the City of Durango to ensure that the land use development patterns and uses are contained within the urbanizing boundary and are developed to appropriate standards.

4.10.4 Community Character and Design

4.10.4.1

Adopt new development standards that support large commercial development in a manner that is more pedestrian friendly and less auto-oriented, and reduces the impact of large commercial square footages.

4.10.4.2

Minimize the visual impact of parking areas by requiring architectural features and/ or landscape screening along edges. Parking lots should be broken up by building placement and interior landscaping. Locate parking areas to reduce

visibility from the major roads.

4.10.4.3

Develop street design and landscaping/open space standards for US 160, SH 172, and CR 234, that require new development along the rights-of-way to install significant roadside landscaping.

4.10.4.4

Develop a unifying theme of landscaping, signage and urban design for the "gateway" in Sub Area IV.

4.10.4.5

Promote the development of integrated residential neighborhoods in the Grandview Area.

4.10.4.6

Create attractively landscaped entrances to each neighborhood/development as well as into the various enclaves of the Grandview Area.

4.10.4.7

Provide for an outdoor gathering space in each neighborhood.

4.10.4.8

Develop architectural guidelines and standards for each neighborhood. The architectural guidelines and standards shall incorporate an integrated and cohesive design based on a regional architectural syntax.

4.10.4.9

Establish an architecture review committee for each neighborhood to enforce the design guidelines.

4.10.4.10

Encourage the utilization of green building techniques in all developments.

4.10.4.11

Consider and accommodate solar access where possible in new development.

4.10.4.12

Protect views in building design and placement.

4.10.4.13

Utilize dark sky principles in all new development.

4.10.4.14

Establish design standards that allow for functional and compatible mixed-use development.

4.10.4.15

Require, in new developments, that all garages served from the street be set back at least 15 feet from the front of the house or rotated so the garage doors do not face the street.

4.10.4.16

Create private spaces for each housing unit utilizing design elements such as blank walls, enclosed back yards, window placement, etc.

4.10.4.17

Require the development of residential amenities to create a high-quality image and character for residential development in the Grandview Area.

4.10.4.18

Locate buildings to front on the streets. Maximum setbacks, in addition to minimum setbacks, should be established for each neighborhood.

4.10.5 Parks, Open Space, Recreation and Trails

4.10.5.1

Work with utility providers to secure an easement under the power line in Sub Area I for a pedestrian and bike trail connecting the two parks in this Sub area.

4.10.5.2

Coordinate with La Plata County and other open space and trail organizations to purchase and enhance the existing railroad corridor in Sub Area V for pedestrian and bike pathway purposes.

4.10.5.3

Encourage pedestrian linkages throughout the Plan area. Require sidewalks to City standards, as appropriate, or multiple-use paths (separate from streets) in all new developments.

4.10.5.4

Integrate the trail system with public transit facilities.

4.10.5.5

Connect activity centers such as schools, parks and shopping areas with trails and bike lanes.

4.10.5.6

Develop a trail system within the Grandview Area that connects the commercial/recreational areas with the residential development.

4.10.5.7

Provide trails linking the Grandview Area to surrounding developed areas.

4.10.5.8

Provide trails linking the Grandview Area to surrounding public lands.

4.10.5.9

Utilize natural features such as drainages and ridges for the preferred alignments for trails.

4.10.5.10

Accommodate horses on some of the natural trails (as appropriate) to provide connections to public lands.

4.10.5.11

Develop mini parks throughout Sub Area I so that every residential unit is no more than one-quarter of a mile from a park. Mini parks must be designed to meet the standards in the Parks Master Plan. Neighborhood associations shall be responsible for the maintenance of mini parks.



4.10.5.12

Develop a regional park designed in accordance with the guidelines in the Parks Master Plan and include enough land to allow for the development of active recreational fields.

4.10.5.13

Maintain the draws and gulches as open space.

4.10.6 Joint Development Review

4.10.6.1

With La Plata County identify a buffer area surrounding the Grandview study area and develop a joint review process with the County for development that is proposed within the buffer area.

4.10.6.2

The City of Durango and La Plata County should adopt an Intergovernmental Agreement between the City and the County that supports the goals of the Grandview Area Plan and requires a joint review process of development proposals.

4.10.7 Public Facilities and Services

4.10.7.1

Coordinate with existing service providers to ensure City standards are met and service continues and/or is extended in an efficient and cost productive manner for property that is annexed into the City. Agreements with the South Durango Sanitation District and Loma Linda Sanitation District and the City should address the provision of services as well as a joint review process for new development requiring services.

4.10.7.2

Utilize the City of Durango's Stormwater Quality Program policies when planning for development.

4.10.7.3

Provide elementary school sites that are located centrally to the residential population.

4.10.7.4

Provide or reserve additional land for schools as requested by School District 9R when in accordance with their Master Facilities Plan.

4.10.7.5

Pursue the construction of joint-use facilities for education and community recreation.

4.10.7.6

Provide a combined police and fire substation site at a location agreeable to the Durango Fire and Rescue Authority and the City of Durango.

4.10.7.7

Provide for public space that can accommodate public functions, including a branch library.

4.10.8 Housing

4.10.8.1

Require provision of affordable housing within all new residential subdivisions of three or more parcels or for the development of more than three multi-family housing units.

4.10.8.2

Require the location of senior housing to be near activity centers and open space and recreational amenities.

5.0 Street Circulation Plan

5.1 Introduction

5.1.1 Overview

It is reasonable to expect that development activity will occur in the Grandview area over time in response to market forces. The development community will be responsible for ensuring the adequacy of public facilities, including transportation facilities, for specific developments as a part of the development application process. The City response to development proposals within the Plan area should ensure that appropriate rights-of-way are reserved and transportation improvements made to support both the specific developments in question as well as the long-range plan. The City also needs to work closely with the Colorado Department of Transportation (CDOT) to ensure that the Grandview Area Plan is given proper consideration during project development for US 160 and 550.

The Street Circulation Plan proposes a network of streets with an appropriate hierarchy (minor arterial, collector, local) to access proposed land uses. The street network is a redundant grid system, with more than one way to access specific sites to the extent that topography and property ownership allow for connectivity. The City will need to ensure that specific development proposals are consistent with and build on the Street Circulation Plan from the perspective of traffic capacity, design speed, roadway section, access control, pedestrian and bicycle facilities, landscaping, and urban design adjacent to the rights-of-way. Plans should be consistent with but do not have to adhere to the specific alignments shown in this Plan if the City and the applicant mutually agree that new alignments are in the best interest of all parties.

Given that the Grandview area is proposed to be a regional destination with an urban character, high

speed facilities with rural or suburban road sections would be inappropriate. Highway planning for the US 160 and 550 corridors should consider the Grandview area as an urban destination, with an appropriate multimodal design treatment. Arterials and collectors within Grandview should be designed to provide access to the regional institutional, parks and recreation, and commercial uses proposed for the area, not as new high-speed alignments between other regional destinations that happen to traverse through the area.

5.1.2 Existing Conditions

The existing street hierarchy of the study area includes the mixture of a US Highway, State Highway, County Roads and rural local streets. While US Highway 160 (US 160), State Highway 172 (SH 172), County Road 220 (CR 220), County Road 232 (CR 232), County Road 234 (CR 234) and County Road 233 (CR 233) are all paved, the majority of the rural local streets are not paved and all of the roads lack conventional curb and gutter drainage system and sidewalks.

The main thoroughfare, US 160, provides the primary vehicular connection for the majority of traffic heading westbound into Durango from outlying areas. SH 172 provides a connection between US 160 and the Durango-La Plata Airport and areas further south. The County Roads provide connections for neighborhoods and outlying communities to Durango via other County Roads, State or US Highways.

The existing street system in the Grandview area does not provide access sufficient to serve proposed land uses. Existing roads are, for the most part, not built to City standards, lack multimodal facilities, and have little connectivity. The proposed Street Circulation Plan creates a network of pedestrian and vehicular activity that will support development in an appropriate manner and create a true town-like setting for the Grandview area.

5.1.3 Transportation System Capacity

The land use plan developed through the Design Dialogue process sets an aggressive agenda for change in the Grandview area. For example, in the 2000 census La Plata County was reported to have 43,941 residents. Grandview at full build out could contain 11,000 residents, a number equal to 25 percent of the current County population. Grandview provides the City of Durango and La Plata County with an exciting opportunity to absorb anticipated growth in a compact, urban form. Coupled with a county-wide transfer of development rights (TDR) program, Grandview could be the centerpiece of a regional smart growth strategy.

However, growth creates travel demand and compact urban forms tend to concentrate transportation issues into relatively small geographic areas. Currently US 160 and SH 172 are the only regional facilities providing access to the Grandview area. While a regional transportation planning process is beyond the scope of this study, an overview of the person trips that may need to be accommodated on the regional system with build out of one of the land use scenarios was provided and is found in Appendix C.

5.2 Transportation Improvements within the Plan Area

This section addresses transportation improvements that should be considered internal to the sub areas that make up Grandview if and when those areas are annexed. Improvements in the US 160 corridor that would be the responsibility of the CDOT are discussed in a later section.

In undeveloped or redeveloping areas, transportation improvements would be the

responsibility of the developer. In developed areas that are stable, these improvements would be the responsibility of the property owners, perhaps through a local improvement district. In distressed areas, the City may want to assist property owners as a means of stabilizing or enhancing land values and enhancing quality of life.

5.2.1 Multimodal Street Hierarchy

As the study area begins to redevelop and annexation options are further discussed, the opportunity exists to create a truly multimodal street system. While it was a goal to work with the existing road network and associated rights-of-way as much as possible, increasing density and uses will result in increasing road usage and the need to increase capacity. Therefore, a new and improved street network and hierarchy needs to be established.

The improved street network and hierarchy provides a transportation framework for redevelopment of the Grandview area (see figure 5.1: Proposed Multimodal Street Hierarchy). The Plan calls for urban development with town-like densities, necessitating vehicular and pedestrian links that are clear and safe. Finally, the new street hierarchy has been designed to carry traffic to, from and throughout the study site in a safe and efficient manner.

5.2.2 Multimodal Street Design Concepts

Although the road hierarchy within Grandview has been defined by minor arterial and collector roads as described in City of Durango street standards, Appendix C recommends additional design detail based on the character of adjacent land uses and specific amenities associated with specific transportation corridors. While some of the design concepts call for changes from existing City street standards, the policy remains to create a street hierarchy which provides for the safe and efficient movement for pedestrian and vehicular



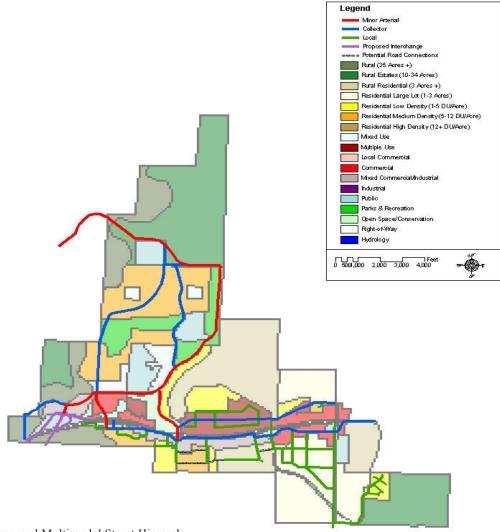


Figure 5.1 Proposed Multimodal Street Hierarchy

traffic. Local street concepts are not defined within this Plan, as they will be considered in the context of existing City standards when development is proposed or upon annexation of existing neighborhoods.

Street design plays an important role in the overall functionality, character and identity of a community. Based upon the existing City of Durango standards, the new design concepts found in Appendix D have been developed to help promote a unique character within the Plan area.

5.2.3 Quantities of New and Upgraded Streets

The proposed street system includes several miles of new or upgraded minor arterial, collector, and local streets, as shown in Figure 5.1. The proposed street system include the proposed frontage roads. These roads are improvements to and extensions of CR 233 and CR 232. Frontage road improvements would typically be the responsibility of the CDOT as a portion of the US 160 improvement project, but the City may want to partner on enhancements to these facilities. If

private development that requires access to US 160 is proposed prior to CDOT improvements, the City and CDOT should work together to ensure that any improvements required of the developer by CDOT are consistent with the longrange plan.

City policy requires that private local streets within existing neighborhoods be improved to City standard at the time of annexation for the City to take over ownership and maintenance. These improvements could be financed through the formation of local improvement districts, with or without subsidy from the City. Some form of public subsidy for street improvements may be required as a part of annexation negotiations.

5.2.4 Additional Plan Enhancements

Beyond the new multimodal streets and the improvements in the US 160 corridor described later in this chapter, other pedestrian and traffic enhancements should be encouraged that will further enhance the quality of life and functionality of the Grandview area (see Figure 5.2). Implementing these enhancements should be coordinated with CDOT, La Plata County, the Bureau of Land Management, and property owners within and adjacent to the Plan area.

Roundabouts – The proposed plan shows roundabouts at major intersections along the frontage roads on both sides of US 160. A roundabout is a circular intersection with yield control on all approaches (unlike a traffic circle or rotary, traffic entering the roundabout yields to traffic in the roundabout), islands to separate flows of traffic from each other and from pedestrians, and geometric features to slow (not stop) traffic. Roundabouts often have lower delays than traffic signals, often have smaller queues of traffic, can reduce the need to widen roadways between intersections, and present fewer conflicts between vehicle movements than traditional intersections.

While operational analysis will be required before designing the roundabouts proposed for the Plan area, an urban single lane roundabout can typically accommodate 20,000 vehicles per day, with urban double lane configurations accommodating substantially more traffic. Recent examples in Colorado include the roundabouts on the Interstate 70 frontage roads in Vail and the roundabout on SH 82 in Aspen.

Durango Lift Service – The Durango Lift service has been integrated into the Grandview Area Plan.

Transit service will include an extension into Sub Area I of the route that currently terminates at the Wal-Mart south of downtown Durango. In addition, when the hospital is developed in Sub Area I the Durango Lift will provide service directly to the hospital. Direct, safe, and convenient pedestrian connections between the other sub-areas and Sub-Area I are proposed to provide access to transit from those areas.

The City should consider extending bus service to the east as the area annexes and funding becomes available. The City should also work with CDOT and the development community to fund Durango Lift service as a means of reducing automobile trips on US 160.

Two park-n-ride lots are proposed within the Plan. One lot is proposed to be located near the US 160/SH 172 intersection (the exact location is not shown) and one lot is near the US 160/High Llama Lane intersection. The High Llama Lane lot should eventually be incorporated into the interchange of US 160 and 550.

Green Buffer and Wilson Gulch Trail – During the Design Dialogue, there was great concern regarding the visual and sound aspects of expanding US 160. This visual impact is not just the view from Grandview to the highway, but also the view from the highway as the motorist enters this gateway to Durango from the east. This gateway concept is supported in the La Plata

County Trails Plan. As a result, this Plan recommends a green buffer on both sides of US 160.

This green buffer will create a parkway-like setting and act as a linear greenway to enhance the overall entrance to Durango. On the northside of US 160, the green buffer expands to a width of approximately 70 to 80 feet. This will allow for a pedestrian path to be constructed that will connect to and be part of the Wilson Gulch Trail.

The Wilson Gulch Trail runs parallel to the US 160 on the west end of the study area. The trail system will connect the regional retail and commercial center, west to the Animas River Trail, east to the Railroad Greenway and eventually toward Bayfield. Topographical constraints (vertical change) limit the width of the green buffer area on the south side of US 160. However, the vertical grade change allows enough separation to act as a buffer between the highway and adjacent

land uses. The enhancement of the green buffer and Wilson Gulch Trail should be accomplished via intergovernmental agreement. The acquisition of right-of-way for the green buffer along the US 160 corridor should be pursued as mitigation for the impacts of the CDOT US 160 improvement project. Once the land acquisition occurs, the proposed trail within the green buffer and Wilson Gulch Trail could be constructed by CDOT or the City of Durango. Ongoing maintenance could be provided by the City of Durango.

Railroad Greenway – To fully utilize the pedestrian undercrossing at US 160 and CR 233 mentioned earlier in the Plan, the City of Durango should work with La Plata County and trail advocates to purchase and develop the abandoned railroad right-of-way south of US 160 and convert it into a pedestrian greenway, extending to the south. The greenway would become a pedestrian spine that would link the southwest quadrant of the study area to the north.



Figure 5.2 The Proposed Wilson Gulch Trail is incorporated as part of the Green Buffer Greenway Trail.

On the north side of US 160, the greenway could connect with the US 160 trail that is planned to be incorporated into the "green buffer", which will ultimately connect to the Animas River Trail. The City of Durango should also work with La Plata County to extend the Railroad Greenway south and east into the county.

Connections to Ewing Mesa and County Road 234 – The City of Durango, La Plata County, and landowners seeking to develop their lands have been discussing a network of arterial streets south and east of Durango. These streets would provide access to Grandview and Ewing Mesa areas from US 160, US 550, SH172, and CR 234. The conceptual road network proposed in the Grandview Plan is consistent with current alignment concepts. Specifically within Sub Area I, conceptual connections to Grandview Ridge and CR 234 have been identified.

Permitting and constructing these connections would be no small undertaking and should be considered as long-term opportunities supportive of the later stages of Plan implementation and build out. A connection to CR 234 would involve improvements to CR 235, a partially improved road with limited right-of-way that crosses portions of the State School parcel between the Plan area and CR 234. Connections to Ewing Mesa would involve constructing new alignments across challenging terrain on Bureau of Land Management property.

The design speed, roadway section, access control, and amenities proposed for these improvements within the urbanizing area boundary should be given the same careful attention as the through routes on the US Highways. Given that the Grandview area is proposed to be a regional destination with an urban character, high-speed facilities with rural or suburban roadway sections would be inappropriate. Arterials within Grandview

should be designed to provide access to the regional institutional, parks and recreation, and commercial uses proposed for the area, not as new high-speed alignments between other regional destinations that happen to traverse through the area.

State Highway 172 Improvement Alternatives – SH 172 is an important minor arterial, connecting the Durango-La Plata Airport and areas to the south with US 160. The CDOT traffic report for the expansion of US 160 reflects future high traffic volumes on SH 172. These volumes result in the need to plan for a roadway expansion or realignment. The option of expansion would result in a five-lane highway and two sidewalks, which includes a center turning lane due to the high number of curb cuts along this corridor within the study area. The option of realigning the highway would include relocating it to the east of the Grandview study area. The realignment would only need to be four lanes, with strategically placed turning lanes.

State Highway 172 Pedestrian Undercrossing – In association with the CDOT roadway upgrade, a pedestrian undercrossing should also be considered where the Railroad Greenway intersects with SH 172. The undercrossing would allow easy pedestrian access to the southeastern boundary of the study area and eventually beyond into unincorporated La Plata County.

Upgrade County Road 234 – CR 234 is the eastern edge of the study area north of US 160 and connects rural La Plata County with SH 172 and US 160.

Growth in the Grandview area and lands to the north and east will likely result in increased traffic on CR 234. Therefore, this transportation corridor should be improved on both the pedestrian and vehicular level. The road should be upgraded to two twelve-foot wide travel lanes with sidewalks and curb and gutter. A center lane

for turning purposes should also be strategically placed where traffic volumes meet the need for this. If the City annexes to CR 234, an agreement would have to be reached with La Plata County regarding the responsibilities of each jurisdiction for the roadway.

Upgrade County Road 220 – CR 220 defines the southern edge of Sub Area V and connects rural La Plata County with SH 172 and US 550. It provides inviting views to the San Juan Mountains but due to the topography has many blind spots. corridor, including any mitigation for community impacts. The City should work closely with CDOT and Grandview property owners during the NEPA process. The parties to this process may wish to enhance the transportation project with local funding. There are also many driveways along the road.

Growth in the Grandview Area and south and east toward the airport will likely result in increased traffic on CR 220. Therefore, this transportation corridor should be improved on both the pedestrian and vehicular level. If the City annexes to CR 220, an agreement would have to be reached with La Plata County regarding the responsibilities of each jurisdiction for the roadway.

5.3 Improvements within the US Highway 160 Corridor

The Street Circulation Plan has been developed with US 160, the primary surface transportatinature of intersections, the provision of pedestrian and bicycle facilities, and mitigation for potential noise and visual impacts (see Figure 5.2 Improvements with the US Highway 160 Corridor).

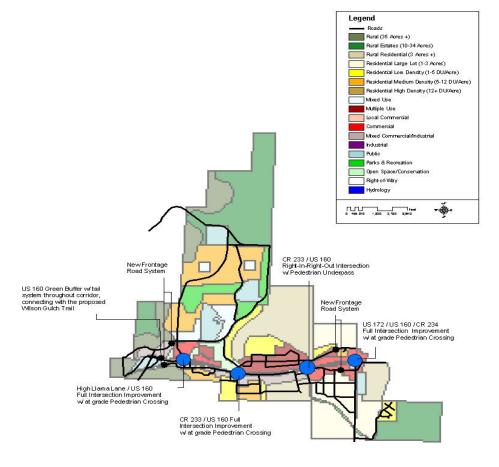


Figure 5.3 Improvements with the US Highway 160 Corridor

While the Grandview Area Plan assumes highway improvements that were presented to the community by CDOT in 2001, on facility in the area, as its backbone. This plan proposes alterations to the 2001 CDOT conceptual plansfor US 160, including the alignment of frontage roads, the location and the actual nature of US 160 improvements will be developed through the National Environmental Policy Act (NEPA) process. NEPA requires that CDOT consider a broad range of alternatives in the US 160 corridor, and that CDOT not pre-determine or otherwise prejudice the solution to be implemented in the corridor prior to the completion of the NEPA process. The City may propose solutions that best serve its interests during the NEPA process. Once adopted, the Grandview Area Plan will serve as the basis for City input into the NEPA process.

Once the NEPA process is complete, CDOT will be responsible for funding the design and construction of the preferred alternative for the corridor, including any mitigation for community impacts. The City should work closely with CDOT and Grandview propoerty owners during the NEPA process. The parties to this process may wish to enhance the transportation project with local funding.

5.3.1 Frontage Roads

The Grandview Area Plan calls for two new frontage roads, similar to those identified in the 2001 CDOT US 160 Environmental Assessment. However, the area plan frontage road layout better supports the land use plan by supporting compact development at intersections and internal to Grandview rather than a commercial strip the length of the highway frontage.

The proposed northern US 160 frontage road includes incorporating and upgrading CR 233 and connecting with the new road proposed in Sub Area I and extending east to CR 234. A new street will parallel the highway north of Wilson Gulch and connect High Llama lane and the main

entry road into Sub Area I. This new road would provide access to BLM gravel resources west of High Llama Lane. The north side road system includes four connections to US 160:

- A realigned High Llama Lane (via the new 550/160 interchange or an interim signal controlled intersection)
- CR 233-west entrance (signal controlled)
- CR 233-east entrance (right-in right-out only)
- CR 234 (signal controlled).

The proposed southern US 160 frontage road, which runs parallel to US 160, is an upgrade and extension of CR 232 designed to conform to the topographical constraints of the area. The southern frontage road also connects with US 160 at four locations:

- A realigned High Llama Lane (interim signal controlled intersection)
- CR 233-west entrance (signal controlled)
- CR 233-east entrance (right-in right-out only)
- SH 172.

