

The logo for WALH (Western Albuquerque Land Holdings, LLC) is displayed in a large, bold, sans-serif font. The letters are white and set against a semi-transparent grey rectangular background that is positioned in the upper left corner of the page. The background of the entire page is a photograph of a vast, flat landscape with tall grasses and yellow wildflowers in the foreground, extending to a flat horizon under a bright blue sky with scattered white clouds.

WALH

WESTERN ALBUQUERQUE LAND HOLDINGS, LLC

The title and date of the document are presented in a semi-transparent grey box on the right side of the page. The text is white and uses a serif font. The background of the entire page is a photograph of a vast, flat landscape with tall grasses and yellow wildflowers in the foreground, extending to a flat horizon under a bright blue sky with scattered white clouds.

SANTOLINA LEVEL A
MASTER PLAN
AUGUST 26, 2013

The logo for SANTOLINA is located in the bottom right corner. It features a stylized white leaf icon to the left of the word "SANTOLINA" in a white, sans-serif font, all contained within a dark purple rectangular background.

SANTOLINA

The Santolina Level A Master Plan is the result of the combined efforts of Western Albuquerque Land Holdings LLC and the professionals of its development consulting team. The following submittal was prepared by the:

WALH

WESTERN ALBUQUERQUE LAND HOLDINGS, LLC

Santolina Community Development Team

GARRETT
DEVELOPMENT CORPORATION

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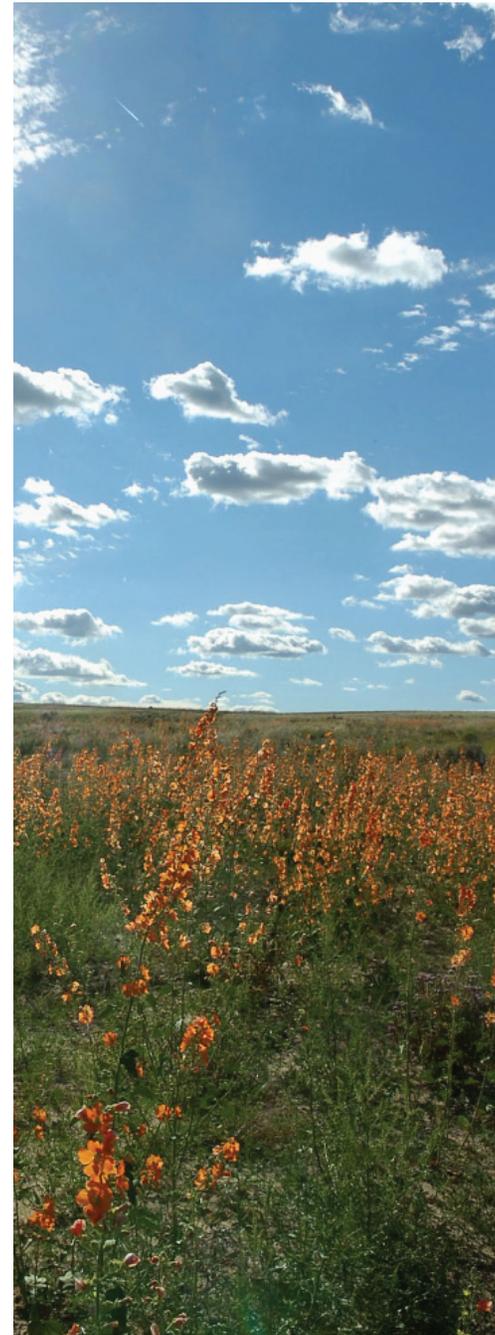


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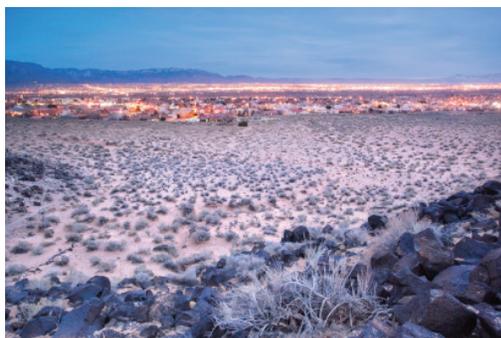




CHAPTER 1 EXECUTIVE SUMMARY

1. Executive Summary

Western Albuquerque Land Holdings LLC “WALH” owns approximately 13,700 acres in Bernalillo County west of Albuquerque, New Mexico. WALH has assembled a team of development experts with the mission to create a master plan that envisions a vibrant mixed use community on this land. The team has conducted studies of the site, developed land plans for the property and analyzed the infrastructure systems required to serve the community.



The team has conducted studies of the site, developed land plans for the property and analyzed the infrastructure systems required to serve the community.

The result of this effort is the Santolina Master Plan. Santolina is envisioned as a master planned community developed over a 40-50 year timeframe. The timeframe is contingent upon market demand and the state and region’s ability to attract, support and facilitate new economy jobs. During the design of Santolina, WALH and the development team established the following vision to guide design and development over that extended time period. Santolina will be a community where:

- Jobs and educational opportunities are plentiful and locally accessible
- Desirable housing responds to changing demographic and market preferences
- Open space and quality of life are preserved and enhanced
- A true “live, work, learn and play” community is created for residents

The property is currently undeveloped rangeland on a large mesa framed by two escarpments. The mesa offers panoramic views of the Sandia and Manzano Mountains and immediate views of the City of Albuquerque and Bernalillo County’s South Valley. The land area within Santolina is the western gateway to and from the metropolitan area and includes approximately six miles of exposure

along Interstate 40 (I-40). Along with access from I-40, the property is readily accessible from many significant roadways. These include Central Avenue, Dennis Chavez Boulevard, Atrisco Vista Boulevard and 118th Street.

Santolina has been designed as a master planned area with a mixture of land uses, a variety of housing and employment opportunities and places for civic life. Today’s market preferences convey that people want to be engaged in a community, not just live in a nondescript subdivision that requires drives across town to meet other needs. Santolina will be a distinct community with a sense of place - a place to live, work, learn and play. In order to realize this vision, the land plan proposes the following mix of land use categories:

- Villages to accommodate housing, education, public services, commercial services and recreational uses within convenient reach
- An Urban Center for co-location of regional public and private facilities such as a community center, APS schools, a post-secondary education campus, a regional park, fire/sheriff facilities and commercial and high-density residential development
- A Town Center with freeway access to attract large scale regional commercial users
- Business Parks with freeway access to attract research, technology, healthcare, business and educational facilities such as universities
- A large-scale Industrial and Business Park suitable for manufacturing, distribution and warehousing operations, energy production facilities and other industrial job and educational uses
- Open Space to preserve and highlight the natural beauty of the community

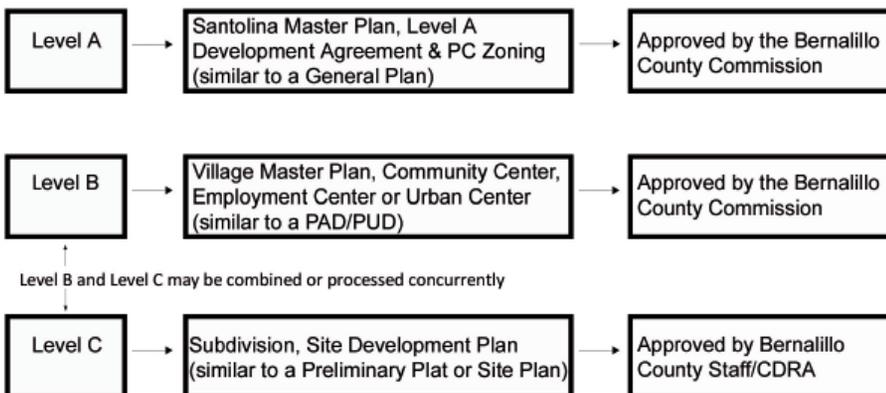
Approval of this Level A Master Plan is the first step in transforming ranchland zoned A-1 to a new planned community to serve Bernalillo County residents and the surrounding MSA.

Long range development within Bernalillo County is guided by the Albuquerque/Bernalillo County Comprehensive Plan. The Comprehensive Plan establishes goals and policies that provide the

framework for land uses and densities throughout the County. Based on the Comprehensive Plan designations ([Exhibit 4: Comprehensive Plan](#)) and corresponding acreages ([Exhibit 5: Comprehensive Plan Land Use Allocations](#)), Santolina is permitted 37,930 dwelling units. Along with the residential units outlined above, Santolina is envisioned to include manufacturing, office and service facilities to accommodate approximately 75,000 jobs, a jobs-housing ratio of approximately 2.0 jobs per household. The economic impact to Bernalillo County as a result of the anticipated jobs and output generated by Santolina is substantial. The annual recurring direct and indirect economic impacts to the County total \$10.9 billion and an additional \$18.1 billion in one-time construction wage output. The addition of the targeted 75,000 jobs created within Santolina will increase the County’s overall current jobs-housing ratio from 0.99 to 1.23, a 24.65% increase.

As a master planned community located within the Reserve Area of the Comprehensive Plan, Santolina follows the Planned Communities Criteria process. The Planned Communities Criteria has been adopted by Bernalillo County to provide guidance for developers and a framework for County evaluation of large-scale planned community master plans.

The Planned Communities Criteria requires three levels of plans for review and approval. The three-tiered review process of the Planned Communities Criteria allows for a predictable, consistent and open review process that is appropriately scaled to the level of detail required at each stage. The three levels of the approval process are:



A Level A Master Plan is the first step in the approval process. The Master Plan demonstrates “an integrated and self sufficient model of development”, per the Bernalillo County PC Zone. The Level A Master Plan establishes the big picture vision and overall framework for the entire community. Boundaries and sizes of sub-areas may shift to respond to specific development opportunities and their related infrastructure needs.



Future Level B plans will be prepared with more detailed information and analysis as set forth in the Planned Communities Criteria. These plans will be prepared for sub-areas within Santolina. The Level B plans will include further refinement of land uses, zoning details, infrastructure plans, transportation analyses and public facilities.

Subsequently or concurrently, a Level C plan will be submitted for sub-area or portions thereof in the Level B plan that are ready for development. The purpose of the Level C Plan will be based on the requested land use. It is typically of a detailed nature consistent with a preliminary plat or site plan.

Concurrently with the Bernalillo County approval of this Master Plan, the Planned Community Zone (PC Zone) has been applied to the property. The Santolina PC Zone (see Chapter 4), places zoning on the property in alignment with the vision for Santolina expressed in this Level A Master Plan.

In summary, via the approval of this Level A Master Plan, WALH has begun the process necessary to develop a vibrant community on the Westside to meet forecasted regional growth over the next 40-50 years.





CHAPTER 2 INTRODUCTION

2. Introduction

Overview

The Santolina Level A Master Plan (“Master Plan”) includes approximately 13,700 acres owned by Western Albuquerque Land Holdings “WALH”. The lands (existing and future) within the Master Plan (“Master Plan Area”) are the master planned community known as Santolina. Santolina is located on the Southwest Mesa, bound on the north by I-40, on the east by 118th Street, on the south by the Pajarito Mesa grant boundary and on the west by the Rio Puerco Valley.

Property Conditions

Santolina offers panoramic views of the Sandia and Manzano Mountains and immediate views of the City of Albuquerque and Bernalillo County’s South Valley. The Master Plan Area is also the southern half of the western gateway to and from the metropolitan area and has approximately six miles of exposure along I-40. Along with access from I-40, the property is readily accessible from Central Avenue, Atrisco Vista Boulevard and 118th Street.



The property is a large mesa framed by two escarpments. The gently sloping terrain of the mesa features dunes, vegetated swales and natural washes while the escarpments are characterized by more intense topography. The property features an extensive network of drainage basins that convey storm water across the site into closed basins or drain offsite. Additionally, a variety of grasses, wildflowers, cacti and brush provide groundcover throughout the community. During the course of preparing the Master Plan, a number of studies were conducted, resulting in the findings that no

endangered species or archeologically significant properties exist within the Master Plan Area.

The Master Plan Area is located within Bernalillo County outside the municipal boundary of the City of Albuquerque. Current zoning consists of limited non-residential designations along the interstate/ Central Avenue, such as C-1 (Neighborhood Commercial), C-LI (Commercial/Light Industrial) and M-1 (Light Industrial). The remainder of the Master Plan Area is zoned A-1 (Rural Agriculture) allowing one (1) acre minimum residential lots – which is not consistent with the Comprehensive Plan.

The vast majority of the Master Plan Area is currently undeveloped, unplatted rangeland. Current development on the mesa includes AT&T and Federal Aviation Administration (FAA) facilities along with some outparcels governed by special use permits. Other facilities include the Motor Speedway, the Metropolitan Detention Center and the Cerro Colorado Landfill. These uses have substantially changed the character of the southwest portion of the Master Plan Area. They have been excluded from the Master Plan as outparcels and will be buffered by industrial and business park uses within the Santolina Land Use Plan.

Community Vision

Santolina is envisioned as a master planned community developed over a 40-50 year timeframe. The timeframe is contingent upon market demand and the state and region’s ability to support and attract new economy jobs and economic opportunities.

During the design of Santolina, WALH and the development team established the following vision to



Exhibit 1: Context Map

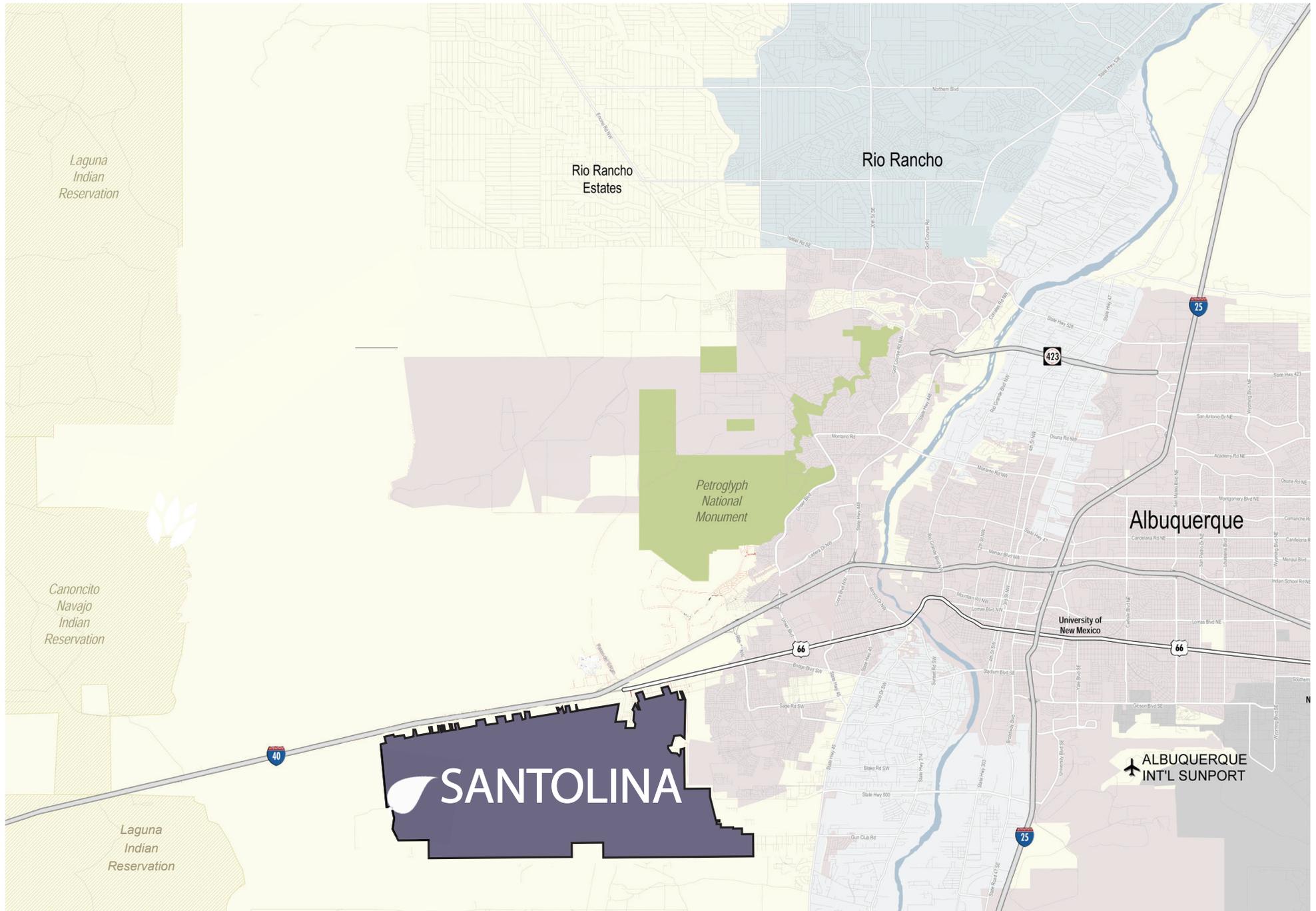
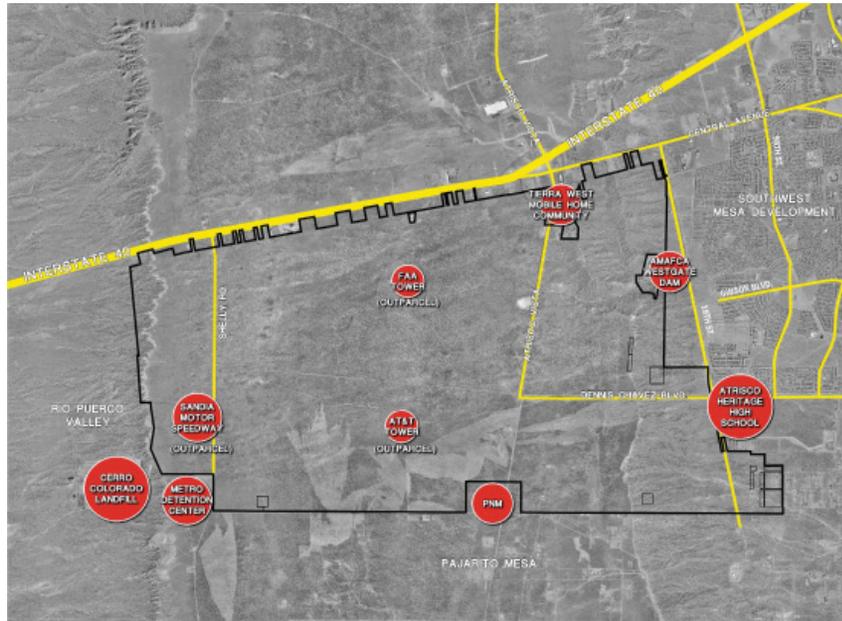


Exhibit 2: Existing Conditions and Santolina Boundary



guide design and development over that time period. Santolina will be a community where:

- Opportunities for jobs and educational opportunities are plentiful and locally accessible
- Desirable housing responds to current demographic and market preferences
- Open space and quality of life is preserved and enhanced
- A true “live, work, learn and play” community is created for residents

In order to realize this vision, the Land Use Plan ([Exhibit 7: Land Use Plan](#)) proposes six (6) land use categories within the community to provide a wide range of uses and activities as follows:

- Villages (including village centers) to accommodate housing, education, public services, commercial services and recreational uses within convenient reach

- An Urban Center for co-location of regional public and private facilities such as a community center, APS schools, a post-secondary school campus, a regional park, fire/sheriff facilities, commercial and high-density residential development
- A Town Center with freeway access to attract large-scale regional commercial service businesses
- Two Business Parks with freeway access to attract employment centers with research, technology, healthcare, business and university and higher educational facilities
- A large-scale Industrial & Business Park suitable for manufacturing, distribution and warehousing operations, energy production facilities and other industrial uses
- Open Space to highlight the natural beauty of the community and provide recreational areas for residents.



The configuration and design intent of each use is further articulated in Chapter 3 Land Use.

Existing Plans and Regulations

While envisioned by WALH and the County, via the Albuquerque/Bernalillo County Comprehensive Plan (the Comprehensive Plan), as a vibrant master planned community, the Master Plan Area is currently zoned A-1 which limits the opportunity for employment and commercial service offerings. Following is a summary of the existing governing documents in place for the Master Plan Area.

1. Existing Zoning

The Master Plan Area is entirely within Bernalillo County, outside the jurisdiction of the City of Albuquerque. The majority of the land is currently rangeland and zoned as A-1 (Rural Agriculture), allowing one (1) acre minimum residential lots unless master planned as a planned community. There are a limited number of parcels zoned C-1 (Neighborhood Commercial), C-LI (Commercial/Light Industrial) and M-1 (Light Industrial) along the Central Avenue/I-40 corridor.

2. The Albuquerque/Bernalillo County Comprehensive Plan

The Albuquerque/Bernalillo County Comprehensive Plan (Comprehensive Plan) contains long range goals and policies that guide regional development in the City and the County. The Comprehensive Plan was most recently adopted and amended by the Board of County Commission in 2012.

The Comprehensive Plan establishes broad land use designations that contain goals for how land should develop within each designation, while the Comprehensive Plan shows four categories on the Master Plan. The majority of the Master Plan Area is designated as Reserve.

Reserve Areas are intended to develop as master planned communities, providing employment, shopping and recreation opportunities that include transportation solutions to help alleviate traffic congestion as well as residential uses. Density allotment in the Reserve Area is restricted to 1 dwelling unit per acre (du./ac.), unless a master plan has been approved. Once a master plan has been approved, density allowance is increased to 3 du./ac. gross. The Master Plan is enacting the long range vision of the Comprehensive Plan which determined that this area is appropriate and desirable for a distinct, large scale, master planned community.

Based on the Comprehensive Plan, the Master Plan is entitled to an overall number of allowable dwelling units of 37,930 units community-wide. These units are averaged, on a gross acreage basis across all of the residential areas within Santolina.

An overall residential density of 2.8 du./ac. is established once the total number of allowable units (per the Comprehensive Plan) is applied to the total acreage allocated to four Comprehensive Plan categories within the Master Plan Area. As further detailed in Chapter 3 Land Use, in addition to employment, commercial and open space, the community will contain a mix of areas of higher-density multi-family development and areas of lower-density single family development.

The residential unit total within the Master Plan Area is the driver of projections for population, jobs, infrastructure and other plan elements. All of these assumptions have been made in concurrence with the Comprehensive Plan designations, goals and policies.

