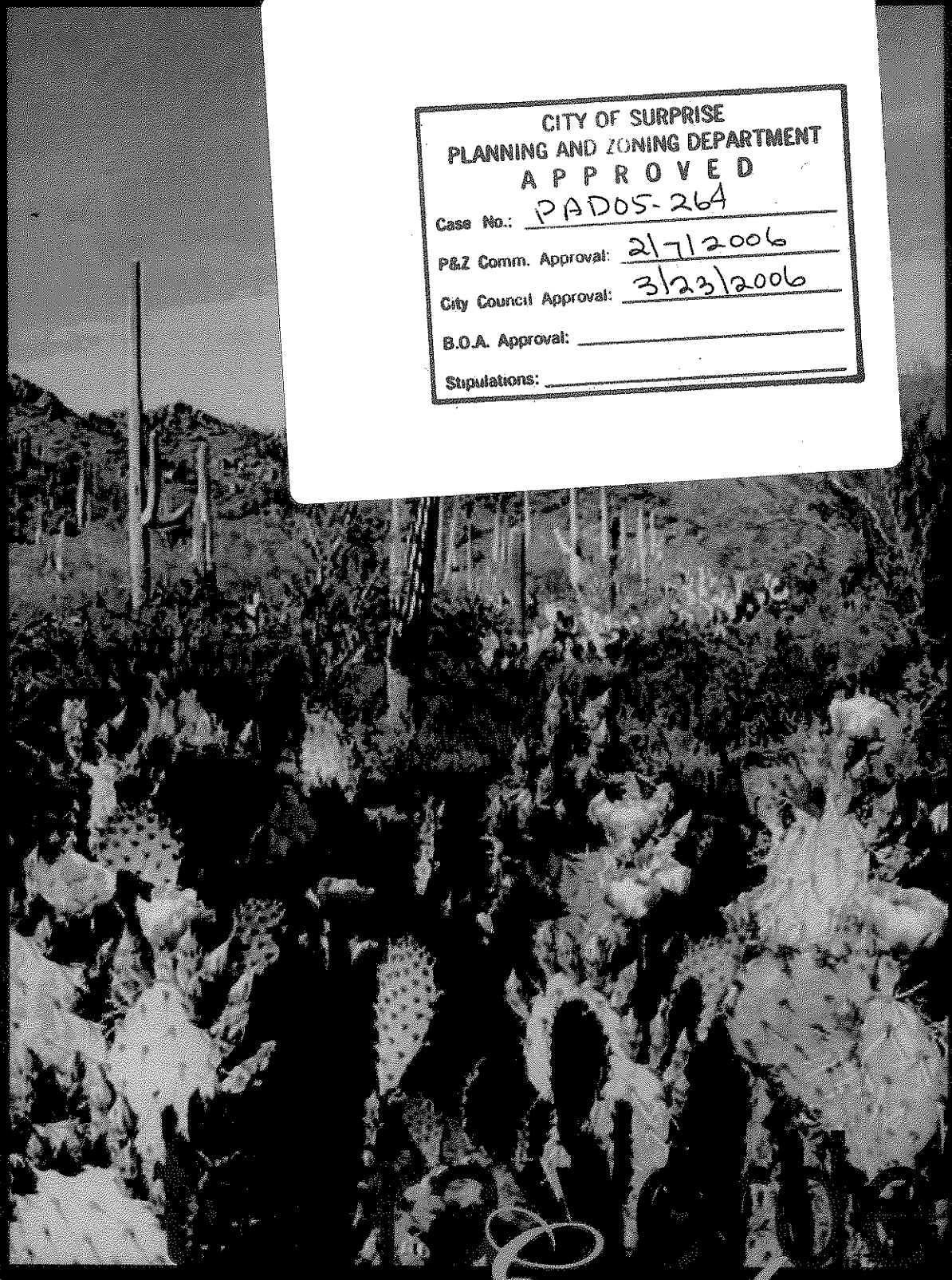
SURPRISE
ARIZONA

Tierra Verde East

Amendment	Case Number	Approval Date	Approval Doc.	Page
Original PAD	PAD05-264	3/23/06	ORD06-11	2
Land Addition	PADA06-455	11/29/07	ORD07-50	80



CITY OF SURPRISE
PLANNING AND ZONING DEPARTMENT
APPROVED

Case No.: PAD05-264

P&Z Comm. Approval: 2/7/2006

City Council Approval: 3/23/2006

B.O.A. Approval: _____

Stipulations: _____

East

tierra verde East

A Portion of the Northwest quarter of Section 5, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona

PLANNED AREA DEVELOPMENT
Development Guide

June 30, 2005
September 23, 2005

Submitted to:

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COMMUNITY DEVELOPMENT

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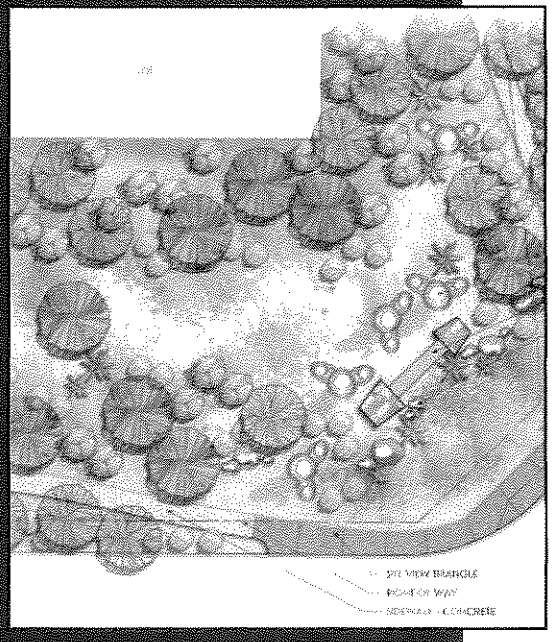
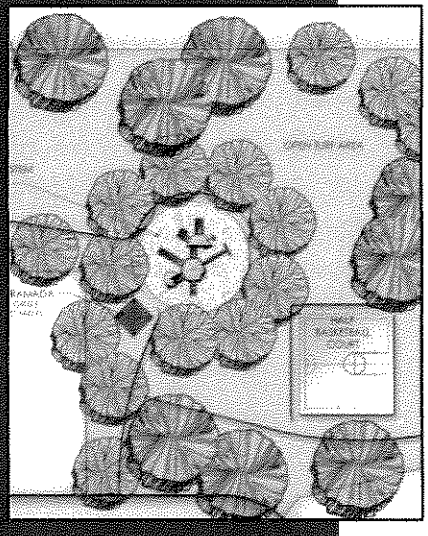




1.0 Introduction

1.1 Purpose of Intent

The development team of Voyager Surprise 100. LLC seeks this opportunity to present "Tierra Verde East", a proposed two hundred and seventy (270) single family lot Planned Area Development (PAD) located at the northeast corner of Happy Valley Road and 155th Avenue (See Figure A- Vicinity Map). The subject property has a total gross land area of approximately 100 acres. The property consists of Assessors Parcel Numbers 503-54-011B, 503-54-012. (See Figure B – Surrounding Area Map).

The subject property is currently zoned as R-43. The primary intent of the application is to obtain approval and adoption of a Planned Area Development zone use within the property. Subsequently, the review and approval of a preliminary plat application is requested.

1.2 Description of Proposal

The property is currently an unincorporated parcel within Maricopa County. A concurrent application for annexation has been submitted to incorporate the subject property into the city limits of the City of Surprise.

The property is currently zoned R-43 and is designated as suburban residential (SR), with a density range of 1-3 dwelling units per acre in the Land Use Plan of the City of Surprise's General Plan 2020 (See Figure C: Surprise General Plan 2020).

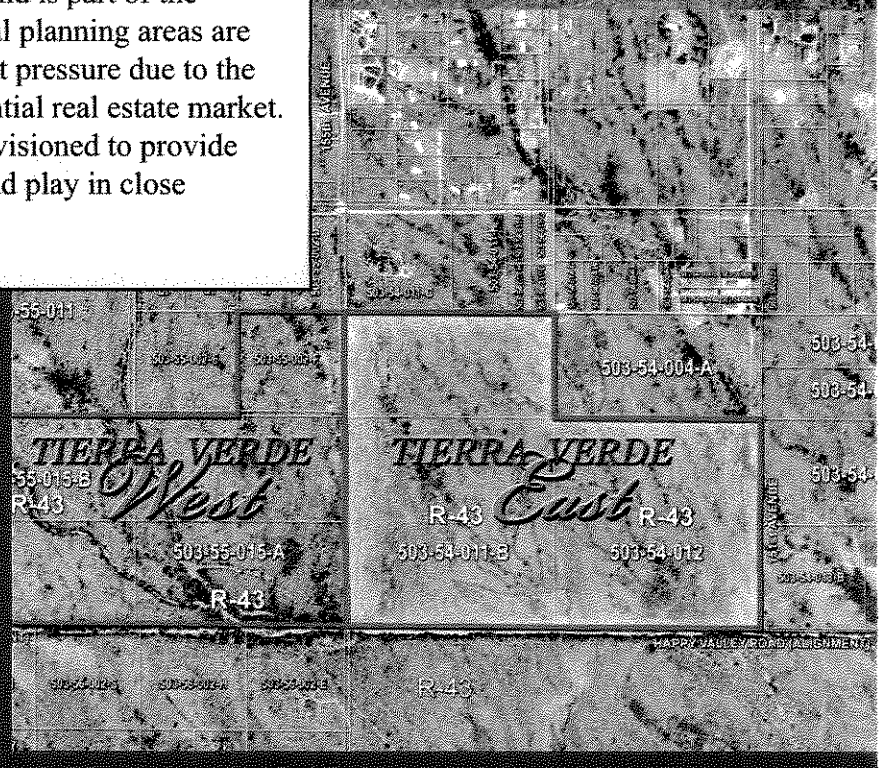
"Tierra Verde East" proposes an overall gross density of 2.70 dwelling units per acre. "Tierra Verde East" complies with the intent of the general plan. The proposed land uses are within the permitted density range and conform to the land uses and land use policies of the City of Surprise. The project is consistent with the goals and objectives established by the City of Surprise and will serve as a supporting residential land use area for neighboring employment opportunities.

The proposed development emphasizes design, sustainability and community identity. It reflects an approach to building a sense of community. Thoughtful consideration of the development's land use, housing and landscape components has resulted in the conception of a distinctive project, designed to provide the community with an exceptional development that will continuously increase in property values over time.

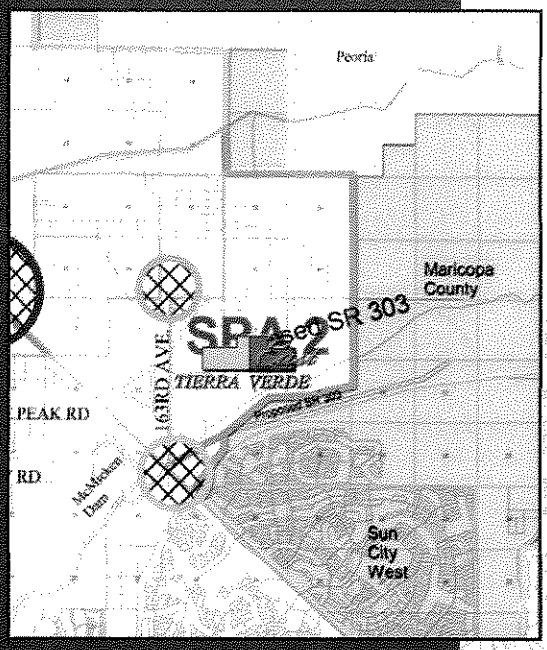
1.3 Relationship to Surrounding Properties

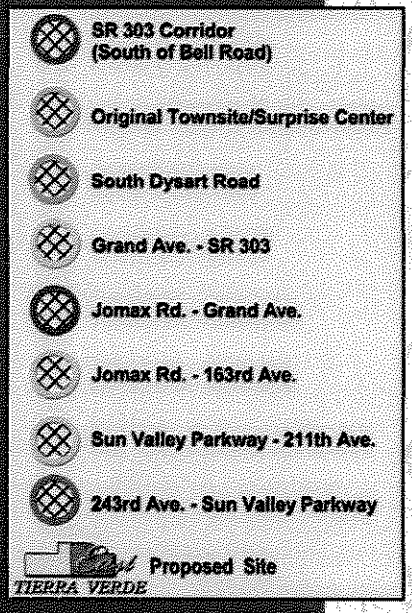
The subject property is currently undeveloped and is bounded on the south by the Happy Valley Road alignment. Land use in the general vicinity is typified by light residential use and vacant desert land. A planned area residential development called "Pinnacle Peak Country Estates" is located approximately a quarter of a mile at the southern vicinity of the property while "Desert Oasis", a planned area development is found approximately half a mile away at the northwest vicinity of the property

The property lies within the City of Surprise's Special Planning Area 2 (SPA2) and is part of the primary planning area. The special planning areas are currently under great development pressure due to the remarkable strength of the residential real estate market. The special planning areas are envisioned to provide opportunities for people to live and play in close proximity.



tierra verde East





The SPA2 is associated with significant constraints as it is traversed by large washes. Topography within the area generally exhibit slopes ranging between two to four percent and generally drains from northwest to southeast. Approximately thirty percent (30%) of the area appropriated for residential uses has been rendered unbuildable by the terrain. There are no existing multi-modal facilities within the SPA2.

Based on current development trends, growth within the next ten years is anticipated to occur within SPA's 1, 2, and 3. Within these three (3) SPA's, there are eight identified "Growth Areas". "Tierra Verde East" is within close proximity to three (3) growth areas, namely: Jomax Road - Grand Avenue, Jomax Road – 163rd Avenue, and the Grand Avenue - SR 303 Growth Area (See Exhibit D – City of Surprise Growth Areas).

Luke Air force Base is 2.5 miles south of the Surprise strip annexed areas. "Tierra Verde East" is not within the 65 LDN contour lines of the Luke Air force Base.

2.0 Location and Accessibility

2.1 Location

The site is a portion of Section 5, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. The property is bound on the south by the Happy Valley Road alignment, on the west by 155st Avenue, also known as Reems Road) alignment and on the east by 151st Avenue.

2.2 Roadways and Circulation

"Tierra Verde East" enjoys strategic regional location and is served by major thoroughfares which consists of a principal arterial and three major arterial roadways. Primary regional access to the site can be gained from Grand Avenue, a principal arterial while Jomax Avenue, a major arterial will provide east-west access to the property. The Jomax Road alignment is intended to provide access from the SPA2 to the proposed SR 303.

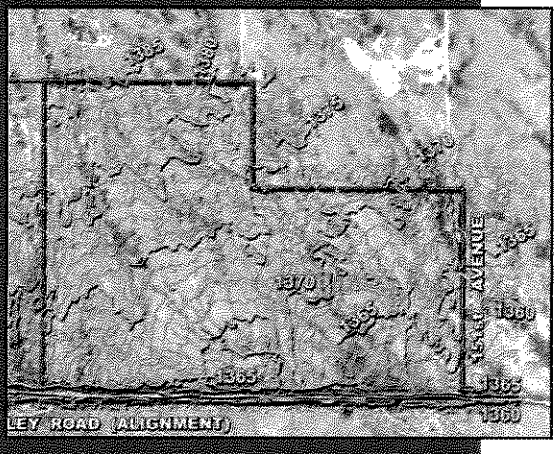
To support anticipated developments and growth within the area, 163rd Avenue has been identified as a major arterial and will provide north-south connection to the site. 163rd Avenue is intended as a scenic corridor that will afford connection from Grand Avenue to SR 74 (See Figure E – Transportation/Circulation Plan).

3.0 Existing Conditions

3.1 Natural Characteristics

3.1.1 Existing Land Use and Vegetation

The site is generally undeveloped but has been disturbed by manmade activities. The existing land use pattern within the vicinity of the property generally consists of residential uses. The site is typified by moderate growth of desert brush, trees, and cacti.

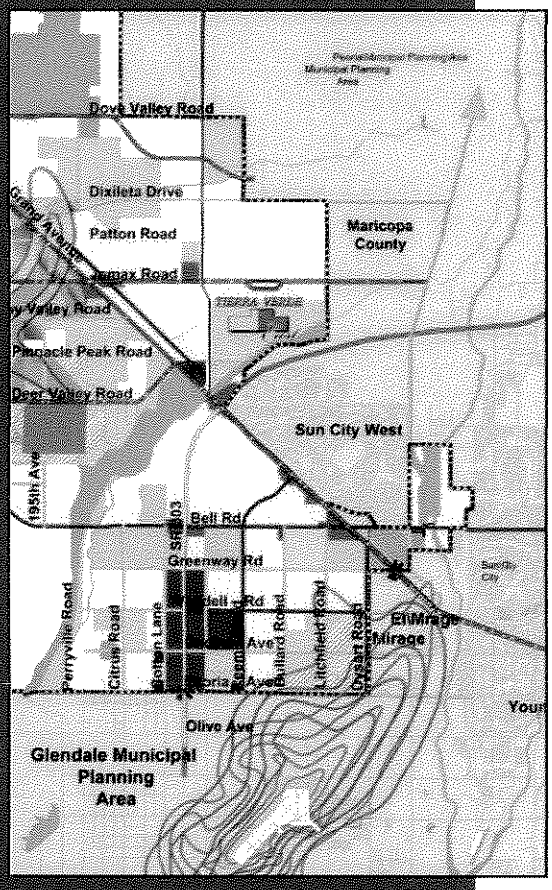


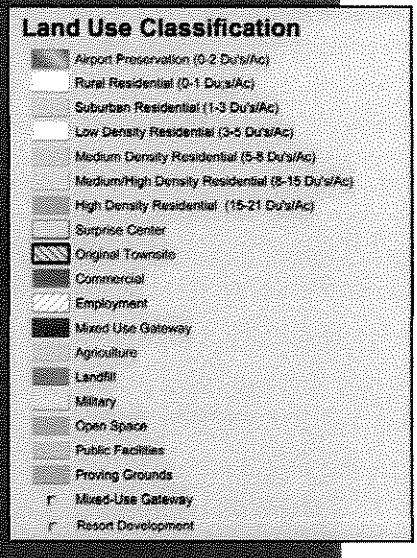
3.1.2 Soil Conditions

Several geotechnical subsurface explorations in the general vicinity have been performed by Geo-Technologies, Inc. Soil borings extended to depths ranging from 4.0 to 11.5 feet below ground surfaces typically encountered brown, sandy, silty, clayey soils which generally are associated with low permeability characteristics.

3.1.3 Existing Topography

While the site is relative flat, there is a slight slope gradient of 1.8% towards the southeast. Surface elevations range from a high of approximately one thousand three hundred and eighty five (1385') to a low of one thousand and three hundred and sixty (1360'). The lowest point of the site is at the south east corner of the site, along the intersection of 151st Avenue and Happy Valley Road while the highest point of the site is along the northwest portion of the property, along 155th Avenue. The site drains in a south-easterly direction with an ultimate outflow at the southeast corner of the property along 151st Avenue (See Exhibit F – Topography Map).





3.1.4 Existing Drainage Patterns

A significant area of the south east portion of the property lies within a significant man-made wash.

A portion of the site lies within an unstudied zone "A" floodplain area as shown in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Maricopa County, Arizona and incorporated Areas, Map Number 04013C1135, dated July 19, 2001.

The property is not subject to Section 404 of the Clean Water Act and as such a Section 404 permit is not required of the proposed development A determination letter was provided by The Department of the Army Corps of Engineers, dated December 13, 2004 and is provided herein as an attachment within the appendix. A concurrent survey and investigation for a Section 404 delineation for the western section of the site is being conducted by the Department of the Army Corps of Engineers at this time.

3.2 2020 General Plan Land Use and Zoning

3.2.1 Compliance with the General Plan

The property is designated in the City of Surprise's General Plan as Suburban Residential Area, SR (See Figure C - City of Surprise General Plan 2020) with a target density of 1 to 3 dwelling units per acre.

The proposed two hundred and seventy (270) lots residential development has an achieved density of 2.70 dwelling units per acre and is within the allowed density range and conforms to the land use policies of the City of Surprise. The project is consistent with the goals established by the General Plan, and will serve as a supporting residential land use area.

3.2.2 Existing Zoning

The property is currently zoned as R-43. All land that directly abut the property are primarily undeveloped and are likewise unincorporated parcels and zoned R-43.

3.3 Existing Community Facilities and Services

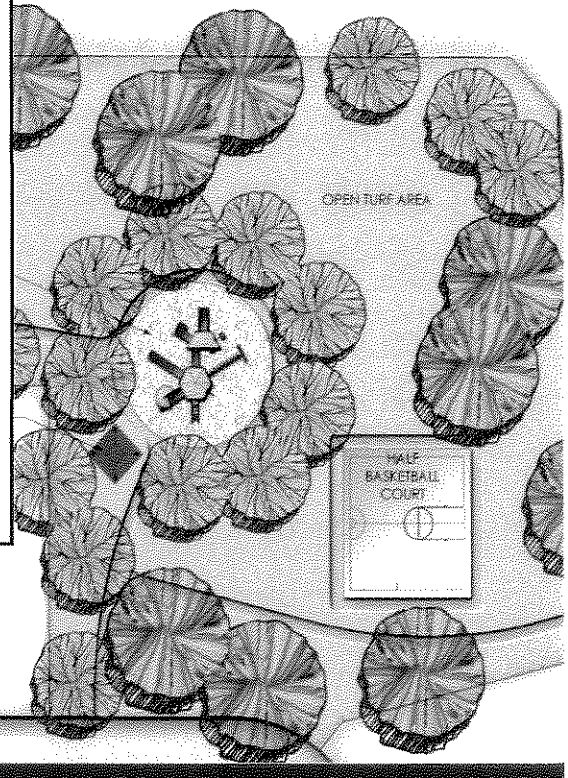
The following community facilities and services are available to "Tierra Verde East".