5.3.2 State Highway 172/US Highway 160/County Road 234 Intersection Upgrade

This intersection at the eastern end of the Plan area is an important urban design component because it acts as a gateway into the urbanized area and is at a critical junction both in terms of transportation capacity and land use. Currently, the intersection is not designed to handle pedestrian traffic in concert with vehicular traffic. Pedestrian connectivity is a critical component of the Grandview Area Plan. As part of the CDOT US 160 widening project, this intersection should be upgraded to include appropriate travel and turning lanes, traffic signals, and pedestrian crosswalks and signals. The exact configuration of the intersection will be developed based upon CDOT analysis of future traffic volumes.

5.3.3 Right-In Right-Out Intersection at East end of County Road 233

In order to manage traffic and add access to the frontage roads, two right-in right-out intersections with US 160 are also proposed in the Street Circulation Plan. The two are across US 160 from one another and are located at the existing eastern intersection of CR 233 and US 160. By providing the northern access, westbound traffic on US 160 will have easy access to adjacent mixed use and commercial areas. Traffic on the southern frontage road will have an opportunity to enter the eastbound traffic lane on US 160. Finally, by providing the two right-in right-outs, along with the three traffic signal controlled intersections proposed on US 160, four evenly spaced access points to US 160 are provided on both southern and northern frontage roads. These right-in rightout upgrades are part of the access control of US 160 and should be part of the CDOT US 160 improvement project. A full movement intersection at this location was considered and rejected by CDOT due to sight distance constraints. The right-in right-out improvements should occur concurrently or after CR 233 is connected to CR 234.

5.3.4 Pedestrian Undercrossing

The proposed pedestrian undercrossing is located at the CR 233/US 160 intersection. This intersection is planned as right-in right-out on each side of US 160. Since the intersection has been designed as right-in right-out, this will not be a traffic signal controlled intersection.

The pedestrian undercrossing would be a component of the proposed Railroad Greenway (described later), that crosses the US 160 right-of-way near CR 233. This improvement will provide a pedestrian-safe connection between the northern and southern components of the Plan.

The programming, planning and construction of the pedestrian undercrossing at the CR 233/US 160 intersection should be included in the CDOT US 160 improvement project.

The intersection should be upgraded with a traffic signal, pedestrian crosswalks and signals, appropriate travel, stacking and turning lanes. The intersection should be constructed as part of the CDOT US 160 improvement project. If private development impacting the intersection is proposed prior to CDOT improvements, the City



Figure 5.4 High Llama Lane circa 2004

and CDOT should work together to ensure that any improvements required of the developer by CDOT are consistent with the long-range plan.

5.3.6 High Llama Lane/US Highway 160 Full Intersection Upgrade

The 2001 CDOT US Highway 160 Environmental Assessment proposed a grade-separated interchange of US 160 and US 550 near the High Llama Lane intersection. The anticipated costs exceed current CDOT revenue expectations. Because of the unknown timeframe for the construction of the new interchange, this plan prescribes an interim solution of a signalized intersection near US 160 and High Llama Lane. US 550 is presumed to remain connected to US 160 in its current location for the foreseeable future.

To provide safe access to US 160 from lands north and south of the highway between CR 233 and the existing alignment of US 550, the Plan proposes the construction and operation of a full movement signalized intersection in the general vicinity of High Llama Lane and the US 160 unless US 550 is relocated and a grade separated interchange with US 160 is constructed, or until traffic congestion warrants construction of an interchange near the High Llama Lane signal. If CDOT relocates the US 550-US 160 intersection, CDOT should incorporate grade separated access across US 160 at or near High Llama Lane to connect CR 232 and the frontage road on the south side of the highway with the new interchange.

If private development impacting the intersection is proposed prior to CDOT improvements, the City and CDOT should work together to ensure that any improvements required are consistent with the long-range plan.



Figure 5.5 Location for Proposed Interchange

5.4 Recommended Policies - Grandview Transportation Plan Element

Policies are statements prescribing a course of action to accomplish a vision. The following policies apply to the Grandview Area. They prescribe public and private actions above and beyond those listed in the City-wide sections of the Comprehensive Plan that will help achieve the vision for this area.

5.4.1 Road Improvements

5.4.1.1

Design and construct all existing and proposed streets in accordance with the street design concepts and the functional street classifications set forth in this Plan. Use the proposed street hierarchy plan in coordination with new development.

5.4.1.2

Maintain street construction based on current City of Durango Code and the functional street classifications set forth in this plan. Modify concepts to safely accommodate significant physical features such as wetlands, trees, buildings and hillsides.

5.4.1.3

Future development shall advance proposed street alignments that best reflect site specific development patterns and/or constraints.

5.4.1.4

The Street Hierarchy Map set forth in this plan will be used to identify right-of-way needs where development is proposed to set priorities for capital improvements. New development must dedicate adequate rights-of-way and design development to accommodate those rights-of way.

5.4.1.5

Require existing roads to upgrade to the City of Durango street design standards. In the event City standards cannot be achieved but health and safety is not comprised, the City should consider modified road standards.

5.4.1.6

Provide adequate road systems to accommodate future traffic projections.

5.4.1.7

Develop a conceptual plan including cost estimates for road improvements in to the Grandview Planning Area.

5.4.1.8

Develop a traffic impact fee to recover, from new development, an appropriate share of road improvement costs to accommodate projected traffic impacts on roads within the study area and other regional routes.

5.4.1.9

Plan new streets in a grid or modified grid pattern with streets interconnecting to the greatest extent possible.

5.4.1.10

Modified TND street design concepts may be used within residential neighborhoods as long as development meets the TND criteria.

5.4.1.11

The City of Durango shall develop a roadway plan in conjunction with the Bureau of Land Management to identify road(s) connections from Sub Area I to the Grandview Ridge, with due regard to costs, geologic constraints, connections and wildlife impacts. The development of Sub Area I shall require the dedication of rights-of-way for roads by the developer, as appropriate. Minimized scarring of the hillsides should be a priority when designing the precise location of the roadways.

5.4.1.12

Utilize alleys in the TND neighborhoods wherever it is feasible and do not allow driveways to access directly onto the street in such neighborhoods.

5.4.1.13

Consider traffic calming techniques on proposed local roads.

5.4.1.14

Consider utilizing shared parking wherever appropriate to reduce the amount of required off-street parking.

5.4.1.15

Prohibit direct vehicular access from developments facing arterial streets except at 300-foot intervals.

5.4.1.16

Limit new traffic demands on local streets through residential neighborhoods. Large-scale multi-family uses generally should not take primary access through a lower density residential neighborhood unless it is by way of a collector or arterial street. Traffic to and from a commercial land use should not be routed through a residentially zoned area unless it is by way of an arterial street.

5.4.1.17

Provide access to and through the plan area concurrently with development based on traffic impact studies for each development or phase of development. When required by City Staff, these traffic studies shall use a computerized traffic model as approved by City Staff and shall consider the impacts of the proposed development on the arterial streets of the city.

5.4.1.18

Participate in a regional transportation plan with La Plata County and CDOT.

5.4.2 Parking Improvements

5.4.2.1

Discourage designated parallel parking lanes on arterials.

5.4.3 Trail Improvements

5.4.3.1

Develop trails and trail networks consistent with City trail policies for design, development and maintenance.

5.4.3.2

Utilize natural and existing features such as drainages and railroad grades for preferred alignments for pedestrian and bike trails.

5.4.3.3

Develop and maintain a trail system as an alternative transportation network and recreation amenity. Ensure that trails have access to major activity centers, schools, parks, open spaces, and residential neighborhoods and to park and ride areas throughout the Grandview area.

5.4.3.4

Require dedication of trail segment linkages to major activity centers, parks, open spaces, schools, neighborhoods and to park and ride areas.

5.4.3.5

Separate vehicular traffic from pedestrian traffic.

5.4.3.6

Establish a bicycle and pedestrian trail network as part of the street hierarchy on all new and upgraded streets.

5.4.3.7

Develop a campaign to educate the public that "bikes share roads".

5.4.3.8

Construct new underpasses where trails cross major streets and highways. Develop grade-



separated crossings where trails intersect major streets and highways. Underpasses should be welllit and as wide as possible.

5.4.4 Transit Improvements

5.4.4.1

Expand the Transit Development Plan to establish Durango Lift and Trolley Routes throughout the Grandview Area. Coordinate efforts of the public transportation system to work with the park and ride areas. Require dedication of transit facilities within major community activity areas (e.g., large shopping, employment or residential developments).

5.4.4.2

Incorporate public transportation in the development plans and include both internal connections provided by the developer of the project as well as connections out of the Grandview Area that may be provided by either the developer or the City.

5.4.4.3

Require the developer to be responsible for providing public transit connections to the existing City transit service until such time as the City can provide transit service. The timing of the initial provision of transit service and when the City will take over the service shall be established during the annexation / development review process.

5.4.4.4

Work cooperatively with developers and major employers to plan and provide improvements needed for future transportation demand generated by projected growth, and especially to develop strategies for alternative and public transportation to reduce the need for new roads and parking facilities.

5.4.4.5

Coordinate with the County and major community employers to implement cost-effective strategies to reduce peak hour traffic. Such strategies may include, but are not limited to, park and ride sites, adjustments to work schedules, ride-sharing incentives and improved bicycle/pedestrian facilities.

5.4.4.6

Develop safe, well-lit and attractive transit stop facilities to enhance the appeal of transit use. Facilities should include well-lit shelters and emergency phones in isolated areas.

5.4.4.7

Integrate the trail system with mass transit to facilitate further use of both systems.

5.4.5 Working with the Colorado Department of Transportation

5.4.5.1

The City shall use this adopted Plan to provide formal comments to the Colorado Department of Transportation for inclusion in the Environmental Impact Statement for US 160.

5.4.5.2

The City should strive to acquire the following elements as part of CDOT's enhancement items for upgrades to US 160:

- Pedestrian pathways within the US 160 ROW as well as amenities to connect the pathways to a trail network and transit facilities; and
- Acquire the ROW and maintenance agreements for a green buffer along US 160 alignment that will provide a transition from the highway and related impacts to adjacent land uses, and create a sense of open space along the US 160 corridor.

5.4.5.3

Adopt urban highway design standards for the portion of SH 172 within the Grandview study area to be applied when CDOT begins this highway improvement process.

5.4.5.4

Actively participate in State arterial roadway improvement projects and support the development of appropriate landscaping, pedestrian facilities and other design enhancements.

5.4.5.5

Coordinate with CDOT and La Plata County to monitor traffic levels and identify road improvements, transit enhancements and trail linkages required to maintain adopted levels of service.

6.0 Coordinated Implementation Plan

The following Action Plan provides a guide and outline of specific actions necessary to implement the Grandview Area Plan. The City of Durango is in a unique position to negotiate land uses, establish standards for infrastructure improvements, and apply creative zoning techniques to the Grandview study area as annexations occur.

The Action Plan outlines the steps for implementation of the Plan as well as identifies the responsible parties.

6.1 Adopt the Grandview Area Plan

It is the intent of the City of Durango to adopt this Plan for the Grandview area in order to guide annexation and subsequent development review for the area. It is also contemplated that the City of Durango will work closely with La Plata County to facilitate implementation of the Plan and use the goals prescribed in the Plan to affect development in the area including significant upgrades proposed for US 160.

Chapters 4 and 5 of the Area Plan provide many policies that will ensure that new development or annexations are compatible with this new Plan. Because the entire Grandview study area is outside the Durango City boundaries, the City has the opportunity to ensure that annexation proposals and subsequent development are consistent with the policies and recommendations of this Plan. The City may proactively negotiate with entities seeking to annex with regard to site specific development standards and the cost of infrastructure improvements and maintenance.

The City should use the adopted Grandview Area Plan to inform the CDOT Environmental Impact Statement process during the analysis and design of US 160 upgrades.

6.1.1 Action:

The City of Durango should work with La Plata County to recognize the Grandview Area Plan as the guiding document for considering development review projects.

6.1.2 Action

Utilize the Plan and recommended policies in order to facilitate annexation review and agreements, guide future development and land use patterns, implement design and development standards, and ensure adequate infrastructure upgrades.

6.2 Adopt an Annexation Strategy

It is recommended that the City, over time, pursue annexation. However, as the City begins to annex properties within the plan area, careful consideration should be given to the exact boundaries and specific parcels within the boundaries defined by Plan. The Grandview Area Plan process did not include a parcel by parcel annexation analysis. It is possible that some areas included within the sub-area boundaries may not be appropriate for annexation. For example, a large lot subdivision may not be annexed or a residential subdivision that has provisions for water and sewer may not be appropriate for annexation. In a similar fashion, if a parcel adjacent to the Grandview study area that could comply with the goals of the Grandview Area Plan requests municipal services, an annexation may be considered after the Plan was amended.

A phased annexation approach will be more efficient based upon existing service boundaries, CDOT's highway improvements and existing

development pressures. Currently on the development horizon is Mercy Hospital's desire to relocate to Sub Area I by 2005. Annexation is necessary to obtain City services and can be a series annexation with contiguity achieved across the BLM land located on Grandview Ridge. It is anticipated that future development of the rest of Sub Area I will closely follow infrastructure improvements required for the Hospital relocation. The next phase of annexations should follow

CDOT US 160 improvements or at least

finalization of the improvement plan.

Although the Grandview Area Plan creates distinct sub area boundaries, the district boundary between the South Durango Sanitation District (SDSD) service area and the Loma Linda Sanitation District (LLSD) provides a natural break between the sub areas. The SDSD district includes Sub Areas I, II, and most of Sub Area III, and the LLSD district includes Sub Areas IV and V, and a small portion of Sub Area III. The City of Durango should utilize the service boundary of the SDSD and the LLSD to determine the annexation boundary between Sub Area II and V and negotiate for continued service from LLSD for Sub Area IV and the small portion of Sub Area III.

6.2.1 Action:

The City should adopt an annexation strategy that includes a phased approach to annexation as follows:

- first pursue annexation of the land owned by the Tierra Group LLC;
- second pursue annexation of the Crader family ranch and the balance of Sub Area I when development is proposed; and
- follow closely with annexations of Sub Areas III and IV to support the annexation of Sub Area I
- annex Sub Area II once CDOT has begun their improvements to US 160 in order to coordinate infrastructure improvements.
- Consider annexation of Sub area V within

the next 10 years; in the interim designate Sub Area V as a Potential Urban Area

6.3 Intergovernmental Agreements

Intergovernmental Agreements (IGAs) are a tool that the City should use to facilitate the implementation of the Grandview Area Plan's goals. Not only are there recommended policies that affect land in the County's jurisdiction but until all sub areas are annexed it would be important to guide new development and redevelopment in a manner that is consistent with the Grandview Area Plan.

IGAs with La Plata County as well as joint development review agreements with the two local sanitation districts should establish reciprocal and coordinated development review procedures.

Sewer service is already provided to most of the area within the Grandview Area Plan but
Agreements should be established to ensure that service continues with either annexation or pending annexation. The Agreements should include the ability to negotiate costs of service, requirements to upgrade infrastructure to meet City standards, and what services the District will retain. The Agreement should also define a joint referral process between the Districts and the City to address service needs.

When Sub Areas IV and V are considered for annexation, the City should negotiate with the Loma Linda Sanitation District to contract for services.

6.3.1 Action:

The City should enter into an Intergovernmental Agreement (IGA) with La Plata County to ensure the implementation of the goals of the Grandview



Plan particularly for land in the study area that has not yet annexed into the City of Durango. The IGA should also establish a joint development review process for development in the Grandview Area Plan study area as well as a defined buffer zone outside of the Plan area.

6.3.2 Action:

The City should negotiate an Agreement with the SDSD when Sub Areas I, II and III are annexed to ensure service to those sub areas. The Agreement should include a joint review process between SDSD and the City to address services needs.

6.3.3 Action:

The City should negotiate an Agreement with the LLSD, if Sub Area III is annexed to ensure service to the eastern end of Sub Area III. In addition, the City should negotiate an Agreement with the LLSD, if Sub Area IV or V are considered for annexation, to ensure service to those sub areas. The Agreement should also define a joint review process between the District and the City to address service needs.

6.4 Joint Review

This Implementation Plan recommends a phasing of annexations. Until annexations can occur, it will be important to establish a joint development review process between the City and County, preferably via an IGA. A joint review process can help ensure that development is in compliance with the Grandview Area Plan including TND principles and other policies adopted with this Plan.

In addition, areas within the County that are not recommended for annexation in this plan but may be annexed in the future should be identified as a Potential Urban Area to ensure that development within that zone is in compliance with the Plan as well as County land use plans and standards.

It is recommended that Sub Area V be included within the Potential Urban Area. This Plan recommends against annexation of Sub Area V for at least 10 years. However, as the area is redeveloped there may be a time when the citizens wish to annex into the City, in order to receive City services for example. Therefore it would be important that the area redevelops to selected City standards as spelled out in the IGA. A joint review process can advance the goals of the Grandview Area Plan

A joint referral process will also be critical between the Sanitation Districts and the City of Durango to ensure the efficient and cost effective provision of services and to ensure that all goals of the Grandview Area Plan are met.

6.4.1 Action:

The City and the County should establish a joint review process for reciprocal development review and/or referral comments.

6.4.2 Action:

The City and County should identify a Potential Urban Area that requires development proposals within that zone to be reviewed by both the City and the County.

6.4.3 Action:

The City, the SDSD and the LLSD should establish a referral process for development proposals.

6.5 Regulatory Changes

6.5.1 Land Use Classification Districts -

When the City completes annexation of areas within the Grandview study area, land use categories from the Comprehensive Plan should be applied in recommended areas.

6.5.1.1 Action:

The following land use classifications should be applied within the Grandview Area Plan:

- Rural
- Rural Estates
- Rural Residential
- Residential Large Lot
- Residential Low Density
- Residential Medium Density
- Mixed-Use
- Multiple-Use
- Mixed Commercial/Light Industrial
- Public/Institutional
- Open Space/Conservation
- Parks

6.5.1.2 Action:

Future zoning should be in accordance with the Future Land Use Map.

6.5.1.3 Action:

Develop new zone districts if necessary to reflect the character of the study area and existing development.

6.5.2 Traditional Neighborhood Development

Throughout the planning process, the City staff, elected officials and participants believed a significant opportunity existed to create Traditional Neighborhood Development (TND) to influence new development as well as redevelopment where feasible and desirable.

The Plan recommends street and pedestrian enhancement standards that reflect TND ideals. The Grandview Area Plan provides the City with a base of standards that are not typical of historic Durango development. The Plan recommends that standards be established as a TND template that can be further refined with site specific development proposals.

6.5.2.1 Action:

The City should adopt Traditional Neighborhood Development Design Standards to comply with the goals of the Grandview Area Plan for new development within the Grandview study area.

6.5.3 Overlay District

It is always difficult to guide change within the built environment. The use of an overlay district that is applied through a zoning action to an area that is being annexed will provide a TND framework for new development and/or redevelopment. Therefore, the City does not have to develop a new zone district in order to implement TND standards and to enhance pedestrian and vehicular amenities. In addition, existing development does not become nonconforming upon annexation and rezoning.

An Overlay District could also be applied to Sub Areas II and III to take advantage of the pedestrian amenities and vehicular upgrades proposed for the new frontage roads on CR 232 and CR 233.

Also, if the City eventually pursues annexation of Sub Area V then the *overlay district* concept is a tool that can be used to ensure that redevelopment is consistent with the Plan.

6.5.3.1 Action:

The City should adopt an Overlay District to guide new development and redevelopment in compliance with new TND standards and other pedestrian amenities

6.5.3.2 Action:

The City should establish a Special Improvement District in Sub Areas II, III, and IV which will, in tandem with the Overlay District, support the upgrade of water and possible sewer infrastructure as well as pedestrian and street circulation enhancements.

6.5.4 Transfer of Development Rights Program

In order to preserve the rural character and undeveloped edge of the Grandview Area, the City and County have been working together to create a Transfer of Development Rights program. The program will enable the transfer of density out of the County and into the Grandview study area, which in turn will preserve the rural character and open space surrounding the City's edge. In addition, the ability to increase density will help reduce infrastructure costs for new development.

The most successful TDR programs identify a receiver site. The Grandview Area Plan recommends land areas designated Residential -Medium Density and areas designated Mixed-Use to be designated receiver sites. The northern portion of Sub Area I, the land area designated Rural Estates, could also possibly be a receiver in the future following a plan amendment. Failure to identify the receiving sites during the beginning stages of a TDR program can slow down an effective start to the program and/or prevent the resolution of development rights from the land that is desired to be preserved. It can also undermine property owner's trust in a TDR program. Thus, an early effort toward receiver site identification can ensure the County and property owners that the TDR program is reliable. In a similar fashion the City and the County should identify sending sites to guarantee that a rural buffer in the County protects the annexed land.

6.5.4.1 Action:

The City and County should enter into an IGA to create a Transfer Development Rights Program.

The IGA will identify receiver sites within the City and future City and identify those areas in the County that are potential sending sites.

6.5.4.2 Action:

The City should establish a baseline density for property designated as Residential – Medium Density at 6 dwelling units per acre to be

increased to 9 dwelling units per acre with the purchase of TDRs.

6.5.4.3 Action:

The City should establish a baseline density for property designated as Mixed-Use at a minimum of 6 dwelling units per acre, 9 dwelling units per acre as of right to be increased to 12 dwelling units per acre with the purchase of TDRs.

6.5.4.4 Action:

The City should establish a baseline density for property designated Multiple-Use at 6 dwelling units per acre to be increased to be increased to 9 dwelling units per acre with the purchase of TDRs.

6.5.5 Gateway Signage and Design

From the intersection of SH 172 and US 160 westward, a gateway opportunity exists for the City of Durango as most traffic from the airport and traffic from east of Durango will enter the City from this direction. Coordinated signage and design will greatly assist in achieving this gateway opportunity.

6.5.5.1 Action:

The City of Durango should adopt signage and urban design standards for this corridor to ensure that the upgrades to this corridor reflect the unique character of the City of Durango.

6.5.6 Impact fees

Durango has an existing major street impact fee. It is recommended that a new fee be established for the Grandview Area Plan in order to pay for major road improvements needed for new development and redevelopment in the Grandview Area.

6.5.6.1 Action:

The City should develop a new street impact fee that is appropriate to provide for future roads in the Grandview Area.

6.5.7 Inclusionary Housing Program

A significant level of new residential development is proposed and planned for within the Grandview Area Plan. It is recommended that the City establish an inclusionary housing requirement for new development to support the goal of adding attainable housing to the housing inventory.

6.5.7.1 Action:

The City should adopt inclusionary housing criteria to be applied to new development and significant redevelopment.

6.6 Open Space Parks and Recreational Improvements

There are many opportunities for the City to increase the open space, parks and pedestrian/bike amenities within the Grandview study area. The former railroad corridor presents one of those opportunities. Regardless if the area is annexed into the City, the former rail corridor should be acquired through a coordinated effort between the City, County, State and other parties to enhance the trail network and pedestrian amenities that are proposed for the rest of the Grandview study area.