3. Planned Communities Criteria

The Planned Communities Criteria was adopted by Bernalillo County to provide guidance for developers and function as a framework for County evaluation of large-scale planned community master plans. The Planned Communities Criteria requires three levels of plans for review and approval. The three-tiered review process of the Planned Communities Criteria allows for a predictable, consistent and open review process that is appropriately scaled to the level of detail required at each stage. The three levels of the approval process are:

Exhibit 3: Planned Community Process

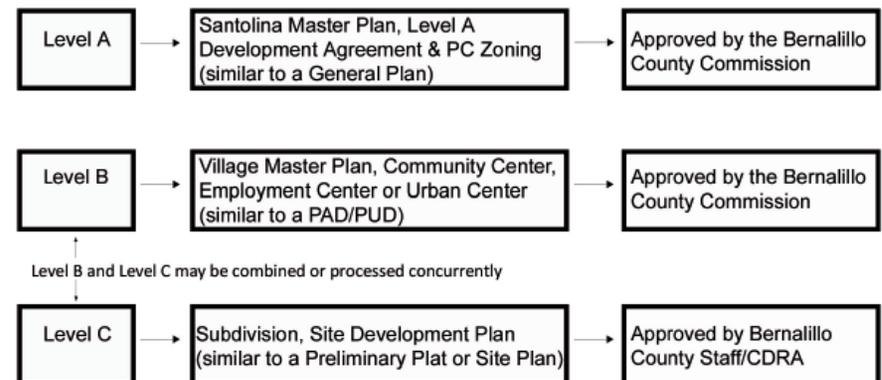
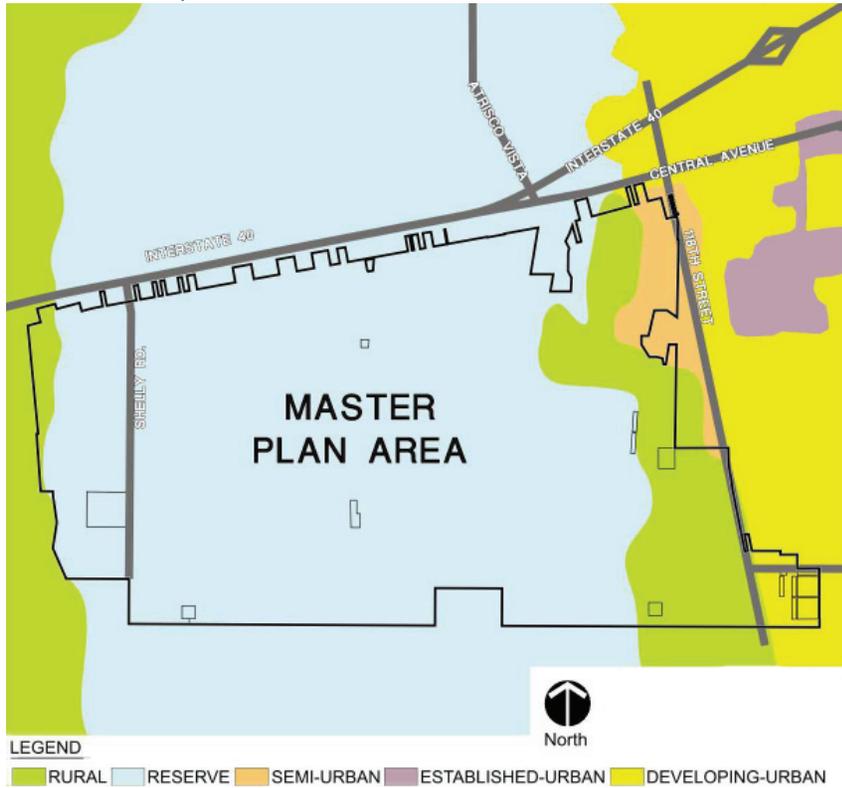


Exhibit 4: Comprehensive Plan



A Level A Master Plan is the first step in the approval process. The Master Plan demonstrates “an integrated and self sufficient model of development”, per the Bernalillo County Zoning Ordinance. The Level A Master Plan establishes the big picture vision and overall framework for the entire community. Boundaries and sizes of sub-areas may shift to respond to specific development opportunities and their related infrastructure needs.

Future Level B plans will be prepared with more detailed information and analysis as set forth in the Planned Communities Criteria. These plans will be prepared for sub-areas within Santolina. The Level B plans will include further refinement of land uses, zoning details, infrastructure plans, transportation analyses and public facilities.

Subsequently or concurrently, a Level C plan will be submitted for sub-area or portions thereof in the Level B plan that are ready for development. The purpose of the Level C Plan will be based on the requested land use. It is typically of a detailed nature consistent with a preliminary plat or site plan.

Exhibit 5: Comprehensive Plan Land Use Allocations

Comprehensive Plan Area Designation	Allowable Density	Area	Allowable Units	Percentage of Master Plan Area
Reserve Area	3.0 du./ac.*	11,124 acres	33,372 units	81%
Rural Area	1.0 du./ac.	1,968 acres	1,968 units	14%
Semi-Urban Area	3.0 du./ac.	440 acres	1,320 units	3%
Developing Urban Area	5.0 du./ac.	254 acres	1,270 units	2%
Master Plan Area Total:	2.8 du./ac.	13,786 acres	37,930 units	

*3 du./ac. permitted in Reserve Areas once a Community Master Plan has been adopted. Otherwise the permitted density is 1 du./ac.

4. Southwest Area Plan and West Side Strategic Plan

Both of these plans are regional area plans. The Master Plan complies with the goals and policies of both plans. A summary of key plan goals from both documents is included below:

- Promote higher density development on the mesa top to preserve the rural character and agricultural lands of the South Valley
- Promote large-scale development that provides a mix of land uses and appropriately locates commercial and industrial activities



- Provide more commercial services and employment areas for new jobs on the West Side (the goal being to reduce traffic for jobs and shopping on the east side of the county across the river).
- Promote economic development, especially job opportunities for residents on the West Side.

- Regionally plan the corridors, open space, transportation and utilities for maximum efficiency and preservation of critical regional corridor connectivity

The Santolina Planned Community complies with the goals, policies and intent of these area plans, especially with regard to providing employment opportunities and promoting economic development.

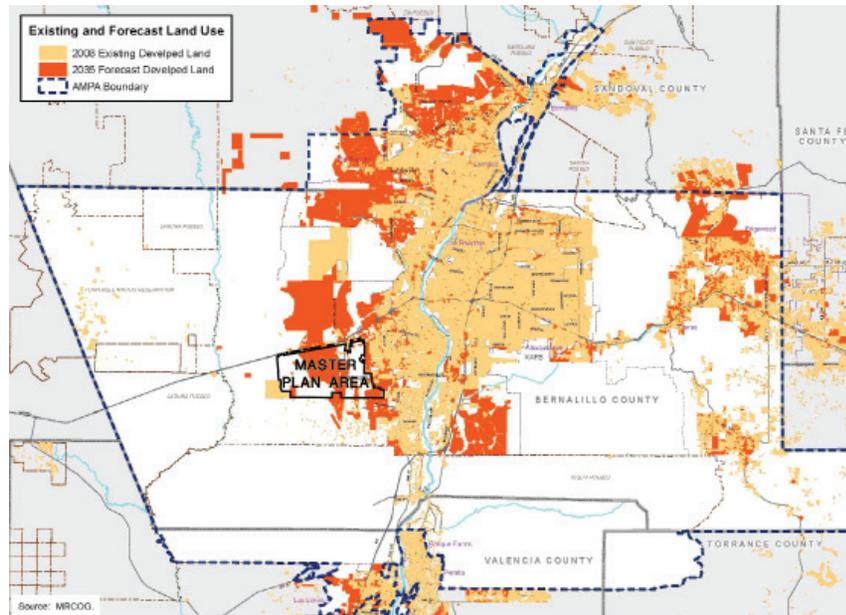


5. Agricultural Grazing Use Pending Development

The Master Plan Area shall continue to be used for grazing purposes until development occurs. Property tax rates shall recognize the use of land as agricultural until such time as a Level C plan (see Requested Entitlements & Process below) has been approved and vertical development occurs on an individual final platted parcel or tract. The adoption of the Master Plan or subsequent Level B or C plan approvals shall not be considered as a change in land use or agricultural status of the property for tax purposes.



Exhibit 6: MRCOG 2035 Regional Land Use Forecast Map



Regional Projections

Forecasts and projections within the Master Plan were prepared consistent with data produced in regional studies conducted by several local and state governmental agencies. The Master Plan was developed within the context of the following:

1. The Mid-Region Council of Governments of New Mexico (MRCOG) and The Bureau of Business & Economic Research (BBER) at the University of New Mexico have forecast significant population growth for the Albuquerque Metropolitan Area (AMPA) during the next twenty years. As illustrated in the MRCOG 2035 Regional Land Use Forecast Map, ([Exhibit 6: MRCOG 2035 Regional Land Use Forecast Map](#)), a large portion of the growth is allocated to Santolina and WALH's property north of I-40.

2. MRCOG's 2035 Metropolitan Transportation Plan (MTP) identifies the high volume east-west commute as a critical transportation issue to the region. The population west of the Rio Grande is increasing, while the major job concentrations have been primarily located east of the River. There is a long-identified need for new employment centers on the West Side.
3. MRCOG projects that by 2035 the West Side will represent 58% of the AMPA's population.
4. Limited areas of the region can accommodate forecasted growth due to land constraints caused by:
 - Tribal, federal and state ownership
 - Environmental constraints such as escarpments, the Rio Grande and dedicated open space
 - Limited infrastructure systems
 - Fractured land ownership patterns
5. Lands adjacent to existing development, able to be served by the infrastructure are ideal locations to accommodate the forecast growth.



Zoning

In addition to the Master Plan, WALH also requested adoption of Planned Community Zone (PC Zone) for the entire Master Plan Area. The PC Zone is in conformance with the Level A Master Plan for the planned community.

The Santolina Planned Community Zone consists of six (6) zoning land use districts similar to and consistent with the land use districts outlined within the Planned Community Criteria. The land use categories are:

- Village (including villages centers)
- Town Center
- Business Park
- Urban Center
- Industrial & Business Park
- Open Space

Reference Chapter 4 Santolina PC Zone for greater detail of the land uses and characteristics of the PC Zone.





A wide landscape of tall grasses under a blue sky with scattered clouds. The foreground is filled with green and yellow wildflowers. In the distance, a flat horizon line separates the land from a clear blue sky with several white, fluffy clouds. A semi-transparent grey box is overlaid on the right side of the image, containing the chapter title.

CHAPTER 3 LAND USE

3. Land Use

Overview

Santolina is envisioned as a master planned community developed over a 40-50 year timeframe. The timeframe is contingent upon market demand and the state and region's ability to support and attract new economy jobs. During the design of Santolina, WALH and the design team established the following vision to guide design and development over that time period.



Santolina will be a community where:

- Jobs and educational opportunities are plentiful and locally accessible
- Desirable housing responds to changing demographic and market preferences
- Open space and quality of life is preserved and enhanced
- A true “live, work, learn and play” community is created for residents

As noted in Chapter 2 Introduction, the Master Plan provides a long term framework for the future development of Santolina. The framework addresses how Santolina will add to and contribute to the existing community. Along with the physical contributions outlined within the Master Plan, Santolina will provide a substantial net-positive economic and fiscal benefit to the County. Based on the Level A Master Plan, Santolina provides the following economic benefits:

- The overall fiscal impact to Bernalillo County's general fund as a result of the development of Santolina will be an annual recurring fiscal surplus of \$22.4 million

- Santolina will contribute \$20 million in annual non-General Fund revenues
- Santolina will generate annual recurring revenues projected to equal approximately 1.78 times the General Fund costs associated with Santolina
- One-time construction gross receipt tax revenues flowing to the County over the build-out of Santolina are substantial, General Fund revenues totaling \$47.7 million and non-General Fund revenues totaling \$40.9 million

Addressing Market Trends

There is increasing demand for master planned areas with a mixture of land uses, variety of housing and places for civic life and recreation. Today's market preferences convey that people want to be engaged in a community, not just live in a nondescript subdivision that requires drives across town for other needs. Santolina will be a holistic community with a sense of place - a place to live, work, learn and play.

Providing Jobs

The economic viability and sustainability of a region hinges on its ability to generate and provide jobs. The West Side has traditionally focused on residential and some commercial land uses. It has lacked jobs, educational opportunities and an adequate amount of commercial. While there has been improvement in recent years, quality of life on the West Side is still a function of commute times and traffic congestion due to limited river crossings. Santolina aims to create job opportunities for the greater West Side and Southwest Mesa areas by providing a mix of land uses, from heavy industry to corporate offices and neighborhood scale employment options.

The economic benefit to Bernalillo County resulting from the anticipated jobs and output generated by Santolina is substantial. The annual recurring direct and indirect economic impacts to the County total \$10.9 billion and an additional \$18.1 billion in one-time construction wage output. The addition of the targeted 75,000 jobs created within Santolina will increase the County's overall current jobs-housing ratio from 0.99 to 1.23, a 24.65% increase.

Education for a Lifetime of Productive Work

Education and job training are critical for success in the new millennium employment arena. Education provides students the tools, skills and knowledge to successfully transition into the workforce and contribute to the local economy. Santolina



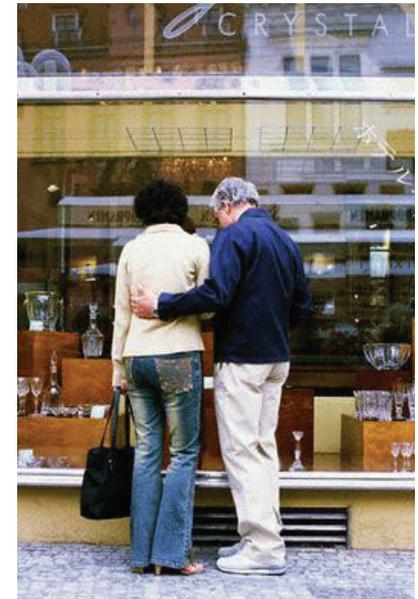
is education-oriented, with potential sites for Albuquerque Public Schools (APS), post-secondary education, including university level campuses, technical training facilities and independent school opportunities. All facilities will be easily accessible to employment and residential areas.

Multi-Modal Transportation Alternatives

The predominance of single occupancy vehicles crossing the Rio Grande during peak travel times for jobs and education opportunities east of the river is currently a significant challenge for the region. This situation will only get worse without jobs and education opportunities on the West Side. Santolina has been designed to include a variety of employment and education centers to address this imbalance. The employment and education centers are intended to provide jobs for community residents and import jobs to the community, thereby creating reverse commutes to the West Side. It is anticipated that increased employment availability will capture more internal trips within Santolina and the surrounding area versus typical development. The Master Plan responds to this by creating denser development within villages and providing transit alternatives. The major roadways will accommodate Bus Rapid Transit, while the community trail system will link the community by bicycle or foot.

Meeting the Needs of America's Changing Demographics

Over the past three census periods the largest segment of the population has been the 65+ age brackets. Beginning January 1, 2011, the first baby boomers began turning 65. During the next 19 years boomers will be turning 65 at a rate of 10,000 a day (*source: AARP, Social Security Administration and Pew Research*). At the same time, the generation born between 1983-2000, known as the Millennial generation, is "community shopping". This young generation is beginning to raise families and decide where they will live and work. Both



generations desire services, retail, jobs, education and recreation in close proximity to their residences. The Master Plan seeks the flexibility to provide a variety of residential options and walkable uses within close proximity to meet this demand. The Santolina Planned Community Zone is formulated to accommodate these anticipated demographic and housing trends.

Community Design Principles

Santolina incorporates the following design principles:

- A mix of residential villages and sub-areas defined by neighborhoods and village centers linked by an extensive open space and trails network.
- Employment areas of various scales to accommodate large industrial and energy production facilities, professional business parks, regional retail centers and neighborhood scale retail and work options.

- Integration of life-long learning opportunities provided by educational and training facilities and job incubation.
- Integration of open space to provide a network of connected parks, trails and natural open spaces for water harvesting and storage, community recreation, cultural and geographic landmark preservation and wildlife habitat.
- A fresh land use mix that may evolve with changes in home buyer and employer trends during the life of Santolina.
- A transportation system that promotes connections to and from the existing county roadway system and provides opportunities for alternative modes of transportation such as transit, walking and biking.
- A framework for future public facilities, i.e. sheriff/fire, schools and parks to serve the community.
- A framework for the provision of utilities and drainage infrastructure to meet the needs of the community.

- A framework for creating the necessary skilled workforce needed in today's high tech world. APS elementary and middle schools feed into the high school, which provides students the education needed for admittance to post-secondary, training and educational institutions, colleges and universities. These institutions provide students education and training resulting in a skilled workforce. Additionally, these



institutions have the leverage to incubate new companies, creating future tenants for the business and industrial parks. These businesses in turn will employ graduates and student interns from the proposed Santolina education campuses. Students, workers and their families will require housing located in close proximity to the schools and businesses. Therefore, the first priority to achieve this vision, is to build housing in an education-oriented community to create the density to support schools and employment centers necessary for a thriving economy and community.

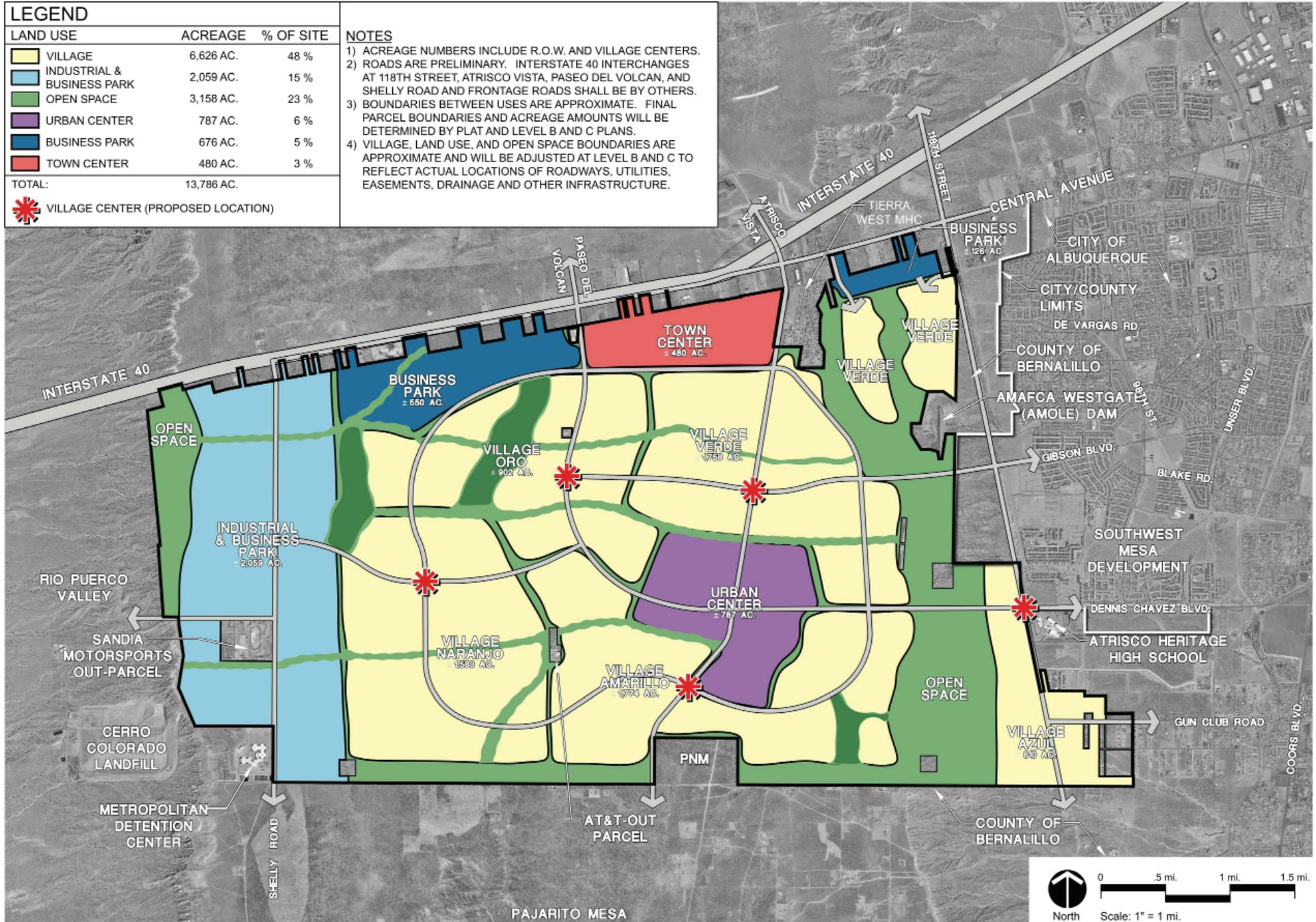
Land Use Plan

As noted in Chapter 2 Introduction, MRCOG forecasts that approximately 95,000 people will call the area within Santolina home by approximately 2060. Over the next 40-50 years a series of villages will be planned and developed within Santolina to meet this demand.

Santolina is envisioned as a master planned community that will ultimately be home for up to 37,930 residential units and approximately 75,000 jobs, creating a jobs-housing balance of approximately 2.0 jobs per household. This exceeds the target for jobs-housing balance sustainability of 1.7, resulting in Santolina being a net importer of jobs. Jobs and employment are a key component of the Master Plan and an element that will distinguish the community. To meet these targets the Santolina Land Use Plan, ([Exhibit 7: Land Use Plan](#)), proposes a balanced mix of land uses designed in a manner to create a strong relation and interplay of uses. The land uses include five (5) villages, two (2) business parks, (1) town center, one (1) urban center, one (1) industrial & business park and significant open space.



Exhibit 7: Land Use Plan



Land Uses

Physical site characteristics form the fundamental structure of any master planned community. The Master Plan Area is characterized by a large mesa, framed by two escarpments. The mesa area is flat and conducive to development. The development of a mix of land uses will be focused on the mesa, preserving the escarpments in large open space areas to be enjoyed by the region. The various land uses within Santolina are described as follows:

Villages

The five (5) villages of Santolina range in size from 692 acres to 1,986 acres. The villages will provide a wide array of residential opportunities to serve the needs of future generations. It is anticipated that each village may be developed in its entirety in a single effort or divided into sub-areas (neighborhoods) with a range of distinct characteristics and housing types.



Housing types within the villages may include single family large lots to single family lot neighborhoods associated with production building. Housing may also include a wide range of single family attached housing such as townhomes and duplexes as well as live/work residential and multi-family.



Village centers will be located within villages. The village centers are envisioned to include a variety of uses including, but not limited to, higher density residential, neighborhood commercial and local office or healthcare uses that support the surrounding neighborhoods. The village centers are envisioned as areas located and sized to provide convenient neighborhood scaled services, supported by more dense residential lifestyles and easily accessible by the surrounding village.



Open space areas will be incorporated into the villages to accommodate recreational needs, provide surface drainage and pedestrian access to locations within the village. These open space areas are in addition to and will connect with and/or complement the approximately 3,100 acres (23% of the Master Plan Area) allocated as open space within the Master Plan.

The villages may also include public and private schools to serve the surrounding neighborhoods. WALH has established a strong working relationship with APS. The company is committed to continuing to work with all schools to ensure the proper school type, size and locations are provided within Santolina to meet education needs as the community develops.