3.3.1 Schools

"Tierra Verde East" is within the boundary of the Dysart Unified District No. 89. Elementary school residents of "Tierra Verde East" can receive education from the Kingswood Elementary School while high school residents can enroll at the Willow Canyon High School. Additionally, The Dysart High School facility is located at Dysart and Varney Roads, approximately nine (9) miles southeast of the property. Moreover, there is also an opportunity to take advantage of the elementary school site dedicated by the Desert Oasis-Lancer Parcel, located approximately 2.5 miles northwest of the property.

3.3.2 Parks

The residents of "Tierra Verde East" can avail of the open space and amenities contained within the Lancer and Baer Park, Baer Wash/Wildlife and Equestrian Corridor. The White Tank Mountain Regional Park is located approximately eleven (11) miles southwest of the property. Lake Pleasant Regional Park is located approximately ten (10) miles to the northeast of the special planning area.



3.3.3 Libraries

Library services are available to the residents of "Tierra Verde East" through the RH Johnson Library located southeast of the property at Meeker and Johnson Boulevard. The Northwest Regional Library located within the Surprise Recreation Complex is to be found at North Bullard Avenue. It is approximately ten (10) miles from the property.

3.3.4 Golf Courses

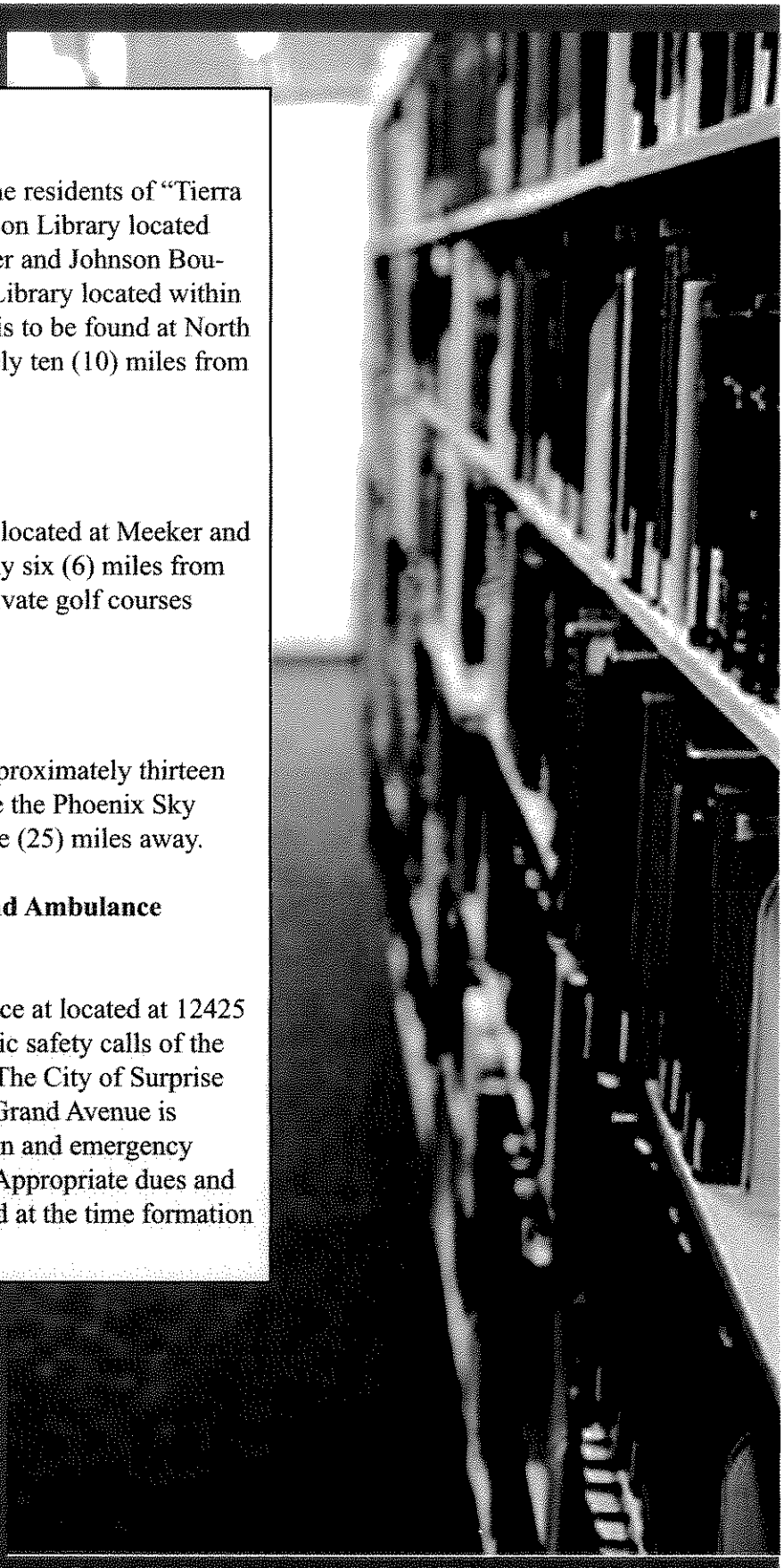
The Hillcrest Public Golf Course, located at Meeker and RH Johnson Boulevards, is roughly six (6) miles from the property. There are several private golf courses within the vicinity.

3.3.5 Airports

Luke Air Force Base is located approximately thirteen (13) miles from the property while the Phoenix Sky Harbor Airport is about twenty five (25) miles away.

3.3.6 Police, Fire Protection and Ambulance Service

The Maricopa County Sheriff Office at located at 12425 W. Bell Road will respond to public safety calls of the residents of "Tierra Verde East". The City of Surprise Fire Station located at 163rd and Grand Avenue is anticipated to extend fire protection and emergency medical services to the property. Appropriate dues and annexation fees will be determined at the time formation documents are finalized.



3.3.7 Hospital

"Tierra Verde East" is in close proximity to The Del Webb Memorial Hospital located at Grand Avenue and Meeker Boulevard, approximately seven (7) miles to the property.

3.4 Existing Infrastructure and Utilities

3.4.1 Existing Water Facilities

The City of Surprise will provide water to the property and is responsible for determining the 100-year assured water supply.

There is an existing 16" water line within the right-of-way of 163rd Avenue and services "Desert Oasis", a planned area development located a quarter of a mile northwest of the property.

3.4.2 Existing Wastewater Facilities

The property is not served by any sanitary sewer collection and treatment system at this time.

3.4.3 Existing Roadway Conditions

The Happy Valley Road alignment is currently a dirt road, a portion of which currently lies within a wash. There are no paved roads that serve the site at this time.

4.0 Impacts of the Proposed Planned Area Development

4.1 Regional Benefits

The land use plan of the City of Surprise designates five (5) special planning areas (SPA's) to provide a balance in mix of land uses. The SPA's are intended to interlink and support the diverse needs of each area and are intended to provide opportunities for people to live, work, and play in close proximity.

"Tierra Verde East" lies within the City of Surprise Special Planning Area 2 (SPA2). Ninety one percent of the total SPA2 is designated as residential while commercial areas other than neighborhood commercial are excluded from the mix. SPA3 contains the major commercial facilities found along Grand Avenue. "Tierra Verde East" will serve to sustain the balance between residential, employment and commercial land uses within the planning areas. It is primed to present greater opportunities for housing choice and will support the housing requirements of a rapidly growing community. "Tierra Verde East" will positively impact the development patterns of the City of Surprise.

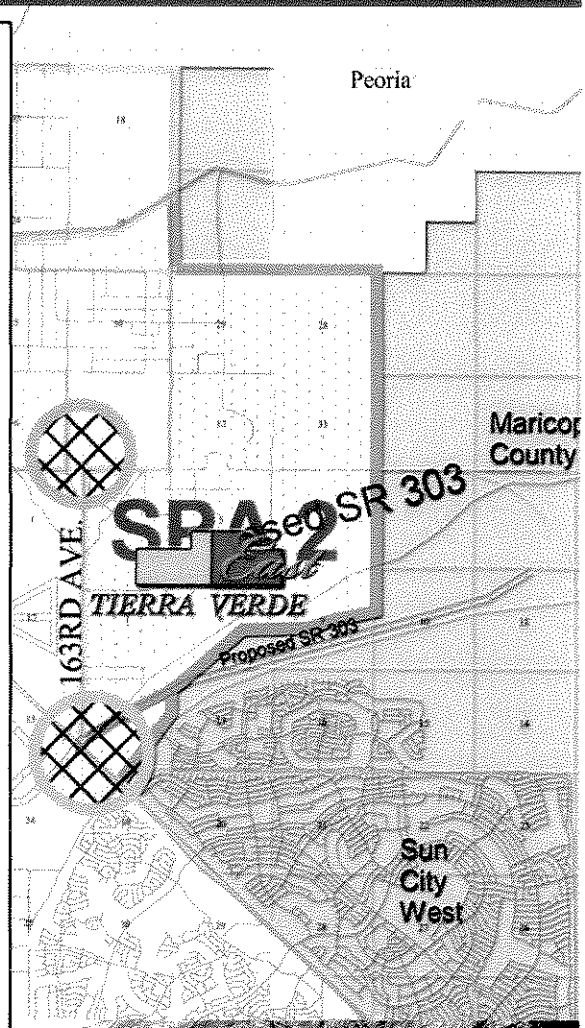
4.2 Community Integration

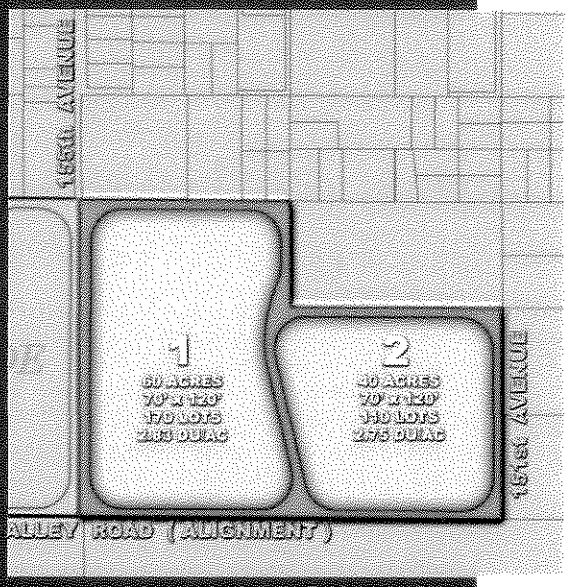
"Tierra Verde East" is designed to help realize the goals and objectives of the SPA2. Implementation of the project will result in the integration of an exceptional neighborhood that is compatible with existing and anticipated land uses in the area. "Tierra Verde East" will complement existing planned area developments found within the vicinity. "Pinnacle Peak Country Estates" is located south of "Tierra Verde East" while "Desert Oasis" is along the northwest vicinity of the property.

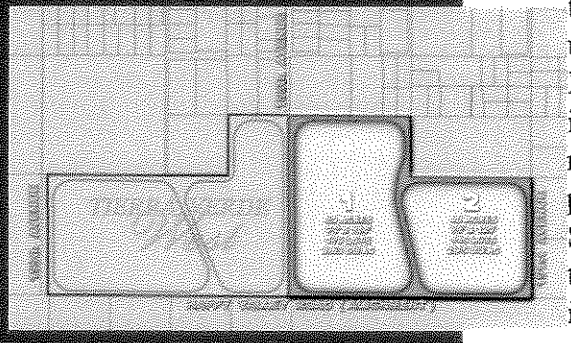
4.3 Environmental Impacts

"Tierra Verde East" presents comprehensive solutions for water, sewer, infrastructure and emergency services. Specific engineering design and studies have been undertaken to provide the framework for future detailed engineering design improvements. Likewise, opportunities for integrated solutions to drainage, utilities, traffic circulation, as well as improvements to the open space network are offered by the development.

Moreover, the widening and improvement of several public roadways that bound the site will consequently serve to improve and extend the roadway network and circulation system within the area.







LAND USE TABLE				
PARCEL	ACREAGE	LOT SIZE	LOT YIELD	DENSITY
1	60.0	70'x120'	162	2.70
2	40.0	70'x120'	108	2.70
TOTAL	100.0		270	2.70

4.4 Socioeconomic trends

"Tierra Verde East" is designed to respond to the prevailing socio-economic trends and development pressures within the region. The City of Surprise is experiencing tremendous growth rate. The introduction of a variety of housing opportunities by "Tierra Verde East" is a definitive response to the variable market, economic and social requirements within the area.

5 Proposed Land Use and Development

5.1 Land Use Plan

The proposed land use for "Tierra Verde East" presents real strategies for a sustainable development. It reflects a comprehensive understanding of existing site conditions and constraints in a plan which benefits from the unique characteristics inherent to the site. "Tierra Verde East" will incorporate several distinct design features into its land plan to ensure long term growth of community property values. Value added amenities are provided to increase the desirability of the development. Site features such as the prominent washes that traverse the site are turned from constraints into focal points of interest.

"Tierra Verde East" proposes an overall gross density of 2.70 du/ac and complies with the intent of the PAD zone use. The proposed land uses are within the permitted density range and conform to the land uses and land use policies of the City of Surprise. The development consists of a total of two hundred and seventy (270) dwelling units with a minimum lot size of 70' x 120'. (See Exhibit G – Land Use Tabulation Table and Exhibit H – Land Use Plan and Exhibit I - Single Family Residential Design Guidelines).

5.1.1 Parcel Plan

Specific designs and development of each parcel will comply with the current City of Surprise Subdivision Ordinance and the PAD zone use regulations.

Parcel 1 consists of approximately sixty (60) acres and is proposed to contain approximately one hundred and fifty (162) 70' x 120' (minimum 8,350 sf) single family lots at a density of 2.70 du/ac.

Parcel 2 consists of approximately forty (40) acres and is proposed to contain approximately one hundred (108) 70' x 120' (minimum 8350 sf) single family lots at a density of 2.70 du/ac.

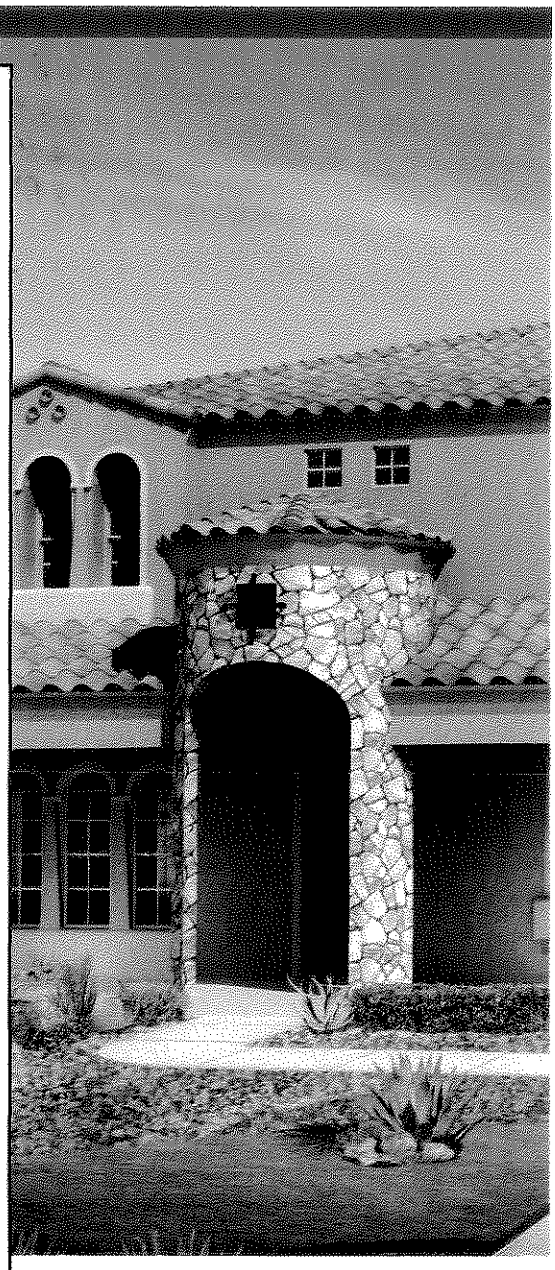
5.2 Single Family Residential Criteria

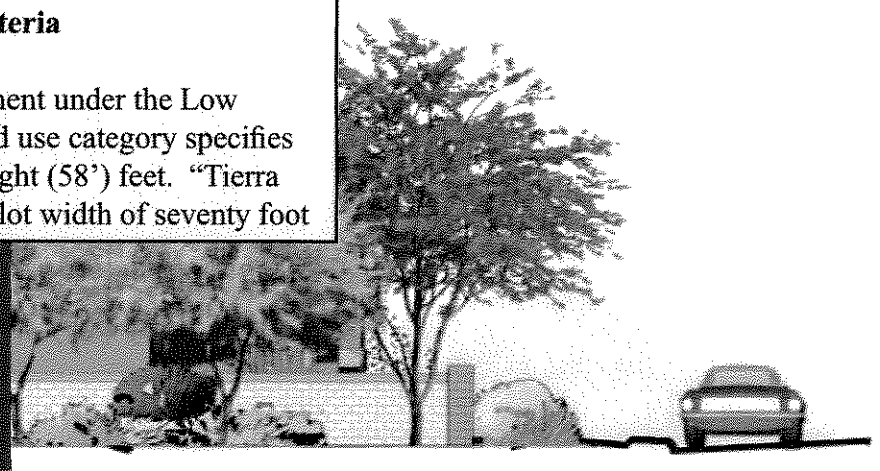
The Single Family Guidelines of the City of Surprise regulates the development of low density residential (LDR) developments to ensure conformance of proposed developments to the goals, objectives and requirements adopted and contained in the General Plan of the City of Surprise. "Tierra Verde East" lies within the Suburban Residential (SR) land use category and as such is not required to obtain points listed under the Single Family Guidelines to validate its achieved lot mix and density.

"Tierra Verde East" is an exceptional community and intends to meet or exceed the purpose and objectives of the City of Surprise for residential developments. As such, the proposed development is designed to provide specific performance standards listed under the guidelines to validate its departure from conventional zoning principles as warranted by virtue of creativity, amenity, and diversity.

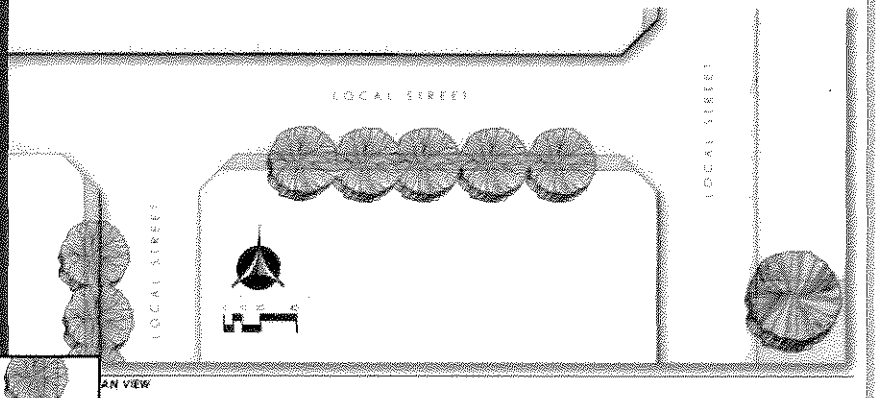
5.2.1 Residential Design Criteria

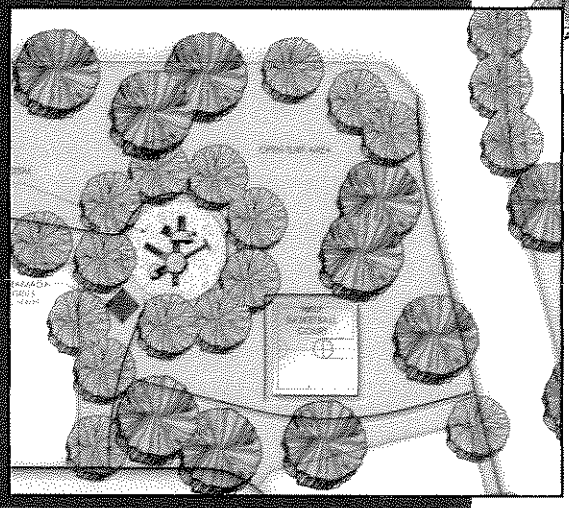
The minimum lot size requirement under the Low Density Residential (LDR) land use category specifies a minimum lot width of fifty eight (58') feet. "Tierra Verde East" offers a minimum lot width of seventy foot





(70'). Specific setbacks applicable to the category are illustrated in Figure J - Typical Lot Layout.