Similarly, the City of Durango should require that the Wilson Gulch area be enhanced as a pedestrian amenity and seek to tie those improvements into a more extensive trail system through Sub Area I and to the Animas River trail system. The former railroad corridor that traverses Sub Area I should also be upgraded for pedestrian and bike users.

The utility corridor in Sub Area I provides an obvious pedestrian trail linkage connecting the regional park in that sub area. The City should require that trail to be developed as a public amenity for Sub Area I.

There are additional trail linkage opportunities within Sub Area I. Bureau of Land Management land (Grandview Ridge) abuts this sub area on the north and west sides. The City of Durango should require future development to work with the City and BLM to develop trailheads where appropriate.

Several areas within the Grandview Area Plan are identified for public parks. There are large tracts of proposed parkland within Sub Area I as well as several pocket parks interspersed throughout the neighborhood. The City of Durango should secure land through dedication and other means sufficient in size and form to support creation of a regional park complex.

Finally, the Grandview Area Plan recommends the implementation of a Transfer Development Rights program. The primary goal of the TDR program is to transfer potential development out of an identified "buffer zone" on the edge of the planning area in order to preserve the buffer zone as open space. Although this open space will most likely remain private property, the buffer zone should become a visual open space amenity.

6.6.1 Action:

The City of Durango, through a coordinated effort with La Plata County, the State, and other open space and trail entities, should acquire the former railroad corridor.

6.6.2 Action:

The City should work with developers and other public trail organizations to acquire, develop and enhance the former railroad grade that traverses Sub Area I and Wilson Gulch as part of the annexation process and site specific development approvals.

6.6.3 Action:

The City should secure sufficient park areas necessary for the creation of a regional park in addition to pocket parks as part of the annexation



process and site specific development approvals.

6.6.4 Action:

The City of Durango should work with the BLM and developers with site specific development proposals to secure trailheads and access to adjacent public land.

6.7 Coordinated Pedestrian,Street & HighwayImprovements

Chapter 5 of the Grandview Area Plan recommends a variety of pedestrian and highway improvements to be applied throughout the Plan area. The proposal to utilize CR 232 and CR 233 as frontage roads to US 160 will improve circulation, connectivity, and street side amenities. Highway upgrades are also recommended for SH 172 in the event CDOT pursues improvements. Those upgrades should reflect the City's desire to support pedestrian amenities, safety, and connections throughout the neighborhood including at-grade signalized crossings or grade separated crossings for pedestrians and bikes.

It is also intended that the adopted Grandview Area Plan be used as the basis for the City's response to CDOT's design process during CDOT planning.

In addition, as local roads are being improved and created, the City of Durango and La Plata County should coordinate long range planning and project development. They should also coordinate improvements in response to development activity. The basis of coordinated activity can be promulgated in a Memorandum of Understanding that would spell out City and County responsibilities, including public involvement and coordination with CDOT, during that process. The goal should be joint "ownership" of project decisions and coordinated interaction with project stakeholders.

The City of Durango and La Plata County should also partner in their response to the transportation impacts of development activity in the Grandview area. The approval of development applications in both jurisdictions should consider the impact of specific development proposals on a rational arterial street network as well as on US 160.

6.7.1 Action:

The City of Durango should adopt streetscape standards and pedestrian amenities for County Roads 232 and 233.

6.7.2 Action:

The City should adopt new streetscape and street improvement standards for State Highway 172 in the event CDOT upgrades the highway.

6.7.3 Action:

The City of Durango should seek to negotiate a Memorandum of Understanding (MOU) with La Plata County to facilitate a partnership between the two agencies to coordinate long range planning and project development and support local review efforts with CDOT.

6.8 Working with CDOT

As has been discussed throughout this Plan, the City of Durango has the opportunity to coordinate with CDOT long range planning and project development. Should a significant portion of the urbanizing area annex to the City of Durango, the City should be a partner with CDOT during the highway planning and project development process. This partnership may go so far as to include the negotiation of a formal Participating Agency Agreement between CDOT and the City for the NEPA process. Although participating agencies are typically federal resource agencies, the designation of a local government as a participating agency in the NEPA process is not without precedent.

A Participating Agency Agreement, in addition to providing the City with enhanced standing in the CDOT process, would also spell out the City's responsibilities during that process. The goal should be joint "ownership" of project decisions and coordinated interaction with project stakeholders.

Adoption of the Grandview Area Plan enables the City of Durango to make recommendations on interim highway improvements in response to development activity. Review of development that impacts highway improvements should be done in partnership with CDOT. The two agencies have complementary authorities (i.e., eminent domain and development exaction) that should be coordinated to ensure that development in the Grandview area pays its way, is commensurate with highway capacity, and that interim improvements are consistent to the extent possible with unfolding long-range plans.

6.8.1 Action:

The City of Durango should seek to negotiate a participating agency agreement or similar memorandum of understanding with CDOT to facilitate a partnership between the two agencies in the development of the US 160 corridors.

6.8.2 Action:

The City of Durango and CDOT should partner in their response to the transportation impacts of development activity in the Grandview area.

6.8.3 Action:

Encourage the construction of an interchange west of High Llama Lane.

6.8.4 Action:

The City of Durango should work with CDOT to ensure adequate highway improvements are planned for and implemented in accordance with the Grandview Area Plan.

6.9 Priorities and Responsibilities

The following table (Table 6.1) summarizes the recommended priorities for the major actions proposed, and designated the body with the major responsibility for carrying out these actions.

Table 6.1 Implementation Plan Responsibilities

Action Item	Priority	Responsibility								
		City Staff	City Council	PC	BOCC	County Staff	SDSD Board/ staff	LLSD Board/ staff	CDOT Commiss ion & staff	Trail & Open Space Advocate
Adopt Grandview Area Plan	1	X	X	X	X					
Adopt Annexation Strategy	1	X	X	X						
Adopt IGA w/ City & SDSD	2	X	X				X	X		
Adopt IGA w/City & LLSD	3	X	X					X		
Adopt IGA w/City & County for Development Review	2	X	X		X	X				
Identify Transition Zone	2	X				X				
Establish Joint Review Process w/City & SDSD & LLSD	2	X					X	X		
Zone Annexed Property	on going	X	X	X						
Adopt TND Standards, Streetscape Standards & Pedestrian Amenities	1	X	X	X						
Create an Overlay District	2	X	X	X						
Establish SID in Sub-Areas II, III & IV	3	X	X							
Adopt IGA w/City & County for TDRs	1	X	X	X	X	X				
ID Receiver sites w/baseline density for TDRs	1	X	X	X						
Adopt Signage & Urban Design Standards for Sub-Area IV	3	X	X	X						
Adopt Road Impact Fee	2	X	X	X						
Adopt Inclusionary Housing Criteria	2	X	X	X						
Acquire former Rail Corridor in Sub- Area V	3									X
Designate and acquire land parcels for regional and pocket parks	3	X	X							X
Acquire former Rail Corridor in Sub- Area I & Enhance Wilson Gulch	3	X								X
Negotiate MOU w/City & County	1	X	X		X	X				
Negotiate Participating Agency Agreement w/City & CDOT	1	X	X						X	

Appendix A

Appendix A – Area Plan Summaries

The date of the report, the party the report was prepared for and the report author(s), has been identified. A report synopsis outlines the contents of the report.

A.I Florida Mesa District Land Use Plan

Completed: April 24, 1998
Prepared For: Florida Mesa District
Prepared By: La Plata County

Report Synopsis

Before the adoption of the Florida Mesa District Land Use Plan in 1998, development proposals were considered on a case by case basis resulting in some negative visual and physical impacts. The primary objective of the Florida Mesa Land Use Plan is to preserve the agricultural and rural character while accommodating growth. The underlying premise is to provide landowners with general guidance and incentives for evaluating development proposals. The plan has developed a framework of goals, objectives, policies and actions for the citizens, Planning District, and County that defines a vision for the next twenty years.

On August 2, 2000 the La Plata County Planning Department completed the Florida Mesa Planning District Land Use Classification Map. All future development activities will be reviewed in accordance with both of these planning tools to ensure that development activities are consistent and can uphold the vision of its citizens, Planning District and County as a whole.

From the County's perspective, the Florida Mesa is undergoing a transition from the farming and ranching community of fifteen years ago to a service, tourist, and retirement community.

Current subdivision activities are developing the

Mesa into smaller and smaller lots reducing lands available for open space, changing the area's rural character, property values, infrastructure needs and costs, and the area's natural beauty.

The goal for water and sewer in the Florida Mesa District Land Use Plan is to ensure the future availability of ground water and protection from contamination, wastewater, and other pollutants. Objectives recommend to "anticipate and plan for alternatives" to the current water and sewage disposal system, strengthen county regulations, and the County and irrigation water providers in the District to work cooperatively to address development and allocation issues prior to development approval.

In the absence of zoning, commercial uses are or will likely be scattered throughout the District that could undermine the rural, low-density characteristics, property values, and/or attraction for the adjacent property owners.

Roads and Transportation

Growth related activities in the Florida Mesa District have "out-paced" CDOT's ability to keep up with costs associated with road improvements to State highways 550, 160 and 172. La Plata County's recent growth rate and the need for roadway improvements exceed the fiscal resources available.

It is a goal of the Plan to maintain a significant portion of the land in the Florida Mesa District as agricultural farm and ranch land.

A final key concern in the Florida Mesa District Land Use Plan is the need to offset the costs of infrastructure and service delivery costs of new development. The County is considering the creation of a fee schedule that reflects the impacts of development. This would involve the execution of intergovernmental agreements between various special districts and the County to institute one fee that is used to address a variety of impacts.

Relevance to the Grandview Area Plan

The current strategy for new commercial/light industrial and mixed-use development in the Florida Mesa District Land Use Plan concentrates new development in areas where similar uses already exist. The Grandview area and Elmore's Store are identified in the Plan as an area that is established with commercial/light industrial/mixed use development as indicated on the Land Use Classification Map.

A.2 City of Durango Parks Open Space Trails: Elements of the Durango Comprehensive Plan

Completed: Adopted October 16,

200 I

Prepared For: Department of Planning

and Community

Development

Department of Parks

and Recreation

Prepared By: Winston Associates and

Board of Great Outdoors Colorado

Report Synopsis

The Parks, Open Space, and Trail Plan (POST) is intended to serve as an update/addition to the treatment of these elements in previous City of Durango Plans. The intent of this plan is to build upon the information and ideas incorporated in previous city plans as well as to recognize the relevance of other trail and transportation plans.

Parks Plan

In 1985 the City adopted a Parks, Recreation and Open Space (PROS) plan as an element of the Durango Comprehensive Plan. While the PROS

element identified park and recreational needs it did not address the long-term needs of the City, nor did it help to identify specific annual budgetary forecasts and implementation. Today's POST Plan refines and implements the general direction established in the Comprehensive Plan and is intended to become an independent part of the Comprehensive Plan.

Durango has over 32 public parks and recreation areas totaling over 200 acres, with 170 acres already developed and approximately 37 acres of land dedicated to future parks.

The POST Plan states that new neighborhood parks should be created wherever significant new subdivision of greater than 30 lots is proposed, where more than 10 apartment units exist, and where there is no park in existence within ½ mile walking distance of new development. The plan also calls for creating mini-parks in subdivisions of more than 5 lots.

The City will work to create neighborhood parks that reflect residential development. New development projects should contribute to the provision of parks and recreation facility sites proportionate to the demand created by new development. The City will look for ways to obtain land for parks and recreation facility site through public investment, private contributions, and implementation of a development impact fee program. To meet the City's park dedication requirements only mini-parks that meet standards in the Parks Master Plan, and in new developments, will have neighborhood (non-city) maintenance.

In the Parks Element of the POST Plan where Future Community Parks and Sports Fields, Section 3.4 are addressed, Option F for Grandview Area realizes that although the City of Durango has not formally decided to extend any services to or consider annexing this area adjacent to Highway 160 east at this time, "circumstances may change."

And if the City does decide to expand in this direction, and if no other site has been located for a community park, then the less expensive land out in the Grandview area may make such a Park possible.

The POST Plan Policies also call for an update of the City's code that would address the issue of whether the developer's park dedication requirement should be just that, the land, or whether different levels of improvement should be provided. Additionally, the City will work with other nearby jurisdictions to assure that recreation needs of the Durango region are met in a comprehensive and equitable manner.

Open Space Plan

The Open Space element is an expansion of the Parks, Recreation and Open Space Element of the 1997 Durango Comprehensive Plan. Goal 15 of the Comprehensive Plan is "to maintain a system of open space throughout the planning area that serves as a visual and recreational amenity, and provides sufficient habitat to sustain healthy wildlife populations." GIS mapping and modeling were used to indicate where to look for potential space and to show areas of opportunities and constraints.

Durango's Open Space Element in the POST Plan incorporates policies for improvements of Open Space lands. In special circumstances, the City may use Open Space lands for rights-of-way for roads, if they have been previously identified in the City's Master Plan and other associated elements. Water, sewer and other below ground utilities may be installed on open space lands if adequate financial guarantees are in place.

Improvements on acquired Open Space Land should be limited to actions required to manage/ protect habitat for native plant or wildlife species, continuation of agriculture, and to provide nature-

based passive recreation. The City may also allow identified Open Space properties to be leased for continued agricultural uses such as farming and grazing. Agricultural leases may continue to afford limited public access for passive use if safety is not a consideration.

The POST Plan's Open Space Element identified twelve tools that can work as separate tools, be used in combination, or utilized as incentives related to development regulations or tax law to protect open space. Intergovernmental Agreements with the BLM and/or the County are one tool. Currently the City and the County are starting discussions on a land use planning IGA.

The short and long range recommendations could affect the study area:

- Monitor and participate with the Division of Wildlife and BLM in the planning process for public lands.
- As part of future annexations and planned developments, require the dedication of open space resources that have "high value to the open space system."
- Develop criteria for the evaluation of these areas so that these additions to the City's open space system can be applied in the Master Plan.

Trails Plan

The Trails Element of the POST Plan provides an inventory of Durango's existing and proposed trail system, and a framework for prioritizing trail development activities. Guidance for trail program implementation is achieved by outlining trail construction standards and trail management policies and strategies for trail acquisition and maintenance. The Plan gives governments, agencies, and individuals a vision for the City's trail system.

A.3 City Of Durango Planning & Community Development LUDC -Chapter 27

Completed: Adopted March 1989
Prepared For: City of Durango Planning

& Community

Development Department

Prepared By: City of Durango

Report Synopsis

The following section of Durango's Land use & Development Code could be applicable to the Grandview area if annexed.

Residential/Commercial/ Mixed Use/Industrial Development

Residential mixed uses are only allowed by special use permit in the NB, CB and LC zones and allowed by conditional use in the PB zone. Retail businesses, which include light manufacturing or on-site production are allowed as a conditional use in the NB zone as a Special Use in the CB, LC and HC zones and allowed outright in the I zone. Light manufacturing is allowed by special use in the CB, LC, and HC zones. In Section 4-1-6 of the Durango LUDC, (a) mixed uses for residential units may be located within a structure with business uses in the Central Business District and with commercial uses in the Light Commercial District. In subsection (b) any mixed-use development shall strictly comply with adopted fire and building codes. The existing uses within the study area are the mixed-use development along both sides of the Highway 160 corridor.

Planned Development Zone Districts

Increasing growth demands for housing of all types and design encouraged the implementation of the Planned Development Zone District. To provide

project variety and diversity the district can relax the bulk and use requirements and other criteria in return for development conformance to ensure the long-term goals for neighborhood and community benefits are achieved. PDZ districts encourage innovations in residential, commercial, recreational, and industrial development.

In order to encourage maximum long-range neighborhood and community benefits the code is designed to:

- encourage innovations in residential, commercial recreational, and industrial development;
- provide a procedure that can relate a project to the desired type, design, and layout of residential, commercial, recreational, and industrial development that encourages saving components of the sites natural characteristics; and
- encourage a more efficient use of the land, public services, and technological changes to land use development and service delivery.

Overlay Zones

An Overlay Zone protects some areas of the City of Durango. The community has identified these areas as unique or special. Additional requirements, limitations, and/or performance standards may apply for uses and/or development within the Overlay Zone. Identified Overlay Zones are: River Corridor Overlay Zone, Downtown Design Overlay Zone, and the Historic Preservation Overlay Zone.

Impact Fees

The Major Street Impact fee is assessed on all new development or change of use and applicants who are connecting to the City's water, sewer and utility pursuant to an implied consent agreement. The Council adopts the fee schedule. The purpose of impact fees is to assure that increased costs to improve and maintain the City's road system is associated born by new development. The fees are

assessed and collected according to a schedule adopted by the Council.

Relevance to the Grandview Area Plan

The general purpose of the Land Use and Development Code is to "guide and accomplish a coordinated, adjusted, and compatible development of the city and its environs." The Land Use and Development Code sets forth requirements and procedures for the adoption of the comprehensive plan or plan elements or for amendments to the text of the adopted City of Durango comprehensive plan, boundaries of the plan area, or land use classifications on the future land use map. Overall the Land Use and Development Code integrates land use and development regulations, accomplishes clarity and flexibility in decision making which affects planning for the City of Durango.

A.4 Comprehensive Plan for the City Of Durango

Completed: Adopted March 1997
Prepared For: City of Durango
Prepared By: City Staff, Freilich,

Leitner& Carlisle

LDR International, and

Vandegrift & Assoc., Inc.

Report Synopsis

The Comprehensive Plan for Durango sets forth a vision for the City of Durango. The thorough consideration of growth management scenarios and the establishment of goals, objectives, and implementation strategies provide decision makers the tools to guide the City of Durango in future development, development of public facilities, and the provision of public services. The Plan also serves as the City's Annexation Plan.

The Plan development process used a Steering Committee comprised of a broad range of City

residents and residents of unincorporated areas surrounding the City. Interviews were conducted with City, County, and community leaders. Focus groups and public workshops were used to identify key community issues. Workshops were also used at specific points in the Plan's development including alternative analysis, goals and policy development, and final draft of the Plan. A telephone survey of area residents was also used during development of the Plan.

In order for the Steering Committee to adequately consider future land use patterns in Durango, an analysis of three growth management alternatives was conducted to help the Steering Committee determine the most appropriate form of growth for the community. The three alternatives were: Trends analyzed growth based upon historic City/ County land use policies, Compact Development considered growth contained within the current City limits and existing utility service areas, and Regional Provider examined the impacts of providing city services to a larger urban area than the other two alternatives contemplated.

The Steering Committee selected a Preferred Alternative that integrated key factors from each of the three growth management strategies. The Preferred Alternative supports higher densities within the City than were considered in the Compact Development scenario and identified two areas as Potential Urban areas as described in the Regional Provider scenario, one of them being the Grandview area.

Relevance to the Grandview Area Plan

The Future Land Use map identifies the Grandview area as a Potential Urban Area with mixed use, large lot residential (I-3 acre lots) and rural residential (3+ acres). In addition the Grandview study area is included in the Preferred Alternative as a Potential Urban Area.

Comprehensive Plan Issues:

The following issues, identified within the Comprehensive Plan, are pertinent to the Grandview area with regard to future urbanization.

I. Development at urban densities with rural development standards.

Development pressure is high in unincorporated areas surrounding the City and there has been a lack of development review coordination with La Plata County. The ability of other service providers to provide water and the County's MES subdivision process (revision is recommended) have enabled urban style development, low to medium densities, with inadequate long range urban services such as fire flow, sidewalks, parks, streetscape amenities, pedestrian safety, and transportation management.

2. The extension of services and the costs

If the City does not provide water to potential urbanizing areas and another provider is able to serve, the provision of water will enable continued growth of low to medium density and an eclectic mix of residential and commercial development in the urban fringe areas. Future costs to serve become more expensive after development occurs. Ability to provide urban services at urban standards is difficult to retrofit in developed areas.

The City has limited resources for new growth. Standards for level of service should be based upon the City's ability to serve and development should be phased "to ensure that new growth does not outstrip its ability to serve." Goal 7 of the Comprehensive Plan outlines standards for concurrency of development to provision of services and also specifies criteria for the provision of minimum services and facilities required for urban development.

3. Discourage urban sprawl

With regard to the Grandview area designation as a Potential Urban Area it is recommended within the Alternatives section, that the "City will continue to work within the County to identify cost effective strategies to accommodate future urban growth..."

A.5 La Plata County Trails Plan 2000

Completed: 2000

Prepared For: La Plata County
Prepared By: Holton Planning
Associates

Report Synopsis

La Plata County, GOCO, Durango Wheel Club, City of Durango, USFS, BLM, Colorado Division of Wildlife, and the Town of Bayfield supported creation of the Trails Plan 2000. The plan evaluates the existing trails and trail needs in the county with an emphasis on additions to the system and improvements to the system. Four major themes of the plan were developed during the Plan process:

- Trails are vital to safe, livable neighborhoods and communities
- 2. Thoughtful integration between public and private lands is central to meaningful trails planning in La Plata County
- 3. Proper trail design is critical to a successful trails system
- 4. Trail maintenance is critical to a successful trails system

The Plan process utilized a 46-member stakeholders group, a three-member steering committee, a team of planners, trail experts and geographic information systems specialists, and many county residents participating through public forums and public worksessions. The La Plata County Commissioners and Planning Commissioners oversaw the preparation of the plan.

Appendix A

The Mission of the Plan is to promote the ongoing development and maintenance of a strategic, well-designed network of trails that provides safe, convenient and enjoyable recreation and transportation experiences for all trail users.

Relevance to the Grandview Area Plan

Four specific action items for the Grandview study area:

- Grandview Ridge BLM lands construct trails compatible with BLM management plans for the area including winter closure for big game.
- Florida Mesa Elementary School establish trails between school and neighborhoods cognizant of trespass issues and easement acquisition needs.
- 3. Highway 160 between Durango and Bayfield establish safe bicycle/pedestrian accommodations including separated path and or adequate shoulders, research potential alignments within CDOT ROW, and address funding constraints.
- County Road 234 connection to Grandview Ridge and Horse Gulch Trails establish access from Grandview/CR 234 area to BLM lands along Grandview Ridge.

A.6 Alternative Alignment Screening Report-US 160, Conceptual Design from Farmington Hill to Bayfield

Completed: May 2000

Prepared For: Colorado Department of

Transportation Region 5

Prepared By: URS Greiner Corporation

Report Synopsis

In February 1999, the Final US 550 and US 160 Feasibility Study was adopted. This comprehensive report included a combination of technical studies and public involvement sessions. A set of general

recommendations for the highways and important public values for the US 550 and US 160 highway corridors will be incorporated into the Concept Design Analysis and Environmental Study phases of the project.

The May 2000, Alternative Alignment Screening Report summarizes the development and evaluation of the various alternative alignments.

Two alternatives were carried forward for more detailed analysis:

Alternative IG was "screened out" because it was cost prohibitive, had steep grades approaching US 160, and had considerable visual and wildlife habitat environmental impacts. Instead, Alternative IG Modified was moved forward for reasons of reduced construction costs, better approach profile at US 160 intersection, least impact on existing traffic volumes, least impact to US 550 while constructing the realignment of US 550, least amount of impacts on existing agricultural land, easy connection to service roads for access to properties adjacent to the north side of the highway, and the new US 160/US 550 intersection would be close to the existing intersection.