Lastly, it is anticipated that libraries, County offices and/or community centers may be located within villages to serve the community. Additionally, fire and sheriff station facilities will be located within villages as necessary to serve the community in accordance with National, State and County standards and at the County's current level of service.

Urban Center

The Urban Center within Santolina will be a unique mix of civic and higher-density private uses. This site, centrally located within Santolina and accessed by several roads, is an appropriate destination for community and region wide draws. Uses located within the Urban Center may include a regional park, one or more schools (or combinations thereof), a community library and a multi-generational community center.

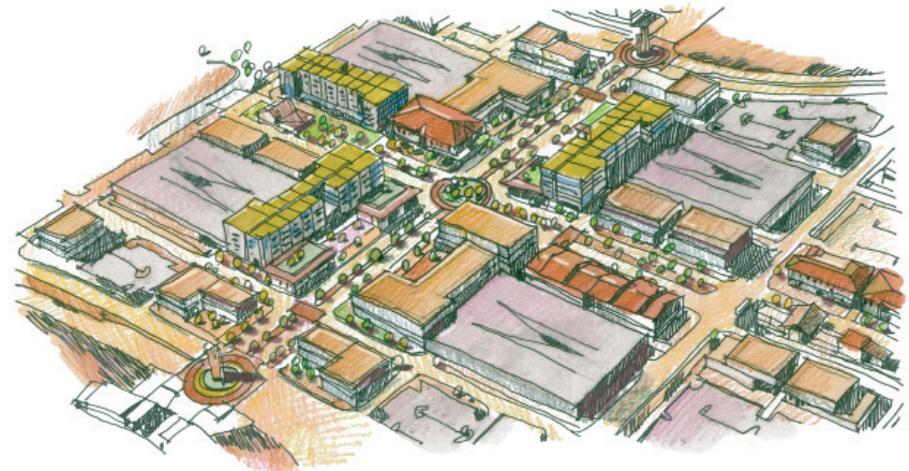


In addition to civic uses, the Urban Center may also include high density residential, live/work residential and retail/hospitality uses to keep the area vibrant and active 24/7. The mix of civic amenities and commercial uses will attract new residents and workers creating a destination for the community. The Urban Center becomes the identity of the community as well as a destination.



Town Center

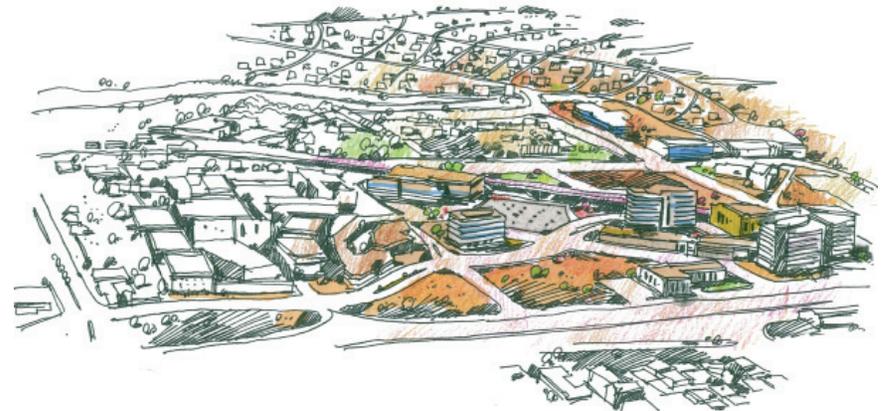
The Town Center, approximately 480 acres, is located between two I-40 Interchanges. These interchanges enable the site to conveniently connect to existing regional roadways. The Town Center has the potential to provide millions of square feet of retail and related services. The site can be expected to attract large retail stores, power centers, lifestyle centers, malls, car dealership clusters and other high GRT generators and service providers for the region. This area will import dollars into the county from adjacent areas.



Potential vision for Mixed Use Town Center in "Main Street" style

Business Park

Critical to achieving the jobs/employment goals of the community are the two business parks located within Santolina adjacent to Central Avenue and I-40. Together the business parks comprise 676 acres of the community. The business parks are designed to be concentrated job generators to potentially attract emerging technology companies, research facilities, office/light industrial uses, post-secondary educational campuses or jobs training educational facilities, healthcare and health research facilities and hospitality and service commercial uses. The business parks have



Conceptual Business Park in proximity to housing and services to reduce long travel times

the potential to cluster businesses or medical uses in a campus-like setting with easy access to lunchtime needs, i.e. restaurant and errands, as well as excellent access to existing freeways and roads.

Industrial & Business Park

As noted in Chapter 2 Introduction, there are some outparcels governed by special use permits. These facilities are located along the west end of the mesa. They include the Motor Speedway, the Metropolitan Detention Center and the Cerro Colorado Landfill.

In an effort to buffer these existing uses and provide a critically needed location for heavy industrial and energy facilities, an industrial and business center has been located along the western edge of Santolina. This is a vast new industrial and business area of approximately 2,000 acres. The center is ideally located with easy access to I-40. Additionally, the location is closest to existing rail service (approximately 6 miles away on Pueblo of Laguna land). The proximity of existing rail and access to the interstate system makes the site ideal for potential distribution, warehouse, energy production and manufacturing uses. The end-users at this site are likely to be large facilities with low employee/square foot ratios but with high potential for manufacturing product or warehouse/shipping volumes. These users are anticipated to be those not typically located in corporate parks, retail centers or in close proximity to residential housing. The developed metropolitan area has few remaining sites that are appropriate for large-scale industrial users.

Lastly, there has also been growing interest in generating power from solar and other alternative fuels facilities in the region. This area also provides a suitable location for manufacturing or locating solar panel fields and other alternative fuel powered facilities.



Open Space

Santolina sets aside the escarpments and other significant areas as Major Public Open Space within the Master Plan. These areas have been identified as, and subsequently zoned as open space, per the accompanying Planned Community Zone. This land use represents approximately 3,100 acres (23% of the Master Plan Area) and will serve to meet the open space requirements for all land uses and parcels within the community. In addition to the designated Open Space, an extensive open space and trails system located within development zones will connect residential areas with retail and employment centers.

In addition to pedestrian trails; community and educational centers, visitor reception centers and properly designed utilities and infrastructure may be installed within Open Space. Such facilities may include utility corridors, drainage and water storage facilities, water and wastewater systems as well as roadways to serve the community.



The open space system is designed to meet and exceed the County park and open space requirements for the community. The park and open space program is located and further defined in greater detail in Chapter 8 Government and Public Services. Trails and open space will be defined and included within subsequent Level B and Level C plans.

Transportation System

The structure of every master planned community is established by the physical character of the site along with the existing offsite transportation network and the extension of said network into the community. Santolina has nearly six miles of exposure along I-40. Additionally, the community has ready access to the major regional corridors of Central Avenue, Dennis Chavez Boulevard, Atrisco Vista Boulevard and 118th Street.

Along with the existing roadways, Santolina incorporates the extension of several roadways and the creation of new roads to create a comprehensive road network.



- Dennis Chavez Boulevard will be extended west and connect with the future Paseo del Volcan.
- Gibson Boulevard will be extended west from 118th Street up the escarpment into the community, linking with Atrisco Vista and terminating at the future Paseo del Volcan.
- Atrisco Vista will be extended south through the community to its southern boundary.
- A loop road will create internal circulation through the villages and centers, with minor arterials and collectors branching off from the loop road to create access within each village.

The transportation system is described in greater detail in Chapter 6 Transportation.

Phasing Strategy

While phasing is an important factor when contemplating the development of Santolina, it should not be a guiding principal. Phasing shall be market demand driven.

The development of a master planned community the size and scale of Santolina occurs incrementally. Full buildout of Santolina is estimated to be a 40-50 year timeframe based on current demographic trends and market demand. Multi-staged developments within the greater community are typically referred to as “Phases”. In an effort to simplify infrastructure modeling and other studies, a milestone marker has been established within the Master Plan. The Master Plan identifies Projected 2035 Development Plan as the probable development to occur by 2035. The Projected 2035 Development Plan is illustrated on The Development Plan (Exhibit 9: 2035 Projected Development Plan).

Exhibit 8: 2035 Projected Development Land Use Table

Land Use	Area
Village	2,932 acres
Open Space	235 acres
Industrial & Business Park	710 acres
Urban Center	215 acres
Business Park	274 acres
Town Center	177 acres
Master Plan Area Total:	4,543 acres

The strategy for creating the community phasing scenario takes the following factors into consideration:

- Proximity to existing infrastructure
A logical phasing strategy begins in close proximity to existing infrastructure. This strategy avoids redundancies and the expense of extending systems. As a result, areas closer to the north and east sides of Santolina are expected to develop first, driving development of residential, commercial, educational and employment opportunities in the specific area. The Industrial & Business Park on the west side of Santolina is the exception, with development near I-40 anticipated within the Projected 2035 Development Plan.
- Proximity to major transportation systems
Proximity to existing transportation systems and potential transit routes also drive community phasing. As such, areas closer to I-40, Atrisco Vista Boulevard, Dennis Chavez Boulevard, Central Avenue, 118th Street, Shelly Road and other existing roadways are adjacent to early phases.
- Meet needs on the West Side
Most residents on the West Side currently commute to jobs. Businesses and industries on the West Side need employees who live in close proximity to their location. There is a market driven need for housing, infrastructure and education facilities on the West Side. This will in turn facilitate additional job creation on the West Side. Additionally, reaching retail and

Exhibit 9: 2035 Projected Development Plan

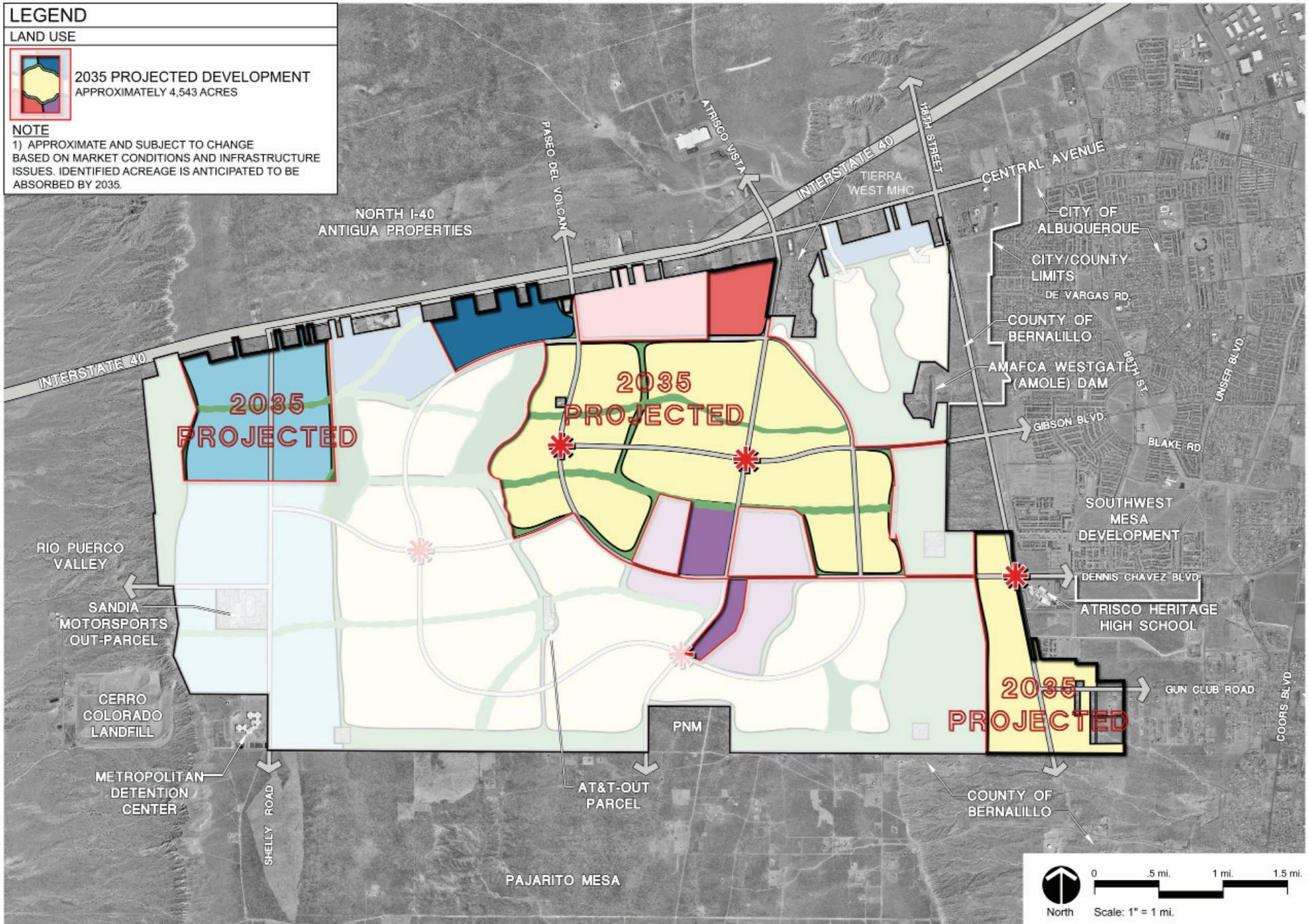
LEGEND

LAND USE



2035 PROJECTED DEVELOPMENT
APPROXIMATELY 4,543 ACRES

NOTE
1) APPROXIMATE AND SUBJECT TO CHANGE
BASED ON MARKET CONDITIONS AND INFRASTRUCTURE
ISSUES. IDENTIFIED ACREAGE IS ANTICIPATED TO BE
ABSORBED BY 2035.



recreational facilities requires significant drive times for current West Side residents. Land uses within the first phases are designed to allow flexibility with the intent of creating job and educational opportunities, along with residential development necessary to attract additional retail and employment development.

- Provide choices on the Southwest Mesa
Housing, employment, post-secondary education and retail choices are currently limited on the Southwest Mesa. Phasing will seek to meet these needs and address the market demands.
- Open space amenity and resource
The eastern and western escarpments are designated as Open Space in the Master Plan. It is anticipated that the open space areas may be acquired by the County, City and/or other entity and used as public open space. As open space, the escarpments will provide an important amenity to the County as a whole, for the early villages of Santolina while providing a spatial boundary and buffer between existing development to the east and Santolina.





CHAPTER 4 SANTOLINA PC ZONE

Zoning and Governance

As noted within Chapter 2 Introduction, the Master Plan outlines PC Zone regulations for the Master Plan Area including the amendment process for the Level A Master Plan, Santolina PC Zone and future Level B Plans. The Santolina PC Zone provides the overall framework and has been developed to a level appropriate for a Level A Planned Community Master Plan. Future Santolina Level B Plans will expand upon this zoning framework in order to provide the level of detailed regulation suitable for the County to review specific development proposals (Level C Plans).

The amendment process is designed in accordance with this process. Substantial changes to the Master Plan will follow the amendment process outlined below, which is largely in accordance with the established Bernalillo County amendment procedures. In order to ensure that the Santolina PC Zone addresses the varied conditions of future planning, the Santolina PC Zone may also be amended and refined by future Level B and C Plans.

Santolina PC Zone (Planned Communities): Pursuant to Section 19.5 of the Bernalillo County Comprehensive Zoning Code

Santolina is a 13,700 acre master planned community located in Bernalillo County, west of the incorporated city limits of Albuquerque. The community is designed to feature a mix of residential, commercial, business, industrial, public service facilities and open space areas. The Santolina PC Zone is structured to maintain flexibility to meet changing market demands and the new economy and demographics of the region, while creating a unique sense of place and community identity for Santolina. The Santolina PC Zone adds the benefit of providing a predictable and easy to use framework for large-scale zoning that includes a variety of styles and development types. The Santolina PC Zone conforms to the Level A Planned Community Master Plan.

The Santolina PC Zone Process

The Santolina PC Zone establishes a series of land use districts and combines the land uses with specific site character standards. The selection of a land use district is followed by the selection of specific design standards that are relevant to the use and site categories chosen. In this way, Santolina can apply a mix and match combination of categories for the community, as appropriate for a specific location or use. Zoning that includes land uses, site characteristics and design standards addresses building forms, the context of a site and the types of development anticipated within districts. This form of zoning also allows for unique design and site character for each subarea of the community enabling development projects to be customized. This prevents the generic cookie-cutter approach to development that some zoning standards require.

The selection process includes three steps as outlined below:

- 1. Land Use District Selections**
- 2. Site Characteristic Selections (Level B/C Plans)**
- 3. Design Standards Selections (Level B/C Plans)**

The 3-Step Selection Process

As noted in the three step process above, the Land Use District Selections of Step 1 are articulated within the Level A Plan. The types of Site Characteristics and Design Standards are listed in Level A, but will be further defined and detailed in Level B and C Plans.

1. Land Use District Selections

The first step in the process is the selection of a Land Use District. Each Land Use District allows a list of permissive land uses. The districts are based on traditional zoning, as each specifies the permissive land uses allowed within the specific land use district. The Level A Land Use Districts boundaries are approximate. Actual acreages and boundaries will be determined at Level B and C Plan stages. Land Use Districts are listed below and include:

- Village
- Village Center
- Urban Center
- Town Center
- Business Park
- Industrial & Business Park
- Open Space

The permissive land uses of each of these districts is described in Section 1 below.

2. Site Characteristic Selections

Once the Land Use District has been selected, the next step is the Site Characteristic selections. As was the case with Land Use Districts in Section 1, the Site Characteristics remain general at Level A. General descriptions of the types of Site Characteristics are described in Section 2 below, and they will acquire more detailed definition at Level B and C Plans.

The character of the various districts within Santolina and the density of development is largely dependent on location within each sub-area. Development along local streets, away from arterial intersections, should have a lower intensity scale to match the neighborhood context of its location. Conversely, development within the Urban Center or Town Center located along an arterial or a major transit route should have a higher density and more urban form commensurate with its locational context. Based on this design approach, the second component clusters characteristics based on the scale of the surrounding transportation system access. This introduces the performance based elements of the zoning system. Specific street sections will be defined at Level B or C, when specific uses have been determined.

3. Design Standards Selections

The third step in the Santolina PC Zone process is the selection of Design Standards that correspond with the Land Use Districts (1) and the Site Characteristics (2). The Design Stan-

dards create a more refined level of development that should not be uniformly applied at the large scale of a Level A Plan. Customized design standards should be tailored to each individual development district within Santolina in order to create distinct places with unique character. This step introduces the form based elements of the zoning system. The Design Standards will be developed in the Level B and C Plans for each area.

Section 1: Land Use Districts

The selection of land uses for a specific area within Santolina is based on the area's location within the Land Use Plan within the Master Plan.

(A) Village District

The Village residential areas are comprised of five Villages that range in size from approximately 600 acres to 2,000 acres. The Villages will primarily consist of single family homes while also providing a wide range of multi-family residential opportunities and Village Center services in appropriate locations. Villages will be designed to create a small town or neighborhood character. They will meet resident needs for recreational amenities and provide convenient access to shopping, services, education and employment. Excellent connectivity to other Land Use Districts and the larger region will be provided.

Permissive Land Uses in Villages:

1. Large Lot Single Family
2. Medium Lot Single Family
3. Small Lot Single Family Detached
4. Age Restricted Communities
5. Townhouse (Single Family Attached)
6. Live/Work (Residential and Office)
7. Upper Story Residential (Mixed Use)
8. Village Scale Multi-Family Residential
9. Accessory Dwelling Unit
10. Home Occupation

11. Cemetery
12. Fire/Police/Libraries/Public Buildings
13. Park and Related Facilities
14. Open Space
15. Water Storage/Reservoirs
16. School and Educational Facilities (Daycare through Post-Secondary)
17. Senior Transitional Living and Care Facilities
18. Neighborhood Scale Commercial & Services*
19. Neighborhood Scale Eating Establishment with and without Liquor Sales*
20. Eating Establishment, Commercial and Services with drive-up*
21. Auto Fuel Sales*
22. Urban Agriculture
23. Utility Facilities

*Only permitted on Collector/Arterial site types or within Village Centers

(B) Village Center District

Five Village Centers are associated with the residential villages in the Land Use Districts. Village Centers are envisioned to be a cohesive core of residential, civic and commercial buildings. Each may also serve as a village scale transit hub with connectivity to the rest of the Land Use Districts. The locations of the Village Centers are conceptual at Level A and indicate that each Village will likely develop with a center. For planning purposes each center is assumed to be approximately 75 acres in size and designed for mixed uses. Sizes, locations and boundaries of Village Centers will be defined at Level B/C Plans and may exceed the 75 acre estimate used for planning purposes. Village Centers may also develop differently in each Village and are not required to be the same size or in a similar location as other Village Centers.

Permissive Land Uses in Village Centers:

1. Townhouse (Single Family Attached)
2. Live/Work (Residential and Office)

3. Upper Story Residential (Mixed Use)
4. Accessory Dwelling Unit
5. Home Occupation
6. Multi-Family Residential
7. Public and Civic Uses
8. Schools (Daycare through Post-Secondary)
9. Village Scale Commercial & Services
10. Village Scale Eating Establishment with and without Liquor Sales
11. Eating Establishment, Commercial and Services with drive-up
12. Food Carts
13. Auto Fuel Sales
14. Entertainment Activities/Hospitality
15. Office (including Medical Clinic and Healthcare)
16. Outdoor Vendor Market
17. Park and Related Facilities
18. Senior Transitional Living and Care Facilities
19. Transit Oriented Development (TOD)
20. Utility Facilities

(C) Urban Center District

The Urban Center is a dynamic, high-density core where office, commercial, civic, educational, multi-family residential, retail and entertainment uses come together and serves as a destination for residents to live, work, shop and play. It is defined by a tight network of streets, wide sidewalks, tree-lined streets, unique architectural elements, street furnishings, pedestrian scale elements and urban green space.

Permissive Land Uses in the Urban Center:

1. Live/Work (Residential and Office)
2. Upper Story Residential (Mixed Use)
3. Multi-Family Residential
4. Public and Civic Uses
5. Schools Facilities
6. Community Scale Commercial & Services
7. Community Scale Eating Establishment with and without Liquor Sales

8. Eating Establishment, Commercial and Services with drive-up
9. Food Carts
10. Educational Campus Facilities and Related Facilities
11. Entertainment Activities/Hospitality/Resort
12. Office
13. Outdoor Vendor Market
14. Hospital
15. Park and Related Facilities
16. Transit/TOD
17. Utility Facilities

(D) Town Center District

The Town Center has excellent access off Interstate 40. The site is well located for large retail facilities, entertainment and campus office development.