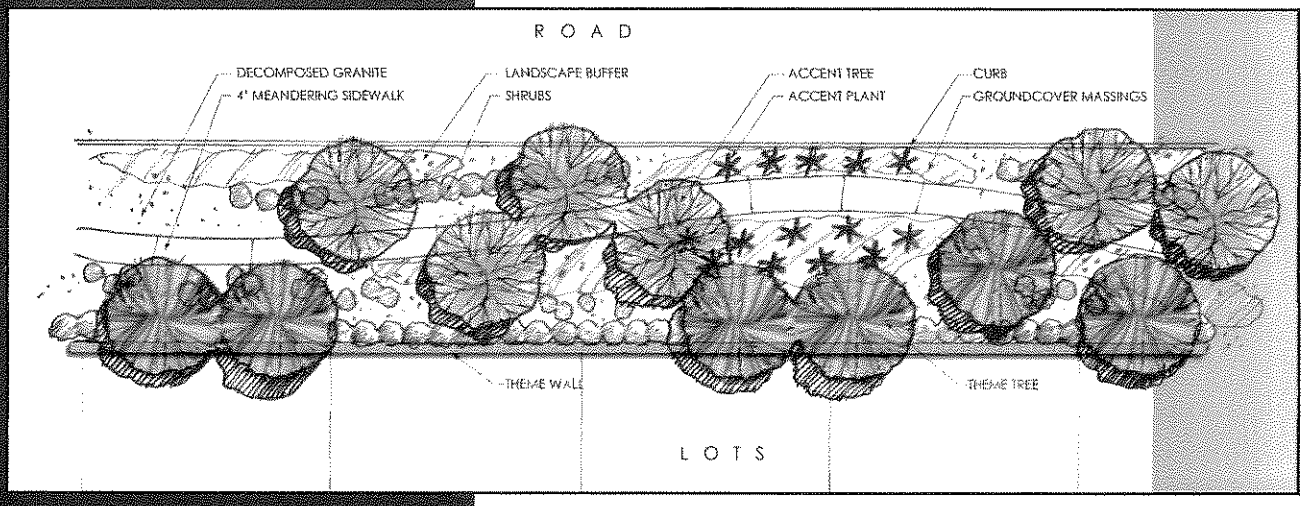


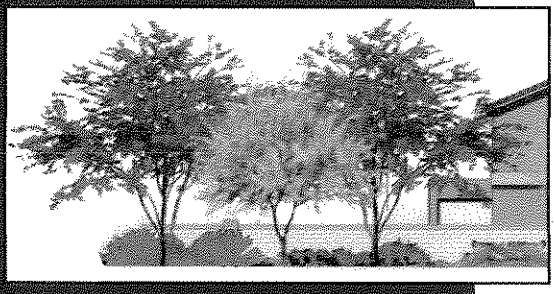
Design List B – Engineering

A. Design all corner lots so that the minimum width of each corner lot is at least 10 feet greater than the Minimum Lot Frontage applicable to that shown in line 2 of Table 1; or alternatively; Or, On all corner lots, construct an 8 foot wide landscaped tract between the property line of the lot and the abutting street right of way. Convey such landscape tracts to a homeowners association and require the association and require the association to maintain the tracts and the adjacent rights-of-way to the same standard as other tracts and common areas maintained by homeowners association.

B. Design and construct storm water retention areas which meander through the Residential Development Project as greenbelt, as opposed to constructing a series of separate and distinct basins, and require a homeowners association to maintain the retention areas to the same standard as other tracts and common areas maintained by the homeowners association.

C. Design and construct landscaped open spaces which are visible from both residential and arterial streets, and require homeowners association to maintain the landscaped open space to the same standard as the other tracts and common areas maintained by the homeowners association.

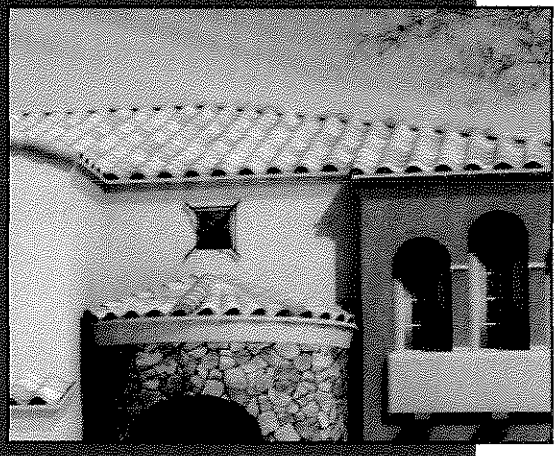




D. Along arterial streets, provide at least 600 feet of open space per mile, as measured along the linear boundary between the Residential Development Project and the adjacent arterial street right of way. If the Residential Development Project does not abut the right of way, then the measurement shall be taken along the linear boundary between the Residential Development Project and the intervening tract. The open spaces must be visible from the arterial street, and the Developer must require a homeowner association to maintain the open spaces to the same standard as the other tracts and common areas maintained by the homeowners association.

E. Incorporate view corridors with open space areas throughout the development to take advantage of the mountain views; utilize view fences around houses abutting these view corridors so that the open space and mountain views are visible from the houses; and require a homeowners association to maintain the open space areas to the same standard as the other tracts and common areas maintained by the homeowners association.

F. Design and construct paths and trails separate from roadways, which connect all open space areas and arterial roadways, and which enable bicyclists and pedestrians to travel throughout the development.



Design List C – Architecture (SFR Home Product Design Guidelines)

A. Prohibit the same front elevation on adjoining house; prohibit the same rear elevation on more than two consecutive adjoining houses visible from an arterial street.

B. Utilize a minimum of three floor plans that incorporate, in at least two elevations, design features such as covered front entries, covered front porches, enhanced door and window details, roof overhangs, parapet walls with cap features.

C. Install at least three distinct roofing styles, including colors, textures, and component shapes, e.g. barrel title and flat concrete tile.

D. For all houses on lots backing to an arterial street, design roof lines so as to avoid constructing a series of roof slopes, visible form the arterial street, which are all parallel with, or all perpendicular to, the arterial street.

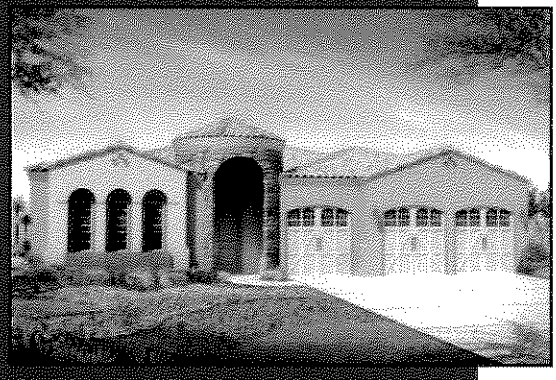
Design List D – Amenities

A. Provide a trail system that connects all open space areas within the Residential Development Project and creates pedestrian linkages with the surrounding residential and commercial developments. Along the trail system, construct rest areas at every quarter mile, consisting of a substantial seating area which accommodates at least 4 persons and a shade area composed of an architectural shade structure, or mature landscaping such as a canopy of trees, or a combination of both. Require a homeowners association to maintain the trail system to the same standard as other common areas maintained by the homeowners association.

B. Construct and convey to a homeowners association a large open space corridor, with a minimum width of 75 feet, and an average width of 100 feet, through the Residential Development Project. The corridor must

be planted with mature trees and other plants listed on the City's approved plant list, and must provide view corridors and a trail system. Lots which back up to the corridor on at least one side shall be bordered by view fences which create view corridors. The view fences may be constructed either completely of wrought iron or of wrought iron and masonry, and must comply with the City's ordinance relating to swimming pool fences. Restrict the use of the corridor to pedestrian and bicycle access by residents of the Project. Require a homeowners association to maintain the corridor to the same standard as other common areas maintained by the homeowners association.

C. Provide open space in excess of 10 percent of the Gross Acreage of a Residential Development Project. Require homeowners association to maintain the excess open space to the same standard as other common areas maintained by the homeowners association.



5.3 Architecture

A comprehensive palette of features will be provided to establish the framework that will reinforce the theme of "Tierra Verde East". The overall theme for the development will be southwest in nature.

The architectural style within "Tierra Verde East" will seek to preserve and reflect the southwest character of the area. A variety of architectural design features will be incorporated into each home elevation to promote diversity (See Exhibit L- Architecture).

A minimum of four (4) floor plans, each with a minimum of three (3) elevations will be offered within each definitive housing rice range or product type to provide a variety of housing alternatives and to increase visual interest.

A variety of building materials to be offered may con-

sist of a selection from concrete tile and parapet roof, earthen paint tones and other compatible materials.

5.4 Comprehensive Open Space and Amenity Plan

5.4.1 Master Landscape Plan / Open Space

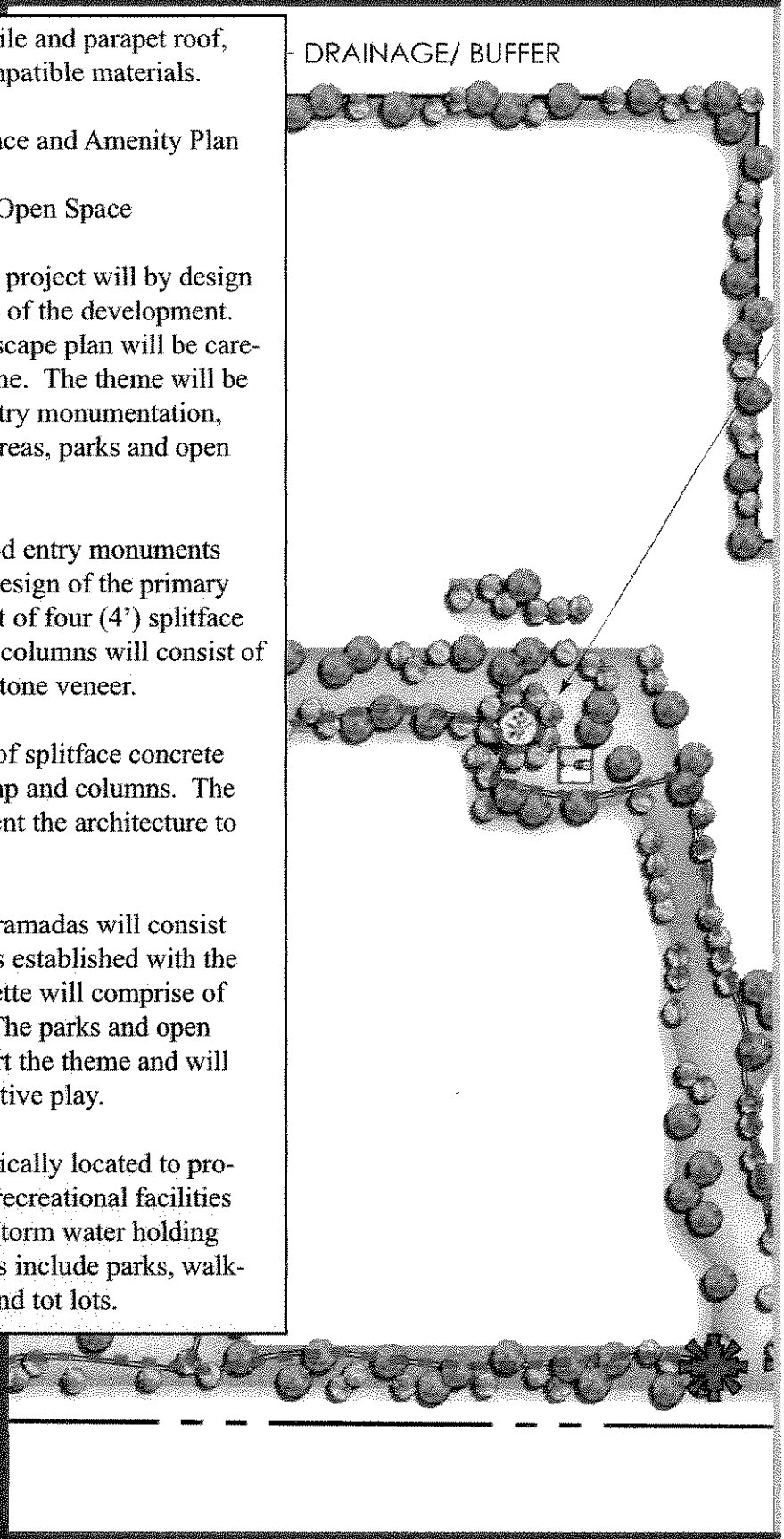
The landscape architecture of the project will by design reinforce the southwestern theme of the development. The various elements of the landscape plan will be carefully selected to enhance the theme. The theme will be applied to features such as the entry monumentation, theme elements of the common areas, parks and open spaces.

The community and neighborhood entry monuments are designed to compliment the design of the primary entry monuments and will consist of four (4') splitface concrete masonry unit, while the columns will consist of concrete masonry with cultured stone veneer.

The perimeter walls will consist of splitface concrete masonry unit with fluted CMU cap and columns. The wall color will directly compliment the architecture to retain a sense of continuity.

Theme walls, fences, and picnic ramadas will consist of the same materials and designs established with the entry monuments. The plant palette will comprise of a combination of native plants. The parks and open spaces will be designed to support the theme and will include turf areas to maximize active play.

The open space tracts are strategically located to provide not only passive and active recreational facilities but will also provide significant storm water holding capacity. The proposed amenities include parks, walking trails, ramada with benches and tot lots.

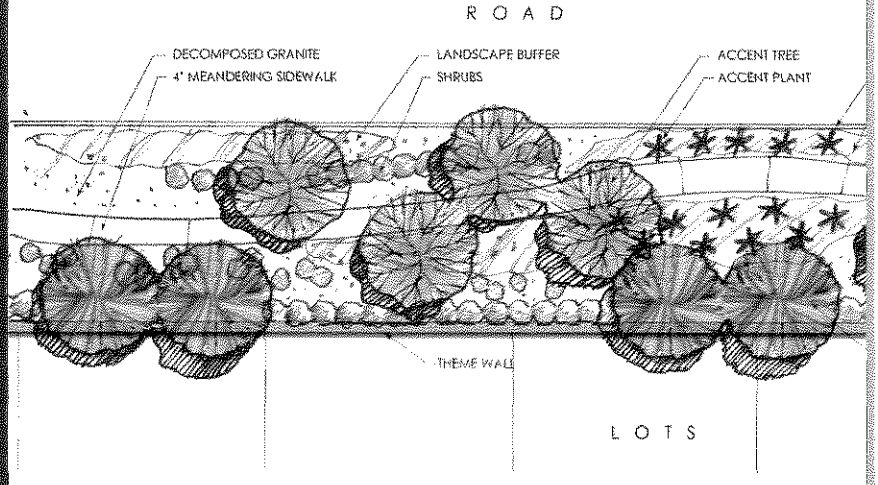


5.4.2 Trails, Open Space, Parks and Recreation System

A minimum of ten (10) acres or 10% of the gross residential area is reserved for open space and recreation. Careful consideration has been given to the appropriation of the open space areas in locations that will offer optimum use to future residents and add value to the community

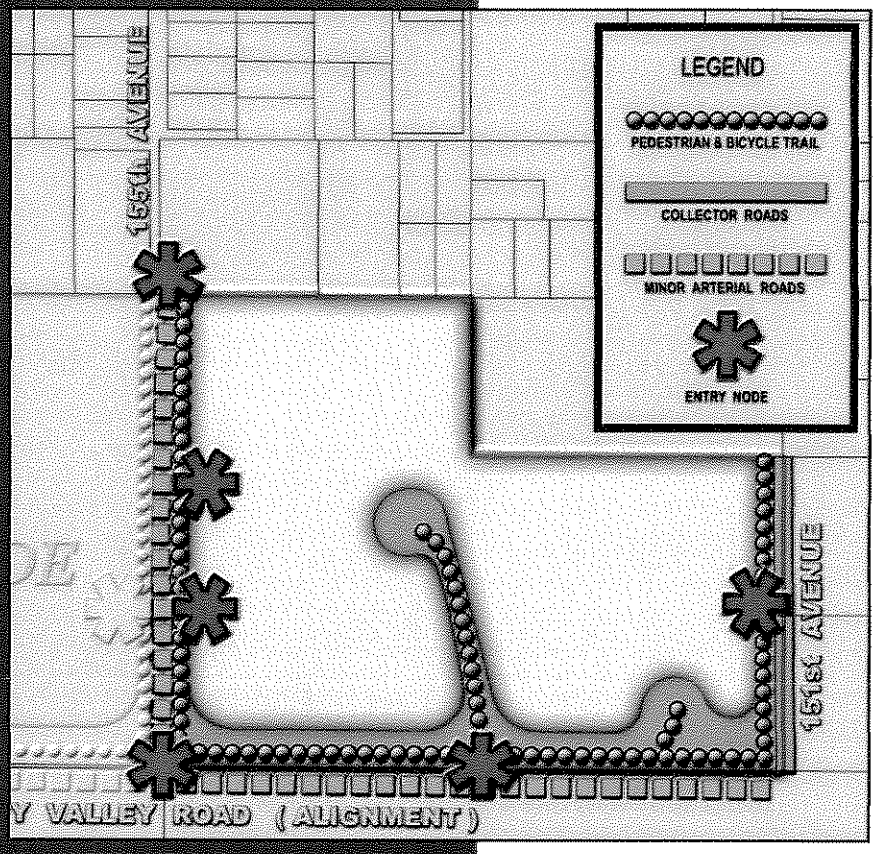
A trail system within the landscaped and improved open space corridors is incorporated into the land use plan to maximize utilization of the open space. The trail system corridor links the entire community by providing direct access from the individual residential lots to the various open space areas. "Tierra Verde East" has been master planned to offer residents easy access to open space through the careful placement of open space areas. Pocket parks that offer a variety of opportunities for recreational activity are provided throughout the development. The parks are improved with turf areas, shade ramadas, play structures and trail systems (See Exhibit M1 – Master Landscape Plan).

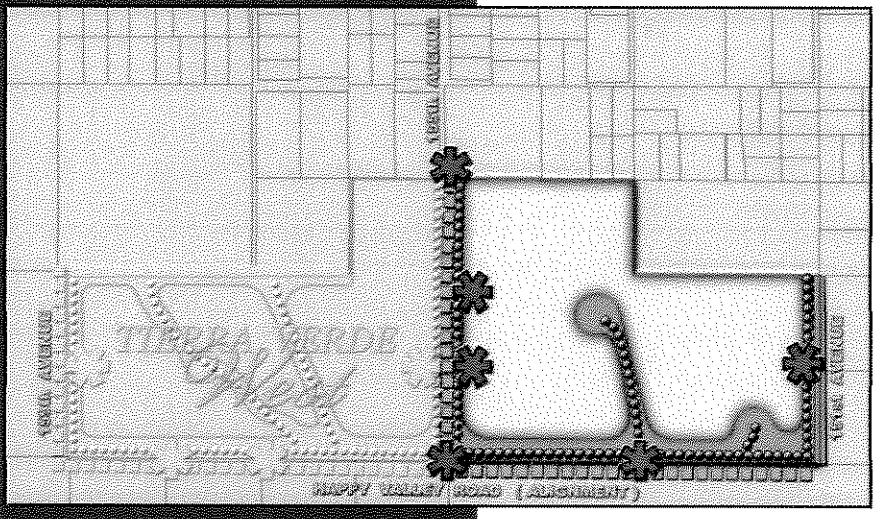
Generous open space and landscape elements are also provided at community entryways. Entryways are enhanced by community themed features and landscaping (See Exhibits M-2 for details of entry features).



5.4.3 Signage

Signage for "Tierra Verde East" will confirm the southwestern theme of the area and will meet the requirements of the City of Surprise for signs.





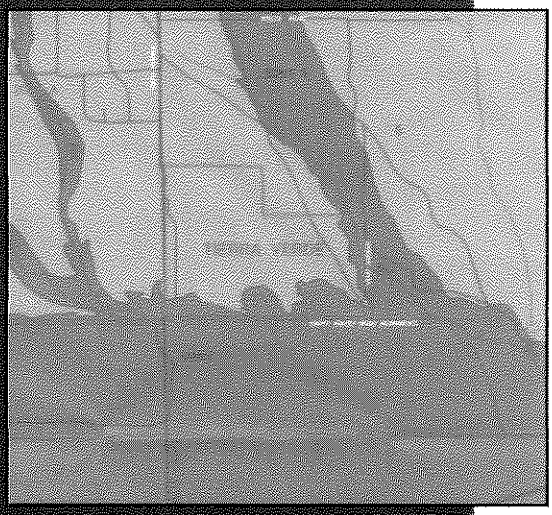
5.4.4 Lighting

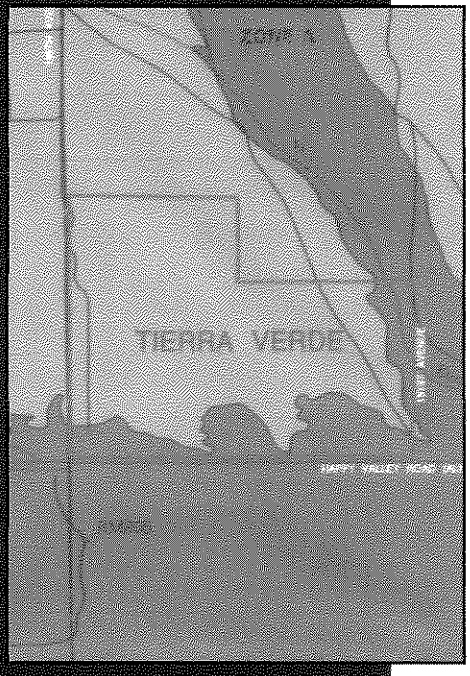
Provisions for outdoor lighting within the development will be designed with minimized intensity. The primary entry nodes will be provided with pole mounted lighting fixtures while the homes will be illuminated with low mounted lighting fixtures that emit low level, non-glare lighting fixtures.