Alternative IF-Modified was "carried forward" with both pros and cons. The pros of the alternative are that it is the least costly alternative because this alternative requires the least amount of excavation. Also the approach profile is good with the least grade differential, (4%) at US 160 intersection. The IF-Modified Plan can also maintain traffic on existing US 550 while constructing the realigned US 550. With a diamond or single-point interchange design at US160/US550, this alternative can be easily connected to service roads for access to properties adjacent to the north side of the highway. The construction staging can be accomplished by building an atgrade intersection for an appointed amount of time if the funds are insufficient for a grade-separated

interchange.

Cons of IF-Modified include many impacts to existing residential and commercial development with realigned US 550 and the interchange. It is also felt that this alternative would cause considerable impacts to agricultural land on Florida Mesa. Alternative IF-Modified also has the longest realignment of US 550, with the new intersection located approximately 6,600 feet (1 ¼ miles) east of its present location. Lastly, many of the impacts on existing off-highway traffic circulation and access would be difficult to fix and would create "considerable visual impacts to the existing residents".

A.7 CDOT Newsletter: May 2001 US160 Corridor Environmental Study & Conceptual Design

US 160 at US 550- The preferred alternative (1G) moves the existing Farmington Hill intersection east about 3000 feet and would create an interchange with frontage roads for local access.

Relevance to the Grandview Area Plan

The Feasibility Study resulted in specific recommendations to focus future improvements along the alignment of the existing US 160 and US 550 corridors. In the May 2001 CDOT newsletter CDOT announced that it will look at both the existing US 550 corridor and the La Posta Road corridor during the upcoming US 550 Environmental Assessment. In the same newsletter issue this perspective was offered: at the March 7, 2001 public meeting a large number of people supported the statement that although they "wished that things were how they used to be, Alternative IG was less objectionable than Alternative IF-Modified."

Appendix B

Appendix B - Design Dialogue Reports

Grandview Area Plan Design Dialogue Report – September II, 2001

Introduction

The City of Durango is in the midst of a three-phase process to evaluate the possibility and desirability of annexing some or all of the Grandview area of La Plata County. In the spring of 2001 the City completed the first phase, the identification of an Urbanizing Area to be considered for annexation.

Phase 2 of the process is the creation of a physical plan for the study area. The plan addresses land use, economic and quality of life issues as identified by residents, businesses, and other organizations that have an interest in the future of the Grandview Area. In addition, a fiscal impact analysis is being conducted to quantify the costs and benefits of annexation. The City hired Otak, a planning and design firm from Carbondale, Colorado to assist in this evaluation.

The cost benefit analysis and physical plan will be presented as an Area Plan for adoption by City Council. The adopted Area Plan for Grandview will be used in Phase 3 as a basis for negotiations with land owners interested in seeking annexation into the City of Durango. The Area Plan may also be incorporated into City comment on the anticipated Colorado Department of Transportation (CDOT) Environmental Assessment for Highway 160 expansion.

Goals and Objectives

Early in the planning process the project team prepared Goals and Objectives for the Grandview Study Area to guide the area planning process. City Council confirmed the following working draft of project Goals and Objectives and Measures of Success:

Goals

The overall goals of the Grandview/Southfork Area Plan are to:

- Develop a Plan that balances the needs of the residents and property owners with those of the City.
- Establish a future annexation boundary for the City that is consistent with the standards of an Urbanizing Area as described in the Comprehensive Plan, and
- Identify an annexation plan that complies with the annexation criteria of the Comprehensive Plan and with State Statutory requirements.

Objectives

- I. Develop a Future Land Use Plan Map that:
 - Identifies appropriate land uses that may include residential, industrial, light industrial, regional commercial and public uses.
 - Evaluates the ability to accommodate mixed-use development.
 - c. Identifies appropriate residential densities consistent with the Comprehensive Plan's goals for Urbanizing Areas.
 - d. Ensures a smooth transition from the urban fringe land use patterns into the traditional City of Durango land use patterns.
 - e. Accommodates County goals, objectives, and other area plans as much as feasible and appropriate.

- 2. Establish development standards that advance quality growth.
 - Ensure that commercial and light industrial uses are compatible with surrounding land uses.
 - Address streetscape amenities and incorporate pedestrian safety and transportation management measures.
 - c. Complement the rural character and historic agricultural uses of the surrounding area.
 - d. Adopt zoning and development standards that are consistent with Comprehensive Plan goals for urbanizing areas.
- 3. Develop an overall transportation system to ensure that improvements to the Highway 160 corridor are compatible with and complement the Area Plan.
 - Work with CDOT to evaluate the impacts of the proposed Highway 160/550 intersection and recommend mitigation.
 - b. Evaluate the impacts of the preferred alignment on adjacent land uses and recommend mitigation.
 - c. Address access and aesthetics as well as bicycle and pedestrian safety and circulation
 - d. Provide for an off-highway road system that allows connections and circulation between land uses without using the highway.
- 4. Increase Durango's park and open space inventory.
 - a. Evaluate the potential of the area, including the Artesian Valley Ranch, to support open space, recreational activities and other public uses.
 - b. Identify funding sources for open space and park development purposes.
 - c. Incorporate the recommendations of the Trails 2000 Plan with regard to the Grandview/Southfork area, including the

- bicycle/pedestrian recommendations for Highway 160 and the recreational amenities identified in the Plan.
- 5. Determine the ability and capacity of the City of Durango to provide urban services.
 - a. Analyze the costs to provide urban services to development.
 - b. Prioritize the delivery of services by the type of service (e.g. water or sewer), the location (e.g. only new developed land vs. existing subdivisions), and what service standards there will be (e.g. curbs and gutters or borrow ditches).
 - Evaluate impact fees to determine if fees are appropriate and/or adequate to cover the costs of growth.
 - d. Analyze new funding mechanisms that enable the City to recoup the costs of annexation and the provision of services.
- 6. Develop open and accessible public processes for development of the Area Plan.
 - a. Create a comprehensive list of those members of the public that should be involved in plan development.
 - b. Avoid redundancy for those citizens that have participated in the Durango Comprehensive Plan process, the Florida Mesa District Land Use Plan or other planning processes that have affected the Grandview/Southfork area.
 - c. Strive to include all those that wish to express an opinion and accurately document their comments.

Measures of Success

Project stakeholders and other community members that participate in planning for the Grandview Area should be able to track the success of their work with quantifiable measures. The Area Plan will be a success when/if:



- The Durango City Council and Planning Commission adopt the Plan
- La Plata County either adopts the Plan or agrees that it is an acceptable Plan.
- Project stakeholders and other community members acknowledge that they have been afforded ample opportunity to participate in the plan-generation process.
- All properties that are eligible for annexation eventually annex into the City of Durango.
- The City and Vallecito Water District agree on specific service boundaries and service is provided to properties.
- Key open space in the Grandview Area is preserved and accessible for public use.
- Regional commercial uses are contributing tax revenue to the City.
- Growth does not cost the City of Durango more than the revenue generated by the growth.
- Streetscape amenities and transportation management measures are implemented.
- The proposed realignment of the intersection of Highways 160/550 has a design approved that provides for highway safety, pedestrian and bicycle safety and addresses access needs and aesthetics to the community's general satisfaction.
- Improvements to the Highway 160 corridor are completed in a manner beneficial to the City and the property owners.
- Gravel operations on the BLM property generate no new impacts to area residents or local traffic conditions.

Design Dialogue Process and Participants

The City of Durango realizes that a successful outcome will involve a partnership between the public and private sectors and between the City, County and State governments. In such partnerships, public sector decision-makers desire to make informed decisions based on the best

available information and after hearing from their constituents.

From September 6 to September 10, 2001 the project team held a series of meetings with groups of stakeholders who have like interests. This allowed the opinions of all parties to be heard in a constructive and non-confrontational atmosphere. During these design dialogue meetings the design team integrated the input of diverse parties into a plan concept (drawings and text).

A community open house was held on September II that presented the results of the design dialogue to all stakeholders. The open house was designed to enable the community to respond to the draft physical plan before presentation to City Council and further plan development by the project team. The design results were presented to the Grandview Plan Area Steering Committee and the City Council in a work session the afternoon of September II.

Participants

The following stakeholder groups, as identified by city staff and confirmed by City Council, were invited to participate in the Design Dialogue Process:

- Grandview Area Plan Steering Committee
- CDOT and URS, the consultant for Highway 160 planning
- Bureau of Land Management
- State Department of Wildlife
- · Gravel and oil and gas interests
- · Grandview area small businesses
- Owners of undeveloped property in the Southfork area
- Representatives of the Durango design
- community
- Owners of property with frontage on Highway 160

- Owners of undeveloped property in Grandview
- South Grandview area neighborhood leadership
- North Grandview area neighborhood leadership
- County Road 220/221/222/ and Highway
 172 area neighborhood leadership
- Durango area housing advocates
- Durango area environmental community representatives
- Florida Mesa Planning Committee
- Special Districts (Sewer, Water, School, Ditch Company)
- Parks & Forestry Board, Trails 2000, Regional Park Committee
- City and County staff
- The general public
- A list of attendees who signed in at each work session is attached.

Issues Raised During the Design Dialogue

The following issues were identified during four days of community meetings:

- · City and County staff
- How to get "highest and best" use in Grandview with highway improvements
- How does circulation system work now? In future?
- Residents are concerned about loss of commercial potential
- Water issue will drive annexation
- Fire department consolidation occurring; may need station upgrade for full time personnel
- Many residents have second dwelling units, agricultural uses, home-based businesses, etc. – they are concerned about continuing these uses if annexed

- Residents concerned about the future development potential for undeveloped land
- What is the land use control mechanism during the annexation process and prior to annexation when still in the County but in Joint Planning Area?
- Is Grandview an appropriate TDR receiving zone?
- May need branch library in 15 20 years;
 allow for one in area plan
- Grandview could be service provider for south/southeast county residents
- · Regional park appropriate
- Trail connections / Smart 160 effort should be incorporated
- Most residential streets are private; to stay that way if annexed?
- Consider transition between City and County. Buffer between rural and urban
- 15 20 year planing horizon
- 3% historic growth rate in County
- impact of natural gas development, wells and compressors
- methane seeps
- City does not build local streets; developers build roads, City maintains them; program exists to improve sidewalks, etc.
- Impact of possible bypass, Ewing Mesa connection, etc.
- Water system improvements- two tanks, need improvements to storage capacity and treatment
- Gateway character important
- School siting/expansion of existing facilities should be considered in area
- · Study area boundary is flexible
- Transit service, paratransit, bus pullouts

Grandview Area Plan Steering Committee

- How far back should frontage roads be?
- Concerned about right-of-way requirements for trails, frontage roads, etc
- Deal with highway expansion, incorporate it into plans for community



- CDOT agenda does not take community into account
- More full movement access needed than in current plans
- Does this process mater to CDOT?
- Existing condition will not work in future; the highway does not work now
- Some understand that Federal funding of the highway requires no traffic signals
- · The community wants signals and access
- Planners should remember that the highway passes through a community
- Internal road layout could improve situation or could be a real problem
- Account for through traffic
- Consider alternative route for locals to get into town
- Land uses need to consider rural character
- Look at public golf course, incorporate into other services, perhaps low income housing
- Public transportation important
- Need other ways into Durango

160 East is a commercial corridor

CDOT/URS

- CDOT has been planning highway expansion for 5 plus years
- Glad City is getting involved
- Working on Environmental Assessment from Durango to Bayfield
- CDOT has larger constituency than just Grandview
- 160/550 on the National Highway System, 160 is being designed to expressway standards
- "Expressway" is a state access code designation
- Preferred alternative is frontage road system
- Plan year 2020 peak Average Daily Traffic 51,000 (June, July, August)
- Is Grandview area classified as non-rural arterial? Impacts intersection spacing

- Accident rate in Grandview corridor is twice the state average
- Using frontage road shoulders as bike lanes using old railroad grade from Farmington Hill
- If City and/or County buy railroad grade right of way then CDOT will build the trail
- Posted speed will probably be 50 mph
- Construction sequence likely to be:
 - I. frontage roads and signal at CR 233
 - 2. Mainline 160 four laning
 - 3. Interchange with 550
 - 4. 172 intersection improvements
- Process: draft EA by Dec or Jan, hope for a Finding of No Significant Impact (FONSI) from FHWA in spring 2002
- Value engineering delayed process
- Relocation plans encompass frontage road with 8' shoulders, bike lanes and drainage
- Landscape and maintenance issues to be addressed by City/CDOT
- Potential for park and ride at signalized intersections
- 10' shoulders on mainline for cyclists
- CDOT traffic model information based on 1997 information; design can accommodate additional development

Resource Interests

- Gravel resources valuable to Durango community (location, quality, quantity-60 year supply)
- Truck traffic is a result 100 trucks per day
- Compatibility with urban development
- Is the railroad grade for bikes or gravel trucks?
- Reclaimed land is compatible
- Eventually a hot-mix/cement plant would be good business
- CDOT proposing interim improvements for gravel operations
 - Left turn in median
 - Acceleration lane

- Lack of highway improvement impacts business
- Will annexation impact oil/gas business?
- Gas supply approximately 50 years
- Tax revenue prop tax from wells
- Gas industry can co-exist with development
- Consider impact of existing wells (pump jacks, compressors)
- Consider impact of new wells (downsizing possible)
- You have to be in particular zone in City to drill a well – oil and gas commission regulations apply and will supercede City regulation
- BLM land can't go to private entity but could be transferred to City or County or state
- · Recreational access to west desired
- Link Ewing Mesa and Grandview over BLM land?

Small Businesses

- What happens to private access?
- Any changes or restrictions to land use?
- More commercial zoning needed
- City has clean up to do
- Mix of uses is good as long as businesses and homes are compatible
- · Right in, right out onto frontage desired
- Why the current 160 East design (frontage roads) - Why not like 160 West or 550 North?
- Don't replicate 160/550 at Sawyer Drive no stacking distance
- Bike pedestrian on frontage road need facilities for locals
- What about sidewalks?
- Look at grade separated pedestrian crossing
- Ped connections to 220 pretty place
- 6 mobile parks in area policy for buffering parks
- Landscaped frontage area

- Land values getting too high for business park
- Need a place for industrial/commercial businesses – contractors, lumberyards, auto repair, etc.
- Can properties get city water prior to annexation?

Southfork Undeveloped Properties

- Concern about capacity and access
- Earlier conceptual plan for annexation available to project team
- Need a place for big box
- Regional commercial should be west of High Llama Lane – at least short term
- · Signal at High Ilama Lane
- Need density to counter land cost
- AVR cluster development to balance development and open space
- Wetland near highway west of 233
- Consider office campus
- New warehouse / light industrial south of High Llama Lane
- Gravel trucks need their own access
- Development can't/won't bring water up Farmington Hill on its own
- Show link between development and public benefit – parks, etc.

Design Community

- Inter-jurisdictional TDR opportunity, consider plan for base density with density bonus for TDR
- Urban development appropriate for Grandview
- Discourage traditional frontage road
- Transit oriented development
- Opportunity for affordable housing; high density housing
- Is this an opportunity for input to CDOT that will be heard?
- Accommodate a future bypass
- How to activate frontage roads
- Urban gateway should be further east



- Grandview planning should be respectful to the environment and aesthetics and set a precedent for future development eastward; not a bunch of boxes and roads
- Curb and gutter on Highway 160 allows for landscaping
- Acquire the old railroad grade and extend the regional trail system east
- · Aesthetics and function important
- Consider a village character/mixed use
- Development in nodes perpendicular to highway corridor
- Growth should be transit supportive
- Protect vistas and hillsides
- Use reclaimed BLM areas for affordable housing

Highway Frontage Owners

- · Finish the highway
- Property will probably be commercial (KOA)
- Property owners cannot make plans until highway planning is complete
- Florida River / farmers canal limits grades
- CR 233 as frontage road is good idea but there still will be some impacts
- · Bikes lanes included in row
- Water service is important and should be considered
- Frontage roads should be accessible and easy to use

Grandview Undeveloped Property Owners

- Highway noise impacts make housing a problem
- Clustered residential housing with open space and water features throughout
- Need right in right out between intersections
- Old railroad bed good place for a trail
- Preserve old trees
- Property values make trailer park a problem
- City development on city water system

- Check out existing trail easements
- Park opportunity on 220 (Llama Farm)
- Manufactured housing community on semi-permanent foundations, maintained by management
- Current water plant investment fee structure makes mobile home development cost prohibitive
- Weeds are a problem
- Affordable housing where? when?

Public Session

- · Will the City pave county roads?
- Will population and/or employment numbers change from CDOT projections?
- A mix of housing would mean less traffic
- Park and ride and transit
- Historic opportunity mix of uses
- Consider larger planning area -context
- Consider 550 bypass
- Consider relocation of fairgrounds to Grandview
- CDOT accident data they changed to '94 instead of original '97 data
- Look at schools in area
- Should be safe for kids to walk
- Should require affordable housing
- Consider new high school
- Consider school district consolidation
- Need new hospital
- Consider new town site
- Consider relocating 172 to the east regional traffic through residential area
- Oil and gas regulated by state mitigation if impacts needed
- Need to address oil and gas revenue opportunities
- Buffer regional facilities from existing homes
- Would existing subdivisions continue to have dirt roads?
- Don't provide water without City regulatory controls

- Affordable for residents, not developers
- "Upscale" mobile homes okay
- Interested in housing for seniors and low income
- Consider positive impacts of trough traffic on business
- Impact of annexation on remainder of fire district

South Grandview neighbors

- Connect neighborhood to light at High Llama Lane
- · Commercial along highway
- Multifamily on west end
- · Preserve single family on east end
- More commercial at 233 light and new KOA
- Concern about curve on 232

North Grandview neighbors

- · Gravel access and park and ride
- Open space vs. development debate can cause sprawl
- Elk habitat preservation is a concern
- Water is key issue
- Vallecito Water Company not an option
- Are the sanitation companies going to join the city system?
- · Rail right-of-way too close to housing
- Can we do 3 to 5-acre residential development with livestock, etc?
- County standard for clustered housing I per 6-2/3 acre density clustered on 20% of land
- Mason, etc. should be per the Florida Mesa Plan
- Palo Verde wants out of plan area, annexation area

172 Area neighbors

- Llama farm would be great park
- There is opposition to annexation
- Commercial use okay with buffering/ mitigation

- Need light at 172/220
- Is there an alternative to 172?
- Consider a park north of the Knolls (on II- acre land locked parcel)
- Park land and trails important
- Look at canals and rail right-of-way for trails

Housing Community

- Incentives (clustering, TDRs, etc.) imperative
- Consider inclusive zoning
- Manufactured housing will be affordable with City standards
- County right-of-way standards make meeting City standards difficult; consider new City standards (skinny streets)
- Need to remove negative stereotype image of manufactured houses
- Keep community diverse
- 44% of county community cannot qualify for home loans based upon median income and local housing costs
- Housing community familiar with appreciation caps and other tools
- Grandview could provide City with a significant stock for area worker housing opportunities
- Consider subsidizing infrastructure to support affordable housing
- Potential of new housing authority to serve redevelopment function in Grandview
- Quality of life starts with a pay check and a place to live

Environmental Community

- Storm water system what is the treatment scheme?
- Night sky (dark sky) ordinance
- If growth happens then compact form appropriate
- Consider park and ride near 172
- Solar access



- City to provide garbage and recycling pick up
- Look into air quality establish baseline
- Concern if sand / gravel expanded to batch plant
- City should consider "how clean is clean" for quality of life
- · Pave streets to reduce dust
- Look at road crossings for elk and deer (larger mammals)
- · Limit fire places and wood burning stoves

Florida Mesa Planning Group

- Park and ride important
- Could big box happen with CDOT unresolved?
- Consider design standards for landscaping, buffering, building materials, roof top mechanical screening
- Don't make same mistake further east
- Design "village" so you don't have to drive to get there
- No value to Ewing Mesa connection
- Artesian Valley Ranch connection to 160 important
- Grocery store

Special Districts

- Will City share cost of master planning with special districts?
- Vocational School Agriculture programs could use water if in area
- Ditch water is for agricultural uses only
- Consider South Durango Sanitation
 District growth in relation to annexation
- How to handle existing district debt?
- Annexation suggest all or none of South Durango Sanitation District
- How soon could this happen?
- High school at capacity now
- Need fast food by school
- School site 25 acres
- Schools should back up to parks

 School district – vocational high school or other school

Recreation and Regional Park interests

- Provide for hierarchy of parks
- · Look at reserving old rail trestle
- · Lights can be a problem at parks
- Put 900 acre regional park in Plan
- Create trail connection to south
- Need urban park in village center
- Pedestrian access to school necessary
- Trail connection to BLM land important
- Ridge line protection necessary
- Consider adopting standards or design review to ensure quality
- · Put senior housing near activity
- Consider pedestrian undercrossings at all major road crossings
- Consider equestrian access to BLM land
- Incorporate school section into Regional Park concept
- Create a hard surface separated pedestrian and bike path off of Highway 160

Open House Public Comments

- Agricultural Preserves should be required to be seeded and maintained so that forage is provided for wildlife and noxious weeds are managed
- The southwest corner of Elmore's Corner on the west side of the cemetery was purchased for relocation of the liquor store. These are 2 three-acre parcels that are now designated "mixed" by the County. I do not like the realignment of access road to south side instead of from the highway side which will "bury" the liquor store business.
- The three acre parcel next to the community three acre next tot he cemetery is all green space on your design that will take my home and the area on the north part to which the liquor store was going to be relocated this 3 acres needs to be commercial start your green on to the west of my 6 acres

- A drawing provided by Terry Crier made the following points: For the proposed park on his property, he suggested moving the primary access on CR 220 further west off of the crest of the hill where sight lines are dangerous. He also suggested using existing Linda Lane to access into the new park and provide access for adjacent neighbors rather than take up park space with an access drive. In addition ball fields should be located in southern corners with activity facing away from highway.
- The 70 acre Lundsford Family Trust parcel should be 50 acres residential on the top (north) and the bottom 20 acres best suited for commercial use.
- New plan not realistic because it is a redesign of existing Grandview uses.
- Get water to area.
- Let the tree people buy the land and trees.
- Have right turn off/on at 233 east.
- I'm glad to see the green space corridor for 160, cou7ld be wider, but a good start.
 Glad as well to see the clover leafs of CDOT's design gone! Thanks you.
- We need the Fairgrounds and equestrian center moved to an area that would work with the trail system e.g. Artisian Valley, Mason Ranch or possibly Southfork Ranch.
- Grandview/Southfork is about 5500 acres of BLM and open space as well as some already given as open space conservancy.
 Enough. No parks in Southfork.
- Take this "new" plan and move the entire plan – east of 172 where there is little or no development. How can this plan <u>ignore</u> what already exists? (in the Grandview area)
- Intersection 160/172 south and intersection CR 220/172 will need serious attention far sooner than CDOT indicates.
- If county growth rate is 3%+/- population of total county will double in 24 years (72/3) that is approximately 40,000 new bodies.
- Corner of 160/172 in Mesa Heights

- subdivision: commercial only on lower bench (closest to 172) leave existing upper lot for home. Homeowner's association must approve commercial to allow leaving subdivision.
- Regional Park one site of a minimum of 125-150 acres for active recreation with opportunity to expand to 400 acres of active recreation. Open space to buffer active/lighted areas.