Permissive Land Uses in the Town Center:

1. Commercial and Services
2. Hotel/Hospitality
3. Large Retail Facility
4. Eating Establishment with and without Liquor Sales
5. Eating Establishment, Commercial and Services with drive-up
6. Auto Fuel Sales
7. Entertainment Activities
8. Truck Plaza/Automobile Sales and Service
9. Office
10. Transit Station
11. Utility Facilities

(E) Business Park District

Two Business Parks are located adjacent to Central Avenue and Interstate 40. They are envisioned as locations for large job generators such as emerging technologies, research and development, educational campuses and/or healthcare industries.

Permissive Land Uses in the Business Parks:

1. Large Community Scale Commercial and Services
2. Eating Establishment with and without Liquor Sales
3. Eating Establishment, Commercial and Services with drive-up
4. Auto Fuel Sales
5. Educational Campus Facilities
6. Office
7. Research and Development
8. Light Industrial, Manufacturing, Assembling, Processing
9. Medical Research
10. Healthcare/Hospital
11. Utility Facilities

(F) Industrial & Business Park District

The Industrial & Business Park is ideally situated to provide sites for large industrial development, power generation and/or heavy industries that are not suitable for smaller business parks and within the Villages. Due to the large amount of available acreage, the Industrial & Business Park is also an ideal location for industrial symbiosis or an industrial ecology where businesses share resources and make use of the waste or by-products of another business located in the park.

Permissive Land Uses in the Industrial & Business Park:

1. General Industry, Manufacturing, Assembly, Processing
2. Heavy Industry, Manufacturing, Assembly, Processing
3. Power Generation (Solar, Wind, Biofuels, Gas)
4. Wholesale Trade
5. Warehouse and Freight Movement/Distribution
6. Eating Establishment, Commercial and Services with drive-up
7. Food Carts
8. Auto Fuel Sales
9. Recycling Facilities/Refuse/Waste Disposal
10. Transit Station
11. Rail/Freight
12. Utility Facilities

(G) Open Space District

The eastern and western escarpment areas are identified as Major Public Open Space. As such, they are only appropriate for recreational and educational related development and properly designed public utilities and infrastructure (including utility corridors, drainage and water storage facilities, roadways, water/sewer lines and other infrastructure).

Permissive Land Uses in Open Space:

1. Trails
2. Recreational and Educational Facilities
3. Visitors Center
4. Utility Facilities and Corridors
5. Water Storage and Drainage Facilities
6. Roadway or Transit Rights-of-Way
7. Access Easements

Section 2: Site Characteristics

The second component defines Site Characteristics based on the scale of the surrounding transportation system access to provide context for the site. As noted above, Section 2 describes the general characteristics included in this portion of the Santolina PC Zone. More detailed descriptions for each of these elements, as well as unique methods to address site context of individual sites will be provided at Level B/C plans.

(A) Residential / Village Sites:**1. Residential Local Street Site**

Development that follows the Residential Local Street Site Type is generally located on local streets that primarily consist of single family residential development.

Residential Local Streets are typically the lowest level (least intensive) of street in the Master Plan Area. The primary function of Residential Local Streets is to provide vehicular, bike and pedestrian access to individual residen-

tial properties. Additionally, they provide, depending on the density, sidewalks separated or at back of curb multi-modal connectivity to collectors and arterials. Residential Local Streets typically have on street parking and sidewalks with landscape strips that provide pedestrians safe and comfortable access. Bicycles and automobiles typically share the travel lane.

Land uses within this site characteristic follow these contextual standards:

- a. **Building Height:** Single Family-Maximum 26 feet, Multi-Family and Non-Residential-Maximum 50 feet
 - b. **Residential Density:** 1 to 24 dwelling units per acre
 - c. **Development Scale:** Development in Residential Local Street Sites shall be at a village scale. These areas are envisioned as consisting primarily of single family homes (attached or detached), live/work, village scale commercial and mixed-use options.
 - d. **Access and Circulation:** Primary front access to residences should be through the front entryway, garages should not dominate the front façade. Front, side, rear access and garage placement on alleys are permitted. Sidewalks that provide comfortable and direct pedestrian movement within neighborhoods, between neighborhoods and to collectors and arterials, shall be provided on all residential local streets unless they front trails, parks or other open areas. When trails are used, sidewalks are not required.
- 2. Residential Collector & Arterial Street Site**
- Residential Collector Streets are typically low to medium capacity roads. These roads are designed to provide access to adjacent residential properties and collect traffic from the Local Residential Streets. Collectors provide ac-

cess between residential neighborhoods as well as access to other collectors and arterials. On street parking is permitted. While there is usually some limited transit access on Collector Streets, their primary function is to provide pedestrian, bicycle and vehicular access.

Residential Arterial Street Sites are those adjacent to a Minor or Principal Arterial. Single family homes will not have direct access from Residential Arterials Streets. The primary function of the residential arterial is to provide multi-modal (pedestrian, bike, transit and vehicle) access to adjacent residential development and to connect residential areas to commercial and employment areas. Land uses within this site characteristic follow these contextual standards:

- a. **Building Height:** Single Family-Maximum 26 feet, Multi-Family and Non-Residential-Maximum 78 feet
- b. **Residential Density:** 1 to 50 dwelling units per acre
- c. **Development Scale:** Development on Residential Collector and Arterial sites shall be at a village or village center scale, limited by size. In order to create walkable, mixed use neighborhoods where residents can meet their daily needs through non-auto modes of transportation, commercial, services and restaurants are encouraged but they are limited by size to keep them at a scale that is appropriate to the zone.
- d. **Site Development:** Development is encouraged to provide attractive building facades and entries toward the street and to parking areas, as well as to landscaped areas and street trees.
- e. **Access and Circulation:** Wider sidewalks and/or trails that provide comfortable and direct pedestrian movement within neighborhoods, between neighborhoods,

and to other collectors and arterials, shall be provided on all residential collector and arterial streets.

(B) Urban Center and Village Center Sites:

1. **Urban Center and Village Center Local & Collector Site**
Urban Center and Village Center Local and Collector Streets provide access to adjacent multi-family residences, commercial and services, office employment, or civic and public uses. Streets are pedestrian and bicycle friendly, with on street parking, wide sidewalks, street trees and bike lanes. Land uses within this site characteristic follow these contextual standards:

- a. **Building Height:** 78 feet
- b. **FAR:** Maximum 1.0
- c. **Development Scale:** The Urban Center is envisioned as a mix of schools, public and civic uses, public open spaces, higher intensity multi-family residential, commercial, services and offices. The Urban Center Local and Collector sites will form a street pattern that will encourage and facilitate multi-modal transportation. The appropriate scale can be compared to Community Commercial, in an urban setting, with taller buildings and more density mixed in with public buildings and spaces that provide a focal point for development.

The Village Centers are envisioned as mixed use areas, developed at a village commercial scale. Commercial, service and entertainment uses that will serve the surrounding residential areas are encouraged at a scale of development that is intended to provide appropriate residential transition and connectivity. The Village Center Local and Collector sites facilitate pedestrian activity through the location of smaller scale mixed-use development with slower moving vehicular traffic than that on the Arterials. Land uses within

this site characteristic follow these contextual standards:

- d. **Site Development:** Sidewalks are generally located at the curb, building setbacks are smaller. Public buildings and open spaces serve as a focal point for the Urban Center and the Village Centers.
- e. **Access and Circulation:** In order to create a more urban, walkable environment, care should be taken to allow pedestrian access to and through sites. On street parking, shared parking areas, and direct pedestrian access to building entrances from the street, and parking areas are also encouraged.

2. Urban Center and Village Center Arterial Site

Urban Center and Village Center Arterials are generally high capacity urban thoroughfares that serve to connect the local and collector roads in the Master Plan Area to other arterials, major transit corridors and interstate access.

As compared to the Local and Collector sites, there is less direct driveway access on Arterial sites from the site to the road. Parking in front of buildings is encouraged while parking in the rear of buildings is allowed. Land uses within this site characteristic follow these contextual standards:

- a. **Building Height:** Maximum 100 feet
- b. **FAR:** Maximum 2.0
- c. **Development Scale:** The Urban Center and Village Center Arterial Sites are at a similar development scale as the Urban Center Local and Collectors and Village Center Local and Collectors. Due to the higher volume traffic on arterials, site access is generally provided by either service road and/or shared access. Streets are designed to accommodate both vehicular and pedestrian access in an urban environment.

- d. **Site Development:** Arterials are more auto and transit oriented than Local and Collector streets. Setbacks are slightly larger than on Locals and Collectors with streetscape between the curb and sidewalk/trails. Buildings may focus inward to common areas or toward streets.
- e. **Access and Circulation:** Sidewalks, street trees and internal pedestrian walkways are required. Particular emphasis should be placed on pedestrian connectivity between development and transit stops.

(C) Town Center and Business Park Sites:

1. Town Center and Business Park Local and Collector Site

Town Center and Business Park Local and Collector streets function to connect retail services and employment uses to each other and to higher capacity arterials. While this site type is typically accessed by vehicular and/or transit, pedestrian connections are important.

Town Center Locals and Collectors will provide the primary access in this site type. Land uses within this site characteristic follow these contextual standards:

- a. **Building Height:** Maximum 100 feet
- b. **FAR:** Maximum 1.0
- c. **Development Scale:** Development on the Town Center and Business Park Local and Collector sites is envisioned as larger scale Community Commercial, and/or office campus style development. The sites in these areas are large enough to accommodate large retail facilities and large office buildings. Sites shall be oriented toward either the local or collector street in order to facilitate vehicular movement. Pedestrian connectivity should also be accommodated in site plan design.

- d. Site Development:** The Town Center is envisioned as the appropriate Master Plan Area location for large retail facilities and the Business Park is envisioned as primarily employment uses; therefore, setbacks from the street shall be generally larger than those in the residential and mixed use districts. Pedestrian connectivity and access to and from parking areas and transit stops are included in site plan design.

For Business Park development, the primary employee entrance(s), customer entrance(s), and customer parking may be separated and should be clearly marked.

- e. Access and Circulation:** Parking lots shall be placed around buildings, in order to provide the shortest distance between buildings and to capitalize on potential shared parking arrangements.

Parking pods shall be separated by demarcated, landscaped pedestrian walkways, and shared parking shall be strongly encouraged.

Wide sidewalks, pedestrian entrances, and connectivity to other areas shall be required.

2. Town Center and Business Park Arterial Site

Arterial streets are typically characterized by higher volume traffic. Where possible, access to sites shall be via service drives, regularly spaced intersections, and shared access points.

Town Center and Business Park Arterials are primarily transit and auto-oriented, serving to connect the Town Center to the larger Master Plan Area. Parking in front of buildings is encouraged. The land uses within this site characteristic follow these contextual standards:

- a. Building Height:** Maximum 100 feet.

- b. FAR:** Maximum 1.0

- c. Development Scale:** Town Center and Business Park Arterial sites are also at a Community Commercial scale, and may contain large buildings and parking areas.

- d. Site Development:** Loading and service uses should be oriented to and accessed from service drives. Due to the higher volume traffic on arterials, where possible building orientation should be toward a local or collector street or common parking areas. Setbacks are larger than on Collector sites and streetscape is an important design element.

- e. Access and Circulation:** Aligning and sharing access points shall be encouraged. Sidewalks, street trees, and internal pedestrian walkways are required.

(D) Industrial & Business Park Sites:

1. Industrial & Business Park Local, Collector and Arterial Site

Due to the industrial uses in the Industrial & Business Park zone, Industrial Local and Collectors are mostly auto and truck oriented. Other than the distinction in the hierarchical function of the streets, there is little difference in the context of development character between local streets, collector streets and arterials within this district. Therefore, the site types have been combined.

Industrial & Business Park Locals, Collectors and Arterials will primarily serve to connect large industry uses with the remainder of the Master Plan Area and Interstate 40. However, pedestrian connectivity shall be provided from employment sites to transit stops where available. The uses within this site characteristic have the following contextual standards:

- a. **Building Height:** Maximum 100 feet.
- b. **FAR:** No requirement
- c. **Development Scale:** Industrial site scale is the largest in the Plan Area. The scale is intended to accommodate industrial users, energy generation, manufacturing and warehousing. There are no requirements for pedestrian scale architectural detailing and/or screening. Due to the large site requirements for industrial sites, pedestrian activity between uses is not always feasible, therefore pedestrian connectivity should focus on transit stops and parking area connectivity.
- d. **Site Development:** Building placement can be largely determined by the use on the site, however development should be cognizant of and respond to adjacent development in order to create a coherent streetscape and pedestrian connectivity if possible and reasonable.
- e. **Access and Circulation:** On site loading and truck access should be separated from pedestrian areas such as sidewalks, plazas, and/or courtyards.

Section 3: Design Standards

The third step is the selection of Design Standards that correspond with the Land Use Districts (1) and Site Characteristics (2) selections. The Design Standards create a more refined level of development that should not be uniformly applied at the large scale of a Level A Plan. In order to create distinct places with unique development styles and forms, Design Standards shall be tailored to individual districts. These standards will be established in the Level B/C Plans for each area.

The categories listed below are intended to provide a preliminary framework for the development of the Design Standards in forthcoming Level B/C Plans. As stated above, the design standards

will be customized at Level B/C to create the desired form that will be in context with the relevant use and site district. The selection process is complete once the Design Standards are prepared at Level B/C.

(A) Single Family Residential Standards (will vary by Local, Collector or Arterial Site Character)

- Lot Size
- Setbacks
- Walls and Screening
- Entryways
- Garages
- Building Materials
- Landscape

(B) Multi-Family Residential Standards (will vary by Local, Collector or Arterial Site Character)

- Lot Size
- Setbacks
- Walls and Screening
- Entryways
- Articulation
- Building Materials
- Useable Recreation
- Landscape

(C) Non-Residential and Mixed Use Standards (will vary by Local, Collector or Arterial Character)

- Lot Size
- Setbacks
- Walls and Screening
- Articulation
- Building Materials
- Landscape
- Sidewalks and Pedestrian Walkways

- Lighting
- Signage

Santolina PC Zone Definitions

Accessory Structure - A use that is incidental to and customarily associated with a specific principal use, located on the same lot or parcel.

Accessory Dwelling Unit - A separate and complete dwelling unit that is contained on the same lot as the structure of a single-family dwelling or business, and that is subsidiary to the primary use on the lot.

Community Scale Commercial & Services - A mix of commercial land uses typically serving groups of neighborhoods and providing facilities with a larger service area than Village Scale Commercial and Services, such as branch banks, larger grocery stores, medium sized retail facilities, and theaters. Typical individual business square footage parameters can be defined at Level B.

Community Scale Eating Establishment with and without Liquor Sales - A structure in which the principal use is the preparation and sale of food and beverages; outdoor seating is permitted. Community scale establishments are typically larger restaurants than those found in village neighborhoods. Square footage limits can be defined at Level B. No drive thru liquor sales allowed. No marijuana dispensers.

Drive Up Eating Establishment, Commercial and/or Services - An establishment accommodating the patron's automobile from which the occupants may receive a service or in which products purchased from the establishment may be consumed.

Entertainment Activities (Indoor) - Predominantly spectator uses conducted within an enclosed building. Typical uses include theaters, concert or music halls, or resort facilities. Indoor sports arenas, soccer, lacrosse.

Entertainment (Outdoor) - Predominantly spectator or recreational uses conducted in open or partially enclosed or screened facilities. Typical uses include sports arenas, music venues, or resort facilities with golf courses or other amenities.

Food Cart - A mobile venue that sells food.

Food Cart Pod - A pod is a grouping of food trucks assembled at an established location (usually a parking lot) on a semi-permanent or regular basis. A pod typically ranges from 2-20 trucks, and there is often some seating or dining area.

Home Occupation - An occupation carried on in a dwelling unit; provided that the use is secondary to the use of the dwelling unit for residential purposes and does not change the character thereof.

Hotel/Hospitality - An establishment that provides, for a fee, sleeping accommodations and customary lodging services, including maid service, the furnishing and upkeep of furniture and bed linens, and telephone and desk service. Related ancillary uses may include but shall not be limited to conference and meeting rooms, restaurants, bars, and recreational facilities.

Large Retail Facility - A large-scale self-service retail store selling food, drugs, household merchandise, clothing, and a variety of other retail goods; large retail facilities are typically located in community scale retail centers rather than in village neighborhoods. Square footage limits can be defined at Level B.

Live/Work - A dwelling unit used for both dwelling purposes and any nonresidential use permitted in the zoning district in which the unit is located.

Low Impact Development - An approach to land development that uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs.

Mixed-Use Development - Development that mixes land use types on one site, i.e., combines residential and commercial uses. Mixed uses can be “vertical” (stacked in multi-story buildings), or can be “horizontal” (adjacent to each other in separate buildings or spaces).

Multi-Family Residential - Two or more units that are leased or rented within a common building, and are not located on separate lots.

Senior Transitional Living and Care Facilities - An age targeted facility for “seniors” (typically 55 years and over) that can provide a continuum of care and living arrangements: from independent living apartments, assisted care units, nursing care beds, memory impaired facilities, or facilities for treating other health and living needs of seniors. Living units can be owned or leased, separate or attached, with all units under a common management.

Single Family Dwelling - A detached building designed to be occupied by one family, or a group of unrelated persons living together as a unit, with facilities designed to accommodate living and sleeping, including up to two kitchens, including manufactured homes and or prefabricated, modular or sectional units meeting the requirements of the Bernalillo County Building Code, designed to be permanent structures, placed upon permanent foundations and taxed as real property. Three density ranges include 1-3, 4-6 and 7-10 dwelling units per acre. Can be served by local, collector or rear alley and can have a detached unit/accessory unit. Additionally, can be age restricted.

Townhouse - One of a group of two to ten attached dwelling units divided from each other by common walls, each having a separate entrance leading directly to the outdoors at ground level, and each located on its own, individual lot.

Transit Facilities - The property, equipment, and improvements of whatever nature owned, used, constructed, maintained, con-

trolled, or operated to provide mass transportation for passengers or to provide for the movement of people.

Transit Oriented Development - Moderate and high-density housing, office, or retail/commercial uses concentrated in mixed-use developments located along transit routes.

Upper Story Residential - A dwelling unit that is located on the second and/or higher story above any nonresidential use permitted in the zoning district, but that maintains a separate entrance from that use.

Urban Agriculture (Urban Farm, Urban Garden) -The practice of cultivating, processing, and/or distributing food in, or around, a village, town or city.

Utility Facility/Infrastructure - Any privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, storing, or distributing communications, power, electricity, light, heat, gas, oil, renewable energy, transportation, crude products, water, steam, waste, storm water, or any other similar commodity, including any fire or police signal system or street lighting system, which directly or indirectly serves the public.

Vendor Market - An occasional or periodic market held in an open area or in a structure where groups of individual sellers offer items for sale to the public.

Village Scale Commercial and Services - A mix of commercial land uses intended to serve adjacent residential neighborhoods. Village Commercial and services normally includes establishments that meet the everyday needs of residents such as restaurants, grocery stores, convenience stores, dry cleaners, etc. Individual business square footage maximums can be determined at Level B.

Village Scale Eating Establishment with and without Liquor Sales - A structure in which the principal use is the preparation

and sale of food and beverages; outdoor seating is permitted. The scale of this establishment is appropriate to adjacent neighborhoods. Square footage maximums can be determined at Level B.

Village Scale Multi-Family Residential - Housing units that are leased or rented within a common building and are not located on separate lots. The size and scale should be appropriate to village neighborhoods. Unit caps can be established at Level B.

Summary of Santolina PC Zone Benefits

The Santolina PC Zone is appropriate for Santolina because of the community's large size and long development timeframe. The goals of creating a cohesive master planned community along with the scale and timeframe involved make upfront site specific individually zoned parcels impractical. Santolina's focus as a mixed-use community with mixed-densities and design styles requires flexible performance based standards. The Santolina PC Zone selects the best and most relevant parts of zoning (land uses, site character and design) and creates a unified whole.

Additionally, the Santolina PC Zone allows for mix and match flexibility that responds to future market demand and new building styles. At the same time, it requires a performance and form based framework for development suitable for its location, context and character. The Santolina PC Zone can address the evolving needs of the new economy and the changing demographics of the region, while creating a unique sense of place and community identity for Santolina. The added benefit is that it provides a predictable and easy to use framework for large-scale zoning.

Amendments, Modifications and Annexation to the Level A Planned Community Master Plan

1. Minor Modification: A modification to the Level A Planned Community Master Plan that results in less than 15% change in land use area, may be approved administratively if no one is designated by County. Boundary changes between tracts or the configuration of parcel shapes are allowed, as these boundaries and configurations are illustrative at Level A Planned Community Master Plan.
2. Amendment: An exception or variance to a Land Use District, Site Characteristic, or Design Standard can be amended by following the Bernalillo County Comprehensive Zoning Code, Application and Administrative Amendment process, Section 24-3, 4, 5, and 6.
3. Plan Area Annexation: Parcels of land that are contiguous to the Santolina Level A Planned Community Master Plan boundary may choose to become part of the Master Plan Area through the Sector Development, Application, and Amendment Process established in Section 20.5, F.1 and 2 of the Bernalillo County Comprehensive Zoning Code. Such parcels would also request a zone map amendment to Santolina PC Zone concurrently with annexation into the Master Plan Area.

Amendments and Modifications to the Santolina Planned Community Zone

The Santolina Planned Community Zone establishes PC zoning for the entire Master Plan Area. At the Level A, the Santolina PC Zone establishes Land Use Districts, Permissive Land Uses, and Site Characteristics. Approval of Level B Plans will require the selection and refinement of Site Characteristics and Design Standards.

Level B Plans follow the Design Standards framework of the Santolina PC Zone. The detailing of these standards may be accomplished in a variety of ways, including the development of form based zones or the application of more traditional design standards. Whichever method is chosen, Level B Plans will develop the Design Standards section of the Santolina PC Zone in sufficient detail to permit County development review.

The Santolina PC Zone elements (Land Use Districts, Permissive Uses and Site Characteristics) can be amended in conjunction with approval of a Level B Plan, pursuant to Section 19.5, (B) (2) of the Bernalillo County Comprehensive Zoning Code and/or through the Level B amendment process outlined below. All other amendments to the Level A Plan, shall follow the Santolina Amendments and Modifications to the Level A Master Plan process.

Amendments and Modifications to a Level B Planned Community Master Plan

1. Minor Modification: After a Level B Planned Community Master Plan has been approved, administratively, defaults to the Planning Director if no one assigned or his/her designee may approve deviations from any dimensional standard if less than 15%.
2. Amendments: A Level B Planned Community Master Plan amendment can be requested for modifications that exceed 15% once a Level B Master Plan has been approved. The Level B Master Plan can be amended by following the Bernalillo County Comprehensive Zoning Code Sector Development Plan, Application, and Amendment procedures, Section 20.5, F.1 and 2.
 - a. Modifications to the Land Use District shall follow the Sector Development Plan Application and Amendment Process established in Section 20.5, F.1 and 2.
 - b. Modifications regarding site intensity interpretation of Site Characteristics may be approved by the Planning Director or his/her designee.
 - c. Deviations of dimensional standards to the Site Characteristics or Design Standards which exceed 15% shall follow the Administrative Amendment process as outlined by the Bernalillo County Comprehensive Zoning Code, Section 24-3, 4, 5, and 6.