5.5 Circulation System

The proposed circulation system plan has been designed to afford a high level of internal vehicular mobility and provide opportunities for effective modes of navigation of the site. "Tierra Verde East" includes four (4) entry nodes. Entry points are provided off Happy Valley Road, 151st Avenue and 155th Avenue. The provision of multiple development entrances allows easy access to the site (See Figure K – Open Space and Circulation Plan).

Development of the site shall include half-street improvements to ultimate width for Happy Valley Road, 151st Avenue and 155th Avenue. All public roadways will be constructed according to the minimum standards established by the City of Surprise.





An interior local street with a fifty five foot (55') public right-of-way will provide primary access points to the site. The interior local streets shall be designed to provide thirty two feet (32') of pavement from back of curb to back of curb with five feet (5') landscape area and five feet (5') wide detached sidewalks on both sides of the street. Parking will be allowed on both sides of the street. Each home will have access to at least two (2) off-street parking.

All rights-of-way shall be dedicated to the City. All internal roadway improvements shall be designed and built to minimum City of Surprise standards.

6.0 Drainage

6.1 Existing Flood Plain Conditions

The existing topography of the "Tierra Verde East" slopes from the northwest to the southeast. The Tierra Verde East parcel is traversed by two washes. According to the FIRM the washes crossing the Tierra Verde East parcel from east to west are named: 10 East and 5 East. 5 East flows along the Tierra Verde East south property boundary along the Happy Valley Road Alignment. 10 East flows along the eastern property boundary. The 5 East wash is contained along the south property boundary by on irregular berm approximately 10 feet high maximum and flows into the McMicken Dam Outlet Channel downstream of the site. The Tierra Verde East property is located in an unstudied Zone A floodplain as shown in Exhibit N- FIRM – Map Number 04013C1135 F dated: July 19, 2001.

According to the Wittmann Area Drainage Master Study (WADMS) performed the by the Flood Control District of Maricopa County the Tierra Verde East project area is located in the Picacho Wash Sub-Watershed. The 100-year 24-hour flows conveyed in each channel are listed as follows:

5 East (CPI 609) – 1022 cfs
10 East (R606A) – 166 cfs

Notice above that these channels are named by both FEMA designation and the HEC-1 card designation used in the WADMS.

6.2 Proposed Improvements and Floodplain Solution

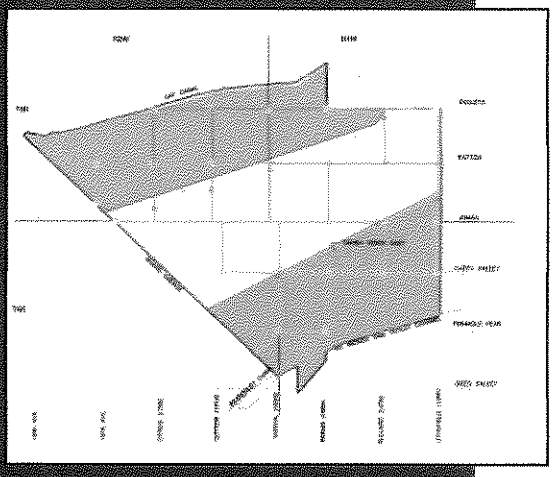
6.21. Off-site storm water flows

Perimeter channels around the property boundary will be constructed to collect the offsite sheet flows impacting the site from the northwest. Those flows will be conveyed around the site and discharged at the south east corner. Offsite discharges conveyed around the site in proposed perimeter channels will discharge the offsite flow at its historic/existing discharge point from the proposed (downstream) development property line. The routed discharge will be equal to or less than the existing discharge at the existing exit point from the proposed downstream development boundary. The offsite drainage will be coordinated with the FCDMC WADMS.

A Conditional Letter of Map Revision (CLOMR) will need to be filed with the Federal Emergency Management Agency (FEMA) to request a Letter of Map Revision (LOMR) to reclassify the flood zone designation to Zone X on the FIRM Maps and eliminate the property from being in a flood zone.

6.2.2 On-site Storm Water Retention

Retention/detention facilities are strategically located within common area open space tracts throughout the proposed Tierra Verde Project. Retention for the on-site flow will be provided to collect the 100-year 2-hour storm. The storm water runoff produced during the design storm will not be allowed to pond greater than 3 feet of depth measured from the bottom of the retention basin. Also, the detention basin will be designed such that it will be drained within 36 hours. All proposed onsite retention basins will provide a minimum of 1-foot of freeboard and that the high water surface elevation



LEGEND
SPA2 BOUNDARY
12" WATER LINE
16" WATER LINE
PRESSURE NODE
PRV
PRESSURE ZONES
ZONE 5
ZONE 6
ZONE 7

will be at least 1-foot below adjacent finish floor elevations.

All drainage design will be done in accordance with the City of Surprise 'Preliminary and Final Drainage Report Guidelines', the City of Surprise Municipal Code (chapter 15 and 16), the FCDMC hydrology and hydraulics manual(s) and the offsite drainage will be based on the WADMS Update.

7.0 Infrastructure Improvements

7.1 Traffic Impact Analysis

A "Traffic Impact Analysis" has been prepared by TASK Engineering and is included in this submittal.

7.2 Water Service

Water service will be provided by the City of Surprise. Dual water systems are required, both potable and non-potable. Irrigation of all common areas must be done with non-potable water. Service by the City's non-potable water system will be required, as it becomes available.

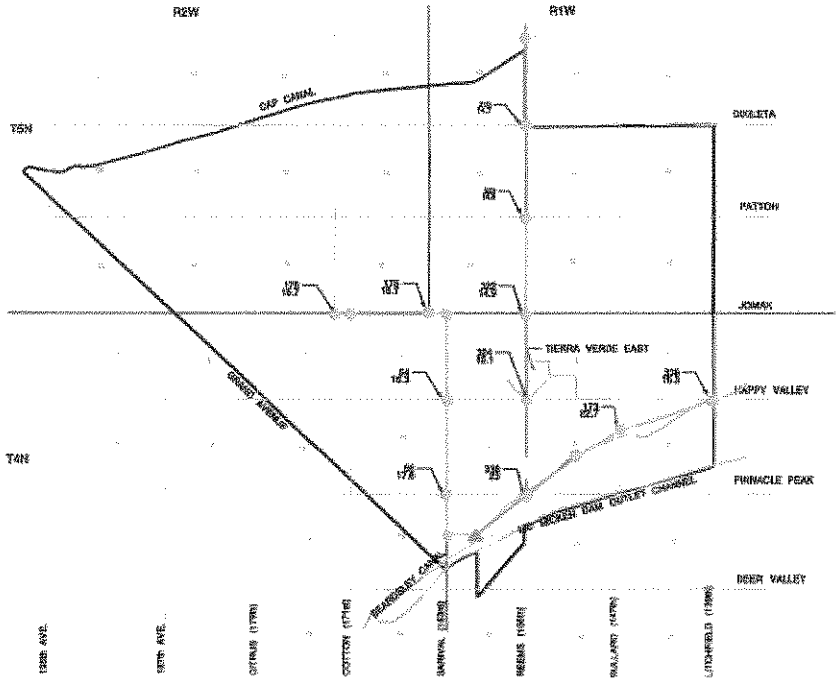
The Project is within the City of Surprise Water Infrastructure Master Plan study area, and is located in City of Surprise Water System Pressure Zone #5. The City is currently expanding their water system to accommodate future growth in the area. Per the City's requirements, existing City Water Master Planned looping lines must be extended. Off-site 12 inch ductile iron looping water lines are required on north/south mile and half mile alignments. Off-site 12 inch ductile iron looping water lines are required on east/west mile alignments. Oversized 16 inch water distribution looping lines are required on Happy Valley Road and 155th Avenue (Reems Road), and must be extended from the appropriate water supply facility. Booster pump system(s) and locations must be provided.

Anticipated demands for this Project are as follows:

Number of DU's = 244 (Assume 3.2 people/ DU)

ADD = 82 gpm MDD = 147 gpm
PH = 246 gpm FF = 1500 gpm
(Residential only)

See Exhibit O – Water



7.3 Wastewater - Sanitary Sewer

It is anticipated that wastewater service will be provided by the City of Surprise. The project is dependent on annexation of the property into the City and upon the construction of the City's Regional SPA2 Master Planned Wastewater Treatment Facility. Upfront capitalization is required for the construction. The City and the developers are working on a development agreement to fund the construction of 2.5 MGD of capacity and required interceptor sewers.

While no sewer capacity is currently available, the City's master plan does identify the "Tierra Verde East" area. In the master plan, the project is currently identified as connecting at the NWC of Happy Valley Road and 147th Avenue. Depending on the grading of the

property and the location of the sewer outfall, it may be possible to connect to the NEC of 155th Avenue and Happy Valley Road.

Anticipated flows from this development are as follows:
Number of DU's = 244 (Assume 3.2 people/ DU)
ADF = 78,080 gpd MDF = 0.141 MGD

Please see Exhibit P – Wastewater/Sanitary Sewer

8.0 Public Utilities and Services

Dry utilities such as electric, gas, telephone and cable television utilities will be placed underground within the public utility easements. The following utilities and services are available to the residents of "Tierra Verde East" through the following entities:

8.1 Electrical Services

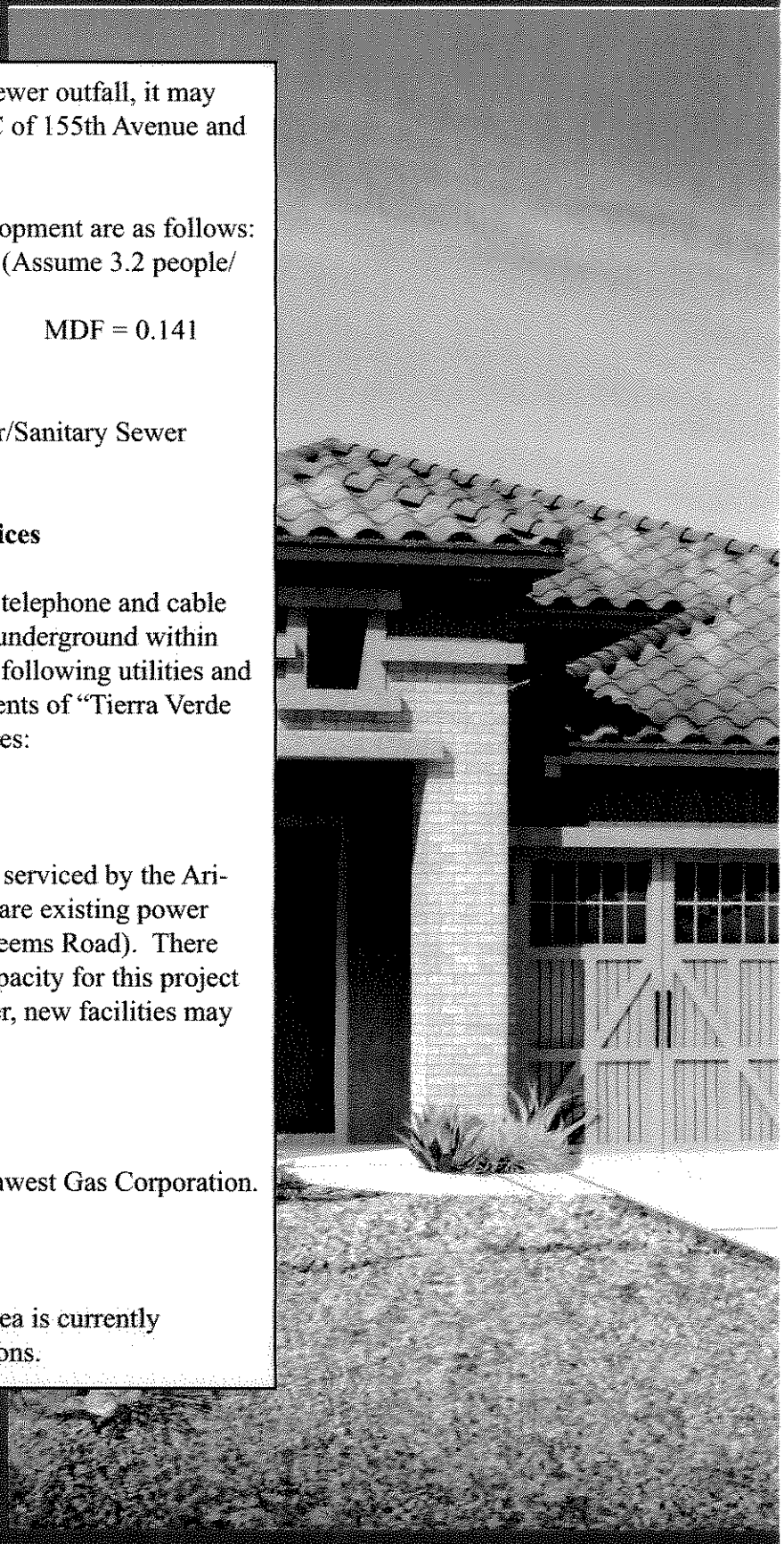
The surrounding area is currently serviced by the Arizona Public Service-APS. There are existing power pole lines along 155th Avenue (Reems Road). There appears to be adequate service capacity for this project and the surrounding area, however, new facilities may be required as this area develops.

8.2 Natural Gas

Service will be provided by Southwest Gas Corporation.

8.3 Telephone

Communication services in the area is currently provided by Qwest Communications.



8.4 Cable TV

The area is currently serviced by Cox Communications. There are no existing cable TV manholes or junction boxes currently in place.

8.5 Water

The City of Surprise will provide potable water to "Tierra Verde East". The development will utilize reclaimed water for irrigation purposes.

8.6 Sewer

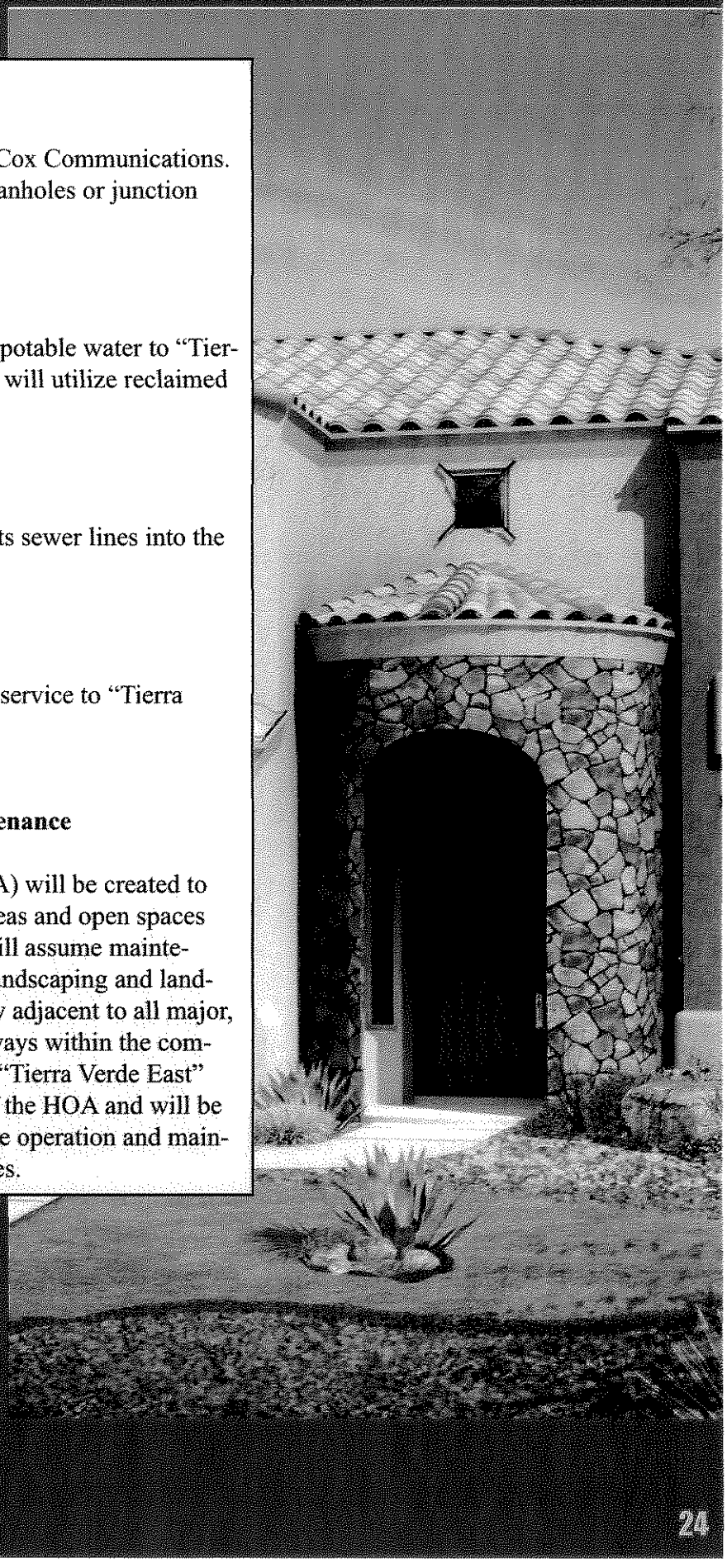
The City of Surprise will extend its sewer lines into the development.

8.7 Solid Waste (Trash)

The City of Surprise will provide service to "Tierra Verde East".

9.0 Management and Maintenance

A Homeowners Association (HOA) will be created to manage and maintain common areas and open spaces owned by the HOA. The HOA will assume maintenance responsibility for median landscaping and landscaping within public right of way adjacent to all major, minor arterial and collector roadways within the community's boundary. Residents of "Tierra Verde East" will automatically be members of the HOA and will be required to pay annual dues for the operation and maintenance of the community facilities.



10.0 Development Schedule

"Tierra Verde East" will be constructed in one phase. Construction is anticipated to commence in the second quarter of the calendar year 2006. The ultimate development schedule is contingent upon the prevailing market and economic conditions, absorption rates and industry factors at the time of consideration.

11.0 Covenants, Conditions and Restrictions

The developer will create and record a set of Covenants, Conditions and Restrictions (CC & R's) establishing a mater homeowners association (HOA) which will be responsible for the maintenance of the perimeter theme walls, signage, landscape buffers and landscaping in all common area and rights of ways.