Need to add changes from stickers on map

Steering Committee Worksession After Open House

- The Lundsford property should be 50 acres residential and 20 acres commercial
- Is there enough commercial?
- Too ambitious for what is already there.
- A lot of change from Florida Mesa Plan
- Put gas wells on the map.

Preliminary Design Response

Based upon input received during the design dialogue, the project team has developed a preliminary land use and transportation plan for the Grandview area. The Preliminary Design Response does not incorporate those comments received at the September II Open House. Those comments together with comments received at the subsequent worksession with the Steering Committee and the City Council will be integrated into Draft Plan. This preliminary Area Plan has several key themes:

Compact Form

The study area should plan for new development that does not sprawl along Highway 160. Three distinct nodes are planned along the Grandview corridor of U.S. 160, including a "gateway" at Colorado State Highway 172, a Grandview "town center" along County Road 233, and a regional shopping village on High Llama Lane.

The draft physical plan utilizes natural forms and features to contain development. Natural topographic features and existing vegetation contain the school site and new residential development off of High Llama Lane. Topography, water, and vegetation are used throughout the plan to shield development and provide buffers between neighborhoods and to enable transitions between uses.

A "town center" for Grandview has been proposed, incorporating locally serving commercial activity with mixed use development, multi-family housing, and small lot single family housing around a central commons. The center takes advantage of CR 233 as a frontage road off of Highway 160 and provides an identity for the Grandview plan area.

Cluster Development

Clustered housing is utilized in new areas of development north of Highway 160 to preserve open space, vistas, and wildlife habitat. The cluster approach to providing residential housing will allow passive recreational uses in the upper meadow to link to the adjacent Grandview Ridge trail network.

"New" Housing Types

Planning for a variety of housing products, in terms of style and cost, would benefit both the City and the neighborhood. There is an opportunity to address some of the important affordable housing issues that challenge the County and City.

New development with a traditional suburban development pattern is not supported by many who attended the meetings. Compact and clustered type developments were strongly encouraged. A mix of multi-family, small lot subdivisions and pods of clustered homes are interspersed with the existing development and with land proposed for non-residential development and open space preservation. There is an existing grid pattern of development south of the Elmore's Store

intersection that has been enhanced and extended across CR 172. This detail will enable greater connectivity between residents and other uses and plan area amenities.

Mixed Use

A mixture of light industrial, and mid to large retail commercial uses can be supported. Commercial services to serve the local neighborhood and a variety of housing styles and types have been incorporated into the area of new development and within existing neighborhoods as infill.

Vehicular Circulation

Safe and convenient access from surrounding neighborhoods onto Highway 160 and the proposed frontage road is critical. The Grandview Area Plan maximizes existing County roadway alignments to provide required service road access to support Highway 160, thus maintaining the existing street fabric. An additional right-in and right-out intersection is proposed at the eastern intersection of CR 233 and Highway 160 on both sides of the Highway. A new signal is proposed at High Llama Lane and Highway 160 (prior to construction of the CDOT grade-separated interchange at 550).

Alternative Transportation/ Pedestrian Safety

The ability to access the variety of services and amenities without using one's car is an important goal. Pedestrian and bike connectors are highlighted. Park and rides are included at each end of the study area along the Highway 160 corridor. The historic rail corridor is proposed as a trail. A trail is proposed in Wilson Gulch connecting the Animas River with the High Llama Lane development area and Artesian Valley Ranch development and open space.

Connectivity

Pedestrian and vehicular connections have been added to the draft Physical Plan to keep local traffic off of the highway and to increase safe travel within the study area. The underlying grid pattern of development south of Highway 160 has been enhanced for pedestrian and vehicular connections through the neighborhoods.

Institutional Uses

Approximately 27 acres of land have been designated for a new school campus site.

Incorporation of Recreation and Open Space

Both passive and active open space is desired in the study area. The draft Physical Plan identifies over 100 acres of active recreational facilities. Over 200 acres have been highlighted as passive recreation and open space. The Parks and Recreation planning committee desire greater acreage for a Regional Park Facility. There is the possibility to utilize State Land Board land to the east of the study area for such purposes with potential connections into the upper Artesian Valley Ranch acreage and BLM land to the west.

Gateway

The intersection of Highways 172 and 160 are defined as the gateway into Durango thus highlighting this entrance for travelers from the east and from the airport. In addition, the Town Center provides a landmark, an identity, for Grandview.

Next Steps

The project team will incorporate the results of the design dialogue and the City Council work session into an outline for the Area Plan. A cost benefit analysis is underway and will be incorporated with the physical plan to create a draft Grandview Area Plan. Once a draft plan is developed, a presentation will be made to the Steering Committee and City Council.

Steering Committee and City Council comments

on the draft plan will be incorporated into a final draft plan that will be presented to the Planning and Zoning Commission and City Council for their consideration.

If adopted, the Grandview Area Plan will serve as the basis for Intergovernmental Agreements with La Plata County and other agencies. The Plan will also serve as the context within which individual annexation proposals will be considered.

Design Dialogue Attendees

September 6 to September 10, 2001

City and County staff

Joe Crain

Robert Bowie

Kevin Hall

Craig Roser

Tom Kaufman

Edy Zwierzycki

Cathy Metz

Sherry Taber

Jan Choti

Jack Rogers

Susan Hopkins

Vicki Vandegrift

Millissa Berry

Greg Hoch

Steering Committee

Bryan Evans

Mike McGuire

Erin O'Neal

Tom Darnell

Bill Cameron (for Harry Clark)

Sal Rumore

Jay Hecker

Virginia Blanchard

Donna Cook

Tom Caver Jr.

Brian Hoffman

Dick Lunceford

Don Stickle

CDOT/URS

Laurie Blanz

Carl Watson

Bryan Foote

Tony Bemelen

Gravel/Oil & Gas/BLM/DOW

Adam Keller

Scott Thompson

Richard Speegle

John Gilleland

Business Owners

Tom Spellman Mike Simmonds Bobby Lieb

Bill Bader

Stewart Leach

Tom Darnell

Virginia Blanchard

Arthur Wyman

Bill Cameron

Cheryl Gans

Donna Cook

Gustavo Mondragon

Undeveloped Southfork properties

Rowean Crader

Cam Lefebvre

Ron Ludington

Brett D'Spain

Brian Hoffman

JD Feuquay

Dick Norton

Design Community

Martha Cochennet

Lynn Vandegrift

Ken Carmichael

Tom Maynard

Michael Bell

Paul Wilbert

Linda Geer

Highway Frontage Owners

Carol Coates

H. Prescott Blake

Jayne Hazelton

Donna Cooke

Brian Hoffman

Undeveloped Grandview properties

Kay Thrash

Frank McNeil

Alta Lundsford

Terry Crier

Kathy Crier

Don Stickle

Dick Norton

Dick Lundsford

Public Session

Greg Drover

Jay C. Hecker

Brian Newsome

Lee R. Goddard

Tom Howley

Marsha Moreland

Lori Green

Hans Hess

Dick Norton

Rod Ludington

Cam Lefebvre

Al Denham

JD Fuquay

Terry O'Brien

Rob Salazar

Mike McGuire

North Grandview neighbors

JD Fuquay

Jim Montoya

Dick Norton

Marilyn Reed

Wally White

Hans Hess

South Grandview neighbors

Dora Jaramillo

Hans Hess

Dick Norton

Bryan Evans

172/234/220/221 neighbors

Cathy Metz

Linda Clarkson

Geoff Craig (for Deann Bradford)

Don Stickle

Hans Hess

Dick Norton

Housing Advocates

Reid Ross

Bill Mashaw

Amy Johnson

Environmental Community

JD Fuquay

Jeff Berman

Dick Norton

Kevin Hall

Michelle Reott

Katherine Roser

Wano Urbonas

Jay Lancaster

Florida Mesa Planning Group

Virginia Blanchard

Brian Kimmel

JD Feuquay

Dick Norton

Vernon Greif Nancy Greif

Jeremiah St. Ours

Regional Parks & Recreation

Mike Olson

Cathy Metz

Kevin Hall

JD Feuquay

Leith Lende

Paul Wilbert

Terry Price

Bob Oswald

Dick Norton

District Representatives

Virginia Blanchard

Phil Craig

Lori Green

Marsha Moreland

H. Prescott Blake

Diane Donay

Rick Johnson

Dick Norton

JD Feuguay

Appendix B

Grandview Area Plan Supplemental Design Dialogue Report –

August 29, 2002

Introduction

In September of 2001, the City of Durango together with Otak, a planning and design firm from Carbondale, Colorado conducted a design dialogue process with the community to seek input from interested stakeholders in a comprehensive planning effort for the Grandview/Southfork area of La Plata County. The City of Durango was assessing the cost and benefits to the City of annexation of some or all of the Grandview area.

The design dialogue process culminated in an open house on September 11, 2001 as well as a presentation in a joint work session with the City Council and the Board of County Commissioners. A report, Grandview Area Plan Design Dialogue Report – September 11, 2001, was prepared for the joint worksession that summarized the process to date and included all public comments that were recorded during the five days of meetings with community members.

While Otak was completing the draft land use plan and conducting the cost/benefit analysis of annexation, the ownership of the two largest parcels within the study area changed hands. As a result, the City suggested a supplemental review of the draft plan, with community stakeholders, in order to predict more accurately the cost and benefits of annexation of the new development as proposed.

Process

Our purpose for this supplemental design dialogue process was to review with Grandview stakeholders the potential changes to the land

accessed off of High Llama Lane including the Artesian Valley Ranch and Mason properties. Similar to the design dialogue process that was conducted last year, stakeholders were invited to participate in a series of meetings to discuss the potential changes in the Grandview Area that could significantly change the proposed physical plan that was presented September 2001. Although questions and some discussion involved other areas of the Grandview study area, the Otak team conducted this supplemental design dialogue in order to solicit stakeholder opinions with regard to the potential hospital relocation in the Grandview area and the ancillary land uses proposed in conjunction with the hospital's plans.

Otak and City staff conducted two days of design dialogue sessions including a general Grandview/ Southfork neighborhood the evening of August 27, 2002. The design dialogue report that report was submitted to the City last year was available for review at this weeks design dialogue session as well as the draft physical land use plan that was prepared during last year's sessions was also used as a reference this year.

The comments received during this supplemental design dialogue have been recorded in this document. A new draft land use plan has been developed for the AVR/Mason area as well as the area off of High Llama Lane.

The supplemental design dialogue session will culminate in a joint work session with the City Council and the Board of County Commissioners. A public open house will wrap up the design dialogue session. City and County comments as well as public comments will be further incorporated into the draft land use plan for this sub-area of the Grandview Area Plan.

It is important to note that the intensive land use changes proposed for the valley off of High Llama Lane are currently confined to the southern 684 acres. The northern 588 acres of the former

Artesian Valley Ranch are being reserved for future development at this time. However, our draft land use plan will incorporate potential changes for the entire area.

What Has Changed

The previous land use plan that was developed last year identified a large regional commercial core with offices off of High Llama Lane. A school site was planned as well as a regional park with significant open space in the AVR valley. Most importantly, the residential density on the AVR property was proposed at the density level that is currently allowed within the County, approximately 90 dwelling units. The current planning efforts for this area will significantly alter what the 2001 draft land use plan indicated.

The Southern Ute Indian Tribe has purchased Artesian Valley Ranch and the Mason property. The Mercy Hospital Board is in the midst of an extensive search for a new location to construct a regional facility. The Hospital has narrowed their search and the land the Southern Ute Tribe has recently purchased has become a top contender.

The Crader family, which owns 236 acres off of High Llama Lane, is also interested in facilitating the Hospital's relocation. During the supplemental design dialogue sessions, both entities, the Southern Ute Tribe and the Crader family, presented a partnership scenario locating the Hospital Campus and supporting uses on both properties.

The Southern Ute Tribe plans to develop 684 acres of their land and reserve 588 acres, the northern portion of the AVR valley, for future development purposes. Their development proposal includes approximately half of the Mercy Hospital campus and medical office buildings, a 100-acre park, extensive mixed-use (commercial and residential) square footage, at least one elementary school, and approximately 1,700 – 2,000 residential units. A

primary goal of the Southern Ute Tribe is to provide attainable housing.

The Southern Ute Tribe has been working with the Colorado Department of Transportation (CDOT) to identify necessary intersection improvements at County Road 233 and US 160 in order to access their property. A signalized intersection is proposed.

The Crader family land would contain approximately half of the Mercy Hospital campus, supporting medical office, extensive mixed use development, the potential for regional commercial on the western end of their property, and varying densities of residential use.

The Mercy Hospital Board's concept for this property is to build a medical campus that becomes an anchor within a village. They need 50-80 acres and are on a 50-year planning horizon. The Hospital will need to be supported by ancillary uses such as medical office and locally serving commercial uses. The Hospital desires to be surrounded by open space and parkland that supports a healing environment and complements the campus concept. The ability to locate attainable housing proximate to the hospital is a strong goal of the Board.

All three entities expressed a strong desire to provide a meaningful pedestrian/bike path system throughout the development. The ability to share infrastructure such as parking should was emphasized by all parties including parks and other recreational opportunities. The school district and the parks and recreation department also expressed this.

An emphasis by all three entities has been placed upon the new urbanism for design of residential neighborhoods and mixed-use development supporting a pedestrian friendly environment. Working with the natural topography and natural

features of the site was also an expressed goal by all. Preserving Wilson Gulch as a greenbelt along the south end of the valley as well as exploring trail connections onto Grandview Ridge are examples of the open space and recreational amenities that are being proposed.

Currently all parties continue to work on a partnership with Mercy Hospital that enables the primary property owners to work cooperatively to achieve the best design solution for the area. The Southern Ute Tribe and the Crader family made it clear that if Mercy Hospital did not relocate to this site significant development is still intended.

Who we met with

The following stakeholder groups were identified by City staff and invited to participate in the supplemental design dialogue process:

Project Staff

Mercy Hospital Board and Staff

Southern Ute Indian Tribe Representatives

Crader Family and Representatives

South Durango Sanitation District

Southfork Property Owners

Division of Wildlife

Bureau of Land Management

United States Forest Service

9R School District

Colorado Department of Transportation

Grandview/Southfork Neighborhood

City and County Staff

Grandview/Southfork Steering Committee

Issues Raised During the Design Dialogue Process

Mercy Hospital Board

- Ø Not enough space at present site
- Ø Not many sites meet their needs (50-80 acres)
- Ø Interested in Grandview Area
- Ø Desiring a medical campus with medical

- offices, pharmacy, ancillary commercial uses
- Ø Hospital has been on same site for 120 years
- Ø Looking at 50 year planning horizon
- Ø Land owners working with hospital to help make the project happen
- Ø Planning for a regional facility
- Regional access/local access most of population south – access to airport important – medical transport
- Ø Develop specicalty lines of service
- Ø Emergency room access location needs to be studies.
- Ø Proximity to a park is desired to promote healing environment
- Sequencing of land uses along High Llama Lane and type of commercial uses are important
- Ø Timing important hospital needs to open by 2005
- Ø Part of village: open space, mixed use, good transportation, quality place
- Ø Hospital/regional park link
- Ø Hospital/200-250 thousand square feet, 2-3 story buildings
- Ø Medical office 100-150 thousand square feet (2 story current thinking)
- Ø Willing to work with neighbors on campus design
- Ø Employee housing a concern: have worked with Mercy Housing Corporation
- Ø Housing that's affordable is a goal

Southern Ute Tribe Interests/ Crader Family Interests

- Ø Joint Planning
- Ø More affordable/higher density housing
- Ø 1,700-2,000 units
- Ø Making a donation so require a return on investment
- Ø "Interim" use of hospital expansion is important
- Ø Tribe land is 684 acres being actively planned and 588 acres reserved for future

development

- Ø Crader 236 acres
- Ø Can City fund park improvements?
- Ø View corridors of highway are important
- Ø Density low 2-4 units per acre medium 5-12 units per acre

high 12 +

- Ø Need for affordable housing drives lot size
- Ø Park connectivity through site important
- Ø Elementary school necessary
- Ø School park integration desired
- Ø 233 intersection/agreement with CDOT

South Durango Sanitation District

- Ø Concerned about cooperation with City i.e. study costs, planning help with waste water treatment plant design, communication
- Ø Phase I: 1,000 taps; \$1.6 \$1.8 million capital costs
- Ø Future phases sell taps to finance
- Ø Build big plant now vs. modular upgrades– can't go big w/out City
- Ø Build out 4 mgd capacity
- Plant investment fee (tap fee) \$7750 per ERT
- Ø Notification of future development plans should not affect SDSD master plan
- Ø Growth can happen as fast as it wants, SDSD can keep up
- Ø Needs to be a shift of how City grows with needs to service
- Ø Help SDSD with master plan/cost analysis
- Ø City can help SDSD with specifics
- Ø If SDSD doesn't know about pending development would be the only time SDSD could not meet needs
- Ø If annexation occurs SDSD asks that rate payers be treated equitably, avoid double charges

DOW, BLM, USFS, 9R

- Development may require elementary school
- Ø K-8 25 acres
- Ø High school 25-30 acres
- Ø Trail access to BLM land; need a trail plan
- Ø Ewing Mesa connection at south end of BLM
- Ø Size of Regional Park?
- Ø Integrate BLM 40 acres parcel in open space plan

Southfork Property Owners

- Ø Consider access off of CR 234
- Ø Traffic projections important
- Ø Put big box by highway

Neighborhood Meeting 8/27

- Ø Tie AVR to other traffic patterns
- Ø Move 160 alignment north
- Ø 160 has double the accidents of other Colorado highway- bad place for a hospital
- Ø What medical facility will be left in the city if the hospital leaves?
- Ø Add a lane to US 160
- Ø Manage water smarter in Durango/ Grandview/elsewhere

City/County Staff

- Ø Transit to hospital is high volume route; Durango Lift will serve new hospital location
- County process: out of Florida Mesa master plan; adopt city plan; incorporate into IGA; amend IGA
- Ø Grandview is potential TDR receiving area from within study area and outside study area
- Ø Consider TDRs within Grandview to develop greenbelt, etc.

CDOT

Considering elimination of frontage roads -cost savings



- Ø Work to consolidate access near-term, may require some right in-right out
- Ø Still clearing the frontage road concept in the EIS
- Ø Frontage road issues: construction; ownership/maintenance
- Ø Acquisition of right of way is cost that could be mitigated by City
- Ø Acknowledge urban character: slow speeds (45 mph); different standards
- EIS process may require categorical exclusion for any interim improvements
- Ø CDOT and City need to develop phasing concept/roles and responsibility

Grandview/Southfork Steering Committee

- Ø Hospital will be good for Grandview it will be a good catalyst for change.
- Ø Need access from north end of AVR to 234 and/or Ewing Mesa
- Ø Think it is great to have Mercy if they negotiate in good faith.
- Ø Hospital will throw it open and make certain entities do what they need to do.
- Ø Will commercial be strip malls?
- Ø Are there any plans to have clinic or hospital services still within the City?
- Ø Wells may go dry as land if developed. Address impact on small wells.
- Ø Small landowners cannot afford City services if annexation occurs. Who pays for these services?
- Ø Service from SDSD is constrained and we will have to pay for the expansion.
- Ø Address relationship with City and SDSD?
- Ø City may have to review connection policy for services and how and who pays.
- Ø County is studying being a player in Vallecito Water District to provide services, which includes the eastern end of Grandview study area.
- Ø Residential density around hospital is important and affordability is important and necessary.
- As a residential owner I believe if change happens hospital – good neighbor –

- makes sense wonderful opportunity.
- Ø With hospital it is an important facility and need is correct and has to go somewhere but not a good neighbor.
- Ø There are trade offs.

Preliminary Design Response

In response to what the Otak team heard during this recent design dialogue the following changes have been made to the sub area of the Grandview Area Plan that relates to the land off of High Llama Lane including the entire valley between La Paloma subdivision and the Grandview Ridge:

Land Uses

The supplemental draft plan includes a regional commercial component, smaller commercial elements as well as mixed-use commercial/ residential areas. A hospital campus, significant park/open space and two school sites. A mixture of residential density is proposed with lower density in the northern portion of the property.

Neighborhood commercial uses are proposed within the low density residential neighborhoods enabling services not more than a quarter mile walk from residences. The low density residential areas are proposed in a typical Durango City block grid pattern.

A pod of multi-family housing is proposed on the western edge adjacent to the mixed- use area.

Hospital Campus

The Mercy Hospital Campus dominates the center of the planning area straddling the Crader property and the Southern Ute Tribe property. The Hospital campus is a 50-acre parcel with an additional 30 acres to the north for expansion capability. The 50 acres campus includes an approximate 250,000 square feet of hospital complex with approximately 150,000 square feet of medical office buildings.

Access

Access off of US 160 is proposed at both the High Llama Lane intersection and the County Road 233 and US 160 intersection. The access road is proposed as a circular drive connecting the two primary accesses off of US 160. A tree-lined boulevard is proposed up the center of the property to the hospital campus. The access road is designed to service the commercial uses and mixed uses that are proposed in the land area between the hospital campus and the highway.

Access is also proposed onto County Road 235 and the narrow strip of land that connects the property to County Road 234. This was purchased by AVR to provide a secondary access to their previous development proposal. Access may also be provided to Ewing Mesa for future connection to Durango's town core.

Open Space/Parks

There are approximately 76 acres of active parkland and well over 100 acres of passive park and open space provided throughout the plan. The passive park area includes hillside preservation of area greater than 25% slopes and the valley floor that preserves critical winter elk habitat. Wilson Gulch is intended to be preserved and enhanced with a pedestrian/bike corridor. The parks and open space are designed to be integrated with the other land uses such as the hospital campus and the two school sites. The alignment of the park is intended to provide a continuous open space through the property not only as a recreational amenity but also as preservation of the winter migration route of the elk herd.

Schools

Two school sites are proposed, 30 for the high school and 25 for the elementary. The location of the schools and their campus facilities are designed to link into the hospital campus from both a visual and shared facility perspective. Location of the

schools enables the institutions to share the open space, park amenities as well as parking.

Shared Infrastructure

The compact nature of this draft land use plan enables parking to be shared among the various entities. As mentioned previously the schools and hospital can share parking as well as the park facilities. Park users may share parking with the schools.

Next Steps

After the review of this amended draft physical plan, the Otak team will incorporate the comments that we heard at this supplemental design dialogue process and continue to work with the Durango planning and public works staff to complete the cost/benefit analysis and draft land use plan document.

The final draft will be submitted for review to be presented to the Planning and Zoning Commission and City Council for adoption.

If adopted, this plan will serve as the basis for Intergovernmental Agreements with La Plata County. The Plan will also serve as the basis for annexation negotiations between the City and private property owners.