CHAPTER 5 UTILITIES

5. Utilities

Drainage System

As noted earlier, Santolina is envisioned as a vibrant mixed use master planned community. Santolina will embrace creative and innovative stormwater management practices to compliment the vibrant mix of uses and transit alternatives. Drainage solutions may include naturalist surface drainage systems intertwined with the community trails, open space and park system.

The Master Plan establishes guidelines for "...a drainage strategy for management and maintenance of watersheds and floodplains". The strategy for stormwater management within Santolina includes:

- Protection of undeveloped and developed property from flooding in 100 year storm events
- Sustainable infrastructure approaches for the control, conveyance, storage and discharge of stormwater
- Improve water quality by the use of stormwater retention and detention facilities
- Shallow groundwater recharge and landscape irrigation by implementing water harvesting techniques
- Recreational activities
- Multi-purpose water storage

More detailed stormwater management will be reviewed with subsequent Level B and Level C plans. Such plans will require approval from the County and other applicable jurisdictions.

The Stormwater Detention System

As with any significant stormwater management system, the Santolina stormwater management system will include many components and require long term maintenance and operational attentions. The components include:

- Closed basin 'retention' systems, including retention ponds, water quality and infiltration devices
- Stormwater 'detention' facilities including detention ponds, embankments and quality and infiltration devices
- Stormwater conveyance systems including underground pipes and open channels to move water

Bernalillo County is anticipated to own and operate the public stormwater infrastructure within closed basin ponding systems within Santolina. These systems will be sited within public right-of-way to accommodate public ownership, operation and maintenance.

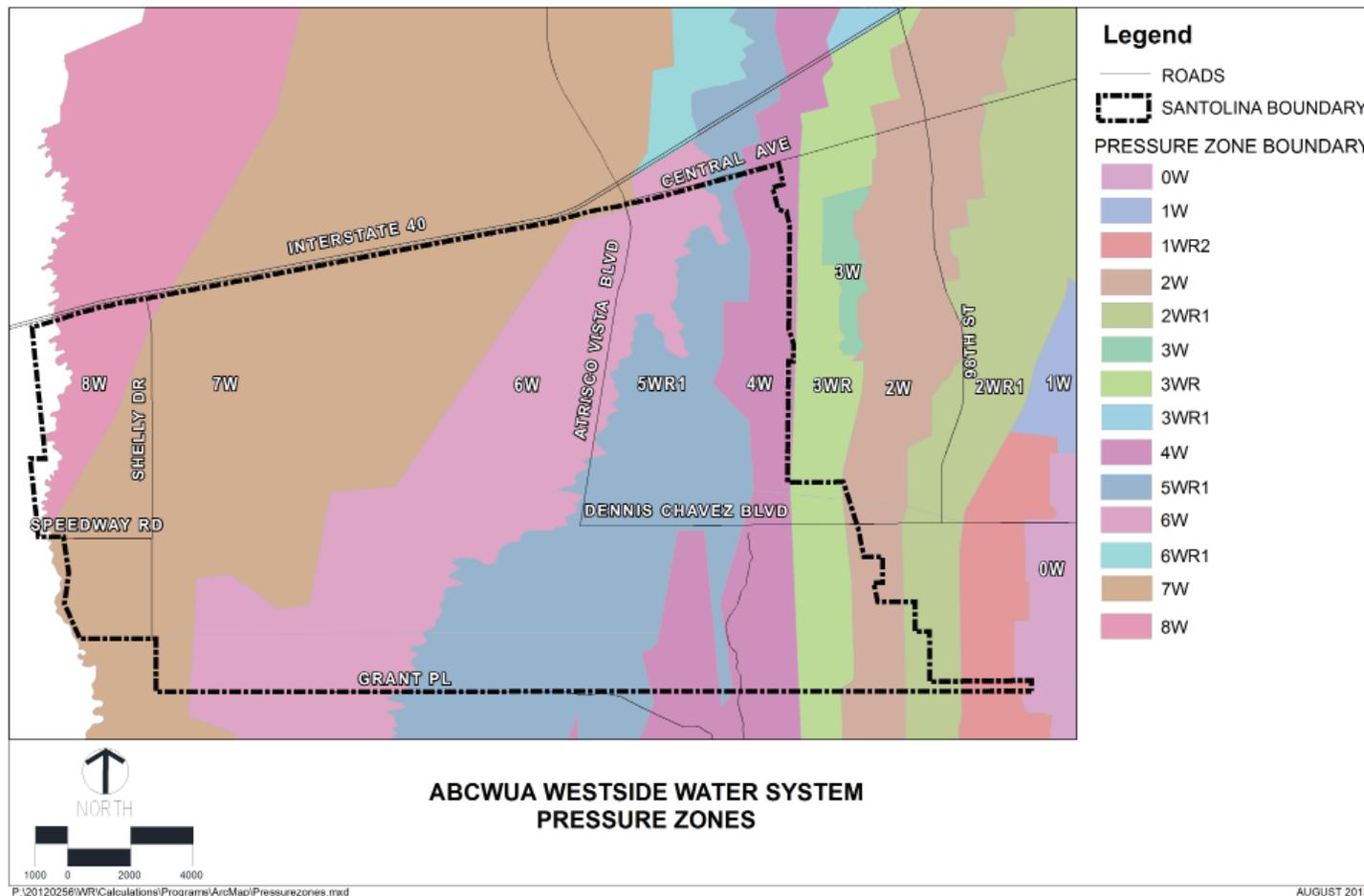
It is anticipated the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) will own, operate and maintain the detention ponds required in those basins discharging stormwater to the south and east (to the river).

A well designed stormwater management system in, around and between retention and detention ponds will provide recreational opportunities. These opportunities range from sports fields in dry detention areas to walking trails around wet retention facilities. WALH will work with the County and/or AMAFCA to obtain use agreements for those facilities envisioned as community parkland.



As with other major systems necessary to service Santolina, the stormwater system has been designed towards meeting the 2035 Projected Development Plan followed by the Final Buildout.

Exhibit 10: Water System Pressure Zones



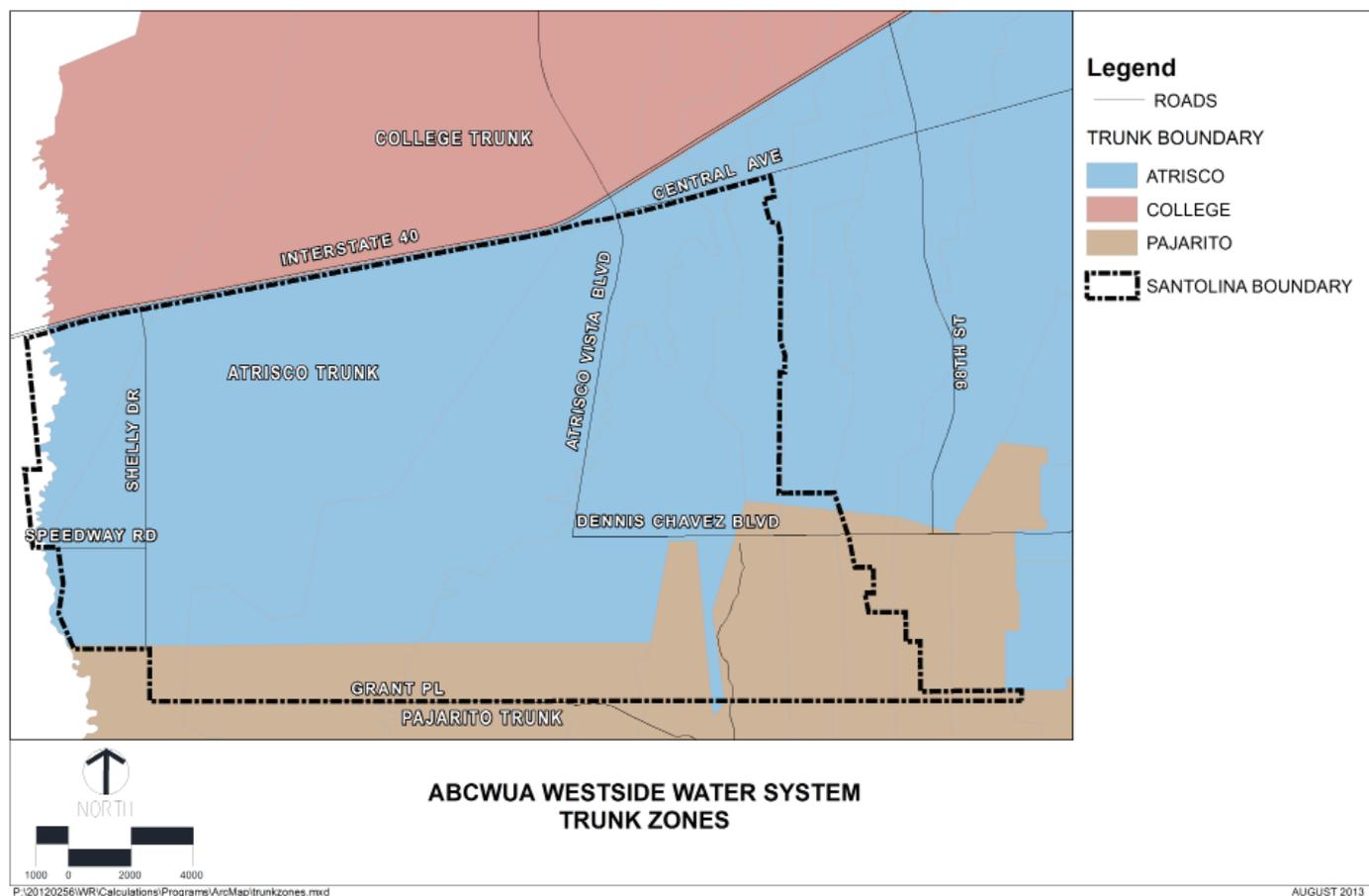
Water System

Santolina is located within the study area for the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) Integrated Infrastructure Plan. However, Santolina is located outside the currently adopted service area. Santolina anticipates receiving service from ABCWUA for domestic water service. WALH and the design team have prepared a Water Master Plan for providing water service to Santolina. The Water Master Plan is consistent with the ABCWUA criteria and operational methodology for the

general water system. The design and planning of the Water Master Plan included several meetings with ABCWUA staff for overall concurrence with the service concepts.

The typical ABCWUA water system is delineated in both pressure zones and trunk zones. Pressure zones represent ranges of acceptable service pressures based on ground elevations. The Master Plan Area spans elevations representing ABCWUA water pressure Zones 1WR through 8W. See ABCWUA Westside Water System Pressure Zones ([Exhibit 10: Water System Pressure](#)

Exhibit 11: Water System Trunk Zones



Zones). These zones serve customers between elevations 4,975 ft. and 5,945 ft. Currently, the highest area served by existing infrastructure south of I-40 (excluding the Detention Center) is Zone 3WR with service from the Franciscan Reservoir.

As noted earlier, the ABCWUA water system is also delineated by trunk zones, generally extending in an east-west direction. Santolina is primarily located within the Atrisco trunk zone. See ABCWUA Westside Water System Trunk Zones ([Exhibit 11: Water System Trunk Zones](#)). It is also within the northernmost extent of the adjacent Pajarito trunk zone to the south.

Lying just north of Santolina's Atrisco and Pajarito trunk zones, the College trunk zone is currently in various stages of study, design and construction for westward extension of the trunk's water system, including large transmission lines, pump stations and reservoirs. Construction of these water system improvements will be complete in 2014.

Significant excess capacity exists in these College trunk improvements and this additional capacity is readily available for Santolina. This excess capacity is sufficient to serve the Projected 2035 Development Plan area of Santolina's Atrisco and Pajarito

trunks, as well as future development opportunity in the College trunk itself for many years to come. This approach is identified in this Master Plan. Ultimately with the future construction of Atrisco and Pajarito trunk water system infrastructure, only when needed, Santolina may be closed off from the College trunk system.

This thoughtful and efficient approach to Santolina water service optimizes the College trunk water system financial investment, enhances critical system operational issues (water age, etc.), maximizes the use of existing available infrastructure and eliminates duplicative systems until needed.

The Santolina Water Master Plan Technical Report is available separately from the Master Plan submittal. This technical Water Master Plan report outlines the analysis and data, and details how the proposed water system can provide water service conceptually to the Master Plan Area. Final water service planning and construction is subject to future ABCWUA agreements and Level B master plans.

Wastewater System

As with the domestic water system, Santolina is located within the operational area of the ABCWUA, but outside the adopted service area. Santolina anticipates receiving service from ABCWUA for sanitary sewer collection and treatment. WALH and the design team have prepared a Wastewater (Sanitary Sewer) Master Plan, (Wastewater Master Plan) for providing wastewater service to Santolina. The Wastewater Master Plan is consistent with the ABCWUA criteria and operational methodology for the general wastewater system. The design of the Wastewater Master Plan included meetings with ABCWUA staff for overall concurrence with the service concepts.

The Master Plan Area is currently undeveloped. Therefore, no operational sewer systems or utility districts are in place. However, there are several wastewater systems in close proximity to the Master Plan Area.

- The Tierra West residential community, located at Atrisco Vista and Central Avenue is served by a 15 inch ABCWUA wastewater line. The line extends across I-40 serving Cordero Mesa Business Park and surrounding lands.
- A 10-15 inch wastewater line is located along Dennis Chavez Boulevard to Atrisco Vista. This line provides service to the recently completed Atrisco Heritage High School.

The Wastewater Master Plan has been designed to serve Santolina from three primary existing wastewater outfalls:

- The majority of the Master Plan Area drains south and east towards the Dennis Chavez Boulevard/Atrisco Vista intersection. At this location flows can be directed to an existing interceptor in Dennis Chavez Boulevard or to a potential future satellite reclamation plant in the southern portion of the master plan.
- A small area of Santolina within the northeast drains south and east into the existing ABCWUA wastewater system.
- A small area of Santolina within the southeast can be served by future extensions of the ABCWUA system in the Gun Club/Coors area to the east.

Details of the benefits and challenges at each outfall are described in the Wastewater Master Plan.

As with other major systems necessary to service Santolina, the Wastewater Master Plan has been designed towards meeting the 2035 Projected Development Plan followed by the Final Buildout. The primary outfalls for the 2035 Projected Development Plan service are the existing wastewater line at Dennis Chavez and the anticipated 118th Street/Gun Club system. Some reaches of the Dennis Chavez wastewater line have insufficient capacity for anticipated 2035 Projected Development Plan flows. Line system capacity will need to be increased, as needed, via line replacement projects and/or parallel line installations.

The Santolina Wastewater (Sanitary Sewer) Master Plan is available with the Master Plan submittal. The Wastewater Master Plan outlines data that has been studied and details how to serve the Master Plan Area wastewater flow and treatment requirements.

Dry Utilities

“Dry utilities” is the term used to refer to electric, natural gas, cable and telecom utility systems. The Dry Utilities Map (Exhibit 18: Dry Utilities Existing Facilities) illustrates the location of existing dry utilities and schematic designs for major systems.

Dry utilities will be installed in coordination with the phased development of Santolina. The dry utilities are typically located within shared utility corridors than may also function as trails and open space corridors. Future Level B and Level C plans will establish the exact size and location of dry utilities.

The planning, design and construction costs for utility transmission and distribution facilities are not borne by the developer.

Electric

PNM is the electric service provider for the Albuquerque/Bernalillo County area. The utility provider has electric facilities located in proximity to the Master Plan Area. PNM owns and operates two transmission lines (a 345kV transmission line and a 115kV transmission line) paralleling the eastern boundary of Santolina along the 118th Street. Additionally, the Master Plan Area is bisected by a 345kV transmission line owned and operated by the El Paso Electric Company (adjacent to Atrisco Vista ROW).

Few electric distribution facilities are currently located in the area. PNM has an existing overhead 12.47kV distribution line on the western portion of the Master Plan Area. PNM also has another overhead 12.47kV distribution line located within Santolina.

Electric utility transmission development is guided by the Facility Plan Electric System Transmission and Generation (2010-2020) adopted by Bernalillo County. Electric distribution development is guided by PNM’s Electric Service Guide found on PNM’s web site (www.pnm.com). In order to provide electric service to Santolina, the proposed electric system may consist of 115kV overhead transmission lines, structures and distribution substations. Additionally, distribution facilities using 12.47kV and 7.2kV lines, structures and equipment may be required.

In order to support Santolina, overhead 115kV transmission lines located within 75 ft. easements will be required to connect with new substations located within load centers. Distribution substation sites will typically occupy parcels of land approximately 1 to 2 acres in size. Transmission-related stations may require 5 to 10 acre sites.

PNM owns a parcel consisting of approximately 148 acres along the southern boundary of Santolina. The site is considered for use as a potential future generation station and switching station. Future transmission corridors connecting with the 148-acre PNM parcel will be identified in future Level B and C plans.

The location of transmission related station(s) and the routing of transmission lines required to support Santolina will be determined by PNM and the developer. Based on Santolina’s build-out load requirements, additional substations will be brought online.

The PNM distribution system is built and operated as an interconnected system. The distribution lines of adjacent substations are interconnected to accommodate transferring load between substations.

The electric distribution system will feed out of the substations tying the electric users to the substations. Any 12.47kV or 7.2kV underground facilities, where feasible, will be placed in a joint trench with natural gas, telecommunications and cable/internet services.

The existing distribution line within Santolina has limited remaining capacity and will need upgrades to support near-term commercial growth. Further electric services will need to be brought to Santolina to continue with build-out. The main distribution system requires the following easements for the following typical system facilities:

Distribution Feeder – within a utility easement. PNM will ask for an additional easement behind the ROW to secure their installation. Distribution lines require a minimum of 10 feet for an easement.

Switch Cabinets – within utility easement. Each cabinet is approximately 7' X 7' X 4'; and requires at least 23' X 13' easement or clear space for access to the doors. Transformer – Easement determined by transformer size. Transformers are usually installed on the front lot line of a given property and require easements for access and feed.

Gas

New Mexico Gas Company (NMGCO) is the local gas distribution utility company.

An existing 20" transmission gas line (600-900psi) runs across the Master Plan Area along the future Dennis Chavez Boulevard alignment. There are two (2) existing border stations adjacent to the 20" transmission gas line. The stations are located near 118th Street and Shelly Road. An existing 16" very high pressure (VHP) gas line (175psi) runs west along Central Avenue to Atrisco Vista and then turns south for approximately 2,500 ft. before ending. The existing lines are in good condition with significant cathodic protection maintained throughout the length of the line.

There is currently no long range plans for infrastructure improvements for this area. A conceptual natural gas supply system has been prepared based on the Land Use Plan. The system includes the following:

- A looped pipe system of 8-12" gas lines will be required. This

looped system will tie into the existing 20" VHP gas lines at the gas border station near Shelly Road and a possible future gas border station located near Atrisco Vista. This loop system will also tie into the existing 16" VHP gas line.

- A system of 8-12" looped gas lines may be placed to serve the northeast portion of the Master Plan Area. This system will also tie into the existing 16" VHP gas line.
- An 8-12" gas line will be installed to service the southeast portion of Santolina. The line may be looped to future gas lines in Gun Club Road.
- Border stations shall be utilized to reduce pressures from the 20" gas transmission line of 600-900psi to HP gas lines (i.e. looped system lines) of 175 psi, then regulator stations will be utilized to reduce the VHP gas line to a distribution line sized for 60psi generally.

Telecommunications

CenturyLink (Qwest) and XFINITY (Comcast) provide telecommunication services (such as television, internet and voice) in this area.

The Master Plan Area is currently split between two CenturyLink district offices. The Southwest Central Office has jurisdiction of all territory approximately south of Dennis Chavez Boulevard and the West Central Office has jurisdiction of the area roughly north of Dennis Chavez Boulevard. All existing customers outside of the current municipal limit are served by these district offices. Telecommunication lines may piggy back on the overhead electric power poles during the design and expansion of dry utility services within Santolina.

XFINITY is considering extending fiber optic service to serve Santolina. Two extensions would occur. The first is westward from the Dennis Chavez Boulevard/118th Street intersection for the southeast portion of Santolina. The second is from 140th Street and Central Avenue for the northeast area of Santolina. XFINITY typically follows PNM electrical where possible. The utility will

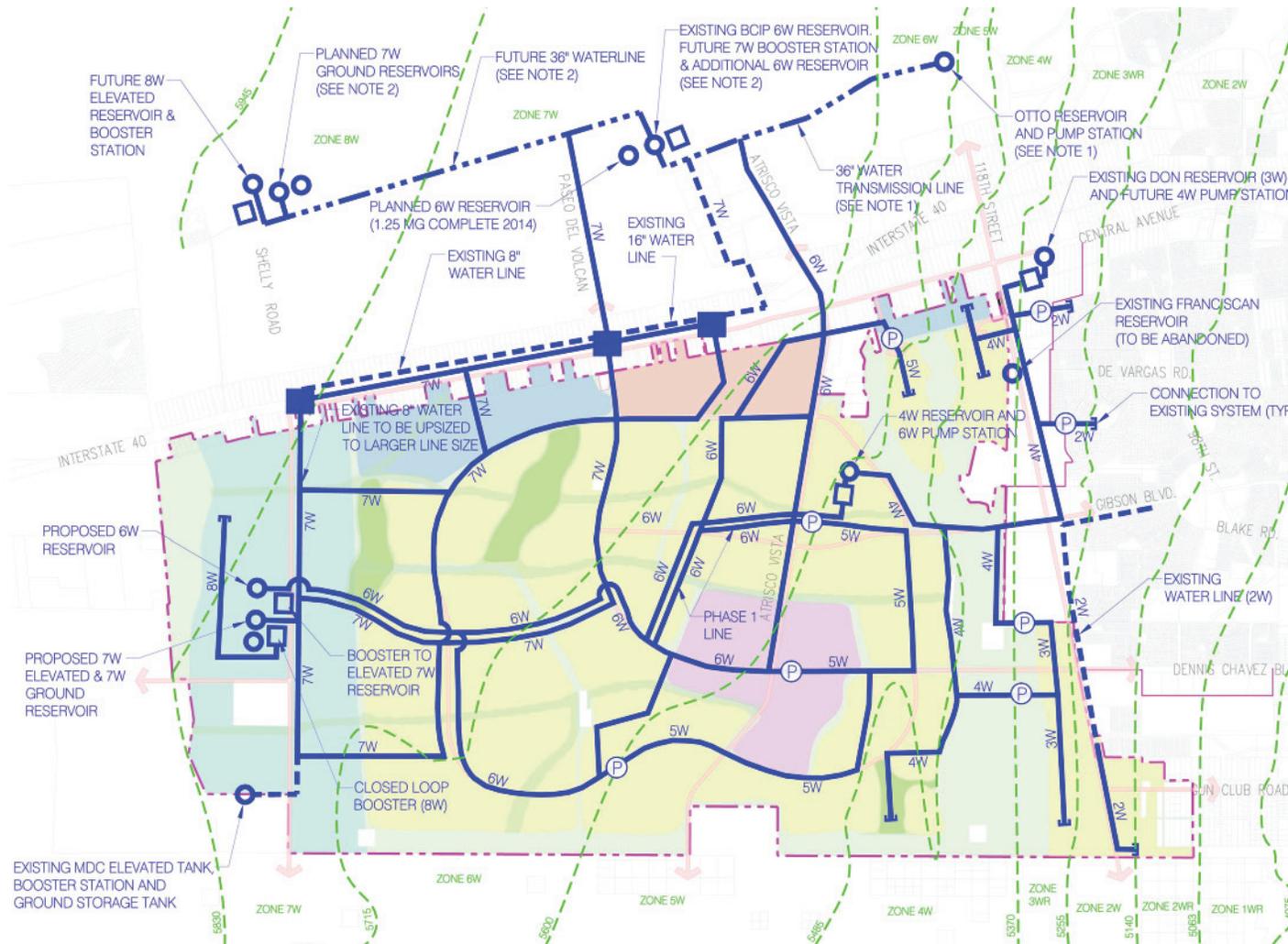
likely locate services underground within a public utility easement or public right of way, but as with others, telecommunication lines may co-locate on the overhead electric power poles where proposed.