TIERRA VERDE EAST
PLANNED AREA DEVELOPMENT
DIRECTORY OF EXHIBITS

EXISTING CONDITIONS

Regional Vicinity Map	Exhibit A
Surrounding Area Map	Exhibit B
2020 Surprise General Plan	Exhibit C
Surprise Special Planning Areas- Growth Areas	Exhibit D
Transportation/Circulation Plan	Exhibit E
Topography Map	Exhibit F

PROPOSED DEVELOPMENT

Land Use Tabulation	Exhibit G
Land Use Plan	Exhibit H
Single Family Residential Design Guidelines	Exhibit I
Typical Lot Layout	Exhibit J
Open Space and Circulation Plan	Exhibit K
Conceptual Architectural Elevations	Exhibit L
Landscape Exhibits	Exhibit M

DRAINAGE

Master Drainage Exhibits	Exhibit N

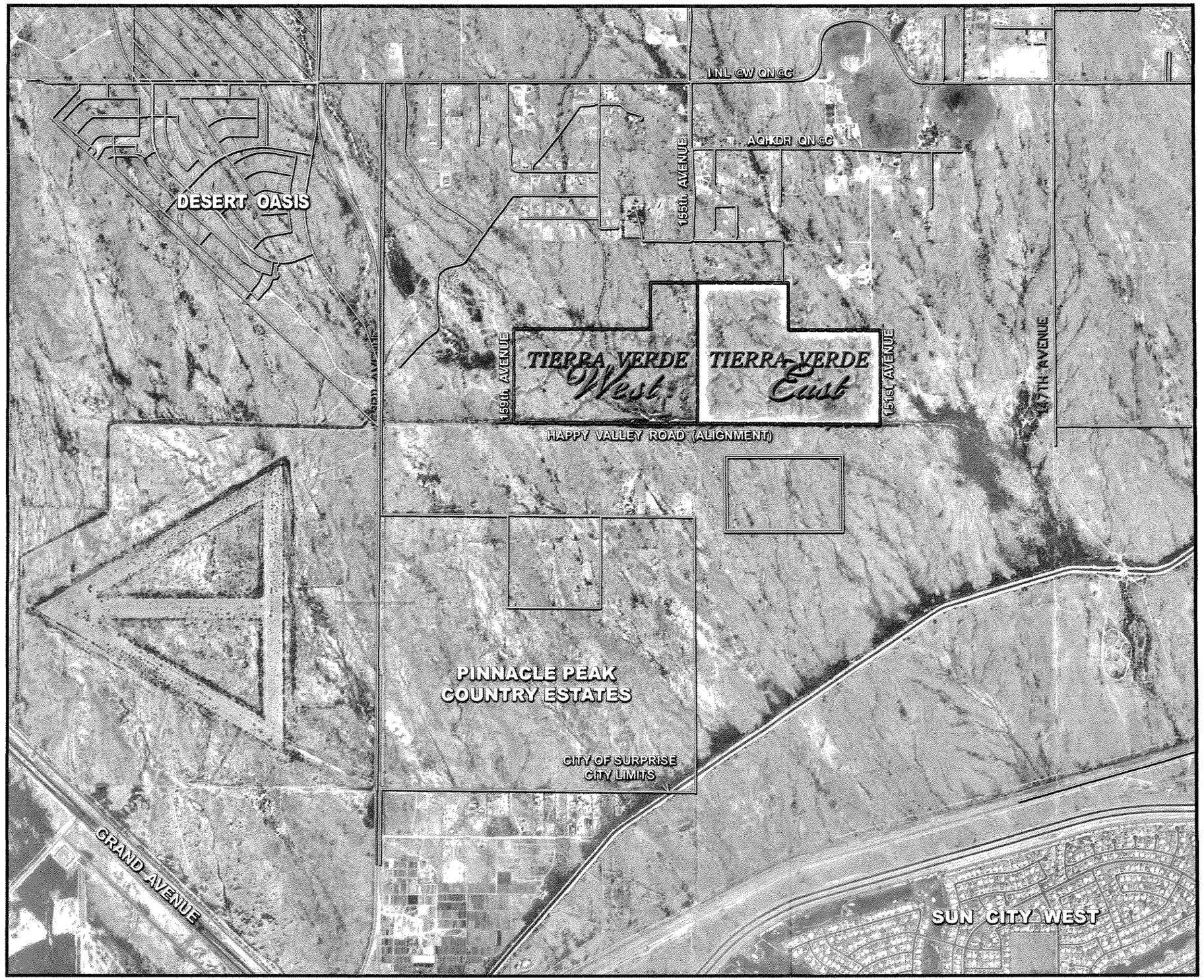
WATER SERVICE

Proposed Water Plan	Exhibit O

WASTEWATER SERVICE

Proposed Sewer Plan	Exhibit P

tierra verde East



TIERRA VERDE East

PLANNED AREA DEVELOPMENT

REGIONAL VICINITY MAP

NORTH

0 700
350 1400

EXHIBIT A

SEPTEMBER 9, 2005

CVL

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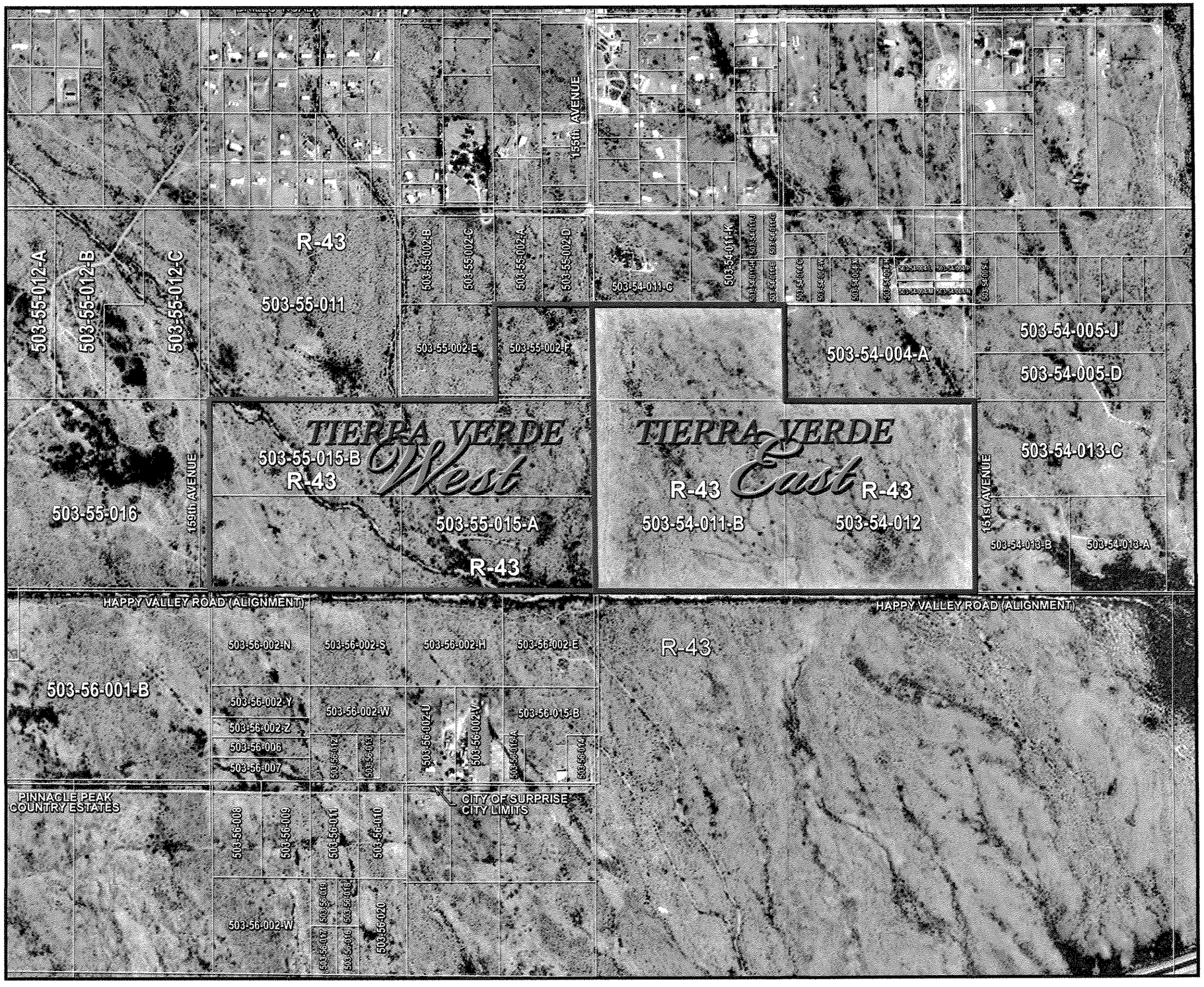

TIERRA VERDE East

PLANNED AREA DEVELOPMENT

SURROUNDING AREA MAP

NORTH

0 300
150 600

EXHIBIT B

September 5, 2005

CVL

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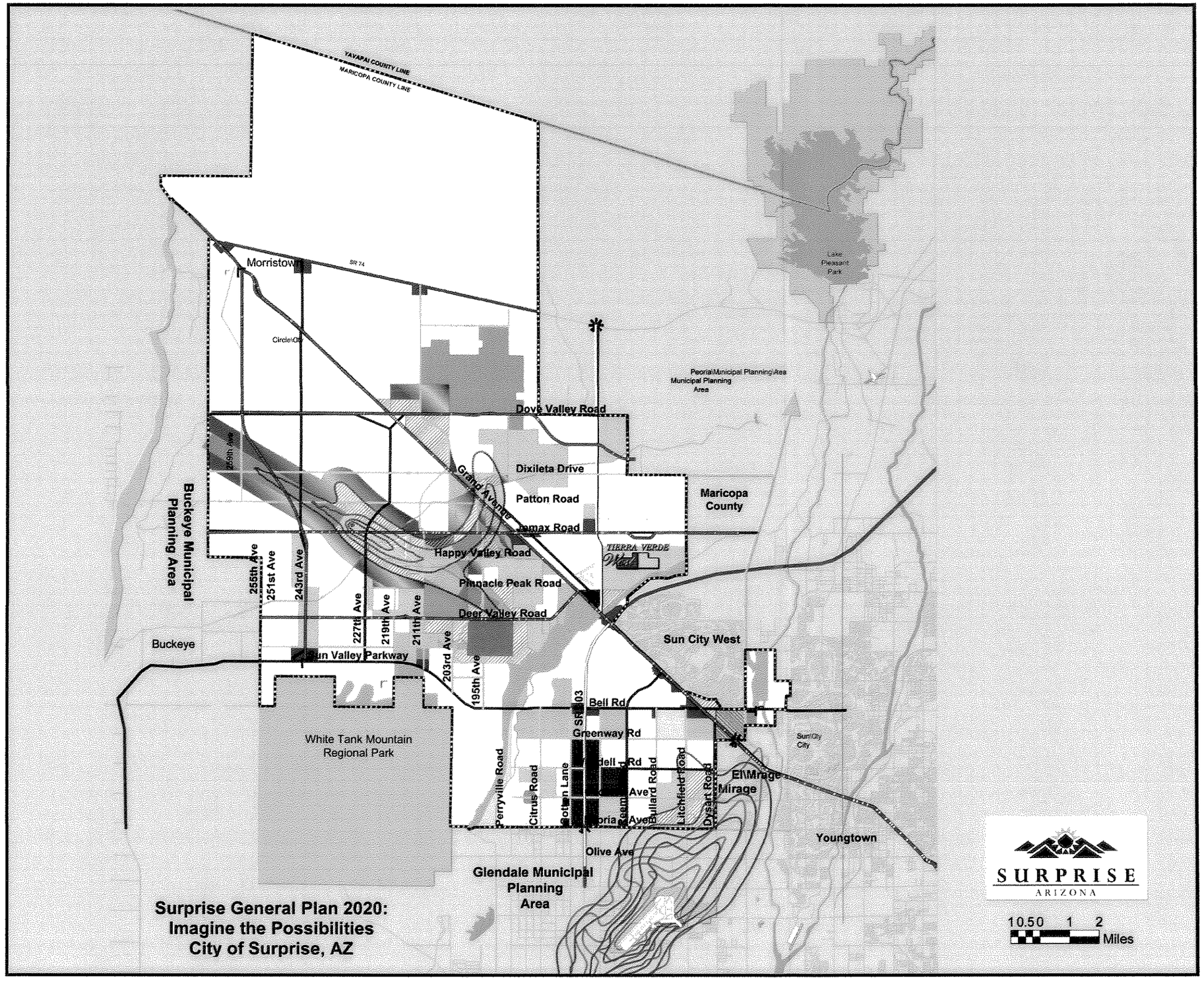

Surprise General Plan 2020:
Imagine the Possibilities
City of Surprise, AZ

TIERRA VERDE East

PLANNED AREA DEVELOPMENT

2020 SURPRISE GENERAL PLAN

Land Use Classification

- Airport Preservation (0-2 Du's/Ac)
- Rural Residential (0-1 Du's/Ac)
- Suburban Residential (1-3 Du's/Ac)
- Low Density Residential (3-5 Du's/Ac)
- Medium Density Residential (5-8 Du's/Ac)
- Medium/High Density Residential (8-15 Du's/Ac)
- High Density Residential (15-21 Du's/Ac)
- Surprise Center
- Original Townsite
- Commercial
- Employment
- Mixed Use Gateway
- Agriculture
- Landfill
- Military
- Open Space
- Public Facilities
- Proving Grounds
- Mixed-Use Gateway
- Resort Development

Street Classification

- Principal Arterial
- Major Arterial
- Minor Arterial
- Proposed Principal Arterial
- Proposed Major Arterial
- Proposed Minor Arterial
- Special Corridor
- PARKWAYS

- 1988 MAG Noise Contours
- 1995 Luke A.F.B Noise Contours (1997 Revised)
- Aux 1 F-16 Noise Contours
- City General Planning Area
- Maricopa County Boundary
- APZ I
- APZ II
- CLEAR ZONE

NORTH

EXHIBIT C

SEPTEMBER 9, 2005

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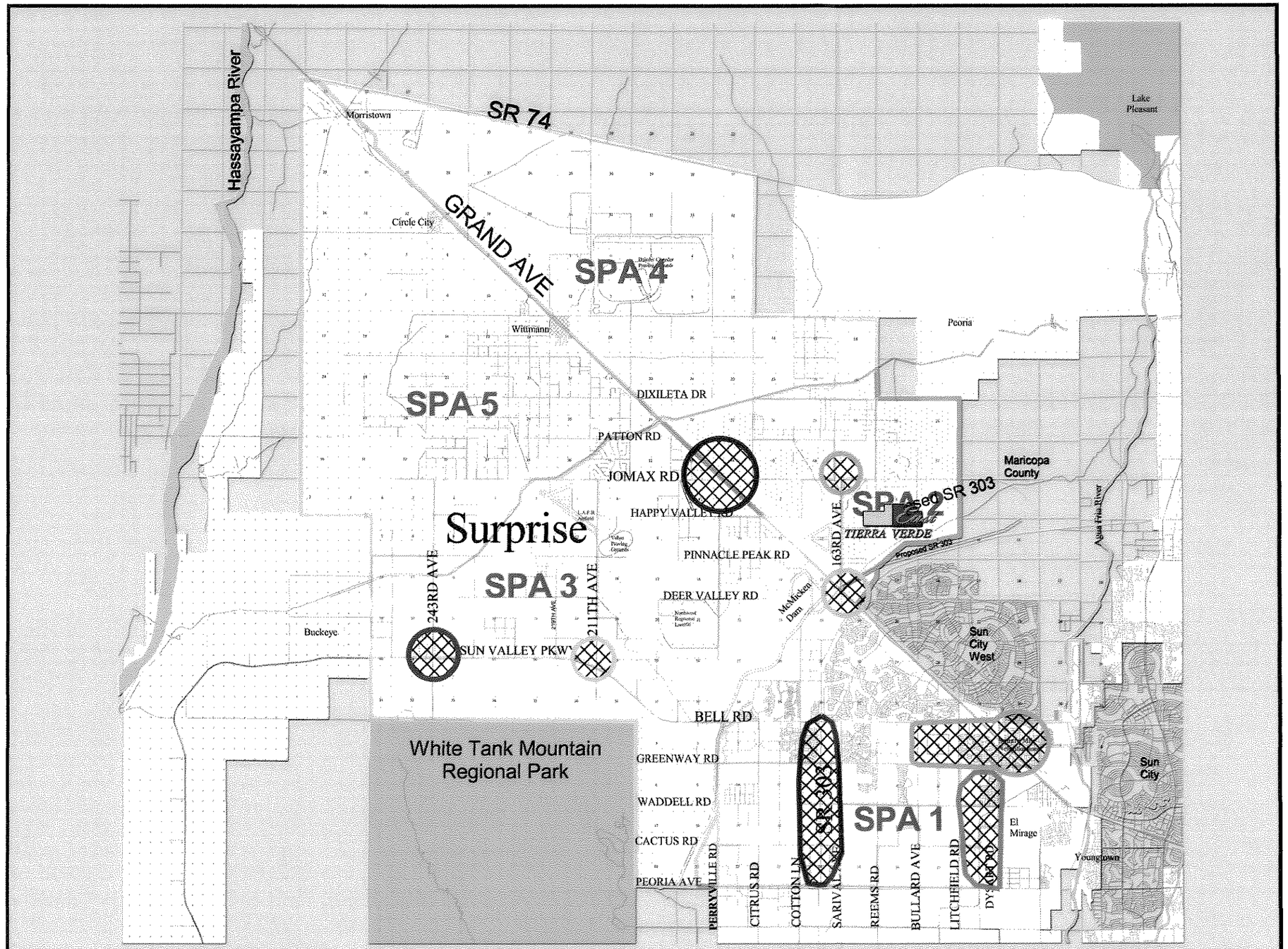
TIERRA VERDE East

PLANNED AREA DEVELOPMENT

SURPRISE GROWTH AREAS



Surprise General Plan 2020: Imagine the Possibilities
City of Surprise, AZ

Partners for Strategic Action, Inc.
Neill/Vecchia and Associates
David Evans and Associates

November, 2000

- SR 303 Corridor (South of Bell Road)
- Original Townsite/Surprise Center
- South Dysart Road
- Grand Ave. - SR 303
- Jomax Rd. - Grand Ave.
- Jomax Rd. - 163rd Ave.
- Sun Valley Parkway - 211th Ave.
- 243rd Ave. - Sun Valley Parkway
- Proposed Site

TIERRA VERDE

NORTH

1 0 1 2
Miles

EXHIBIT D

SEPTEMBER 9, 2005

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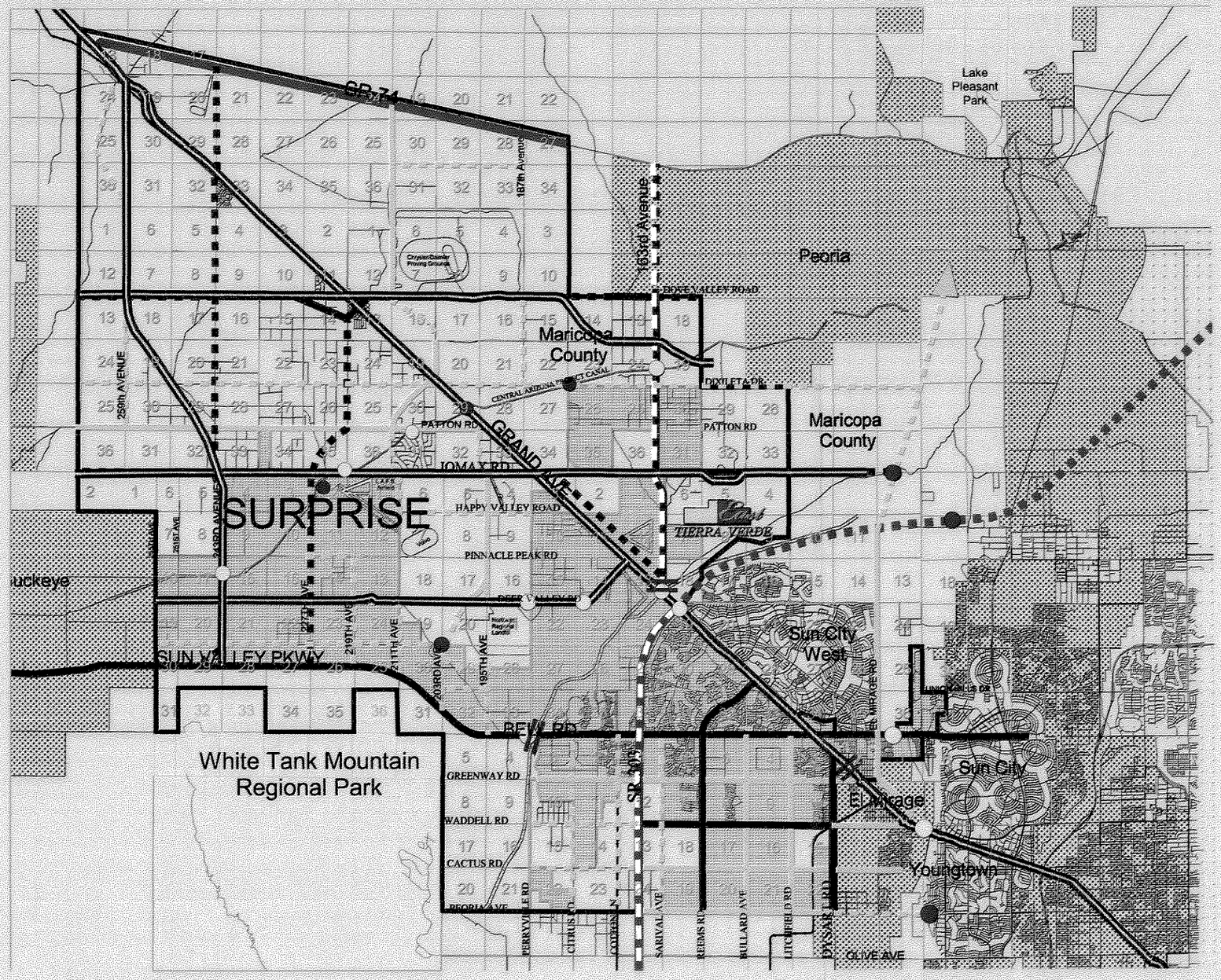
TIERRA VERDE East

PLANNED AREA DEVELOPMENT

TRANSPORTATION CIRCULATION PLAN

CITY OF SURPRISE



Street Classification

- Principal Arterial
- Major Arterial
- Minor Arterial
- Proposed Principal Arterial
- Proposed Major Arterial
- Proposed Minor Arterial
- Special Corridor

Existing and Proposed Bridges

- Existing Road Bridge
- Proposed Road Bridge
- Proposed Pedestrian Overpasses
- Planning Area
- City Corporate Boundary
- TIERRA VERDE Proposed Site