Appendix C - System Capacity Analysis

Tables C.1 through C.6 provide an estimation of the anticipated trip generation by land use type for the five sub-areas and for Grandview as a whole. These tables are based upon trip generation rates contained in *Trip Generation*, *Sixth Edition* (Institute for Transportation Engineers, 1997) and the following simplifying assumptions:

AM and PM Peak Hour – The a.m. and p.m. peak hours for all land uses were assumed to occur at the same time of day. This tends to increase the peak hour traffic shown. In reality, schools, homes, offices, and retail all have different peak hours for trip generation. Thus the peak hour traffic shown in Tables C.I through C.6 does not represent the traffic that should be anticipated between 6:00 and 9:00 a.m. or between 3:00 and 6:00 p.m., the times normally considered "peak hour" by the public.

Commercial Land Use – This analysis assumes the trip generation characteristics of free standing discount superstores for all commercial land use in Sub Area I and the trip generation characteristics of specialty retail center (read strip mall) land use for all other commercial areas in Grandview. The Institute for Transportation Engineers (ITE) recognizes 4I distinct retail land use trip generation rates. As the commercial areas are planned in detail, the trip generation characteristics of the areas will be refined and will likely be lower.

School Land Use — This analysis applied an average of the trip generation rates for elementary, middle, and high school to all school acreage. This blended rate also does not consider the close proximity of housing to the school sites, which would lower the number of trips generated.

Mixed Use Land Use – There is no trip generation rate in the ITE document for mixed-use. An approximation was developed by adding the rate for general office land use to the rate for

townhouse land use. This would tend to overstate trip generation, as the proximity of jobs to housing in mixed use areas lowers the number of trips taken.

Internal Trips – This analysis assumes a 30 percent factor for internal trips. These would be auto trips within Grandview that never reach US 160. As Grandview would support a population equal to 25 percent of La Plata County and contains jobs, housing, and shopping in close proximity, this assumption appears conservative.

The resulting trip generation numbers for daily and peak hour trips are thus very conservative in nature and present a "worst case scenario" for the area at build out. The trips have not been assigned to the transportation network, and relationships between adjacent or proximate land uses that would tend to lessen the number and/or length of trips have not been quantified. The implementation of Traditional Neighborhood Development, enhanced transit service, and a high quality pedestrian system would reduce traffic volumes even further. A more detailed analysis would certainly refine and likely reduce forecast traffic volumes substantially.

Preliminary Findings — This analysis of transportation system capacity points to relationships between build out in Grandview and development of the regional transportation system that require further study. While identifying specific transportation improvements would not be appropriate absent a study that should extend far beyond Grandview, the analysis does highlight the following relationships, which should be developed further as annexation occurs and/or US 160 and other corridors are improved:

 Build out of the Grandview area as proposed in this plan is likely to exceed the capacity of the US 160 corridor, even with the anticipated addition of two travel lanes. An equivalent amount of "sprawl" development east of Durango, which is likely to occur without this

- Plan and a TDR program, would have a similar impact on the highway. Other regional routes will need to be developed in order to accommodate build out in either case. These would include:
 - arterial connections over Grandview Ridge to Ewing Mesa and on to Durango; and
 - connection to and improvement of CR 234 from US 160 to the north, perhaps as far as US 550 north of Durango.

Other transportation related recommendations include:

- A regional transportation plan for La Plata County, including cost estimates, should be developed for these arterial connections and a traffic impact fee program should be implemented to recover an appropriate share of the cost of these improvements from development activity within Grandview and other growth areas within the region. The City of Durango, La Plata County, CDOT, and the Southern Ute tribe should all participate in this planning process.
- Regional commercial land uses in Sub Area I generate almost 27 percent of the daily and afternoon peak hour trips within Grandview. The developer(s) of this commercial property will be responsible for ensuring the adequacy of public facilities, including transportation facilities, as a part of the development application process. The regional commercial site's proximity to US 160 and need for highway access for the commercial enterprise to be viable suggests a link between commercial development and highway improvement. Absent a regional transportation plan and formal development impact fee program, this link could take the form of a benefit assessment district, interim improvements to US 160 paid for by the developer, and/or developer

- participation in funding the US 160/ US 500 interchange if and when constructed. In lieu of or to mitigate participation by the developer in the financing of highway improvements, the City and land owner could agree to a less intense (from a trip generation perspective) zoning of the land as annexation occurs.
- The City of Durango should encourage urban design in the Grandview area that reduces trip generation external to the Grandview area. Urban design that embraces appropriate development densities, a diversity of land uses, and connectivity within the community will encourage walking, bicycling, and automobile trips within the community that will not need to access the highway system.
- The City of Durango should invest appropriately in transit service to and within the Grandview area to shift person-trips from the automobile to transit. The City should work with major developers in the area to ensure that service expansion is a public- private partnership benefiting all parties.

Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit	1,340	9.57	0.75	1.01	12,824	1,005	1,353	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit	1,015	5.86	0.44	0.54	5,948	447	548	ITE Code 230
Multi-Family Housing	Dwelling Unit	963	6.59	0.47	0.58	6,346	453	559	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area	1,168	46.96	1.84	3.82	54,849	2,149	4,462	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area		40.67	0.00	2.59	0	0	0	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area		6.97	0.92	0.98	0	0	0	ITE Code 110
Mixed-Use Space	1000 sf Gross Floor Area	1,397	16.87	2.00	2.03	23,567	2,794	2,836	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area	871	16.78	0.97	0.92	14,615	845	801	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area	379	12.41	3.42	1.86	4,702	1,296	704	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres	170	4.57	0.15	0.26	777	26	44	ITE Code 417
Neighborhood Parks	Acres	4	1.59	0.01	0.06	6	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total						123,635	9,014	11,307	
Total less 30 percent internal trips						86,545	6,310	7,915	

Table C.I Trip Generation at Build Out - Sub Area I

Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit	470	9.57	0.75	1.01	4,498	353	475	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit	278	5.86	0.44	0.54	1,629	122	150	ITE Code 230
Multi-Family Housing	Dwelling Unit		6.59	0.47	0.58	0	0	0	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area		46.96	1.84	3.82	0	0	0	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area	130	40.67	0.00	2.59	5,287	0	337	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area	712	6.97	0.92	0.98	4,963	655	698	ITE Code 110
Mixed-Use Space	1000 sf Gross Floor Area		16.87	2.00	2.03	0	0	0	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area		16.78	0.97	0.92	0	0	0	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area		12.41	3.42	1.86	0	0	0	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres		4.57	0.15	0.26	0	0	0	ITE Code 417
Neighborhood Parks	Acres		1.59	0.01	0.06	0	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total						16,377	1,130	1,659	
Total less 30 percent internal trips				11,464	791	1,161			

Table C.2 Trip Generation at Build Out - Sub Area II

Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit	433	9.57	0.75	1.01	4,144	325	437	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit	28	5.86	0.44	0.54	164	12	15	ITE Code 230
Multi-Family Housing	Dwelling Unit	402	6.59	0.47	0.58	2,649	189	233	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area		46.96	1.84	3.82	0	0	0	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area	259	40.67	0.00	2.59	10,534	0	671	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area		6.97	0.92	0.98	0	0	0	ITE Code 110
Multiple-Use Space	1000 sf Gross Floor Area	1,250	16.87	2.00	2.03	21,088	2,500	2,538	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area		16.78	0.97	0.92	0	0	0	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area		12.41	3.42	1.86	0	0	0	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres		4.57	0.15	0.26	0	0	0	ITE Code 417
Neighborhood Parks	Acres		1.59	0.01	0.06	0	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total		_				38,578	3,026	3,894	
Total less 30 percent internal trips						27,005	2,118	2,726	

Table C.3 Trip generation at Build Out - Sub Area III

Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit		9.57	0.75	1.01	0	0	0	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit		5.86	0.44	0.54	0	0	0	ITE Code 230
Multi-Family Housing	Dwelling Unit		6.59	0.47	0.58	0	0	0	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area		46.96	1.84	3.82	0	0	0	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area	397	40.67	0.00	2.59	16,146	0	1,028	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area		6.97	0.92	0.98	0	0	0	ITE Code 110
Mixed-Use Space	1000 sf Gross Floor Area		16.87	2.00	2.03	0	0	0	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area		16.78	0.97	0.92	0	0	0	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area		12.41	3.42	1.86	0	0	0	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres		4.57	0.15	0.26	0	0	0	ITE Code 417
Neighborhood Parks	Acres		1.59	0.01	0.06	0	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total						16,146	0	1,028	
Total less 30 percent internal trips						11,302	0	720	

Table C.4 Trip generation at Build Out - Sub Area IV



Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit	318	9.57	0.75	1.01	3,043	239	321	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit		5.86	0.44	0.54	0	0	0	ITE Code 230
Multi-Family Housing	Dwelling Unit		6.59	0.47	0.58	0	0	0	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area		46.96	1.84	3.82	0	0	0	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area	103	40.67	0.00	2.59	4,189	0	267	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area		6.97	0.92	0.98	0	0	0	ITE Code 110
Mixed-Use Space	1000 sf Gross Floor Area		16.87	2.00	2.03	0	0	0	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area		16.78	0.97	0.92	0	0	0	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area		12.41	3.42	1.86	0	0	0	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres		4.57	0.15	0.26	0	0	0	ITE Code 417
Neighborhood Parks	Acres		1.59	0.01	0.06	0	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total						7,232	239	588	
Total less 30 percent internal trips						5,063	167	412	

Table C.5 Trip generation at Build Out - Sub Area V

Land Use	Unit	Quantity	No. of Trips per Unit	AM Peak Hour Trips per Unit	PM Peak Hour Trips per Unit	Daily Trips Generated	AM Peak Hour Trips Generated	PM Peak Hour Trips Generated	Notes
Single Family Detached Housing	Dwelling Unit	2,561	9.57	0.75	1.01	24,509	1,921	2,587	ITE Code 210
Singl e Family Attached Housing	Dwelling Unit	1,321	5.86	0.44	0.54	7,741	581	713	ITE Code 230
Multi-Family Housing	Dwelling Unit	1,365	6.59	0.47	0.58	8,995	642	792	ITE Code 221
Regional Commercial	1000 sf Gross Floor Area	1,168	46.96	1.84	3.82	54,849	2,149	4,462	ITE Code 813
Specialty Commercial	1000 sf Gross Floor Area	889	40.67	0.00	2.59	36,156	0	2,303	ITE Code 814
Mixed Comm/Light Industrial Space	1000 sf Gross Floor Area	712	6.97	0.92	0.98	4,963	655	698	ITE Code 110
Mixed-Use Space/Multiple Use	1000 sf Gross Floor Area	2,647	16.87	2.00	2.03	44,655	5,294	5,373	ITE Code 710 plus ITE Code 230
Institutional/Hospital area	1000 sf Gross Floor Area	871	16.78	0.97	0.92	14,615	845	801	ITE Code 610
Institutional/School area	1000 sf Gross Floor Area	379	12.41	3.42	1.86	4,702	1,296	704	ITE Codes 520+522+530/3
Reginal Parks/Recreation Area	Acres	170	4.57	0.15	0.26	777	26	44	ITE Code 417
Neighborhood Parks	Acres	4	1.59	0.01	0.06	6	0	0	ITE Code 411 for Daily, ITE Code 412 for Peak Hour
Total						201,968	13,408	18,477	
Total less 30 percent internal trips						141,378	9,386	12,934	

Table C.6 Trip generation at Build Out - Grandview Area

Appendix D: Street Design Concepts

Street design plays an important role in the overall functionality, character and identity of a community. Based upon the existing City of Durango standards, new design concepts have been developed to help promote a unique character within the Plan Area. All proposed changes are predicated on public comment during the Design Dialogue process. All concepts conform to AASHTO Standards. Changes and commonalties of the new design concepts compared to the existing design standards are addressed in the following paragraphs.

Minor Arterial – Minimal changes are associated with the new Minor Arterial design concept compared with the existing design standard. A maximum of four travel lanes remains the same as well as the number of bicycle lanes, planting strips, curbs and sidewalks. The addition of a center median (or turning lane where applicable) in the design concept will enhance the safety and aesthetics of the street, provide a place of refuge for pedestrian crossing, calm traffic and help organize appropriate left turn lanes. Continuous left-turn lanes on Minor Arterials would be appropriate only in areas where there is not sufficient space between intersections or existing access points to develop turn lanes in the median.

Dimensions have been proposed for the new design concept that differ from existing design standards. Bicycle lanes have been widened from 5.0 feet to 6.0 feet. This provides a safer and clear lane for bicyclists in response to the expected speed limit on a Minor Arterial of 30 to 40 miles per hour. Planting strips have been expanded from 5.5 feet to 7.5 feet to enhance the aesthetics of the transportation corridor, provide a stronger buffer between pedestrians and traffic, calm traffic and compose the appropriate scale of the overall right-of-way. Pedestrian sidewalks have been widened from 5.0 feet to 6.0 feet to accommodate the anticipated demand generated by mixed use and traditional

to the existing Collector Street standard. Standards that remain the same include: numbers of travel lanes; bicycle lanes; planting strips; sidewalks; and curbs. The proposed design concept does away with a continuous center turning lane and supports adding a turning lane at intersections with higher volumes of turning movements. By removing the continuous center turning lane, the amount of unnecessary asphalt is minimized, thus keeping the design character closer to a pedestrian level.

Several dimension standards have been changed within the Collector Street concept. The width of travel lanes, nature strips and curbs remain the same. Bicycle lane width has been reduced from 7.0 feet to 6.0 feet. 7.0 feet is considered too wide and begins to appear and possibly function as another vehicular travel lane. Reducing the bicycle lane down to 6.0 feet will still allow bicyclists a safe travel lane with expected speeds on a Collector Street of 25 to 35 miles per hour. Sidewalks have been expanded from 4.0 feet to 6.0 feet in width, to allow for additional pedestrian space. Finally, the right-of-way has been reduced from 70.0 feet to 60.0 feet.

This street section would be appropriate in areas with industrial uses (to prevent long term trailer parking), in the approaches to roundabouts, and in areas that are gateways to Grandview such as the potential connections to Ewing Mesa and CR 234.

Collector Street with Parking – The only changes between the proposed design concept for Collector Street with Parking and the existing Collector Street with Parking standard are dimensional standards. The same number of travel lanes, parallel parking lanes, bicycle lanes, planting strips, sidewalks and curbs are evident in both.

The changes made in the dimensions of the proposed concepts compared to the new concept include parallel parking lane width; bicycle lane width; sidewalk width; and overall right-of-way width. The parallel parking lane width has been changed from 8.0 feet to 9.0 feet. This will allow more room

for passengers to get in and out of their vehicles without interfering with moving bicycles. Expanding the bicycle lane up to 6.0 feet (from 5.0 feet) will still allow bicyclists a safe travel lane with expected speeds on a Collector Street of 25 to 35 miles per hour. Sidewalk widths have been expanded from 4.0 feet to 7.0 feet wide. Finally, the right-of-way has been widened to 80.0 feet (from 70.0 feet) to allow for the appropriate dimensional changes.

This design concept should be used in institutional, commercial, and mixed-use districts and in residential districts where buildings front on the collector. On street parking in these areas will calm traffic, provide a buffer for pedestrians, and allow for fewer off-street spaces, with their associated costs and impacts.

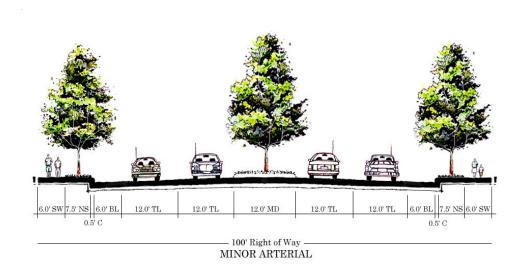


Figure D.1 Proposed Minor Arterial with Landscaped Median

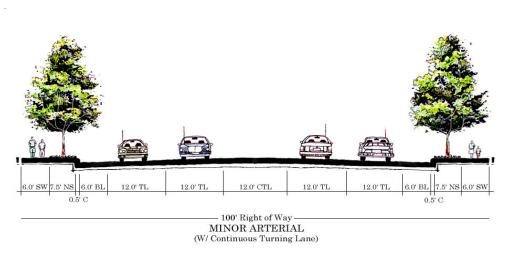


Figure D.2 Proposed Minor Arterial with Continuous Turn Lane

# of Travel Lanes	4	4
# of Continuous Turning Lane or Median	0	1
# of Bicycle Lanes	2	2
# of Nature Strips/Landscape Areas	2	2
# of Sidewalks	2	2
# of Curbs	2	2
Width of Travel Lanes	12.0'	12.0'
Width of Continuous Turning Lane or Median	0	12.0'
Width of Bicycle Lanes	5.0'	6.0'
Width of Nature Strip/Landscape Area	5.5'	7.5'
Width of Sidewalks	5.0'	6.0'
Width of Curbs	0.5'	0.5'
Width of Right of Way	80.0'	100.0'

M inor Arterial Street Existing Standard

Table D.I Collector Street without Parking Comparison Chart

Proposed

Collector Street with Parking	Existing Standard	Proposed Concept
# of Travel Lanes	2	2
# of Parallel Parking Lanes	2	2 2 2 2
# of Bicycle Lanes	2	2
# of Nature Strips/Landscape	2	2
Areas		
# of Sidewalks	2	2
# of Curbs	2	2
Width of Travel Lanes	12.0'	12.0'
Width of Parallel Parking Lanes	8.0'	9.0'
Width of Bicycle Lanes	5.0'	6.0'
Width of Nature Strip/Landscape	5.5'	5.5'
Area		
Width of Sidewalks	4.0'	7.0'
Width of Curbs	0.5'	0.5'
Width of Right of Way	70.0'	80.0'

Table D.2 Collector Street with parallel parking Comparison Chart

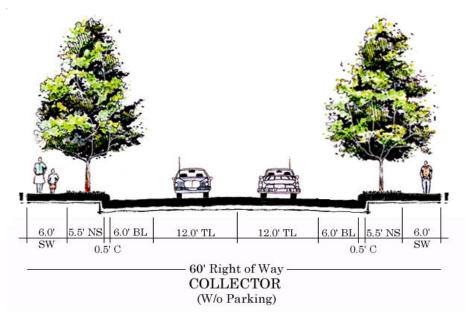


Figure D.3 Proposed Collector without Parallel Parking

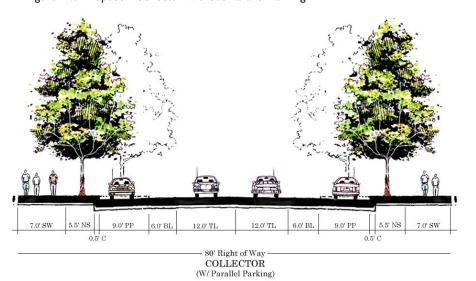


Figure D.4 Proposed Collector with Parallel Parking

Appendix E

Appendix E – Capital Improvement Costs

The Durango Cost estimate was compiled using bid tab data based on 2001 cost. A 100 foot long unit section for each type of typical section was developed based on the following assumptions:

- I. ROW costs are not included
- II. The pavement thickness for frontage / collectors will be 4" AC, over 8" ATB, on 6" of aggregate subbase (CSTC)
- III. The pavement thickness for local streets shall be 3" AC, over 4" ATB, over 6" of aggregate subbase
- IV. Tree spacing shall be at 40' OC
- V. Tree gates will not be used
- VI. Private utilities will relocate at their own expense
- VII. Street lighting is not included
- VIII. Public utility relocation cost will be determined by others
- IX. Irrigation is not included in the projects (2 yr maintenance is included in the cost estimate)
- X. Assume ground cover at 18" to 24"

 OC
- XI. Urban accessories are not included (benches, water fountains, bike racks, trash cans, etc.)
- XII. Assume amenity zone in 68' ROW will be paved as sidewalk

- XIII. Excavation and embankment was assumed to have an average depth of 2 feet across the entire ROW.
- XIV. Signalized intersections will be paid for by others
- XV. Retaining wall were not included in the estimate.
- XVI. Durango Code and Local Public Improvement

Grandview Transportation Plan Cost Estimate

LOCAL	STREET	(42'	ROW)

APRIL, 2003 Length = Per foot of roadway)

	EST's	Unit of		
CIVIL	Quantity	Measure	Unit Price	Subtotal
DEMOLITION / REMOVALS	1	LS	0.00	0.00
EXCAVATION	3.11	CY	15.00	46.65
EROSION CONTROL	1	LF	1.00	1.00
CURB	2	LF	13.00	26.00
GRAVEL BORROW / FILL	3.11	CY	20.00	62.20
A.C. PAVEMENT (8")	1	TON	60.00	60.00
GRAVEL BASE COURSE (18")	1.11	CY	30.00	33.30
STAND CONC. SIDEWALK	1.11	SY	30.00	33.30
DRIVEWAYS (premium)	0.25	SY	50.00	12.50
CONCRETE CURB RAMPS	0.02	EA.	400.00	8.00
STORM SEWER TRUNK LINE	1	LF	100.00	100.00
STORM SEWER PIPE	0.1	LF	60.00	6.00
CATCH BASIN	0.01	EA.	2,500.00	25.00
WATER QUALITY / WATER QUANTITY	1	LS	0.00	0.00
SUB TOTAL	EST's	Unit of		413.95
LANDSCAPE	Quantity	Measure	Unit Price	Subtotal
2 YR. WARRANTY	1	LS	7.00	7.00
TREES	0.07	EA.	500.00	35.00
GROUND COVER	11	SF.	3.00	33.00
IRRIGATION	11	SF	5.00	55.00
TOPSOIL / MULCHING	0.4	CY	30.00	12.00
SUB TOTAL				142.00
	EST's	Unit of		
LIGHTING	Quantity	Measure	Unit Price	Subtotal
STREET LIGHTING (cobra heads)	0.02	EA.	6,000.00	120.00
SUB TOTAL	•	•		120.00
	EST's	Unit of		
TRAFFIC	Quantity	Measure	Unit Price	Subtotal
CONST. TRAFFIC CONTROL	1	LS	0.50	0.50
SIGNING	1	LS	0.25	0.25
STRIPING	1	LF	0.25	0.25
SUB TOTAL				1.00
CONSTRUCTION SUBTOTAL PER FOOT				676.95
MOBILIZATION AT 10%				67.70
30% CONTINGENCY				223.39
CONSTRUCTION TOTAL				968.04
	CCT!-	Linit of		
ADMIN, ART, DESIGN, TAXES, ETC.	EST's Quantity	Unit of Measure	Unit Price	Subtotal
A STATE OF THE STA	adding		Jiii. 1 1100	Captotal
PRELIM AND DESIGN ENGINEERING AT 12%	1	LS	116.16	116.16
CONSTRUCTION ENGINEERING AT 12%	1	LS	116.16	116.16
CONSTRUCTION MANAGEMENT AT 5%	1	LS	48.40	48.40
DIGHT OF WAY (NOT INCLUDED)	Λ	NΙΛ	0.00	0.00

15' each side assume 2 feet average

assume 2 feet average

1 12' wide every 100' each side 8 per 400'

20' every 200' 1 EVERY 200' (EACH SIDE) **GUESS**

10% OF INSTALLATION ASSUMES 2 AT 30' OC 1 GAL AT 12" OC

12" DEEP

1 AT 50' ON CENTER

TOTAL 1,248.77

0

NA

NA

YR.