As with other utilities, the Level A Master Plan provides a framework for future development. More detailed plans will be provided during Level B plan review for specific portions of Santolina.

Solid Waste

Santolina will comply with County Solid Waste Management regulations, as outlined in Chapter 70 of the Bernalillo County Code. As stated, the County's reason for providing Solid Waste Management rules is to preserve and protect the health, safety and quality of life of county residents. These regulations require that solid waste collection services be provided by the County or an authorized contractor. At this time, solid waste collection services are supplied by private contractors.

Exhibit 12: Water System Master Plan



NOTES:

1. THE OTTO PUMP STATION AND 36" TRANSMISSION LINE ARE CURRENTLY UNDER CONSTRUCTION (COUNTY OF BERNALILLO /WALH PROJECT).
2. THE 7W RESERVOIR, BCIP PUMP STATION / RESERVOIR AND 36" TRANSMISSION LINE ARE UNDER DESIGN AND PLANNED FOR CONSTRUCTION IN 2014.
3. WITH CONSTRUCTION OF ALL REQUIRED LINES, BOOSTERS & RESERVOIRS IN ATRISCO TRUNK, ALL CONNECTIONS (VALVES) BETWEEN COLLEGE AND ATRISCO TRUNKS SHALL BE CLOSED.
4. ALL WATER INFRASTRUCTURE SHOWN IS ILLUSTRATIVE ONLY AND SUBJECT TO CHANGE.

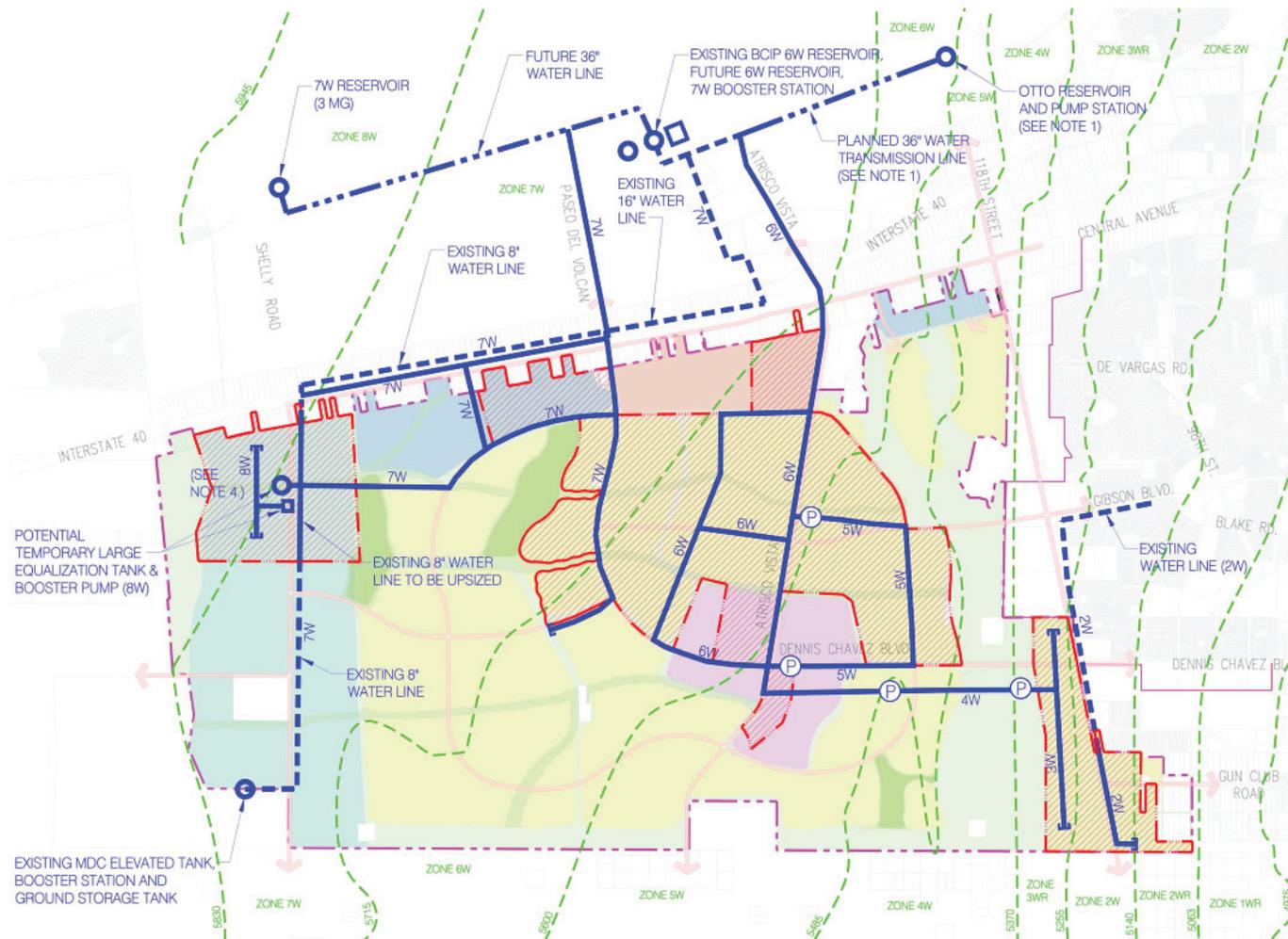
LEGEND

- (P) PRESSURE REDUCING VALVE
- - - - - FUTURE WATER LINE
- PROPOSED WATER LINE
- CLOSED VALVE (SEE NOTE 3)
- - - - - EXISTING WATER LINE



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Exhibit 13: Water System Master Plan, 2035 Projected Development Plan



- NOTES:**
- 2035 PROJECTED DEVELOPMENT PHASE WATER SUPPLY SHALL BE PROVIDED TEMPORARILY FROM PLANNED (2014) WATER FACILITIES IN THE COLLEGE TRUNK (NORTH OF I-40).
 - ALL WATER LINE ALIGNMENTS ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
 - THE OTTO PUMP STATION AND 36" TRANSMISSION LINE ARE CURRENTLY UNDER CONSTRUCTION (COUNTY OF BERNALILLO/WALH PROJECT) COMPLETE IN 2014.
 - THE WESTERN PORTION OF THE 2035 PROJECTED DEVELOPMENT PHASE INDUSTRIAL & ENERGY PARK LIES ABOVE WATER ZONE 7W. FINAL SERVICE CONFIGURATION SHALL BE BASED ON ACTUAL CIRCUMSTANCES AT THE TIME OF DEVELOPMENT. SERVICE OPTIONS INCLUDE INSTALLATION OF PRIVATE OR PUBLIC BOOSTER STATIONS, SITE GRADING OR LAND USES WITH NO WATER USE.
 - FUTURE DETAILED STUDIES MAY BE ABLE TO CO-LOCATE THE TEMPORARY 2035 PROJECTED DEVELOPMENT PLAN PHASE 1 8W WATER FACILITIES WITH THE ULTIMATE 6W/7W/8W FACILITIES (SUCH THAT THE PHASE 1 FACILITIES ARE NOT 'THROW-AWAY' FACILITIES).

LEGEND

	PRESSURE REDUCING VALVE		FUTURE WATER LINE
	PROPOSED WATER LINE		2035 PROJECTED DEVELOPMENT BOUNDARY
	EXISTING WATER LINE		2035 PROJECTED DEVELOPMENT BOUNDARY



Iss. 20-Aug-2013 - 8:30am, Plotted by: DRUERT
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Exhibit 14: Sanitary Sewer Master Plan



NOTES:

1. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
2. FUTURE ABCWUA POLICIES MAY SEEK CONSTRUCTION OF SATELLITE WRP'S ON THE "FAR WEST MESA". ONLY ONE WRP IS ANTICIPATED FOR SANTOLINA IF FUTURE WUA POLICIES PROCEED IN THIS DIRECTION.
3. SEWER PUMP STATION MAY BE REMOVED IF / WHEN WRP IS CONSTRUCTED IN THE FUTURE.
4. THE PAJARITO MESA AREA, SOUTH OF SANTOLINA, IS PROJECTED TO BE SERVED BY ONSITE TREATMENT SYSTEMS PRIMARILY.
5. FINAL SEWER SYSTEM CONFIGURATION SHALL BE DETERMINED BY APPROPRIATE LEVEL B MASTER PLANS, APPROVED BY THE WATER AUTHORITY.
6. PLANNED INTERCEPTOR WILL EXTEND SOUTH ON EITHER 118TH STREET OR 98TH STREET CORRIDORS.
7. THE EXISTING DENNIS CHAVEZ BLVD. SEWERLINE WILL REQUIRE UPSIZING (OR PARALLEL LINES).

LEGEND

- PROPOSED SEWER LINE
- - - EXISTING SEWER LINE & SIZE ()
- · · FUTURE SEWER LINE
- - - SEWER BASIN LINES

Rev. 19-Aug-2013 - 4:38pm, Plotted by: DNEJTA
 P:\20120256\CDP\Plans\General\Master Plan\SanitarySewerMasterPlan.dwg

Exhibit 15: Sanitary Sewer Master Plan, 2035 Projected Development Plan



NOTES:

1. ALL SEWER LINE ALIGNMENTS AND SIZES ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
2. 2035 PROJECTED DEVELOPMENT PHASE 1 OF THE INDUSTRIAL & ENERGY PARK SHALL BE SERVED BASED ON PERTINENT CIRCUMSTANCES AT THE TIME OF ACTUAL DEVELOPMENT. SERVICE OPTIONS INCLUDE:
 (A) CONSTRUCTION OF POTENTIAL 2035 PROJECTED DEVELOPMENT PHASE SEWER INTERCEPTOR
 (B) TEMPORARY PUMPING TO EXISTING SYSTEMS TO THE EAST (IN BUSINESS PARK)
 (C) ONSITE TREATMENT & DISPOSAL SYSTEMS.
 SEE ALSO NOTE 3.
3. FINAL SEWER SYSTEM CONFIGURATION SHALL BE DETERMINED BY APPROPRIATE LEVEL B MASTER PLANS, APPROVED BY THE WATER AUTHORITY.
4. THIS EXISTING 15"-18" SEWER MAY BE TEMPORARILY AVAILABLE FOR INITIAL 'SPOT' DEVELOPMENT IN THE TOWN CENTER, BUSINESS PARK AND/OR RESIDENTIAL LANDS.

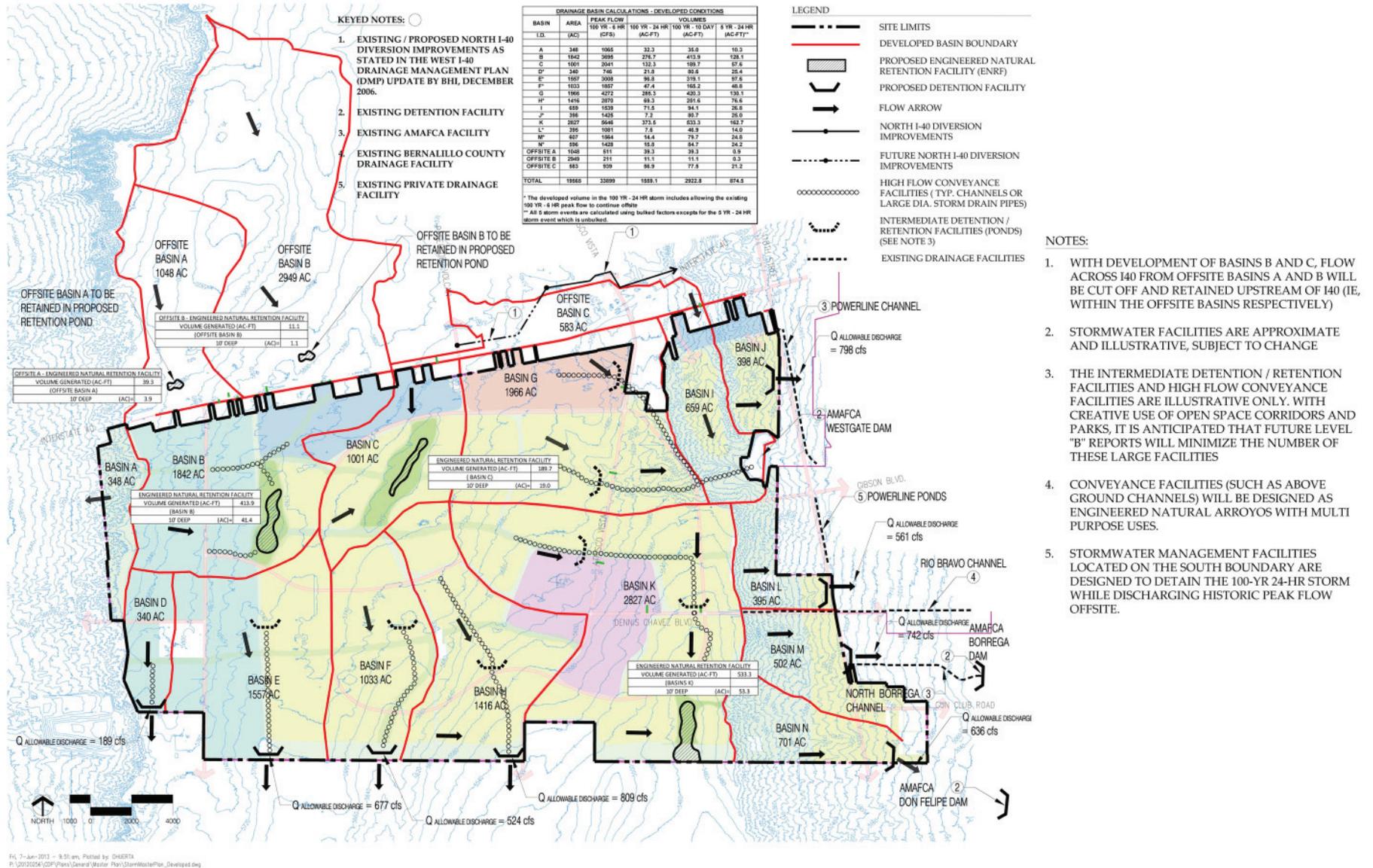
LEGEND

- | | | | |
|--|--------------------------------|--|-------------------------------------|
| | PROPOSED SEWER LINE | | 2035 PROJECTED DEVELOPMENT BOUNDARY |
| | EXISTING SEWER LINE & SIZE () | | 2035 PROJECTED DEVELOPMENT |
| | FUTURE SEWER LINE | | |



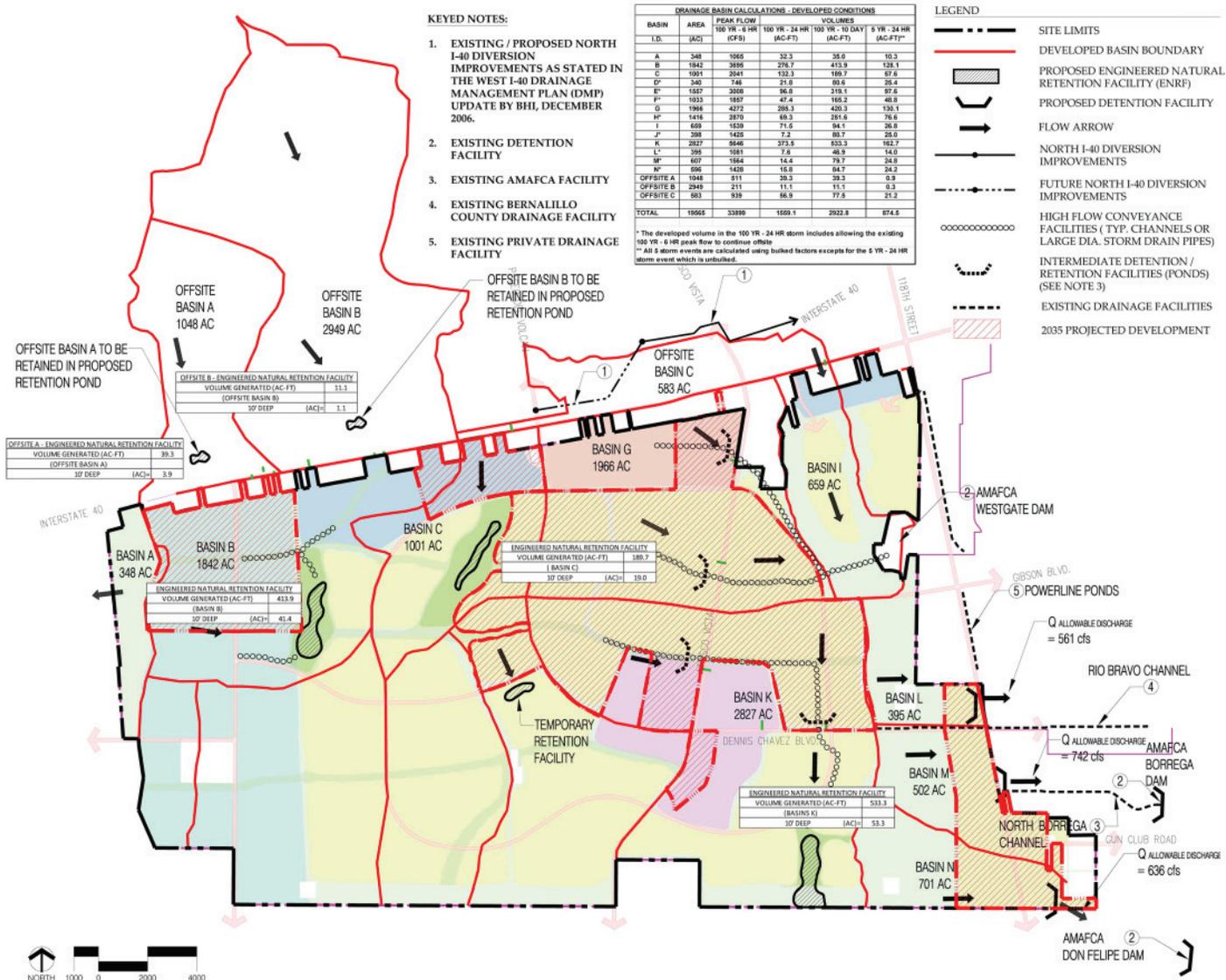
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Exhibit 16: Stormwater Management Plan



PL 7-Jan-2013 - 9:35 am, Plotted by: DHERTS
 PL 12012024 (D:\P\Draws\General\Water Plan\StormwaterPlan_Developed.dwg)

Exhibit 17: Stormwater Master Plan, 2035 Projected Development Plan



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Exhibit 18: Dry Utilities Existing Facilities



File: 7-Jun-2013 - 9:44 am, Plotted by: DMURTA
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CHAPTER 6 TRANSPORTATION

6. Transportation

Overview

The Master Plan Area is generally described as a large mesa framed by two escarpments. The development of a mix of land uses will be focused on the mesa, preserving the escarpments in large open space areas to be enjoyed by the region.

The mix of land uses within Santolina is designed to provide residents, workers and visitors a vibrant community. Key to this is the transportation system which



forms the structure and framework for the land uses on the mesa. The system will provide a safe, functional and appropriate transportation system to move people and goods into/out of and throughout Santolina. Due to Santolina's multi-decade buildout, the transportation system is designed to be flexible and implemented in stages. The system will provide adequate, functional and attractive roadways, trails and transit options linking villages and uses within each phase of Santolina's development.

Transportation Planning

Transportation access to and from Santolina is important to the success of the community. Santolina is currently accessed by a road network that includes Atrisco Vista, Dennis Chavez Boulevard, 118th Street, Central Avenue and Shelly Drive. Additionally, Santolina enjoys approximately six miles of exposure along I-40 with access from the Atrisco Vista/West Central interchange.