NORTH

1 0 1 2
Miles

EXHIBIT E

SEPTEMBER 9, 2005

CVL

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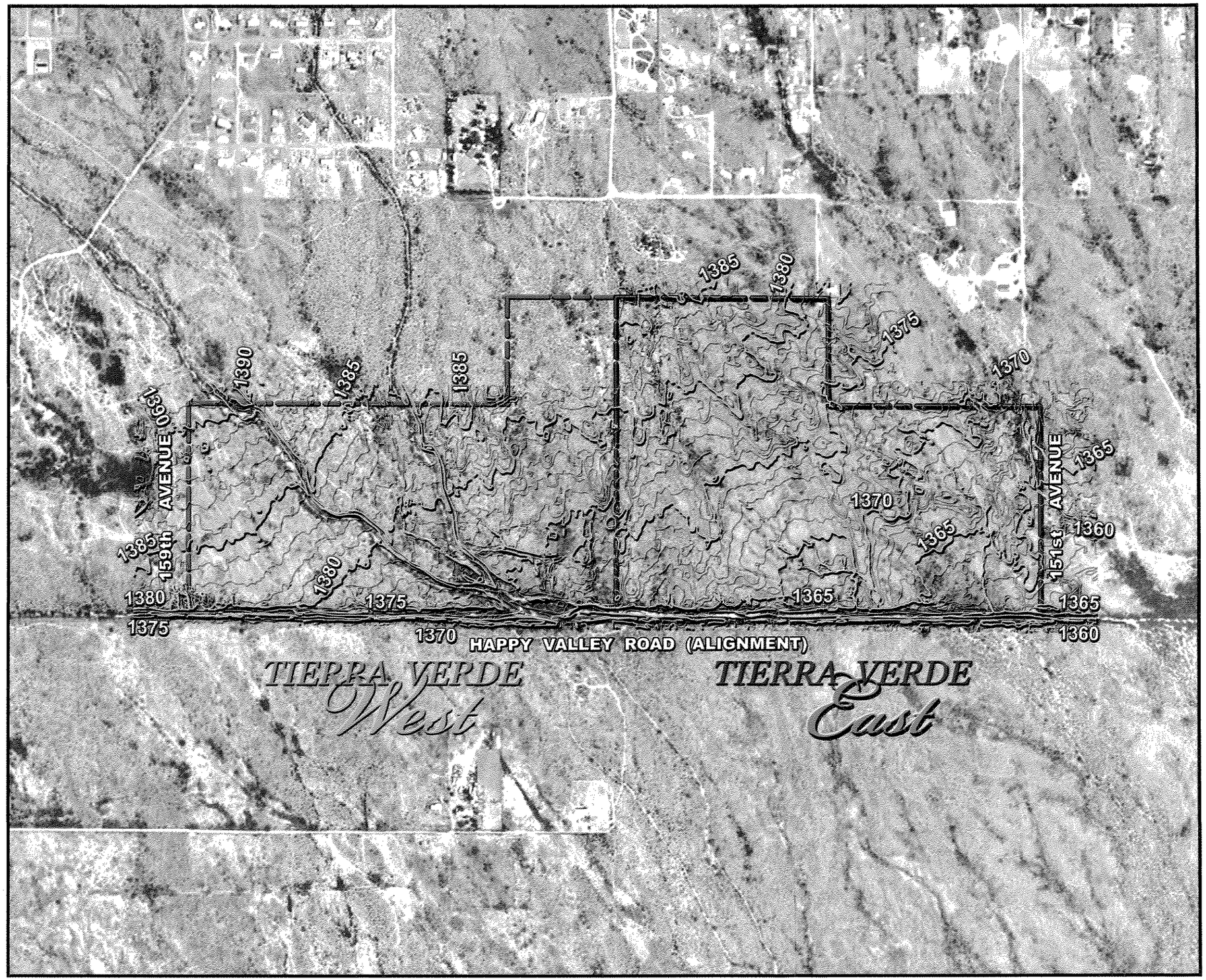
Surprise General Plan 2020: Imagine the Possibilities
City of Surprise, AZ

Partners for Strategic Action, Inc.
Neill/Vecchia and Associates
David Evans and Associates

November, 2000



TIERRA VERDE East

PLANNED AREA DEVELOPMENT

TOPOGRAPHY MAP

NORTH

0 200 100 400

EXHIBIT F

SEPTEMBER 9, 2005

CVL

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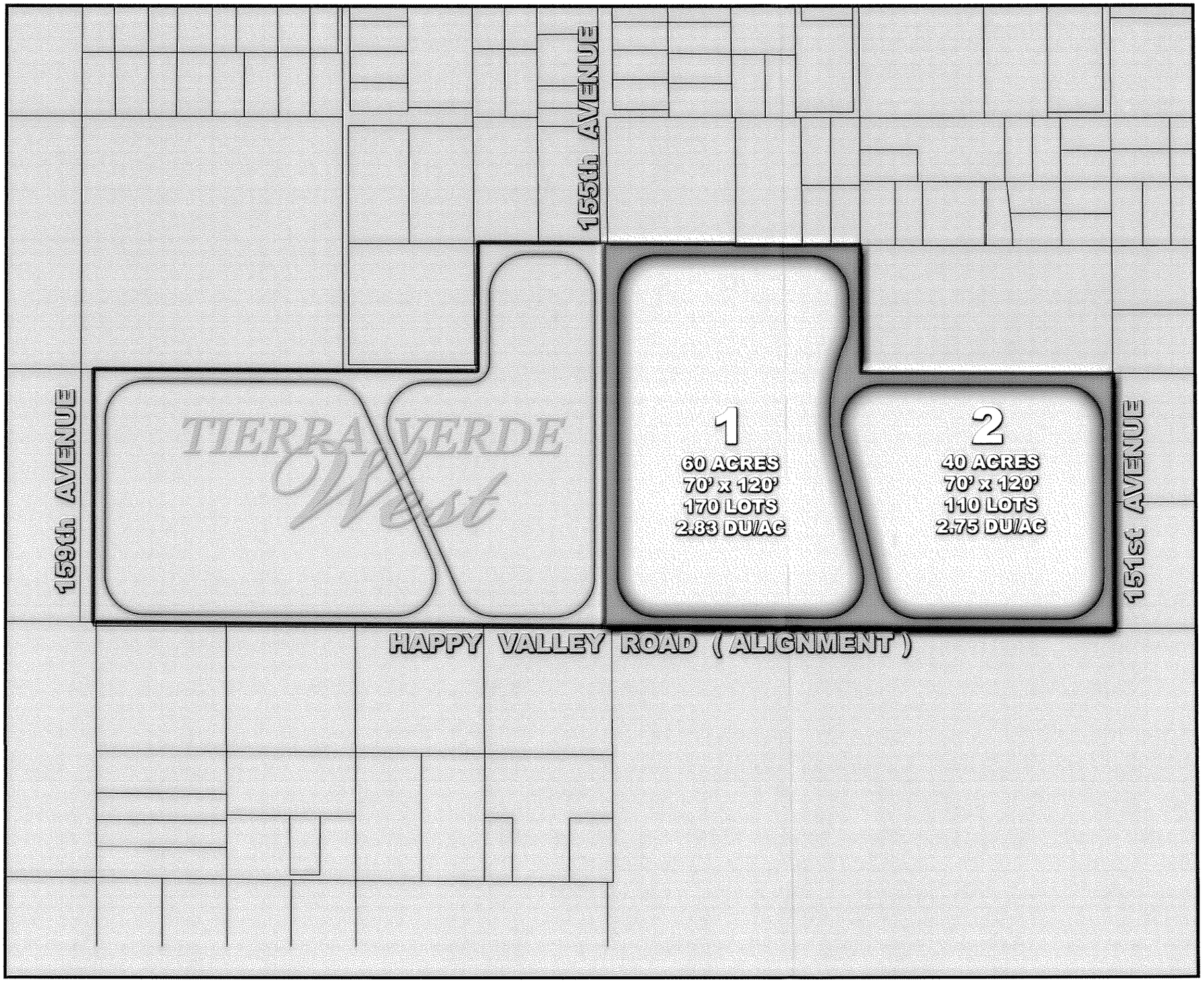
Land Use Tabulation

Land Use	Land Area Ac.	Lot Size	Dwelling Units	Density du/ac
Parcel 1	60	70' x 120'	162	2.70
Parcel 2	40	70' x 120'	108	2.70
Roads & Open Space (included in Parcel Area)	15.70 or 15.79%			
TOTAL	**100 Ac.**		**270**	**2.70**

EXHIBIT G



TIERRA VERDE East

PLANNED AREA DEVELOPMENT

LAND USE PLAN

LAND USE TABLE

PARCEL	ACREAGE	LOT SIZE	LOT YIELD	DENSITY
1	60.0	70'x120'	162	2.70
2	40.0	70'x120'	108	2.70
TOTAL	100.0		270	2.70

NORTH

0 500
250 1000

EXHIBIT H

SEPTEMBER 9, 2005

CVL

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Single Family Design Guidelines Comparison Table		
Regulations	Lot Category (C) Base Requirements	Proposed PAD Standards
Min. Front Setback	12′ living/18′ face garage[1]	10′ living/18′ face garage
Min. Side Yard Setbacks	5′/8′[2]	13′ Aggregate
Min. Corner Side Setback	13′ single story 20′ multi-story	10′ single story 15′ multi-story
Min. Rear Setback	15′ [3]	15′
Min. Lot Frontage Req.	63′	70′
Max. House Width Permitted on Min. Lot	55′	57′
Min. Lot Size (sf)	7,480	8,350
Max. Lot Coverage	None	45%
Min. Standards from Design List A	All A-K required	NA

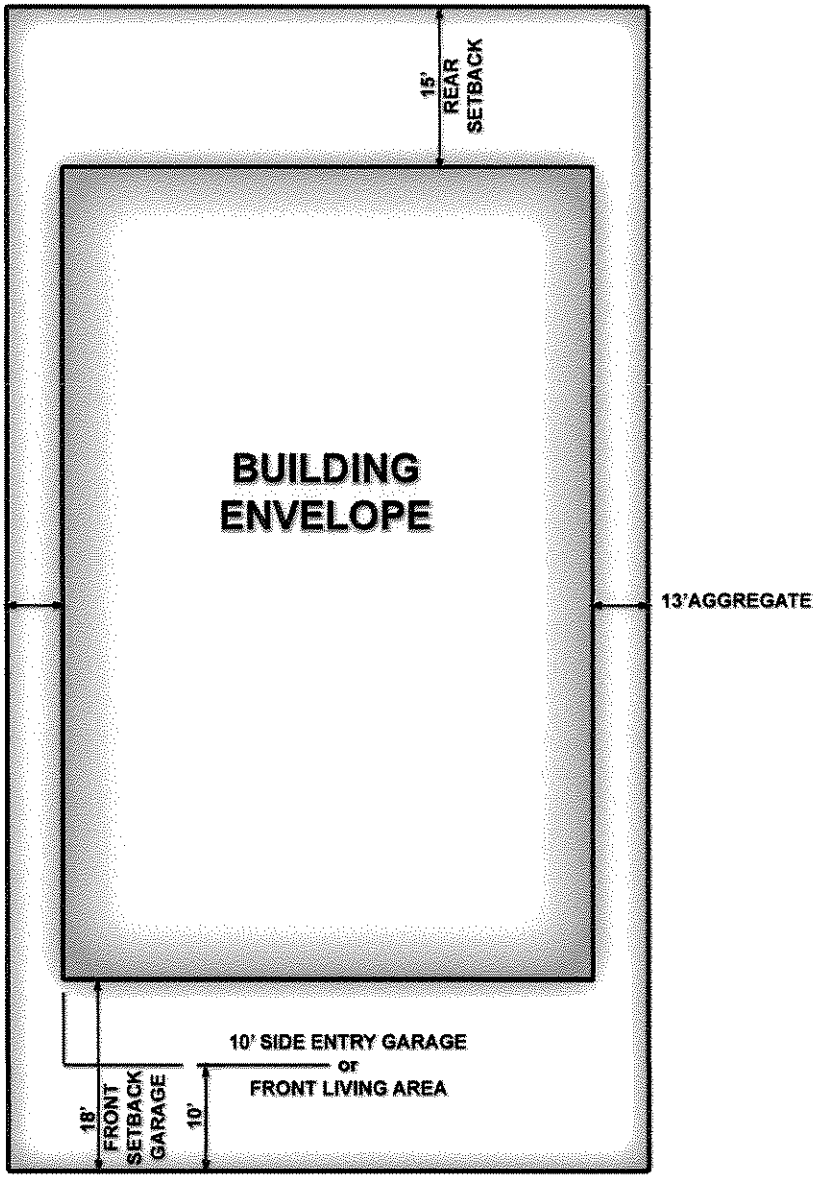
[1] Encroachments into required front and side setbacks will comply with Chapter 17.28, Article II and Section 17.32.070. In the event of a conflict between the provisions of Chapter 17.28, Article II and those of Section 17.32.070, the provisions of Chapter 17.28, Article II shall apply.

[2] Two adjacent multi-story houses must be separated by not less than 14 feet, and a multi-story house and an adjacent single-story house must be separated by not less than 12 feet. If any portion of a multi-story house has only one story adjacent to the side yard property line, the single-story setback will apply.

[3] Non-structural architectural features such as fireplaces, bay windows, pop-outs or patio covers may encroach into the rear setback, provided however, that a patio cover may not encroach more than ten (10′) into the rear setback.

EXHIBIT I

TIERRA VERDE East



70' LOT WIDTH

N.T.S.

LOT LAYOUT

EXHIBIT J

CVL

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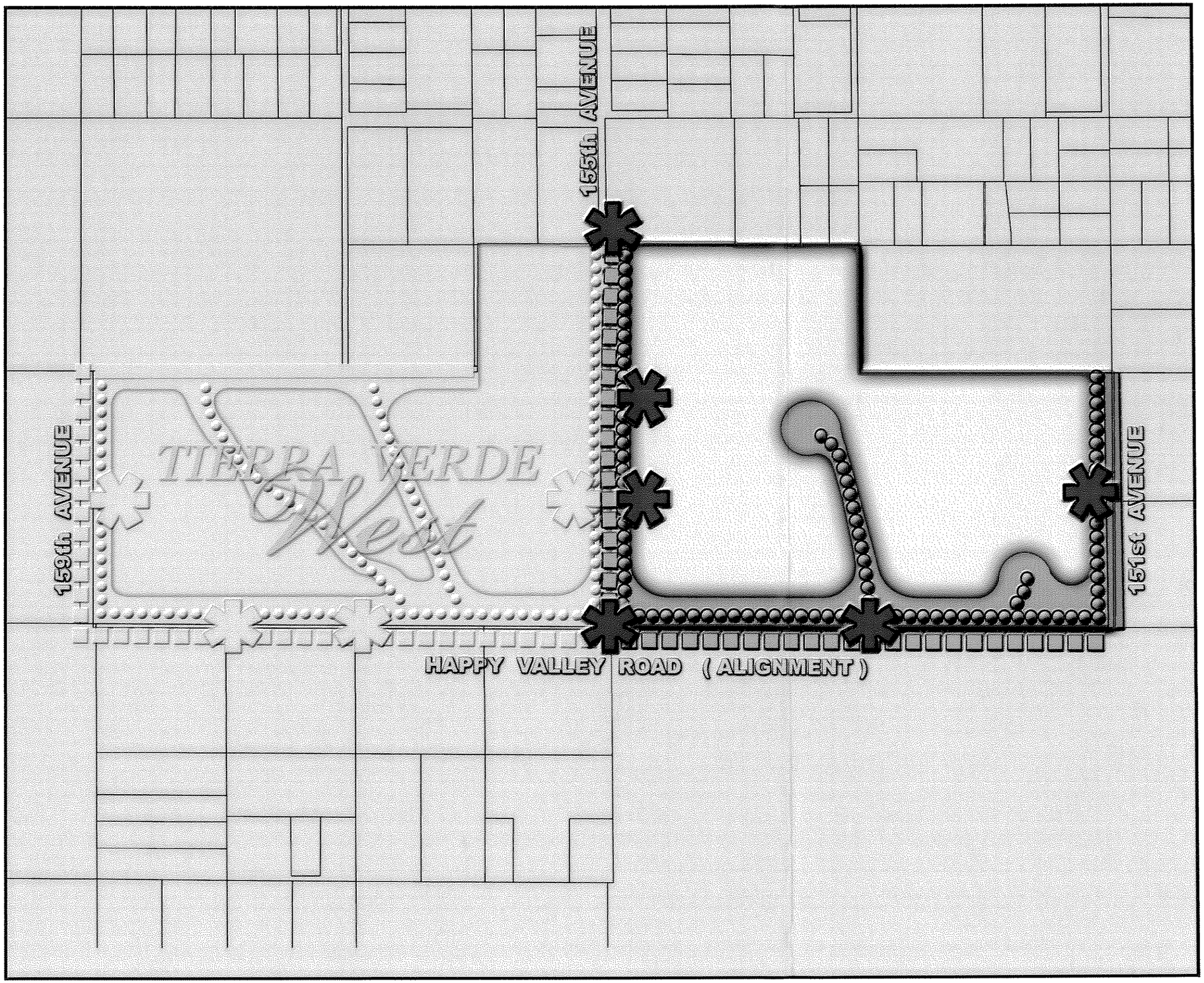


TIERRA VERDE East

PLANNED AREA DEVELOPMENT

CIRCULATION PLAN

LEGEND

PEDESTRIAN & BICYCLE TRAIL

COLLECTOR ROADS

MINOR ARTERIAL ROADS

ENTRY NODE

NORTH

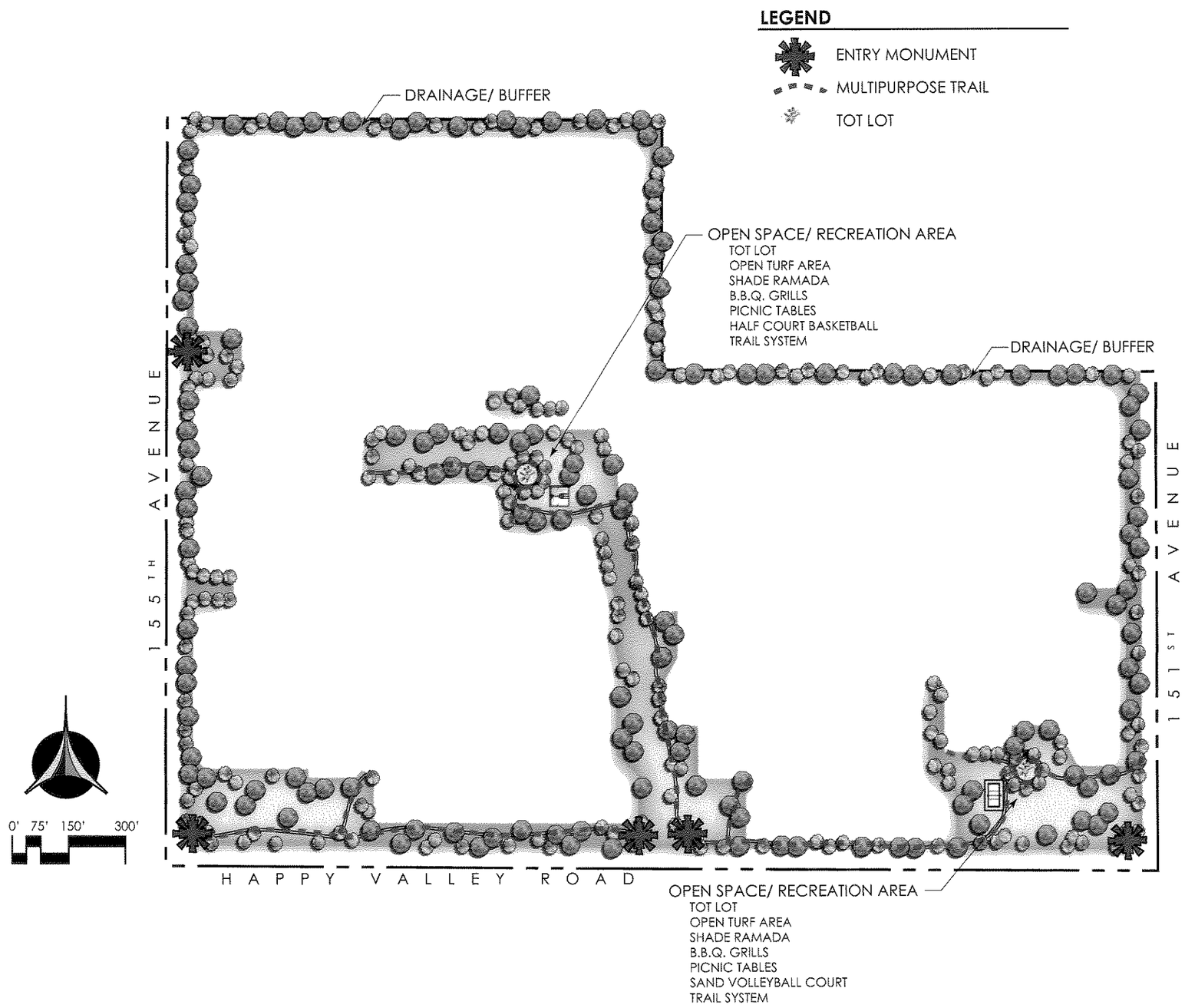
0 250 500 1000

EXHIBIT K

SEPTEMBER 9, 2005

CVL

N:/040134/Graphics/PAD/EAST/CirculationPlan-34x22.psd



PLANT PALETTE

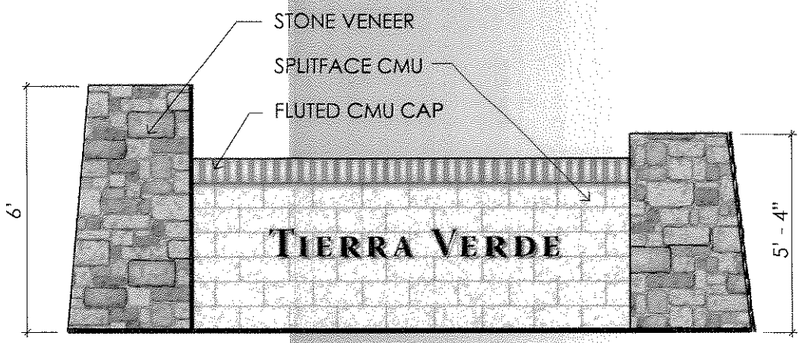
TREES:	
Acacia farnesiana	Sweet Acacia
Acacia stenophylla	Shoestring Acacia
Chilopsis linearis	Desert Willow
Fraxinus velutina	Fantex Ash
Parkinsonia floridum	Blue Palo Verde
Prosopis velutina	Velvet Mesquite
SHRUBS:	
Caesalpinia gilliesii	Yellow Bird of Paradise
Calliandra eriophylla	Pink Red Fairy Duster
Dodonaea viscosa	Hopbush
Encelia farinosa	Brittlebush
Ericameria laricifolia 'Desert Mountain'	Turpentine Bush
Hyptis emoryi	Desert Lavender
Justicia californica	Chuparosa
Larrea tridentata	Creosote bush
Leucophyllum laevigatum	Chihuahuan Sage
Simmondsia chinensis	Jojoba
Vauquelinia californica	Arizona Rosewood
Salvage Shrub	
ACCENTS	
Agave geminiflora	Twin-flowered Agave
Carnegia gigantea	Saguaro
Dasilyrion wheeleri	Desert Spoon
Hilaria rigida	Big Galleta
Muhlenbergia lindheimeri	Autumn Glow
Muhlenbergia rigens	Deer Grass
Muhlenbergia rigida	Nashville Deer Grass
Penstemon parryii	Parry's Penstemon
GROUNDCOVERS:	
Ambrosia deltoidea	Bursage
Baccharis x 'Starn'	'Starn' Thompson
Baileya multiradiata	Desert Marigold
Glandularia goodingii	Gooding's Verbena
Psilostrophe cooperi	Paper Flower