0.00

0.00

38.72

0.00

0.00

0.00 280.73

RIGHT-OF-WAY (NOT INCLUDED)

IMPACT MITIGATION (NOT INCLUDED)

4% PER YEAR ESCALATION (NOT INCLUDED)
SUBTOTAL

Appendix E

LOCAL STREET (50' ROW) APRIL, 2003

Length = Per foot of roadway)

	EST's	Unit of			
CIVIL	Quantity	Measure	Unit Price	Subtotal	
DEMOLITION / REMOVALS	1	LS	0.00	0.00	15' each side
EXCAVATION	3.7	CY	15.00	55.50	assume 2 feet average
EROSION CONTROL	1	LF	1.00	1.00	
CURB	2	LF	13.00	26.00	
GRAVEL BORROW / FILL	3.7	CY	20.00	74.00	assume 2 feet average
A.C. PAVEMENT (8")	1.42	TON	60.00	85.20	
GRAVEL BASE COURSE (18")	1.55	CY	30.00	46.50	
STAND CONC. SIDEWALK	1.11	SY	30.00	33.30	
DRIVEWAYS (premium)	0.25	SY	50.00	12.50	1 12' wide every 100' each side
CONCRETE CURB RAMPS	0.02	EA.	400.00	8.00	8 per 400'
STORM SEWER TRUNK LINE	1	LF	100.00	100.00	
STORM SEWER PIPE	0.14	LF	60.00	8.40	28' every 200'
CATCH BASIN	0.01	EA.	2,500.00	25.00	1 EVERY 200' (EACH SIDE)
WATER QUALITY / WATER QUANTITY	1	LS	0.00	0.00	GUESS
SUB TOTAL				475.40	
	EST's	Unit of			
<u>LANDSCAPE</u>	Quantity	Measure	Unit Price	Subtotal	
2 YR. WARRANTY	1	LS	7.00	7.00	10% OF INSTALLATION
TREES	0.07	EA.	500.00	35.00	ASSUMES 2 AT 30' OC
GROUND COVER	11	SF	3.00	33.00	1 GAL AT 12" OC
IRRIGATION	11	SF	5.00	55.00	
TOPSOIL / MULCHING	0.4	CY	30.00	12.00	12" DEEP
SUB TOTAL				142.00	
	EST's	Unit of			
LIGHTING	Quantity	Measure	Unit Price	Subtotal	
STREET LIGHTING (cobra heads)	0.02	EA.	6,000.00	120.00	1 AT 50' ON CENTER
SUB TOTAL				120.00	
	EST's	Unit of			
TRAFFIC	Quantity	Measure	Unit Price	Subtotal	
CONST. TRAFFIC CONTROL	1	LS	0.50	0.50	
SIGNING	1	LS	0.25	0.25	
STRIPING	2	LF	0.25	0.50	
SUB TOTAL				1.25	
CONCERNICATION OURTOTAL REP FOOT				700.05	
CONSTRUCTION SUBTOTAL PER FOOT				738.65	
MOBILIZATION AT 10%		\vdash		73.87	
30% CONTINGENCY				243.75	
CONSTRUCTION TOTAL				1,056.27	
	ECT!	l lmit of			
ADMIN ADT DECICAL TAYES ETC	EST's	Unit of Measure	Unit Price	Subtotal	
ADMIN, ART, DESIGN, TAXES, ETC.	Quantity	Measure	Unit Price	Sublotal	
PRELIM AND DESIGN ENGINEERING AT 12%	1	LS	126.75	126.75	
CONSTRUCTION ENGINEERING AT 12%	1	LS	126.75	126.75	
CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION MANAGEMENT AT 5%	1	LS	52.81	52.81	
RIGHT-OF-WAY (NOT INCLUDED)	0	NA	0.00	0.00	
IMPACT MITIGATION (NOT INCLUDED)	0	NA NA	0.00	0.00	
4% PER YEAR ESCALATION (NOT INCLUDED)	0	YR.	42.25	0.00	
SUBTOTAL		IK.	42.20	306.32	
SUBTUTAL				300.32	

TOTAL 1,362.59

COLLECTOR (60' ROW) APRIL, 2003

Length = Per foot of roadway)

Unit of

EST's

CIVIL	Quantity	Measure	Unit Price	Subtotal	
DEMOLITION / REMOVALS	1	LS	0.00	0.00	15' each side
EXCAVATION	4.44	CY	15.00	66.60	assume 2 feet average
EROSION CONTROL	1	LF	1.50	1.50	accumo 2 roct avorago
CURB	2	LF	13.00	26.00	
GRAVEL BORROW / FILL	4.44	CY	20.00	88.80	assume 2 feet average
A.C. PAVEMENT (12")	2.73	TON	60.00	163.80	accae = 1001 a 101age
GRAVEL BASE COURSE (18")	2	CY	30.00	60.00	
STAND CONC. SIDEWALK	1.33	SY	30.00	39.90	
DRIVEWAYS (premium)	0.25	SY	50.00	12.50	1 12' wide every 100' each side
CONCRETE CURB RAMPS	0.02	EA.	400.00	8.00	8 per 400'
STORM SEWER TRUNK LINE	1	LF	100.00	100.00	
STORM SEWER PIPE	0.18	LF	60.00	10.80	36' every 200'
CATCH BASIN	0.01	EA.	2,500.00	25.00	1 EVERY 200' (EACH SIDE)
WATER QUALITY / WATER QUANTITY	1	LS	0.00	0.00	GUESS
SUB TOTAL	!			602.90	
	EST's	Unit of			
LANDSCAPE	Quantity	Measure	Unit Price	Subtotal	
2 YR. WARRANTY	1	LS	7.00	7.00	10% OF INSTALLATION
TREES	0.07	EA.	500.00	35.00	ASSUMES 2 AT 30' OC
GROUND COVER	11	SF	3.00	33.00	1 GAL AT 12" OC
IRRIGATION	11	SF	5.00	55.00	
TOPSOIL / MULCHING	0.4	CY	30.00	12.00	12" DEEP
SUB TOTAL				142.00	
	EST's	Unit of			
<u>LIGHTING</u>	Quantity	Measure	Unit Price	Subtotal	
STREET LIGHTING (cobra heads)	0.0333	EA.	6,000.00	199.80	1 AT 30' ON CENTER
SUB TOTAL				199.80	
	EST's	Unit of			
TRAFFIC	Quantity	Measure	Unit Price	Subtotal	
CONST. TRAFFIC CONTROL	1	LS	1.00	1.00	
SIGNING	1	LS	0.50	0.50	
STRIPING	3	LF	0.25	0.75	
SUB TOTAL				2.25	
	_				
CONSTRUCTION SUBTOTAL PER FOOT				946.95	
MOBILIZATION AT 10%				94.70	
30% CONTINGENCY				312.49	
CONSTRUCTION TOTAL				1,354.14	
	FOTI				
	EST's	Unit of		0.14.4.1	
ADMIN, ART, DESIGN, TAXES, ETC.	Quantity	Measure	Unit Price	Subtotal	
DDELIM AND DECICAL ENGINEEDING AT 400/	1 1	1 10	100.50	100.50	
PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12%	1	LS LS	162.50 162.50	162.50 162.50	
CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION MANAGEMENT AT 5%	1	LS	67.71	67.71	
RIGHT-OF-WAY (NOT INCLUDED)	0	NA NA	0.00	0.00	
IMPACT MITIGATION (NOT INCLUDED)	0	NA NA	0.00	0.00	
4% PER YEAR ESCALATION (NOT INCLUDED)	0	YR.	54.17	0.00	
SUBTOTAL		IT.	34.17	392.70	
CODICIAL				392.10	

<u>1,746.84</u>

TOTAL

COLLECTOR (80' ROW)

APRIL, 2003

Length = Per foot of roadway)

	EST's	Unit of		
CIVIL	Quantity	Measure	Unit Price	Subtotal
DEMOLITION / REMOVALS	Qualitity 1	LS	0.00	0.00
EXCAVATION	5.93	CY	15.00	88.95
EROSION CONTROL	1	LF	2.00	2.00
CURB	2	LF	13.00	26.00
GRAVEL BORROW / FILL	5.93	CY	20.00	118.60
A.C. PAVEMENT (12")	4.1	TON	60.00	246.00
GRAVEL BASE COURSE (18")	3	CY	30.00	90.00
STAND CONC. SIDEWALK	1.56	SY	30.00	46.80
DRIVEWAYS (premium)	0.25	SY	50.00	12.50
CONCRETE CURB RAMPS	0.23	EA.	400.00	8.00
STORM SEWER TRUNK LINE	1	LF.	100.00	100.00
STORM SEWER PIPE	0.27	LF LF	60.00	16.20
CATCH BASIN	0.27	EA.	2,500.00	25.00
WATER QUALITY / WATER QUANTITY	1	LS	0.00	0.00
SUB TOTAL	EST's	Unit of		780.05
LANDSCARE			Linit Dei	0
LANDSCAPE	Quantity	Measure	Unit Price	Subtotal
2 YR. WARRANTY	1	LS	7.00	7.00
TREES	0.07	EA.	500.00	35.00
GROUND COVER	11	SF	3.00	33.00
IRRIGATION	11	SF	5.00	55.00
TOPSOIL / MULCHING	0.4	CY	30.00	12.00
SUB TOTAL	EST's	Unit of		142.00
LIGHTING	Quantity	Measure	Unit Price	Subtotal
STREET LIGHTING (cobra heads)	0.0333	EA.	6,000.00	199.80
SUB TOTAL			5,000.00	199.80
	EST's	Unit of		
TRAFFIC	Quantity	weasure	Unit Price	Subtotal
TRAFFIC CONST. TRAFFIC CONTROL	Quantity 1	Measure LS	Unit Price 1.00	Subtotal 1.00
CONST. TRAFFIC CONTROL	Quantity 1	LS	1.00	1.00
CONST. TRAFFIC CONTROL SIGNING	1 1		1.00 0.50	1.00 0.50
CONST. TRAFFIC CONTROL	1	LS LS	1.00	1.00 0.50 1.25
CONST. TRAFFIC CONTROL SIGNING STRIPING	1 1	LS LS	1.00 0.50	1.00 0.50
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL	1 1	LS LS	1.00 0.50	1.00 0.50 1.25 2.75
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT	1 1	LS LS	1.00 0.50	1.00 0.50 1.25 2.75
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10%	1 1	LS LS	1.00 0.50	1.00 0.50 1.25 2.75 1,124.60 112.46
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT	1 1	LS LS	1.00 0.50	1.00 0.50 1.25 2.75
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY	1 1	LS LS	1.00 0.50	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY	1 1 5	LS LS LF	1.00 0.50	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL	1 1 5 5	LS LS LF	1.00 0.50 0.25	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY	1 1 5	LS LS LF	1.00 0.50	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC.	1 1 5 EST's Quantity	LS LS LF	1.00 0.50 0.25	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12%	1 1 5 5 EST's Quantity	LS LS LF Unit of Measure	1.00 0.50 0.25 Unit Price	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12%	EST's Quantity	LS LS LF Unit of Measure	1.00 0.50 0.25 Unit Price	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal 192.98 192.98
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION MANAGEMENT AT 5%	EST's Quantity 1 1 1 1 1 1 1 1	Unit of Measure LS LS LS LS LS LS LS LS	1.00 0.50 0.25 Unit Price 192.98 192.98 80.41	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal 192.98 192.98 80.41
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION MANAGEMENT AT 5% RIGHT-OF-WAY (NOT INCLUDED)	1 1 5 5 EST's Quantity 1 1 1 0	Unit of Measure LS LS UNA	1.00 0.50 0.25 Unit Price 192.98 192.98 80.41 0.00	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal 192.98 192.98 80.41 0.00
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12% RIGHT-OF-WAY (NOT INCLUDED) IMPACT MITIGATION (NOT INCLUDED)	EST's Quantity 1 1 0 0	Unit of Measure LS LS LS NA NA	1.00 0.50 0.25 Unit Price 192.98 192.98 80.41 0.00 0.00	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal 192.98 192.98 80.41 0.00 0.00
CONST. TRAFFIC CONTROL SIGNING STRIPING SUB TOTAL CONSTRUCTION SUBTOTAL PER FOOT MOBILIZATION AT 10% 30% CONTINGENCY CONSTRUCTION TOTAL ADMIN, ART, DESIGN, TAXES, ETC. PRELIM AND DESIGN ENGINEERING AT 12% CONSTRUCTION ENGINEERING AT 12% CONSTRUCTION MANAGEMENT AT 5% RIGHT-OF-WAY (NOT INCLUDED)	1 1 5 5 EST's Quantity 1 1 1 0	Unit of Measure LS LS UNA	1.00 0.50 0.25 Unit Price 192.98 192.98 80.41 0.00	1.00 0.50 1.25 2.75 1,124.60 112.46 371.12 1,608.18 Subtotal 192.98 192.98 80.41 0.00

15' each side assume 2 feet average

assume 2 feet average

1 12' wide every 100' each side 8 per 400'

54' every 200' 1 EVERY 200' (EACH SIDE) GUESS

10% OF INSTALLATION ASSUMES 2 AT 30' OC 1 GAL AT 12" OC

12" DEEP

1 AT 30' ON CENTER

TOTAL 2,074.55

MINOR ARTERIAL (100' W/ LANDCSCAPE CENTER)

APRIL, 2003 Length = Per foot of roadway)

	EST's	Unit of			
CIVIL	Quantity	Measure	Unit Price	Subtotal	
DEMOLITION / REMOVALS	1	LS	0.00	0.00	15' each side
EXCAVATION	7.41	CY	15.00	111.15	assume 2' average
EROSION CONTROL	1	LF	2.50	2.50	accamo 2 average
CURB	4	LF	13.00	52.00	
GRAVEL BORROW / FILL	7.41	CY	20.00	148.20	assume 2' average
A.C. PAVEMENT (12")	4.55	TON	60.00	273.00	
GRAVEL BASE COURSE (18")	3.33	CY	30.00	99.90	
STAND CONC. SIDEWALK	1.333	SY	30.00	39.99	
DRIVEWAYS (premium)	0.25	SY	50.00	12.50	1 12' wide every 100' each side
CONCRETE CURB RAMPS	0.02	EA.	400.00	8.00	8 per 400'
STORM SEWER TRUNK LINE	1	LF	100.00	100.00	
STORM SEWER PIPE	0.36	LF	60.00	21.60	72' every 200'
CATCH BASIN	0.01	EA.	2,500.00	25.00	1 EVERY 200' (EACH SIDE)
WATER QUALITY / WATER QUANTITY	1	LS	0.00	0.00	GUESS
SUB TOTAL			-	893.84	
	EST's	Unit of			
<u>LANDSCAPE</u>	Quantity	Measure	Unit Price	Subtotal	
2 YR. WARRANTY	1	LS	7.00	29.00	10% OF INSTALLATION
TREES	0.1	EA.	500.00	50.00	ASSUMES 3 AT 30' OC
GROUND COVER	26	SF	3.00	78.00	1 GAL AT 12" OC
IRRIGATION	26	SF	5.00	130.00	
TOPSOIL / MULCHING	1	CY	30.00	30.00	12" DEEP
SUB TOTAL				317.00	
	EST's	Unit of			
LIGHTING	Quantity	Measure	Unit Price	Subtotal	
STREET LIGHTING (cobra heads)	0.067	EA.	6,000.00	402.00	2 AT 30' ON CENTER
SUB TOTAL	E0T1			402.00	
	EST's	Unit of	Hall Brian	0. 51-1-1	
TRAFFIC	Quantity	Measure	Unit Price	Subtotal	
CONST. TRAFFIC CONTROL	1	LS	2.00	2.00	
SIGNING STRIPING	1	LS LF	1.00	1.00	
SUB TOTAL	4	LF	0.25	1.00	
SUB TOTAL				4.00	
CONSTRUCTION SUBTOTAL PER FOOT				1,616.84	
MOBILIZATION AT 10%				161.68	
30% CONTINGENCY				533.56	
CONSTRUCTION TOTAL				2.312.08	
CONSTRUCTION TOTAL				2,312.00	
	EST's	Unit of			
ADMIN, ART, DESIGN, TAXES, ETC.	Quantity	Measure	Unit Price	Subtotal	
ADMIN, AICH, DEGION, TAXEO, ETC.	Quantity	Wicasarc	Offic 1 floo	Oubtotal	
PRELIM AND DESIGN ENGINEERING AT 12%	1	LS	277.45	277.45	
CONSTRUCTION ENGINEERING AT 12%	1	LS	277.45	277.45	
CONSTRUCTION MANAGEMENT AT 5%	1	LS	115.60	115.60	
RIGHT-OF-WAY (NOT INCLUDED)	0	NA	0.00	0.00	
IMPACT MITIGATION (NOT INCLUDED)	0	NA	0.00	0.00	
4% PER YEAR ESCALATION (NOT INCLUDED)	0	YR.	92.48	0.00	
SUBTOTAL	-			670.50	

<u>TOTAL</u> <u>2,982.58</u>

Appendix E

MINOR ARTERIAL (100' W/ TURN LANE) APRIL, 2003 Length = Per foot of roadway)

	EST's	Unit of			
CIVIL	Quantity	Measure	Unit Price	Subtotal	
DEMOLITION / REMOVALS	1	LS	0.00	0.00	15' each side
EXCAVATION	7.41	CY	15.00	111.15	assume 2 feet average
EROSION CONTROL	1	LF	2.50	2.50	
CURB	2	LF	13.00	26.00	
GRAVEL BORROW / FILL	7.41	CY	20.00	148.20	assume 2 feet average
A.C. PAVEMENT (12")	5.47	TON	60.00	328.20	Ç
GRAVEL BASE COURSE (18")	4	CY	30.00	120.00	
STAND CONC. SIDEWALK	1.333	SY	30.00	39.99	
DRIVEWAYS (premium)	0.25	SY	50.00	12.50	1 12' wide every 100' each side
CONCRETE CURB RAMPS	0.02	EA.	400.00	8.00	8 per 400'
STORM SEWER TRUNK LINE	1	LF	100.00	100.00	
STORM SEWER PIPE	0.36	LF	60.00	21.60	72' every 200'
CATCH BASIN	0.01	EA.	2,500.00	25.00	1 EVERY 200' (EACH SIDE)
WATER QUALITY / WATER QUANTITY	0	LS	0.00	0.00	GUESS
SUB TOTAL				943.14	
	EST's	Unit of			
LANDSCAPE	Quantity	Measure	Unit Price	Subtotal	
2 YR. WARRANTY	1	LS	7.00	15.00	10% OF INSTALLATION
TREES	0.07	EA.	500.00	35.00	ASSUMES 2 AT 30' OC
GROUND COVER	15	SF	3.00	45.00	1 GAL AT 12" OC
IRRIGATION	15	SF	5.00	75.00	
TOPSOIL / MULCHING	0.56	CY	30.00	16.80	12" DEEP
SUB TOTAL				186.80	
	EST's	Unit of	5.	0.1.1.1	
LIGHTING	Quantity	Measure	Unit Price	Subtotal	
STREET LIGHTING (cobra heads)	0.067	EA.	6,000.00	402.00	2 AT 30' ON CENTER
SUB TOTAL	FOTI	11.21.4		402.00	
TRAFFIC	EST's	Unit of	LLS BS	0 1.1.1.1	
TRAFFIC	Quantity	Measure	Unit Price	Subtotal	
CONST. TRAFFIC CONTROL SIGNING	1	LS	2.00	2.00	
STRIPING	6	LS LF	1.00 0.25	1.00 1.50	
SUB TOTAL	0	LF	0.25	4.50	
SUB TOTAL				4.50	
CONSTRUCTION SUBTOTAL PER FOOT		1		1,536.44	
MOBILIZATION AT 10%				153.64	
30% CONTINGENCY				507.03	
CONSTRUCTION TOTAL		ļļ	ļ	2,197.11	
CONTROL TO TALE				2,101111	
	EST's	Unit of			
ADMIN, ART, DESIGN, TAXES, ETC.	Quantity	Measure	Unit Price	Subtotal	
, , , , , , , , , , , , , , , , , , ,	Quartity		C	o abtota.	
PRELIM AND DESIGN ENGINEERING AT 12%	1	LS	263.65	263.65	
CONSTRUCTION ENGINEERING AT 12%	1	LS	263.65	263.65	
CONSTRUCTION MANAGEMENT AT 5%	1	LS	109.86	109.86	
RIGHT-OF-WAY (NOT INCLUDED)	0	NA	0.00	0.00	
IMPACT MITIGATION (NOT INCLUDED)	0	NA	0.00	0.00	
4% PER YEAR ESCALATION (NOT INCLUDED)	0	YR.	87.88	0.00	
SUBTOTAL				637.16	

TOTAL 2,834.27

SIGNALS and RETAINING WALLS

APRIL, 2003

	EST's	Unit of		
STRUCTURES	Quantity	Measure	Unit Price	Subtotal
RETAINING WALLS 0' TO 10'	1	LF	80.00	80.00 includes backfill and excavation
RETAINING WALLS 10' TO 20'	1	LF	1,700.00	1,700.00 includes backfill and excavation
CULVERT CROSSING	1	LF	250.00	250.00 includes backfill and excavation
BRIDGE STRUCTURE	1	SF	100.00	100.00 no special arch. Finishes, simple span, minor abutments
SUB TOTAL				2.130.00

	EST's	Unit of		
TRAFFIC	Quantity	Measure	Unit Price	Subtotal
CONST. TRAFFIC CONTROL	3	LS	30,000.00	90,000.00
NEW TRAFFIC SIGNAL (FULL)	1	EA.	250,000.00	250,000.00
NEW TRAFFIC SIGNAL (FULL)	1	EA.	250,000.00	250,000.00
NEW TRAFFIC SIGNAL (RIGHT IN/OUT ONLY)	1	EA.	200,000.00	200,000.00
UPGRADE TRAFFIC SIGNAL	1	EA.	175,000.00	175,000.00
SUB TOTAL		-	•	790,000.00
CONSTRUCTION SUBTOTAL FOR SIGNALS				792,130.00
MOBILIZATION AT 10%				79,213.00
30% CONTINGENCY				261,402.90
CONSTRUCTION TOTAL		·	•	1,132,745.90

	EST's	Unit of		
ADMIN, ART, DESIGN, TAXES, ETC.	Quantity	Measure	Unit Price	Subtotal
PRELIM AND DESIGN ENGINEERING AT 12%	1	LS	135,929.51	135,929.51
CONSTRUCTION ENGINEERING AT 12%	1	LS	135,929.51	135,929.51
CONSTRUCTION MANAGEMENT AT 5%	1	LS	56,637.30	56,637.30
RIGHT-OF-WAY (NOT INCLUDED)	0	NA	0.00	0.00
IMPACT MITIGATION (NOT INCLUDED)	0	NA	0.00	0.00
4% PER YEAR ESCALATION (NOT INCLUDED)	0	YR.	45,309.84	0.00

SUBTOTAL FOR SIGNALS, WALLS, CULVERT 328,496.31

TOTAL FOR SIGNALS, WALLS, CULVERT

1,461,242.21

Cost Estimate for Typical Section

ITEM

1. Cost per 100" of roadway for an 80' ROW w/o median

QUANTITY

UNIT

UNIT COST

TOTAL

	_			
STREET WORK				
DEMOLITION	1	LS	\$4,000	\$4,000
AC PAVEMENT	152	TON	\$55	\$8,360
CSTC	305	TON	\$50	\$15,250
AGGREGATE	110	CY	\$40	\$4,400
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	600	LF	\$0.50	\$300
SIGNAGE	1	LS	\$1,000.00	\$1,000
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	600	CY	\$15	\$9,000
EMBANKMENT	600	CY	\$20	\$12,000
RETAINING WALLS	0	SF	\$50	\$0
LANDSCAPING				
STREET TREES	5	EA	\$250	\$1,250
GROUND COVER	110	SY	\$20	\$2,200
2 YR. MAINTENANCE	1	LS	\$2,000	\$2,000
TOPSOIL	110	SY	\$10	\$1,100
construction sub total				\$82,260
	_			
OTHER				
MOBILIZATION @ 10%				\$8,226
TRAFFIC CONTROL @ 10%				\$8,226
ENGINEERING @10%				\$6,581
CONSTRUCTION				
ENGINEERING @ 8%				\$6,581
ESCALATION TO MID POINT				

Total for 100' of roadway	\$153,004

OF CONSTRUCTION @ 4%/yr

CONTINGENCIES at 25%

(assume 5 yr.)