The 2035 Metropolitan Transportation Plan (MTP) outlines several publicly funded projects that will improve access to Santolina including:

- widening Dennis Chavez Boulevard east of Atrisco Vista
- widening Atrisco Vista north of I-40
- constructing Paseo del Volcan north of I-40
- 118th Street/I-40 interchange
- Paseo del Volcan/I-40 interchange

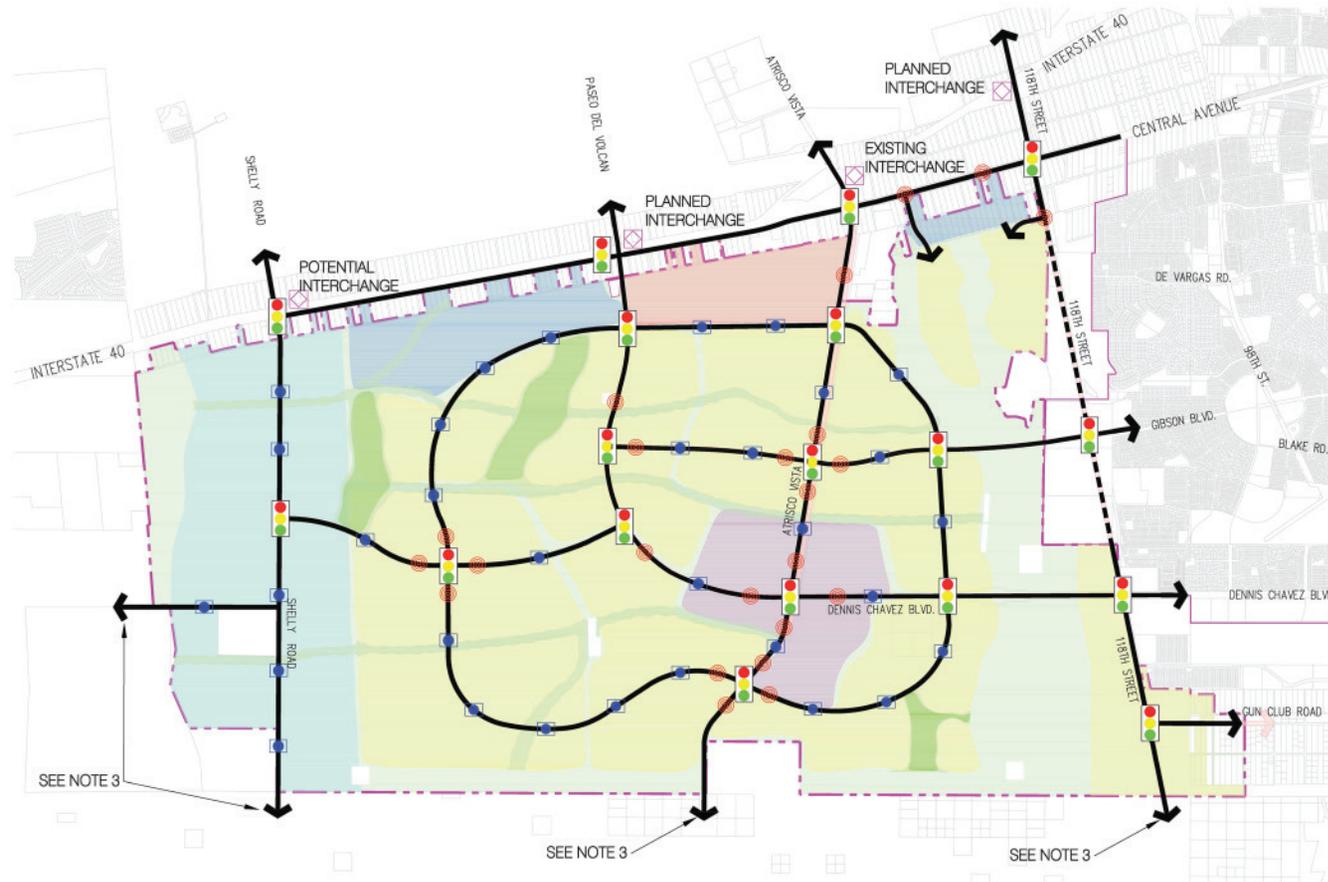
Major Street System

Santolina will benefit from the community's proximity to the existing roadway network described in the Chapter 2 Introduction. Roadways will be extended into the community as needed to serve the villages and centers. The roadway system within the Santolina Transportation Master Plan Level A (Transportation Plan) has been designed and modeled as a multi-modal system with adequate space for trails, bicycle and transit. The roadway network, consistent with the system illustrated on the Land Use Plan is shown in greater detail on the Master Transportation Plan ([Exhibit 19: Transportation Master Plan](#)). All roads illustrated in the Transportation Plan are principal arterials designed with four to six travel lanes. The roadways will generally adhere to the intersection and driveway spacing as identified in the NMDOT's State Access Management Manual (SAMM).

The Transportation Plan includes the extension of Dennis Chavez Boulevard, the extension and improvements to Atrisco Vista Boulevard, constructing Paseo del Volcan as a northern extension of Dennis Chavez Boulevard and the extension of Gibson Boulevard west from its current terminus at 118th Street.

Gibson Boulevard will also be extended up the eastern escarpment onto the mesa. The extension of Gibson Boulevard (by others) plays a critical role not only as a primary access road for the community, but also as a means to ensure future roadway and I-40 interchange development critical to Santolina and the region. The extension is designed to demonstrate to the Federal Highway

Exhibit 19: Transportation Master Plan

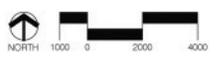


NOTES:

1. TRAFFIC SIGNAL AND INTERSECTION SPACING GENERALLY CONFIRMS WITH NMDOT STATE ACCESS MANAGEMENT (SAM) MANUAL FOR URBAN PRINCIPAL AND MINOR ARTERIALS.
2. ROADWAY FUNCTIONAL CLASS AND ACCESS MANAGEMENT PLAN ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. FUTURE ROADWAY EXTENSIONS AND INFRASTRUCTURE OUTSIDE SANTOLINA ARE BY OTHERS (AS REQUIRED BY DEVELOPMENT PATTERNS).

LEGEND

	MAJOR SIGNALIZED INTERSECTION		PRINCIPAL ARTERIAL
	POTENTIAL FUTURE SIGNALIZED INTERSECTION		OFFSITE IMPROVEMENTS (BY OTHERS)
	POTENTIAL UNSIGNALIZED INTERSECTION		
	EXISTING INTERCHANGE OR PLANNED INTERCHANGE		



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Administration (FHWA) that the local roadway network is fully developed. The Gibson Boulevard extension will provide residents an alternative to I-40 for local trips. This is crucial for the FHWA's review of I-40 Interchange Access Change Requests for the future 118th Street and Paseo del Volcan interchanges.

A new loop road will create internal circulation through the villages and centers of Santolina, with minor arterials and collectors branching off from the loop road to create local access within each village.



Dedication and Construction

As noted earlier, the roadways illustrated on the Transportation Plan are all 4-6 lane arterial roadways. The necessary right-of-way will be dedicated during the Level B or C review and approval process. The Level B and C plans will include studies to establish the refined location and alignment of the roadways identified within, or required to serve each Level B and C area.

While right-of-way will be dedicated for the ultimate roadways, construction of permanent roadways, intersections and other elements will be phased to serve the development.

A Mix of Transit Opportunities

The vision for Santolina includes a vibrant mixed-use community that is home to approximately 37,930 homes and 75,000 jobs. As part of the vision to create a vibrant community, Santolina will include multi-modal travel, with an emphasis on pedestrian, cycling and transit facilities. An extensive trails system will be incorporated into the villages to accommodate alternative transit modes along with recreational needs. These open space areas are in addition

to and will connect with/compliment the approximately 3,100 acres (23% of the Master Plan Area) of allocated open space identified within Chapter 3 Land Use.

Pedestrian

Santolina's trails system will provide a community-wide system of roadside and off-road trails designed to connect villages with amenities, retail and employment centers as well as the extensive parks and open space system. The location of all trails will be further refined during Level B and C review and approvals. However, the Transportation Plan incorporates roadside trails along one side of all collector and higher levels of streets. Marked at-grade crosswalks will be provided where appropriate. Connecting to the roadside trails, off-road trails will meander between and through the villages of Santolina linking to the open space areas identified on the Land Use Plan.



The trails system is designed to encourage pedestrian trips throughout the community. Sidewalks and roadside trails enable short walking trips to schools, parks and other amenities within each village. Pedestrian access will be encouraged and further defined in the Level B and C plans for specific areas of Santolina.

Cycling

Similar to the pedestrian trails network, Santolina's bikeway network will provide a community-wide system of on-street, roadside and off-road trails. Additionally, adequate bicycle crossings at major roadways will be provided. Multi-use roadside trails are also proposed along principal arterials. This will enable cyclists to travel outside the traffic lanes. Santolina's relatively flat topography and open space system provides expanded opportunities for bicycle

Exhibit 20: Pedestrian & Bikeways Master Plan



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commuting and recreation. The bicycle network is illustrated on the Pedestrian and Bikeways Master Plan ([Exhibit 20: Pedestrian & Bikeways Master Plan](#)).

The proposed bicycle network conforms to, and will integrate with, the MRCOG Long Range Bikeways System Map. The map envisions extending bikeway facilities on Dennis Chavez, Atrisco Vista, 118th Street, Gibson Boulevard, Paseo del Volcan and Central Avenue. This will provide direct access to the extensive network of existing and proposed bikeways in AMPA, providing opportunities for long-range cycling and/or commuting.



Mass Transit

Transit must be frequent, fast and reliable to effectively reduce regional traffic congestion. The extensive trails system within Santolina allows the location of bus stops to be within reasonable walking distances of residences. Short walks and the convenient location of bus stops within the community will encourage bus transit use. Additionally, transit centers are proposed for the Urban Center, Community Centers and Employment Center.



Public bus service within the region is provided by ABQ Ride, Albuquerque's public transit provider. ABQ Ride service, while expanding, is limited to City of Albuquerque residents and areas outside the City on contract basis. Currently, no transit routes serve Santolina. As Santolina develops, the available market for transit ridership is expected grow, prompting the consideration of

transit service by the County and ABQ Ride. These discussions are not expected to occur until the transit market appears with the development of Santolina.

Studies Conducted

A detailed transportation analysis was conducted to determine the appropriate internal roadway network for Santolina that grows with the community to accommodate future traffic volumes.

As noted in Chapter 2 Introduction, Santolina will be developed in a multi-staged approach. 2035 has been set as a milestone for transportation and infrastructure modeling within the Master Plan and the region. The Transportation Plan, consistent with all other reports, identifies the probable development to occur by 2035.

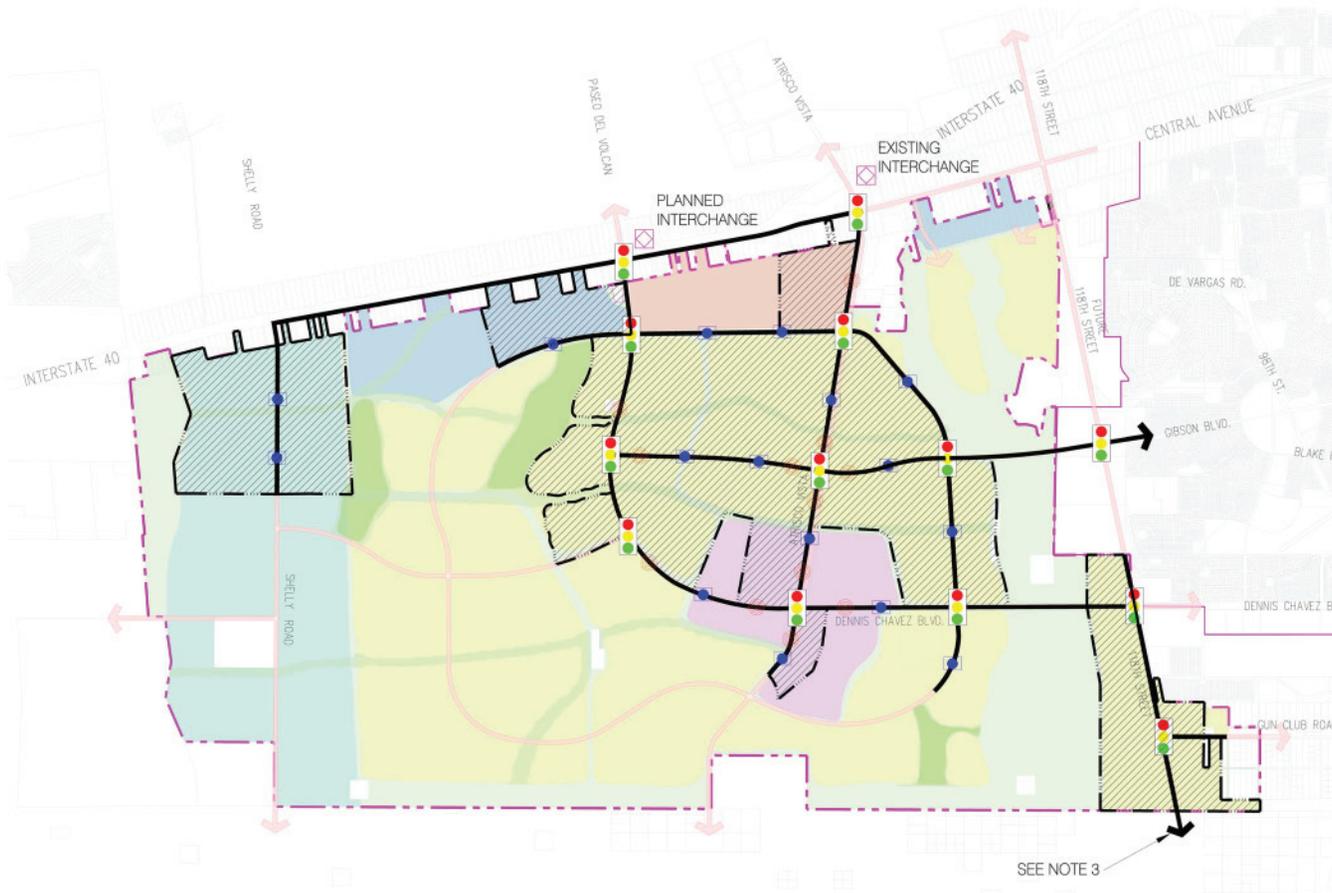
Specific to the Transportation Plan, travel demand modeling for Santolina, the 2035 Projected Development Plan utilized the existing 2035 MRCOG regional travel demand model. This model functions as the primary transportation planning tool for AMPA. Testing models are based on estimates of population and employment within the proposed land uses. With this data, the MRCOG travel demand model has been used to estimate the future traffic volumes, capacity requirements and network impacts associated within Santolina.

The Full Buildout scenario is a forecast of the population and employment anticipated at Full Buildout of Santolina. This analysis is outside the planning horizon for the region, as all forecasts and studies currently look out to 2035. Therefore, the balance of AMPA was held at 2035 levels of development for the Full Buildout scenario. The Full Buildout analysis will be used to ensure the internal road network is sized properly to accommodate the full development of Santolina.

2035 Projected Development Plan

The road network within the 2035 Projected Development Plan has been established to provide adequate connectivity and capacity to

Exhibit 21: Transportation Master Plan, 2035 Projected Development Plan



NOTES:

1. TRAFFIC SIGNAL AND INTERSECTION SPACING GENERALLY CONFIRMS WITH NMDOT STATE ACCESS MANAGEMENT (SAM) MANUAL FOR URBAN PRINCIPAL AND MINOR ARTERIALS.
2. ROADWAY FUNCTIONAL CLASS AND ACCESS MANAGEMENT PLAN ARE APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE.
3. FUTURE ROADWAY EXTENSIONS AND INFRASTRUCTURE OUTSIDE SANTOLINA ARE BY OTHERS (AS REQUIRED BY DEVELOPMENT PATTERNS).

LEGEND

	MAJOR SIGNALIZED INTERSECTION		PRINCIPAL ARTERIAL
	POTENTIAL FUTURE SIGNALIZED INTERSECTION		2035 PROJECT DEVELOPMENT BOUNDARY
	POTENTIAL UNSIGNALIZED INTERSECTION		
	EXISTING INTERCHANGE OR PLANNED INTERCHANGE		



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serve the forecast 2035 level of development. Analysis of 2035 Projected Development Plan Transportation Plan was based on available population forecasting from UNM/BBER/MRCOG. The analysis of the 2035 Projected Development Plan road network and associated development confirms the internal roadway network illustrated in the Transportation Plan is sufficient to accommodate the anticipated traffic volumes. Specific levels of service (LOS) at roadway links are identified within the Transportation Master Plan. In summary, the internal roadway system will meet the needs of the 2035 Projected Development Plan internally generated traffic.

Additionally, roadways beyond the Master Plan Area have been included in the 2035 Projected Development Plan modeling to more accurately evaluate effects to the Master Plan Area. Comparisons with the pre-Santolina 2035 MTP model results are favorable and show the benefits of the jobs-housing balance proposed for Santolina. Traffic volumes on the surrounding roadway network outside Santolina are generally reduced from the levels shown in the 2035 MTP. Volume reductions occur on I-40, Rio Bravo, 118th Street (south of Central Avenue) and Paseo del Volcan, as well as many other roadways. In the locations where traffic increases, it is in the opposite direction than current peak hours. For example, the results show an increase in traffic from east-to-west in the morning, indicating the counter-commute which results from employment centers in Santolina. This preserves and optimizes the capacity and utilization of the existing roadways, thereby reducing the need for future improvements.

The comparisons with the pre-Santolina 2035 MTP also show approximately 10-20% of the traffic volume on Paseo del Volcan and Atrisco Vista in Santolina is pass-through traffic, demonstrating that Santolina improves regional connectivity. Additionally, the mix of land uses and anticipated job creation with Santolina results in 15-35% of the traffic being internal to the community, further reducing impact to the regional roadway network. Lastly, and significant from a regional perspective, river crossings are reduced on a regional basis. 2035 Projected Development Plan has been identified on the Development Plan ([Exhibit 21: Transportation Master Plan, 2035 Projected Development Plan](#)).

Full Buildout

The transportation system planned for Full Buildout consists of expanding the 2035 Projected Development Plan roadway network to accommodate remaining development within Santolina. These additional roadways include completing the internal loop roadway, additional primary arterials and connections to Shelly Drive.

Traffic volumes have been modeled for the Full Buildout scenario in the same manner as the 2035 Projected Development Plan forecast. However, the Full Buildout scenario will require approximately 40-50 years to complete. As noted earlier, no adopted long-range transportation network or forecast socioeconomic projections are available for this timeframe. Therefore, the Full Buildout scenario was modeled on the 2035 Projected Development Plan socioeconomic and roadway network established by MRCOG. This limitation leads to challenges identifying the source of future roadway capacity deficiencies, as future roadways and developments cannot be projected or analyzed at this time. The Full Buildout transportation model is expected to be modified and updated throughout the development of Santolina. The model will be amended, as needed or required, in conjunction with future Level B master plan submittals. Any future updates to the MTP beyond the current 2035 planning horizon will also be incorporated at that time.



As would be expected, internal traffic volumes within Santolina will increase with Full Buildout. Accordingly, the number of traffic lanes will increase to accommodate the additional capacity. Internal segments of Paseo del Volcan and Dennis Chavez Boulevard, along with portions of the loop road are forecast to experience congestion (volume-to-capacity ratio close to 1.0). Intersections along these roadways will likely experience peak hour delays similar to current regional intersections.

All key community entering and exiting roadways are projected to operate with congested conditions. Atrisco Vista and Paseo del Volcan, from I-40, south to the loop road could be candidates for possible expansion to eight lanes. However, it is unlikely that Gibson or Dennis Chavez Boulevards will be widened to eight lanes through the escarpment due to environmental impacts. The potential future extension of Gun Club and/or Grant Roads would provide additional access to the community. Furthermore, overpass connections across I-40 to the anticipated growth area north of I-40 and west of Atrisco Vista would provide relief to Atrisco Vista and Paseo del Volcan. Additionally, it is anticipated that future roadway congestion will be mitigated by high capacity transit, local and commuter bus service.

In summary, the Transportation Plan achieves the goals of the Planned Communities Criteria by providing an emphasis on walkability and transit, with the goal of creating a transportation and circulation system that allows for transit connections throughout the community. Additionally the roadway system supports the approximate 2.0 jobs-housing goal and will help reduce the demand for river crossings on a regional basis.





CHAPTER 7
ENVIRONMENT AND
OPEN SPACE

7. Environment and Open Space

Overview

The physical and environmental characteristics form the structure of the Santolina master plan. The elements assessed and analyzed include natural and human-made features within and immediately adjacent to Santolina. The process involved reviewing existing data, plans, maps and GIS information available from the County and other public sources. The findings represent important generalized base-line data used to guide the Master Plan design.

Significant features have been identified within the Master Plan, including escarpments and drainageways which have been designated as Open Space. Much of the designated open space area also aligns with adjacent future open space areas within the Comprehensive Plan. WALH will work with the appropriate public agencies, including but not limited to Bernalillo County, City of Albuquerque, ABCWUA, AMAFCA and private conservation groups to negotiate the ownership of these areas as Major Public Open Space.

Following is a summary of findings related to the assessment of physical and cultural characteristics within the Master Plan Area.



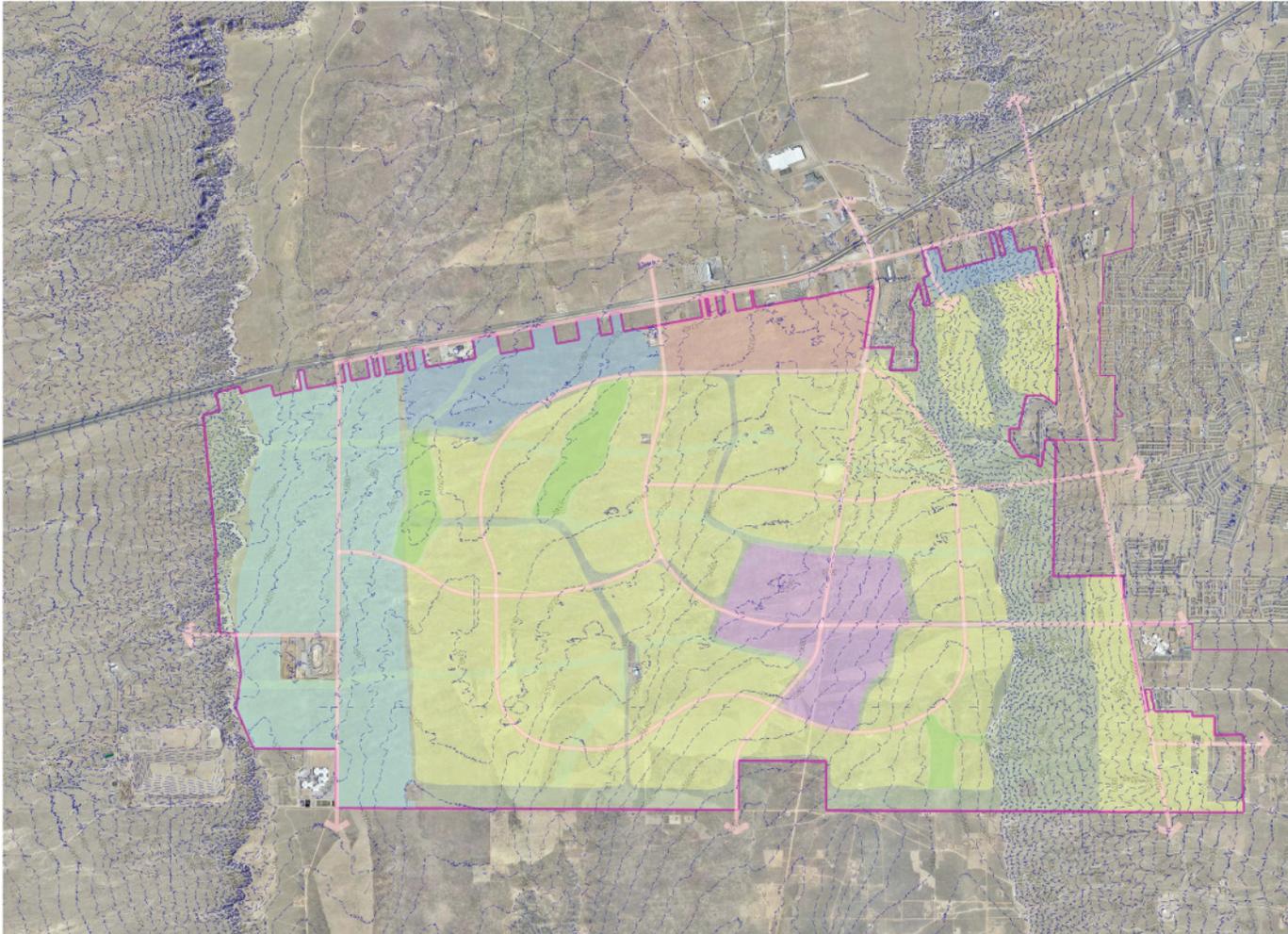
Landforms/Topography

The Master Plan Area is characterized by a large mesa, framed by two escarpments. The mesa area features a series of dunes overlooking the Rio Puerco Valley, partially vegetated swales that run parallel roughly east-west and a group of natural depressions in the north-central portion of the community. Gently sloped, finger-like washes drain most of the mesa southward to a series of natural depressions in the Pajarito Grant and on Isleta Pueblo land.