LANDSCAPE MASTER PLAN

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 9 SEPTEMBER 2005



ENTRY MONUMENT ELEVATION

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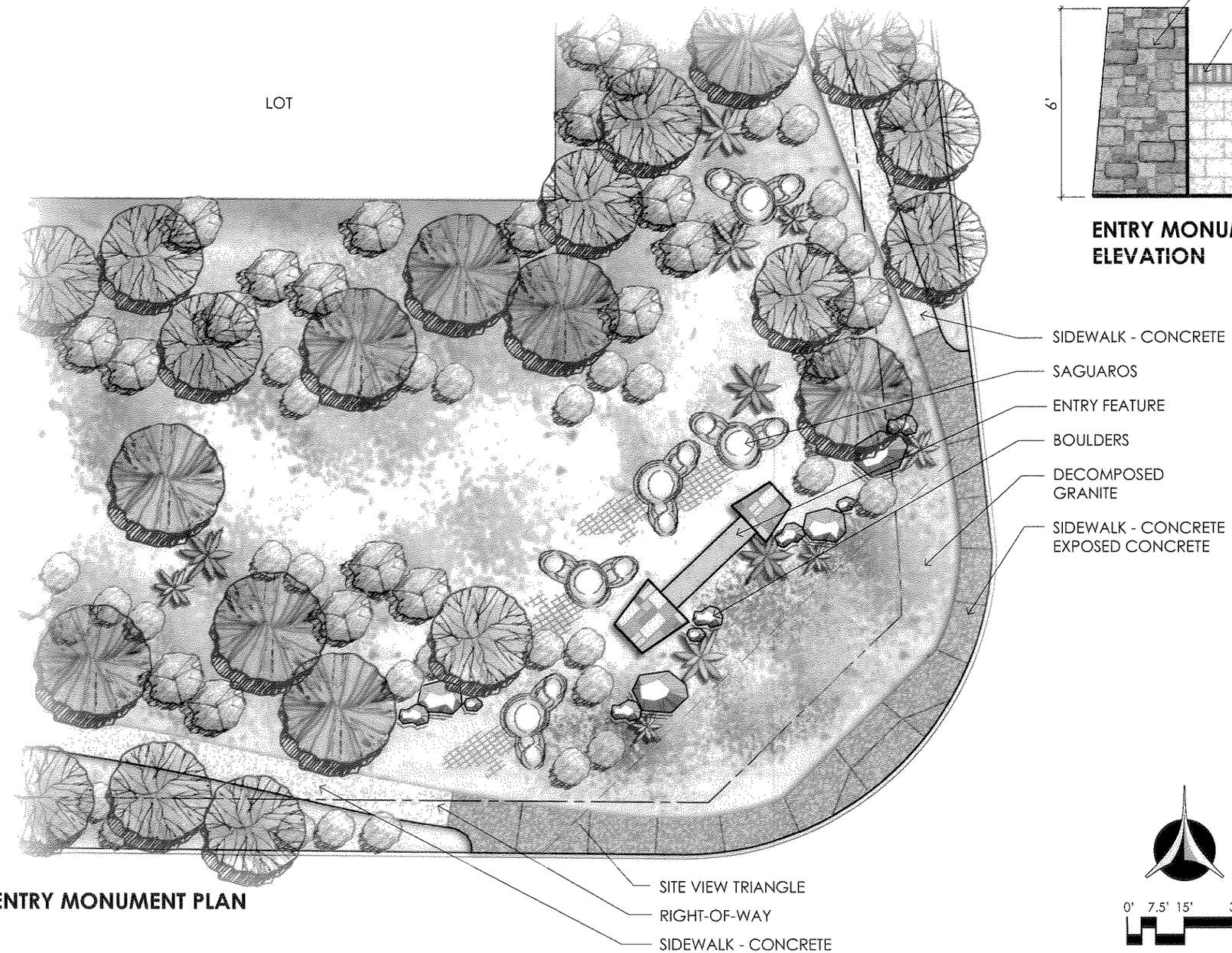
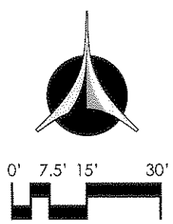


ENTRY MONUMENT PLAN



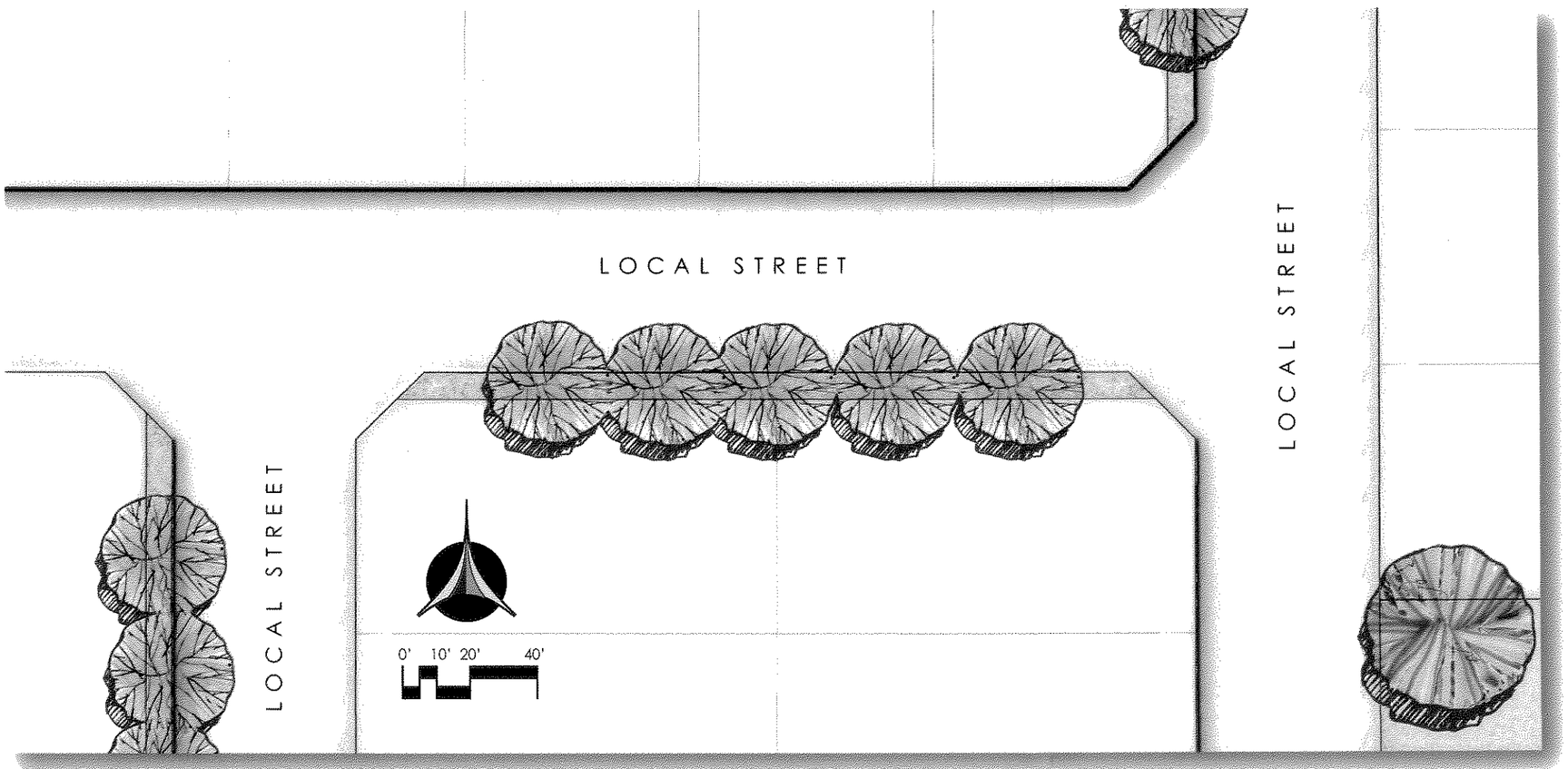
CONCEPTUAL LANDSCAPE
ENTRY FEATURE

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.
JOB #040134 9 SEPTEMBER 2005

CORNER LOT ELEVATION

N.T.S.



CORNER LOT PLAN VIEW

TYPICAL CORNER LOT

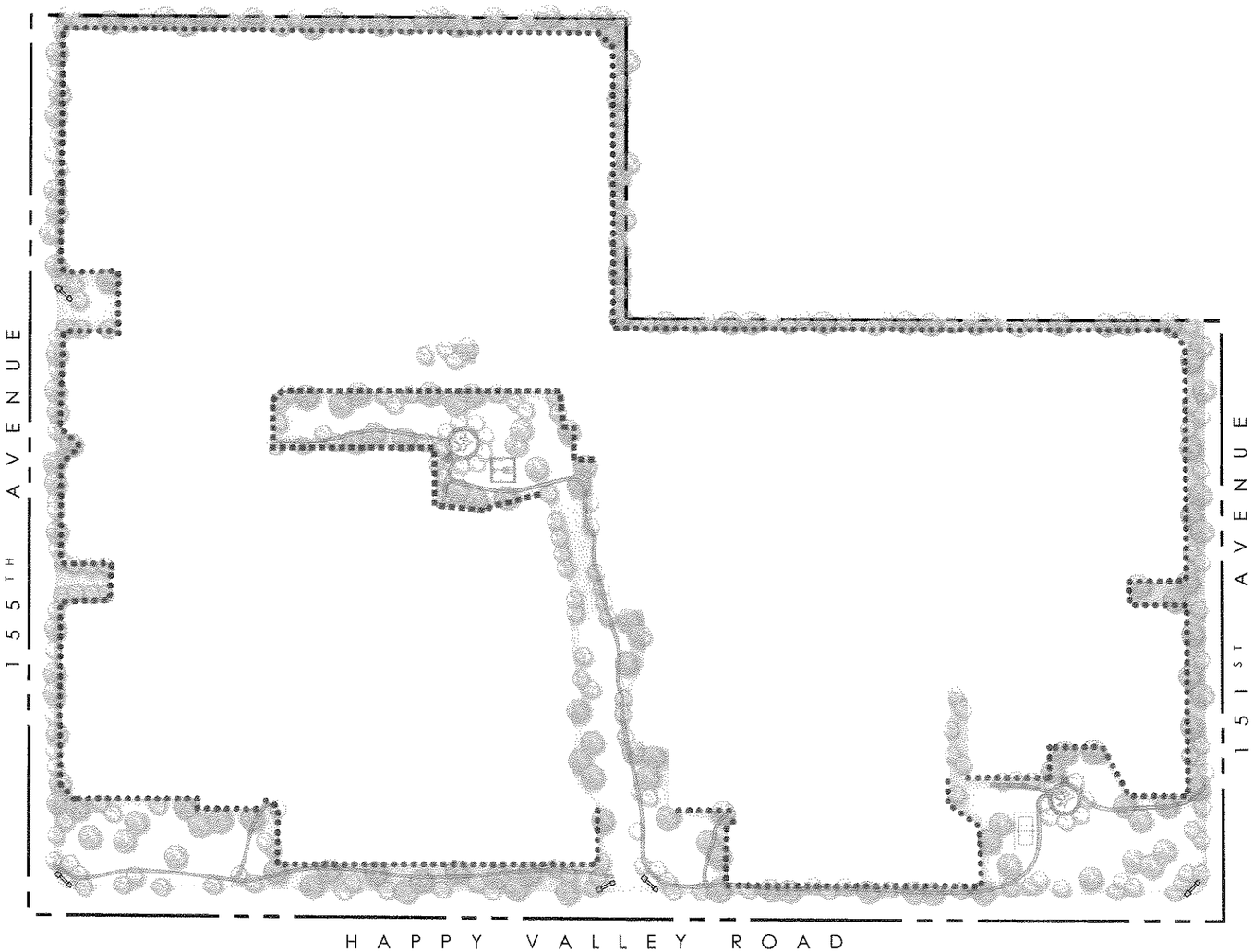
TIERRA VERDE EAST

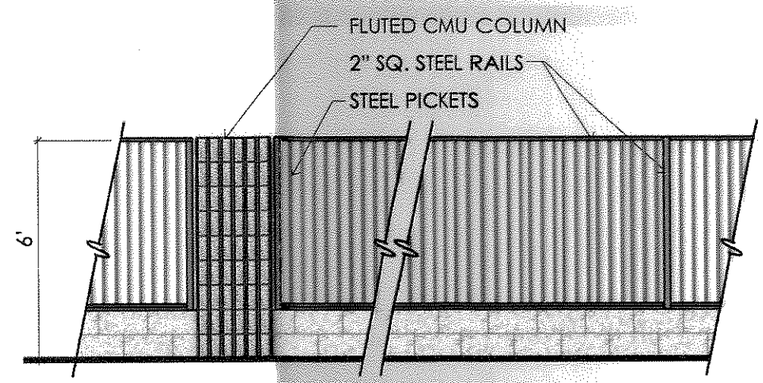
COE & VAN LOO CONSULTANTS, INC.

JOB #040134 9 SEPTEMBER 2005

PAGE

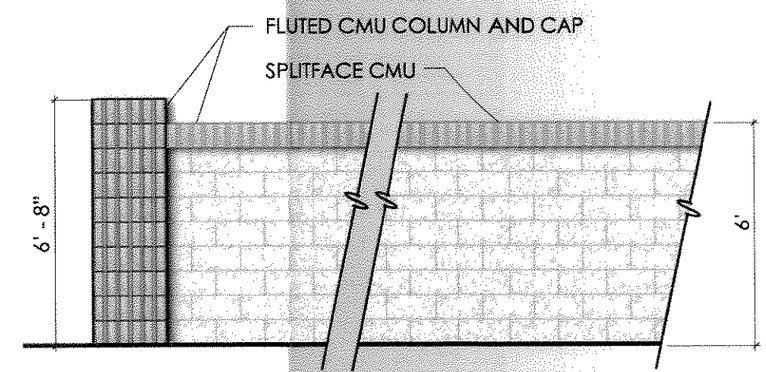
M-3





VIEW WALL

Scale ¼" = 1' - 0"



THEME WALL

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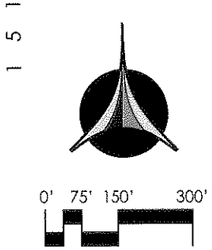