SALES TAX @ 5%

\$16,452

\$4,113

\$20,565

2. Cost per 100" of roadway for an 80' ROW with median

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK	1			
DEMOLITION	1	LS	\$4,000	\$4,000
AC PAVEMENT	122	TON	\$55	\$6,710
CSTC	245	TON	\$50	\$12,250
AGGREGATE	90	CY	\$40	\$3,600
CURB AND GUTTER	400	LF	\$11	\$4,400
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	600	LF	\$0.50	\$300
SIGNAGE	1	LS	\$1,000.00	\$1,000
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	600	CY	\$15	\$9,000
EMBANKMENT	600	CY	\$20	\$12,000
RETAINING WALLS	0	SF	\$50	\$0
	•			
LANDSCAPING				
STREET TREES	7.5	EA	\$250	\$1,875
GROUND COVER	235	SY	\$20	\$4,700
2 YR. MAINTENANCE	1	LS	\$3,000	\$3,000
TOPSOIL	235	SY	\$10	\$2,350
construction sub total				\$84,385
OTHER				
MOBILIZATION @ 10%				\$8,439
TRAFFIC CONTROL @ 10%				\$8,439
ENGINEERING @10%				\$6,751
CONSTRUCTION				
ENGINEERING @ 8%				\$6,751
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$16,877
SALES TAX @ 5%				\$4,219
CONTINGENCIES at 25%				\$21,096
Total for 100' of roadway				\$156,956

Appendix E

3. Cost per 100" of roadway for a 56' ROW w/o median

STREET WORK DEMOLITION	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
DEMOLITION	STDEET WODK				
AC PAVEMENT 92		1	LS	\$3,000	\$3,000
CSTC					
AGGREGATE 67 CY \$40 \$2,680 CURB AND GUTTER 200 LF \$11 \$2,200 SIDEWALKS 900 SF \$4 \$3,600 DRAINAGE PIPE 200 LF \$50 \$10,000 DRAINAGE STRUCTURE 2 EA \$2,800 \$5,600 STRIPING 400 LF \$0.50 \$2,00 SIGNAGE 1 LS \$500.00 \$500 SIGNAGE 1 LS \$500.00 \$500 SIGNALS 0 EA \$175,000 \$0 EXCAVATION 415 CY \$15 \$6,225 EMBANKMENT 415 CY \$20 \$8,300 RETAINING WALLS 0 SF \$50 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0		-			
CURB AND GUTTER 200 LF \$11 \$2,200 SIDEWALKS 900 SF \$4 \$3,600 DRAINAGE PIPE 200 LF \$50 \$10,000 DRAINAGE STRUCTURE 2 EA \$2,800 \$5,600 STRIPING 400 LF \$0.550 \$200 SIGNAGE 1 LS \$500.00 \$500 SIGNALS 0 EA \$175,000 \$0 EXCAVATION 415 CY \$15 \$6,225 EMBANKMENT 415 CY \$20 \$8,300 RETAINING WALLS 0 SF \$50 \$0 LANDSCAPING STREET TREES 5 EA \$250 \$1,250 GROUND COVER 110 SY \$20 \$2,200 2 YR. MAINTENANCE 1 LS \$2,000 \$2,000 TOPSOIL 110 SY \$10 \$1,100 Construction @ 10% \$6,312					
SIDEWALKS 900 SF				'	
DRAINAGE PIPE 200 LF \$50 \$10,000 DRAINAGE STRUCTURE 2 EA \$2,800 \$5,600 STRIPING 400 LF \$0.50 \$200 SIGNAGE 1 LS \$500.00 \$500 SIGNALS 0 EA \$175,000 \$0 EXCAVATION 415 CY \$15 \$6,225 EMBANKMENT 415 CY \$20 \$8,300 RETAINING WALLS 0 SF \$50 \$0 LANDSCAPING STREET TREES 5 EA \$250 \$1,250 GROUND COVER 110 SY \$20 \$2,200 2 YR. MAINTENANCE 1 LS \$2,000 \$2,000 TOPSOIL 110 SY \$10 \$1,100 CONSTRUCTION @ 10% SA,315 OTHER MOBILIZATION @ 10% SA,312 ENGINEERING @ 10% SA,312 ENGINEERING @ 8%					

4. Cost per 100" of roadway for a 56' ROW with median

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK				
DEMOLITION	1	LS	\$3,000	\$3,000
AC PAVEMENT	61	TON	\$55	\$3,355
CSTC	122	TON	\$50	\$6,100
AGGREGATE	45	CY	\$40	\$1,800
CURB AND GUTTER	400	LF	\$11	\$4,400
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	400	LF	\$0.50	\$200
SIGNAGE	1	LS	\$500.00	\$500
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	415	CY	\$15	\$6,225
EMBANKMENT	415	CY	\$20	\$8,300
RETAINING WALLS	0	SF	\$50	\$0
				-
LANDSCAPING				
STREET TREES	7.5	EA	\$250	\$1,875
GROUND COVER	235	SY	\$20	\$4,700
2 YR. MAINTENANCE	1	LS	\$3,000	\$3,000
TOPSOIL	235	SY	\$10	\$2,350
construction sub total				\$65,005
				_
OTHER				
MOBILIZATION @ 10%				\$6,501
TRAFFIC CONTROL @ 10%				\$6,501
ENGINEERING @10%				\$5,200
CONSTRUCTION				
ENGINEERING @ 8%				\$5,200
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$13,001
SALES TAX @ 5%				\$3,250
CONTINGENCIES at 25%				\$16,251
	•		·	
Total for 100' of roadway				\$120,909

5. Cost per 100" of roadway for a 44' ROW

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK				
DEMOLITION	1	LS	\$2,500	\$2,500
AC PAVEMENT	61	TON	\$55	\$3,355
CSTC	122	TON	\$50	\$6,100
AGGREGATE	45	CY	\$40	\$1,800
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	200	LF	\$0.50	\$100
SIGNAGE	1	LS	\$500.00	\$500
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	325	CY	\$15	\$4,875
EMBANKMENT	325	CY	\$20	\$6,500
RETAINING WALLS	0	SF	\$50	\$0
	-			
LANDSCAPING				
STREET TREES	5	EA	\$250	\$1,250
GROUND COVER	110	SY	\$20	\$2,200
2 YR. MAINTENANCE	1	LS	\$2,000	\$2,000
TOPSOIL	110	SY	\$10	\$1,100
construction sub total				\$53,680
	•			
OTHER				
MOBILIZATION @ 10%				\$5,368
TRAFFIC CONTROL @ 10%				\$5,368
ENGINEERING @10%				\$4,294
CONSTRUCTION				
ENGINEERING @ 8%				\$4,294
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$10,736
SALES TAX @ 5%				\$2,684
CONTINGENCIES at 25%				\$13,420
Total for 100' of roadway				\$99,845

6. Cost per 100" of roadway for a 40' ROW

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK				
DEMOLITION	1	LS	\$1,500	\$1,500
AC PAVEMENT	38	TON	\$55	\$2,090
CSTC	51	TON	\$50	\$2,550
AGGREGATE	37	CY	\$40	\$1,480
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	120	LF	\$50	\$6,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	100	LF	\$0.50	\$50
SIGNAGE	1	LS	\$250.00	\$250
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	300	CY	\$15	\$4,500
EMBANKMENT	300	CY	\$20	\$6,000
RETAINING WALLS	0	SF	\$50	\$0
LANDSCAPING				
STREET TREES	5	EA	\$250	\$1,250
GROUND COVER	110	SY	\$20	\$2,200
2 YR. MAINTENANCE	1	LS	\$2,000	\$2,000
TOPSOIL	110	SY	\$10	\$1,100
construction sub total				\$42,370
OTHER				
MOBILIZATION @ 10%				\$4,237
TRAFFIC CONTROL @ 6%				\$2,542
ENGINEERING @10%				\$3,390
CONSTRUCTION				
ENGINEERING @ 8%				\$3,390
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$8,474
SALES TAX @ 5%				\$2,119
CONTINGENCIES at 25%				\$10,593
Total for 100' of roadway				\$77,113

ITEM QUANTITY

7. Cost per 100" of roadway for a 48' ROW

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK				
DEMOLITION	1	LS	\$2,000	\$2,000
AC PAVEMENT	53	TON	\$55	\$2,915
CSTC	71	TON	\$50	\$3,550
AGGREGATE	52	CY	\$40	\$2,080
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	900	SF	\$4	\$3,600
DRAINAGE PIPE	130	LF	\$50	\$6,500
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	200	LF	\$0.50	\$100
SIGNAGE	1	LS	\$250.00	\$250
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	355	CY	\$15	\$5,325
EMBANKMENT	355	CY	\$20	\$7,100
RETAINING WALLS	0	SF	\$50	\$0
LANDSCAPING				
STREET TREES	5	EA	\$250	\$1,250
GROUND COVER	110	SY	\$20	\$2,200
2 YR. MAINTENANCE	1	LS	\$2,000	\$2,000
TOPSOIL	110	SY	\$10	\$1,100
				,
construction sub total				\$47,770
	•			
OTHER				
MOBILIZATION @ 10%				\$4,777
TRAFFIC CONTROL @ 6%				\$2,866
ENGINEERING @10%				\$3,822
CONSTRUCTION				
ENGINEERING @ 8%				\$3,822
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$9,554
SALES TAX @ 5%				\$2,389
CONTINGENCIES at 25%				\$11,943

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Total for 100' of roadway	\$86,941

8. Cost per 100" of roadway for a 68' ROW w/o street trees

ITEM	QUANTITY	UNIT	UNIT COST	TOTAL
STREET WORK				
DEMOLITION	1	LS	\$4,000	\$4,000
AC PAVEMENT	106	TON	\$55	\$5,830
CSTC	214	TON	\$50	\$10,700
AGGREGATE	78	CY	\$40	\$3,120
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	2500	SF	\$4	\$10,000
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	600	LF	\$0.50	\$300
SIGNAGE	1	LS	\$1,000.00	\$1,000
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	500	CY	\$15	\$7,500
EMBANKMENT	500	CY	\$20	\$10,000
RETAINING WALLS	0	SF	\$50	\$0
	-			
LANDSCAPING				
STREET TREES	0	EA	\$250	\$0
GROUND COVER	0	SY	\$20	\$0
2 YR. MAINTENANCE	0	LS	\$2,000	\$0
TOPSOIL	0	SY	\$10	\$0
construction sub total				\$70,250
OTHER				
MOBILIZATION @ 10%				\$7,025
TRAFFIC CONTROL @ 10%				\$7,025
ENGINEERING @10%				\$5,620
CONSTRUCTION				
ENGINEERING @ 8%				\$5,620
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				
(assume 5 yr.)				\$14,050
SALES TAX @ 5%				\$3,513
CONTINGENCIES at 25%				\$17,563
Total for 100' of roadway				\$130,665

ITEM QUANTITY UNIT UNIT COST

Total for 100' of roadway

9. Cost per 100" of roadway for a 68' ROW street trees

	Q0/	O	5 1111 5 551	
STREET WORK				
DEMOLITION	1	LS	\$4,000	\$4,000
AC PAVEMENT	61	TON	\$55	\$3,355
CSTC	122	TON	\$50	\$6,100
AGGREGATE	45	CY	\$40	\$1,800
CURB AND GUTTER	200	LF	\$11	\$2,200
SIDEWALKS	2500	SF	\$4	\$10,000
DRAINAGE PIPE	200	LF	\$50	\$10,000
DRAINAGE STRUCTURE	2	EA	\$2,800	\$5,600
STRIPING	600	LF	\$0.50	\$300
SIGNAGE	1	LS	\$500.00	\$500
SIGNALS	0	EA	\$175,000	\$0
EXCAVATION	500	CY	\$15	\$7,500
EMBANKMENT	500	CY	\$20	\$10,000
RETAINING WALLS	0	SF	\$50	\$0
LANDSCAPING				
STREET TREES	5	EA	\$250	\$1,250
GROUND COVER	200	SY	\$20	\$4,000
2 YR. MAINTENANCE	1	LS	\$3,000	\$3,000
TOPSOIL	200	SY	\$10	\$2,000
construction sub total				\$71,605
OTHER			1	
MOBILIZATION @ 10%				\$7,161
TRAFFIC CONTROL @ 10%				\$7,161
ENGINEERING @10%				\$5,728
CONSTRUCTION				
ENGINEERING @ 8%				\$5,728
ESCALATION TO MID POINT				
OF CONSTRUCTION @ 4%/yr				044.00:
(assume 5 yr.)				\$14,321
SALES TAX @ 5%				\$3,580
CONTINGENCIES at 25%				\$17,901

\$133,185

TOTAL

#1 80' ROW W/O MEDIA	N AT 100' L	ONG		
	length	width	depth	volume/area
DEMOLIOTION				
AC PAVEMENT	100	60	0.33333	151.8503333
ATB	100	60	0.67	305.2222222
AGGERGATE	100	60	0.5	111.1111111
CURB AND GUTTER	100	2		200
SIDEWALKS	100	2	4.5	900
DRAINAGE PIPE	100	2		200
DRAINAGE STRUCTURE	Ξ			2
STRIPING	100	6		600
SIGNAGE				
SIGNALS				
EXCAVATION	100	80	2	592.5925926
EMBANKMENT	100	80	2	592.5925926
RETAINING WALLS				
LANDSCAPING				
STREET TREES	100	40	2	5
GROUND COVER	100	5	2	111.1111111
2 YR MAINTENANCE				
TOPSOIL	100	5	2	111.1111111

#2 80' ROW W MEDIAN	AT 100' L0	ONG				١				
ĺ	length	width	(depth	volume/area					
DEMOLIOTION										
AC PAVEMENT	10	00	48	0.33333	121.4802667					
ATB	10	00	48	0.67	244.1777778					
AGGERGATE	10)0	48	0.5	88.8888889					
CURB AND GUTTER	10)0	4		400					
SIDEWALKS	10		2	4.5						
DRAINAGE PIPE		00	2		200					
DRAINAGE STRUCTUR					2					
STRIPING	10	00	6		600					
SIGNAGE										
SIGNALS					•		-	<u>.</u>		
EXCAVATION	10	00	80		592.5925926					
EMBANKMENT	10)0	80	2	592.5925926					
RETAINING WALLS										
LANDSCAPING										
STREET TREES	10)0	40	3	7.5					
GROUND COVER	10	00	5	2	233.3333333	(GROUND COVER (median)	GROUND COVER (median) 100	GROUND COVER (median) 100 11	GROUND COVER (median) 100 11 1
2 YR MAINTENANCE										
TOPSOIL	10	00	5	2	233.3333333		topsoil (median)	topsoil (median) 100	topsoil (median) 100 11	topsoil (median) 100 11 1

#3 56' ROW W/O MEDIAI	N AT 100'	_ONG			
	length	width		depth	volume/area
DEMOLIOTION					
AC PAVEMENT	10)	36	0.33333	91.1102
ATB	10)	36	0.67	183.1333333
AGGERGATE	10)	36	0.5	66.6666667
CURB AND GUTTER	10)	2		200
SIDEWALKS	10)	2	4.5	900
DRAINAGE PIPE	10)	2		200
DRAINAGE STRUCTURE					2
STRIPING	10)	4		400
SIGNAGE					
SIGNALS					
EXCAVATION	10)	56	2	414.8148148
EMBANKMENT	10)	56	2	414.8148148
RETAINING WALLS					
LANDSCAPING					
STREET TREES	10)	40	2	5
GROUND COVER	10)	5	2	111.1111111
2 YR MAINTENANCE					
TOPSOIL	10)	5	2	111.1111111

#4 56' ROW W MEDIAN	AT 100' I (ONG				_				
WA OO KOVV VV WILDIAN	length	width	,	depth	volume/area					
DEMOLIOTION	longui	widai	•	Jopan	voiairio/area					
AC PAVEMENT	10	00	24	0.33333	60.74013333					
ATB	10	00	24	0.67	122.0888889					
AGGERGATE	10	00	24	0.5	44.4444444					
CURB AND GUTTER	10	10	4		400					
SIDEWALKS	10)0	2	4.5	900					
DRAINAGE PIPE	10)0	2		200					
DRAINAGE STRUCTUR	Æ				2					
STRIPING	10)0	4		400					
SIGNAGE					1					
SIGNALS					0		-			
EXCAVATION	10		56		414.8148148					
EMBANKMENT	10	10	56	2	414.8148148					
RETAINING WALLS					1					
LANDSCAPING										
STREET TREES	10	10	40	3	7.5					
GROUND COVER	10		4 0	-			GROUND COVER (median)	GROUND COVER (median) 100	GROUND COVER (median) 100 11	SPOUND COVER (median) 100 11 1
2 YR MAINTENANCE	10	U	J	_	200.0000000	•	SINGUIAD COVER (ITIECIAII)	ONCOND COVER (median)	SINOSIND GOVERN (IIIEGIGII) 100 II	ONCOME COVER (Illediall) 100 11 1
TOPSOIL	10	00	5	2	233.3333333		topsoil (median)	topsoil (median) 100	topsoil (median) 100 11	topsoil (median) 100 11 1

#5 44' ROW AT 100' LON	G			
	length	width	depth	volume/area
DEMOLIOTION				1
AC PAVEMENT	100	24	0.33333	60.74013333
ATB	100	24	0.67	122.0888889
AGGERGATE	100	24	0.5	44.4444444
CURB AND GUTTER	100	2		200
SIDEWALKS	100	2	4.5	900
DRAINAGE PIPE	100	2		200
DRAINAGE STRUCTURE	=			2
STRIPING	100	2		200
SIGNAGE				1
SIGNALS				0
EXCAVATION	100	44	2	325.9259259
EMBANKMENT	100	44	2	325.9259259
RETAINING WALLS				1
LANDSCAPING				
STREET TREES	100	40	2	5
GROUND COVER	100	5	2	111.1111111
2 YR MAINTENANCE				1
TOPSOIL	100	5	2	111.1111111

#6 40' ROW AT 100' LON	G			
	length	width	depth	volume/area
DEMOLIOTION				1
AC PAVEMENT	100	20	0.25	37.96296296
ATB	100	20	0.333333	50.61727889
AGGERGATE	100	20	0.5	37.03703704
CURB AND GUTTER	100	2		200
SIDEWALKS	100	2	4.5	900
DRAINAGE PIPE	100	1.2		120
DRAINAGE STRUCTURE	Ξ			2
STRIPING	100	1		100
SIGNAGE				1
SIGNALS				0
EXCAVATION	100	40	2	296.2962963
EMBANKMENT	100	40	2	296.2962963
RETAINING WALLS				1
LANDSCAPING				
STREET TREES	100	40	2	5
GROUND COVER	100	5	2	111.1111111
2 YR MAINTENANCE				1
TOPSOIL	100	5	2	111.1111111

#7 48' ROW AT 100' LON	IG			
	length	width	depth	volume/area
DEMOLIOTION				1
AC PAVEMENT	100	28	0.25	53.14814815
ATB	100	28	0.333333	70.86419044
AGGERGATE	100	28	0.5	51.85185185
CURB AND GUTTER	100	2		200
SIDEWALKS	100	2	4.5	900
DRAINAGE PIPE	100	1.3		130
DRAINAGE STRUCTURE	=			2
STRIPING	100	2		200
SIGNAGE				1
SIGNALS				0
EXCAVATION	100	48	2	355.555556
EMBANKMENT	100	48	2	355.555556
RETAINING WALLS				1
LANDSCAPING				
STREET TREES	100	40	2	5
GROUND COVER	100	5	2	111.1111111
2 YR MAINTENANCE				1
TOPSOIL	100	5	2	111.1111111

#8 68' ROW W/O street tr	'A ΔΤ 100'	LONG		
TO GO TROVV VV/O Succet u		width	depth	volume/area
DEMOLIOTION	lengui	widti	аерит	voidine/area
AC PAVEMENT	100	42	0 22222	106 205222
				106.2952333
ATB	100	42		213.6555556
AGGERGATE	100	42	0.5	77.7777778
CURB AND GUTTER	100	2		200
SIDEWALKS	100	2	12.5	2500
DRAINAGE PIPE	100	2		200
DRAINAGE STRUCTURE	<u> </u>			2
STRIPING	100	6		600
SIGNAGE				
SIGNALS				
EXCAVATION	100	68	2	503.7037037
EMBANKMENT	100	68	2	503.7037037
RETAINING WALLS				
LANDSCAPING				
STREET TREES	100	40	0	0
GROUND COVER	100	5	0	0
2 YR MAINTENANCE		_		0
TOPSOIL	100	5	0	0

#9 68' ROW W street trees AT 100' LONG							
	length	width	depth	volume/area			
DEMOLIOTION				1			
AC PAVEMENT	100	24	0.33333	60.74013333			
ATB	100	24	0.67				
AGGERGATE	100	24	0.5	44.4444444			
CURB AND GUTTER	100	2		200			
SIDEWALKS	100	2	12.5	2500			
DRAINAGE PIPE	100	2		200			
DRAINAGE STRUCTURE	_ 			2			
STRIPING	100	6		600			
SIGNAGE				1			
SIGNALS				0			
EXCAVATION	100	68	2	503.7037037			
EMBANKMENT	100	68	2	503.7037037			
RETAINING WALLS				1			
LANDSCAPING							
STREET TREES	100	40	2	5			
GROUND COVER	100	9	2	200			
2 YR MAINTENANCE				1			
TOPSOIL	100	9	2	200			