The elevation of the area gradually descends from 6,100 feet at the top of the western escarpment near the community's western boundary to approximately 5,575 feet at the top of the eastern escarpment, then down to 5,100 feet at the far southeastern boundary near Gun Club Road. The existing topography is illustrated on the Topography Exhibit ([Exhibit 22: Existing Topography](#)). As a result, much of Santolina



Exhibit 22: Existing Topography



NOTES:

1. A 20' CONTOUR INTERVAL IS DISPLAYED
2. AERIAL IMAGERY IS SPRING 2010 ORTHOPHOTOGRAPHY
3. EXISTING TOPOGRAPHY IS APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE



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enjoys views toward the Sandia and Manzano Mountains, the South Valley, the Bosque and the City of Albuquerque. The Rio Grande bosque is also visible as it winds its way south while Mount Taylor is visible to the northwest. The most striking views are from along the eastern escarpment slope. One of the goals of the Master Plan is to preserve and enhance these unique local and regional views.

Much of the Master Plan Area is flat, with slopes in the 0-5% range. See the Slope Map, [Exhibit 23: Slope Analysis](#), for a graphic location and breakdown of slopes within the Master Plan Area. The flat areas are highly suitable for development due to the minimal potential for erosion, significant grading or the use of retaining walls. The areas with significant slopes are limited to the area within and along the escarpments. These areas have been identified on the Land Use Plan and will be designated as Open Space within the Master Plan.

Archeology

In May 2005, a Class I records search and cultural resource reconnaissance of Santolina was conducted by Cibola Research Associates (CRA). There have been no changes to the Master Plan Area since the study was completed. The CRA report is contained in a separate document (see M. Marshall 2005 Phase I Cultural Resource Inventory for the prior Zacate Community Master Plan Area) that was submitted to Bernalillo County with the prior Zacate Master Plan.

The Class I study involved a review of the New Mexico Cultural Resources Information System (NMCRIS) files, consultation with the New Mexico State Register of Cultural Properties (NMRCP) and the National Register of Historic Places (NRHP). The review did not reveal any nominated properties within the Master Plan Area.

The only cultural property listed on the registers in proximity to the Master Plan Area is a State-maintained segment of historic Route

66 (HPD No. 1674). This site starts at Atrisco Vista Boulevard and Central Avenue and runs east along the south frontage road of I-40.

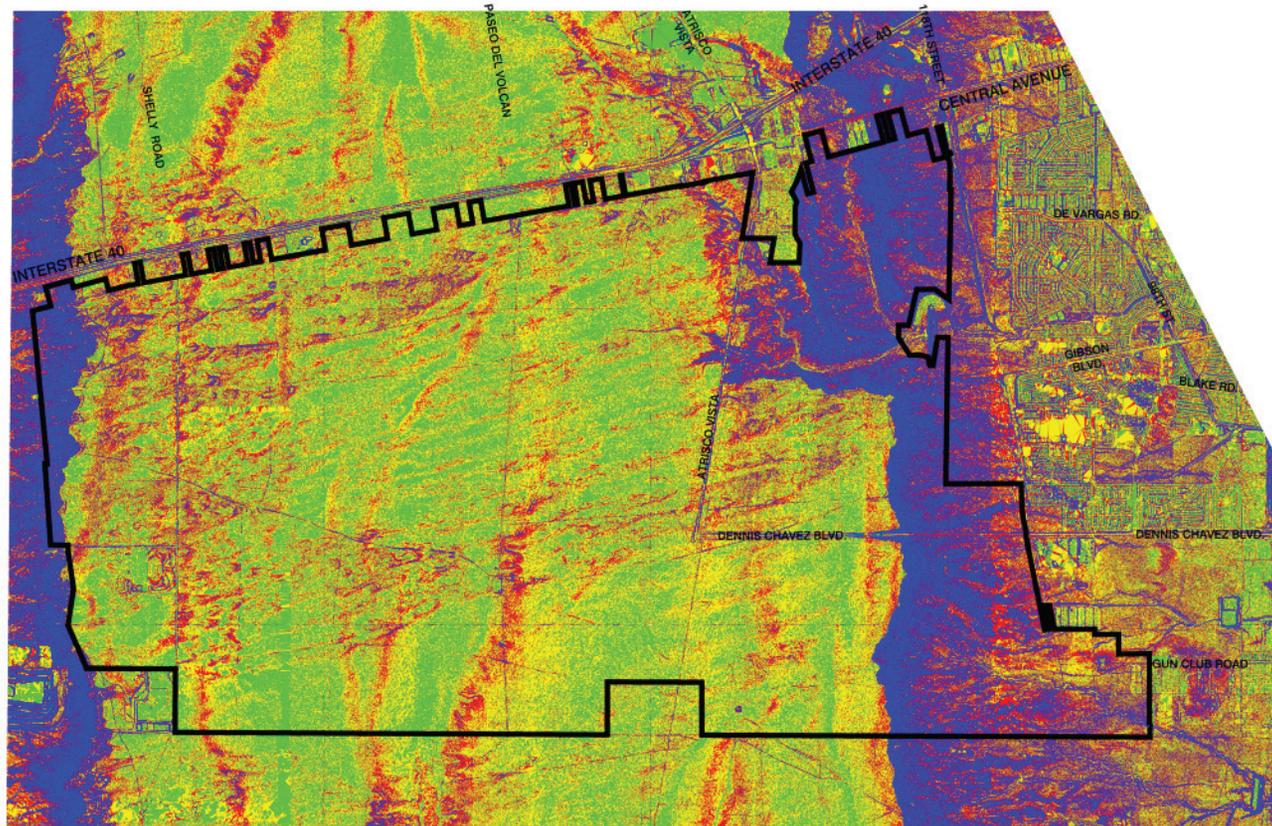
In an effort to understand the nature, distribution and significance of cultural resources within Santolina, a brief archaeological reconnaissance was completed. The reconnaissance included 12 transect miles and resulted in the identification of 14 additional potential cultural properties. The majority of the area's significant cultural resources are located in the Rio Puerco rim and the Rio Grande Valley rim and slopes of the escarpment areas, specifically the dune formations and arroyos. An estimated 80% of the found cultural resources are located within approximately 20% of the escarpment rim and slopes. To preserve and protect these resources, the escarpment areas are designated undeveloped Open Space within the Master Plan.

Soils

The Master Plan Area's geologic and soils conditions pose few development restrictions except along the northern edge of the escarpments. All of the soils have been noted in the Soil Survey for Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico as suitable for community development. The soils identified within the Master Plan Area are illustrated on the Existing Soils Map ([Exhibit 24: Soil Survey](#)).



Exhibit 23: Slope Analysis



LEGEND

- LESS THAN 2% SLOPE
- 2% - 5% SLOPE
- 5% - 9% SLOPE
- GREATER THAN 9%

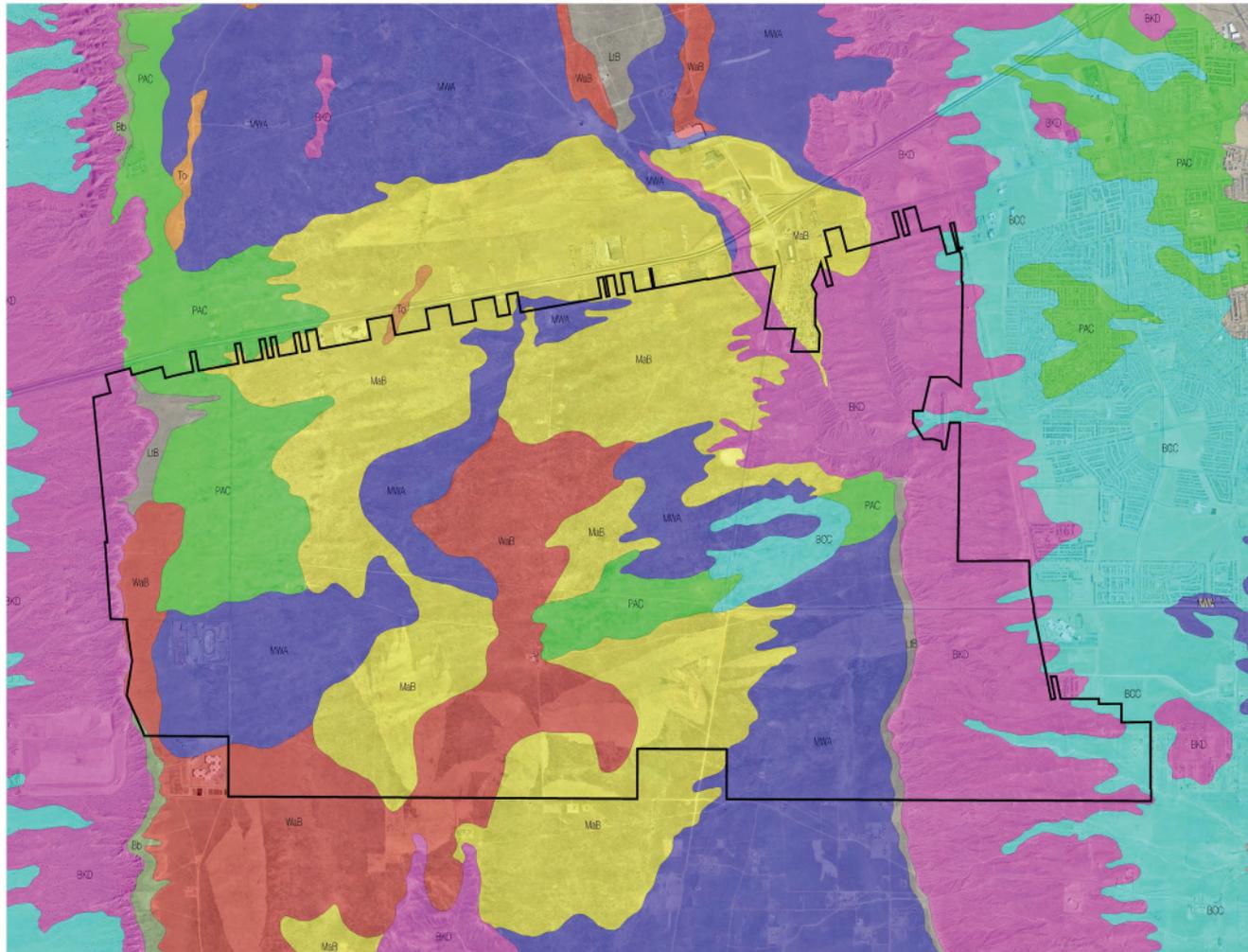
NOTES:

1. SLOPE DATA IS SUPERIMPOSED OVER THE MASTER PLAN



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June 07, 2013 - 1:30pm

Exhibit 24: Soil Survey



LEGEND

- Bb - Bluepoint fine sand, hummocky
- BCC - Bluepoint loamy fine sand, 1 to 9 percent slopes
- BKD - Bluepoint-Kokan association, hilly
- LIB - Latene sandy loam, 1 to 5 percent slopes
- MaB - Madurez loamy fine sand, 1 to 5 percent slopes
- MWA - Madurez-Wink association, gently sloping
- PAC - Pajarito loamy fine sand, 1 to 9 percent slopes
- To - Tome very fine sandy loam
- WaB - Wink fine sandy lam, 0 to 5 percent slopes

NOTES:

1. ALL SOIL TYPES LOCATED ON SANTOLINA ARE DEVELOPABLE WITH PROPER REMEDIATION.
2. SOIL SURVEY IS APPROXIMATE AND ILLUSTRATIVE, SUBJECT TO CHANGE
3. APPROXIMATE 27 SOIL BORINGS WERE CONDUCTED. NO BEDROCK NOR GROUNDWATER WAS ENCOUNTERED IN THE 20' - 60" DEEP BORINGS.
4. ALL BORINGS REVEALED PRIMARILY SANDY SOIL CONDITIONS WITH OCCASIONAL CLAY LENSES.
5. SITE SOILS ARE SUITABLE FOR STORMWATER INFILTRATION & PERCOLATION.
6. LOW R-VALUE TEST RESULTS SUGGEST SANTOLINA PAVEMENT SECTIONS MAY BE THICKER THAN COUNTY AVERAGES.



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June 10, 2020 - 7:25am

Vegetation

Within Santolina a range of vegetative groundcovers exist, primarily grasses, wildflowers, cacti and brush. Several varieties of native grasses are found within the area, including mesa dropseed, Indian ricegrass, giant dropseed, spike dropseed, black grama, blue grama, sand dropseed, bush muhly, sacaton and galleta. Brush include sand sagebrush, broom snakeweed, four-wing saltbrush, yucca, cholla, prickly pear, mormon tea and winterfat. Wildflower species include chamisa, purple astor, butterfly weed, paperflower, gum weed, globe mallow, bush penstamen and desert zinnia.



Wildlife

Greater diversity of wildlife is found within the escarpment areas framing the community. Wildlife found in Santolina and its vicinity are common to the Southwest Mesa grasslands and include scaled quail, mourning dove, jackrabbits, cottontail, rats, prairie dogs, deer mouse and a variety of reptiles and invertebrates. No listed or endangered species have been identified in Santolina.

Existing Drainage

Santolina features an extensive network of drainage basins that convey stormwater across the property. The location, size and water distribution of the basins is indicated on the Stormwater Management Plan – Existing Conditions ([Exhibit 12: Stormwater Management Plan](#)).

Large portions of Santolina are comprised of closed basins. These are drainage systems that are fully contained within the

mesa top and do not discharge to the Rio Grande. These basins retain all stormwater runoff within their existing, large natural land depressions. Furthermore, the natural depressions within these closed basins have sufficient existing volume to fully capture the large storm events of the study (100-year, 10-day event). In most cases, significantly more volume is available in these depressions than the volume generated in the design storm event. The closed drainage basins can be considered as basins that do not drain to the Rio Grande. These areas, combined with open space where appropriate, could be potentially used and expanded for multi-purpose water storage.



The remainder of the Master Plan Area drains offsite. A small portion drains west to the Rio Puerco watershed. Four basins free discharge south onto the adjacent Pajarito Grant lands, while the remaining drain down the eastern escarpment into public drainage facilities.

Some offsite drainage from the north will be diverted east into the I-40 conveyance system established within the West I-40

Drainage Management Plan Update. The remaining flow south of the diversion will follow historic paths to discharge into the Westgate Dam. Flows not contained within the diversion are part of closed basin systems and will be captured on-site.

As noted above several basins drain east down the eastern escarpment. These basins drain into several arroyo systems identified as FEMA floodplains, see Existing Floodplains ([Exhibit 25: Existing Floodplains](#)). Formal floodplain modification approvals must be sought from FEMA and approved by the County prior to development in the drainage basins that affect these limited floodplains.

Exhibit 25: Existing Floodplains

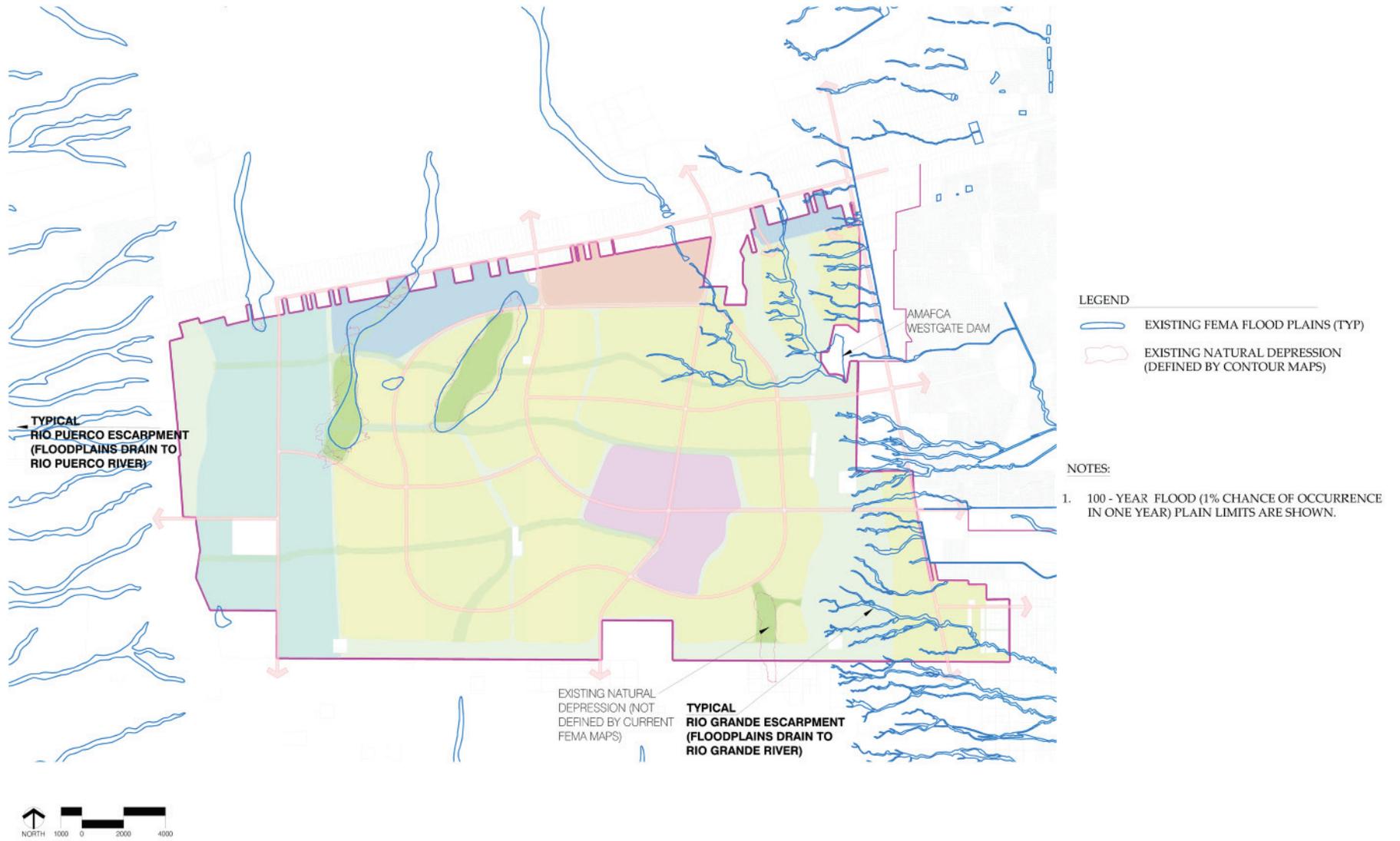


Fig. 7-Jan-2015 - 7:45 am, Plotted by: DKBERTA
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CHAPTER 8
GOVERNMENT AND
PUBLIC SERVICES

8. Government and Public Services

Overview

As the future home to 37,930 residential units, employment, commercial and education centers, Santolina will function as a small city unto itself. As such, the community will feature a variety of public services and facilities appropriate to serve residents of Santolina and the West Side. A Public Facilities Plan (Exhibit 27: Santolina Public Facilities Plan) illustrates potential future locations for schools, parks, community centers, library, public safety and civic centers within Santolina. Given the community’s 40-50 year buildout, this plan is conceptual in nature and will be revised throughout the community’s development as sites are located based on market demand and negotiations with appropriate governing agencies. The following sections outline the anticipated public facilities within Santolina.

Schools

The number and types of schools required to serve Santolina have been initially estimated using MRCOG’s forecast for numbers of children of various age groups. The School Projection Table, (Exhibit 26: School Projections) is an estimate of the quantity and types of schools required in the 2035 Development Plan to serve the community based on current APS sizing standards. The Santolina Full Buildout is outside the current planning horizon for school planning, as all forecasts and studies look out to 2035. Additionally, as online learning becomes more mainstream school enrollment and service models are anticipated to change. Therefore, future studies will be required to estimate school requirements based on these changes.



Identified school sites on the Public Facilities Plan (Exhibit 27: Santolina Public Facilities Plan) are conceptual and subject to relocation or removal from the plan based on needs at the time. Specific school sites will be identified and development timed to meet school and community educational needs during development of Santolina. WALH has established a good working relationship with APS. The company is committed to continuing to work with all schools to ensure the proper school type, size and locations are provided within Santolina to meet education needs as the community develops.

Exhibit 26: School Projections

Schools	Elementary	Middle	High
Number of Schools in 2035	9.64	3.54	2.01
2035 Average Pop./School	9,404	25,617	45,025

* School projections are based on MRCOG population projections for 2035. The extended planning timeframe will require projections for full build-out to be completed at Level B.

Parkland

The Santolina public park and open space system will be designed in coordination with the Bernalillo County Parks and Recreation Department. The goal is to provide a variety of parks including neighborhood parks, community parks and regional parks/open space areas. These parks will fill a variety of community needs including passive areas, trails and open space, playgrounds and recreation fields.

As noted in Chapter 3 Land Use, the Master Plan presents approximately 3,100 acres of permanent open space during the Level A approval stage. While the 3,100 acres meets the open space requirements for the entire project, it is anticipated additional open space will be identified and dedicated for community trails and parks during the subsequent Level B and Level C approval process. These open space areas will be incorporated into the villages to accommodate recreational needs, provide surface drainage, pedestrian access within the village and links between villages and the escarpments.

Public Services Facilities

It is anticipated that Bernalillo County may wish to locate one or more libraries, community centers and/or County offices within Santolina. Additionally, state and federal facilities may be located in Santolina to serve the community. These facilities will provide residents, employees and visitors convenient access to civic services and serve as a resource for this region of the County. Additionally, fire and sheriff station facilities will be located within Santolina as appropriate to serve the community and in accordance with National, State and County standards.

Government and public facilities are not specifically identified or located on the Land Use Plan. Such uses will be site specific and time driven to meet public agency and educational needs within the community. The uses typically complement most land uses, including residential. As such, government and public facilities are allowable uses within all land uses identified within Chapter 3 Land Use.