LEGEND

- Theme Wall
- View Wall

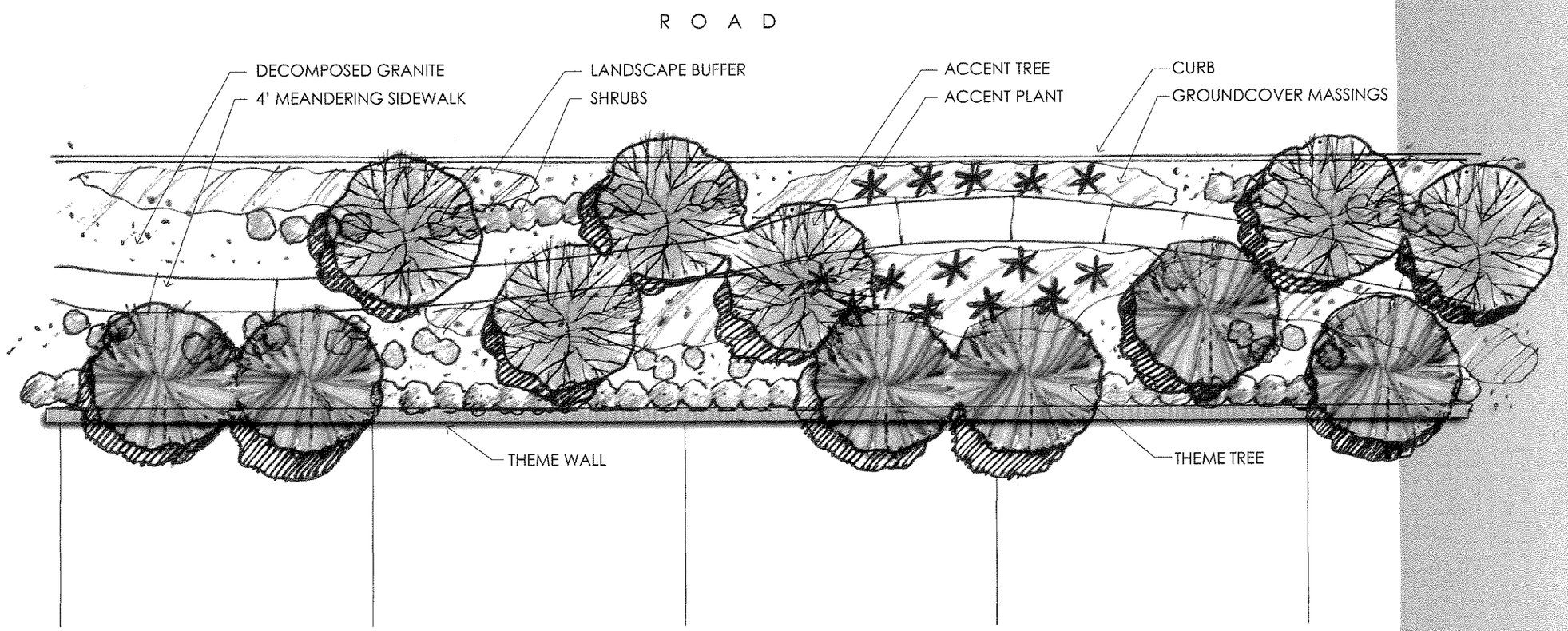
CONCEPTUAL WALL PLAN

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 9 SEPTEMBER 2005

PAGE **M-4**



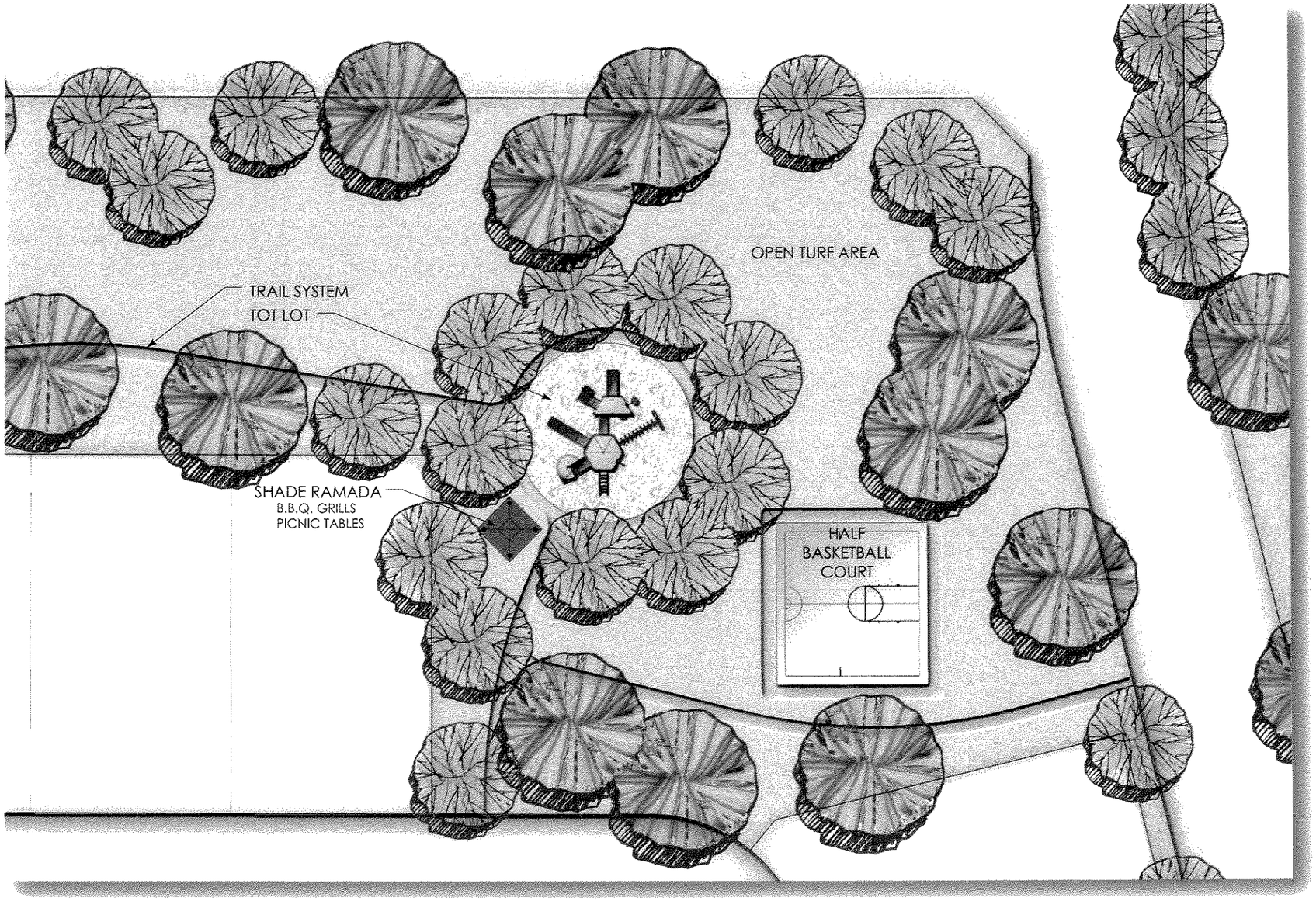
TYPICAL STREETSCAPE PLAN

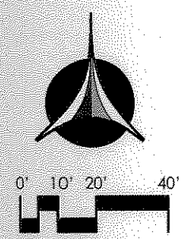
NOT TO SCALE

CONCEPTUAL STREETSCAPE

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.
JOB #040134 9 SEPTEMBER 2005





TYPICAL TOT LOT

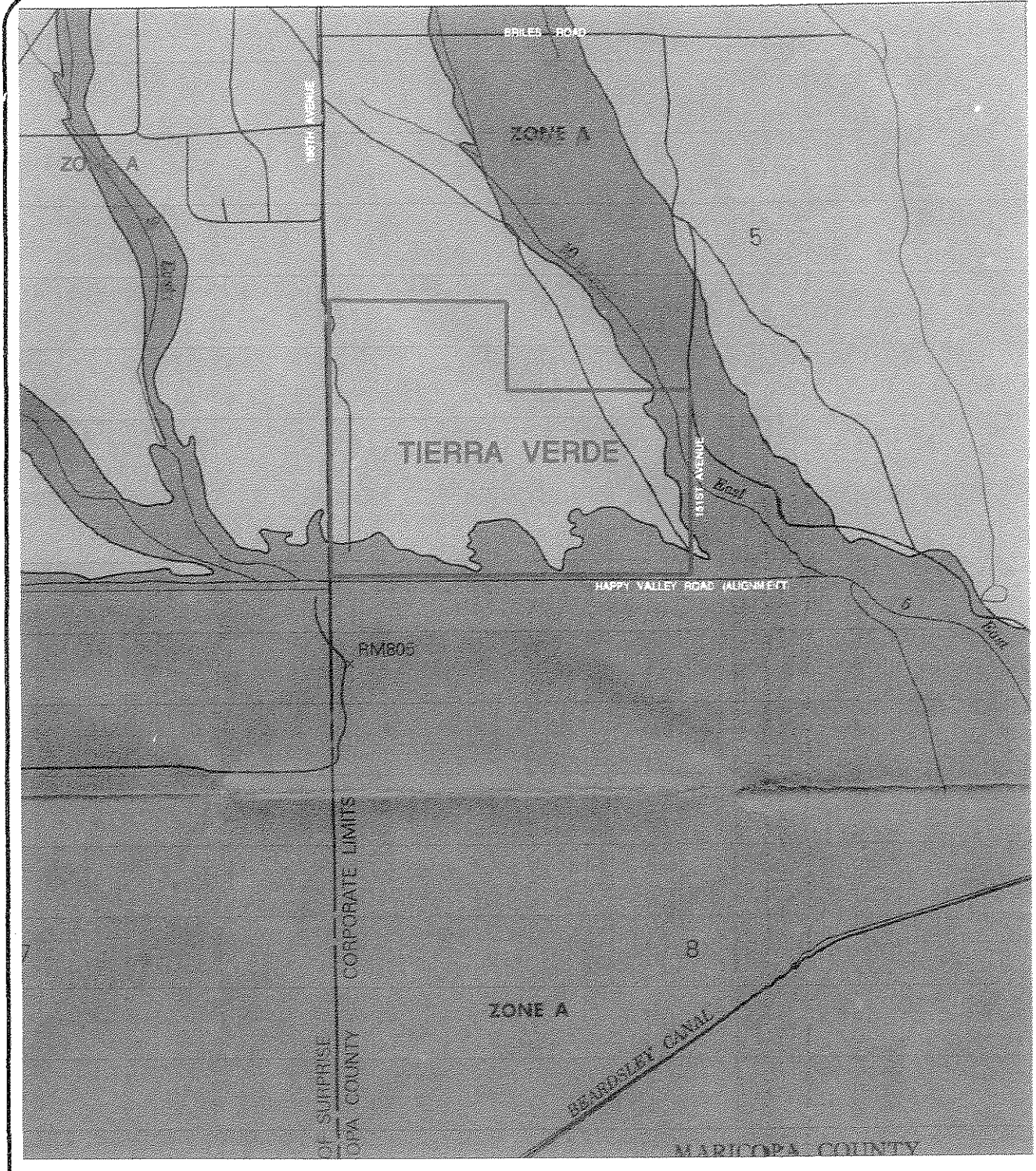
TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 9 SEPTEMBER 2005

PAGE

M-6

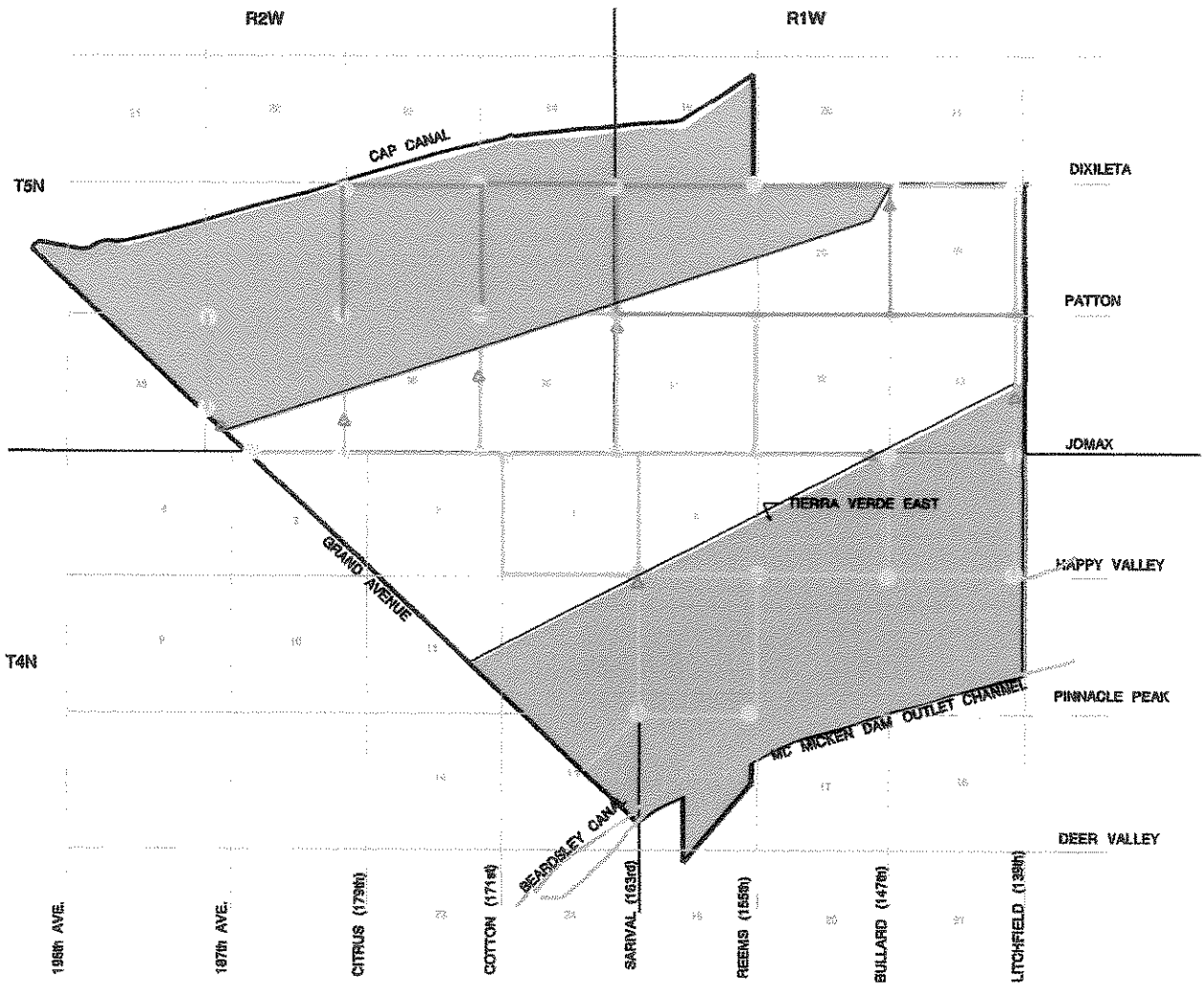


MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS
MAP NUMBER 04013C 1135 F REV. JULY 19, 2001

1000' 500' 0 1000'
SCALE IN FEET

FLOOD INSURANCE RATE MAP	TIERRA VERDE EAST	JOB NO 040134-03
4550 NORTH 12TH STREET PHOENIX, ARIZONA 85014 TELEPHONE (602) 264-6831	COE & VAN LOO PLANNING • ENGINEERING • LANDSCAPE ARCHITECTURE	FIGURE

May, 25, 2005
11:07:51
n:\040134\land\sdfig.dgn



LEGEND

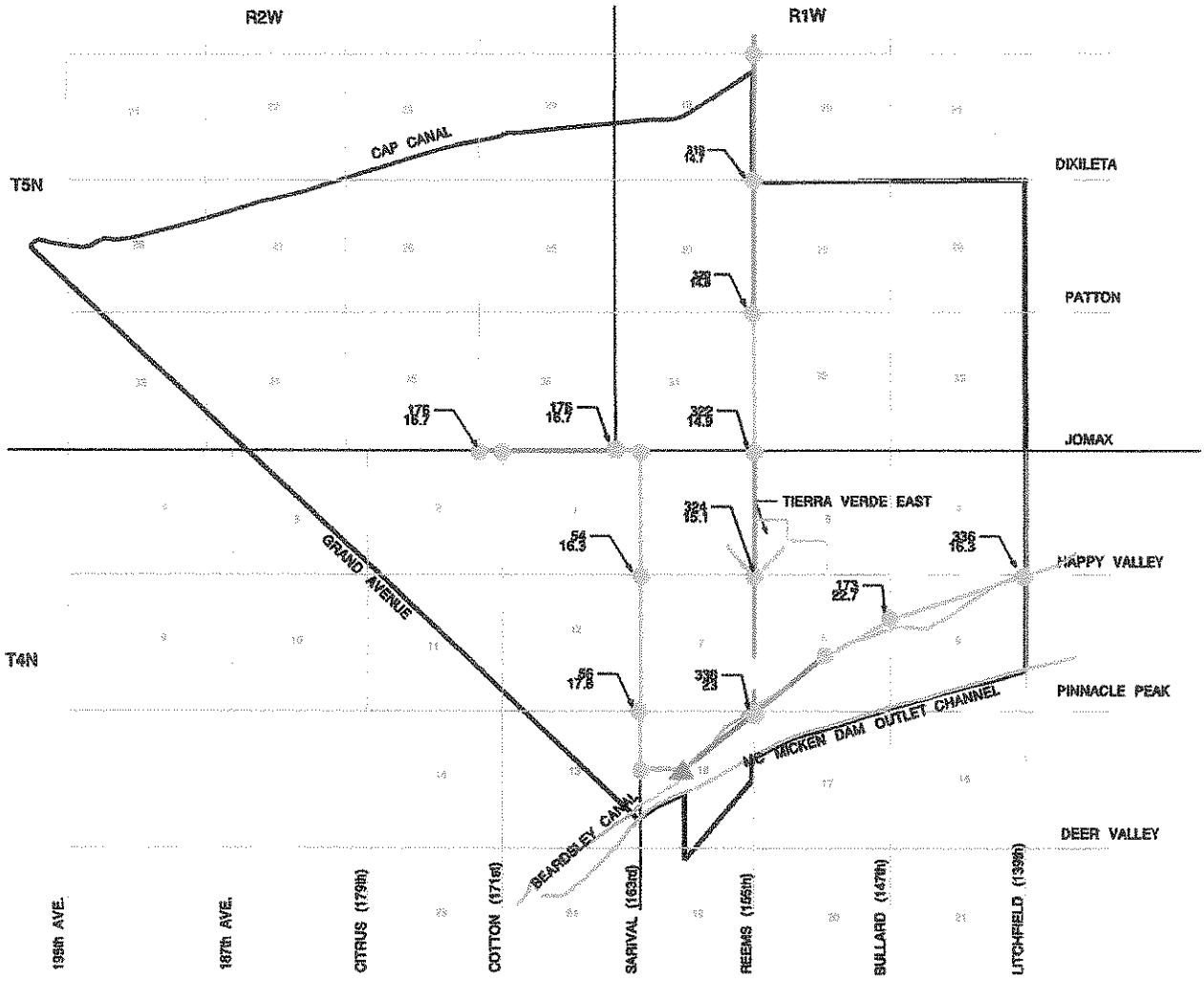
- SPA2 BOUNDARY
- 12" WATER LINE
- 16" WATER LINE
- PRESSURE NODE
- PRV

PRESSURE ZONES

- ZONE 5
- ZONE 6
- ZONE 7

SCALE: NONE

TIERRA VERDE EAST	SPA2 WATER BUILDOUT	JOB NO 040134
4550 North 12th Street Phoenix, Arizona 85014 Telephone 602-264-6831 http://www.cvlci.com	**Coe & Van Loo Consultants, Inc.**	EXHIBIT O



LEGEND

- SPA2 BOUNDARY
- 15" SEWER LINE
- 18" SEWER LINE
- 21" SEWER LINE
- 24" SEWER LINE
- 30" SEWER LINE
- 36" SEWER LINE
- 42" SEWER LINE
- MANHOLE
- WWTP

MANHOLE LEGEND

MANHOLE ID
DEPTH (FT)

SCALE: NONE

TIERRA VERDE EAST	SEWER BUILDOUT	JOB NO 040134
4550 North 12th Street Phoenix, Arizona 85014 Telephone 602-264-6831 http://www.cvlci.com	**Coe & Van Loo Consultants, Inc.**	EXHIBIT P

APPENDIX

RECOMMENDATIONS: **(PAD05-264)**

The proposal complies with the General Plan 2020 Land Use Map and will not adversely affect the public health, safety or welfare. Additionally, the applicant will make all necessary infrastructure improvements in order to accommodate the proposed development.

The applicant agrees to comply with the following stipulations:

STANDARD STIPULATIONS:

a) Major changes to this P.A.D. with regard to use and intensity, must be processed as a revised application with approval by the City Council upon recommendation of the Planning and Zoning Commission. Minor changes to this P.A.D. may be administratively approved by the Community Development Director, Water Services Directory, Fire Marshal, and the City Engineer;

b) The applicant shall submit a written response to stipulations. The Response to Stipulations shall consist of a written response to the approved stipulations and five (5) copies of the P.A.D. document revised as necessary to comply with these approved stipulations. Said submission must be under one (1) transmittal package and shall be submitted within fifteen (15) days of City Council approval;

c) All infrastructure shall be constructed pursuant to the provisions of 16.20 of the Surprise Municipal Code or an approved development agreement, whichever applies;

d) Before Standard Plans are submitted for review a Home Product Review will need to be submitted and approved by the Planning Division;

e) A will serve letter will be required prior to issuance of any building permits; and

f) All public notice signs shall be removed from the site immediately following final **decision** by the Planning and Zoning Commission or City Council as applicable. A signed Affidavit of Sign Removal shall be included within the Stipulation Response Package.

SPECIAL STIPULATIONS:

g) The developer / developers shall be required to provide a minimum of two paved lanes for Happy Valley Road, east of 163rd Avenue. No building permits shall be issued for the subject project / projects prior to the City Engineer's acceptance of the Happy Valley Road improvements. Voyager and Woodside will share cost of extending Happy Valley Road to serve both properties.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

December 13, 2004

REPLY TO
Office of the Chief
Regulatory Branch

Mr. Mike Voigt
Surprise 100, LLC
Voyager Investment Properties
6900 East 2nd Street
Scottsdale, Arizona 85251

File Number: 2004-01861-AP

Dear Mr. Voigt:

Reference is made to your agent's letter dated September 4, 2004 in which you requested a Clean Water Act Section 404 jurisdictional determination on your property located at the northeast corner of 155th Avenue and Happy Valley Road (Section 5, T4N, R1W), Maricopa County, Arizona.

Based on the information furnished in your letter (referenced above), we have determined that your property is not subject to our jurisdiction under Section 404 of the Clean Water Act. Since there are no waters of the United States within the aforementioned proposed project area, no Section 404 permit is required from our office.

The receipt of your request is appreciated. If you have questions, please contact Ann Palaruan at (602) 640-5385 x 227.

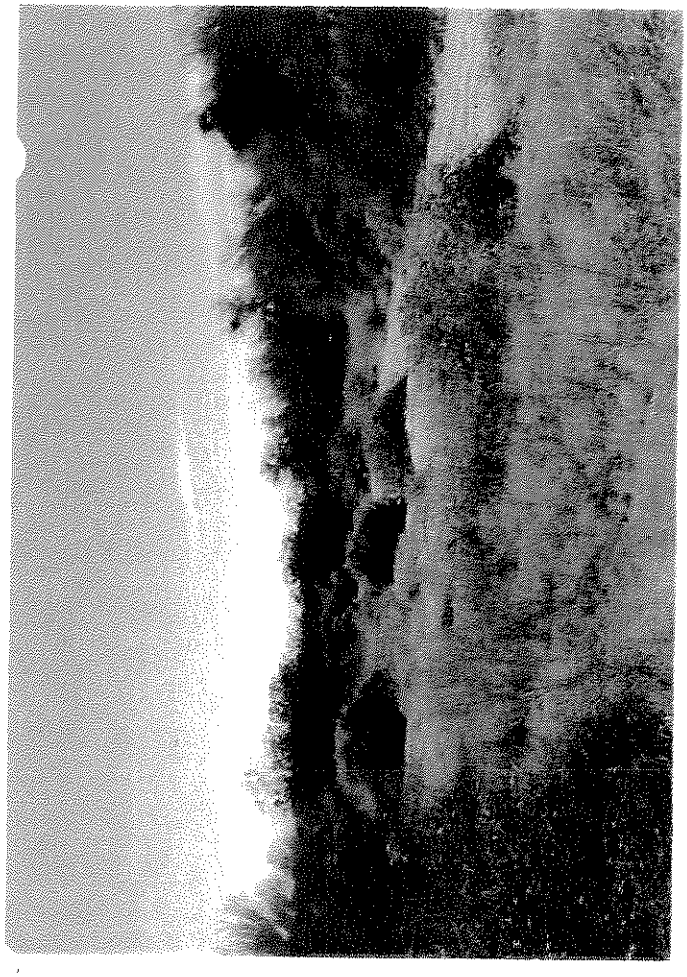
Sincerely,

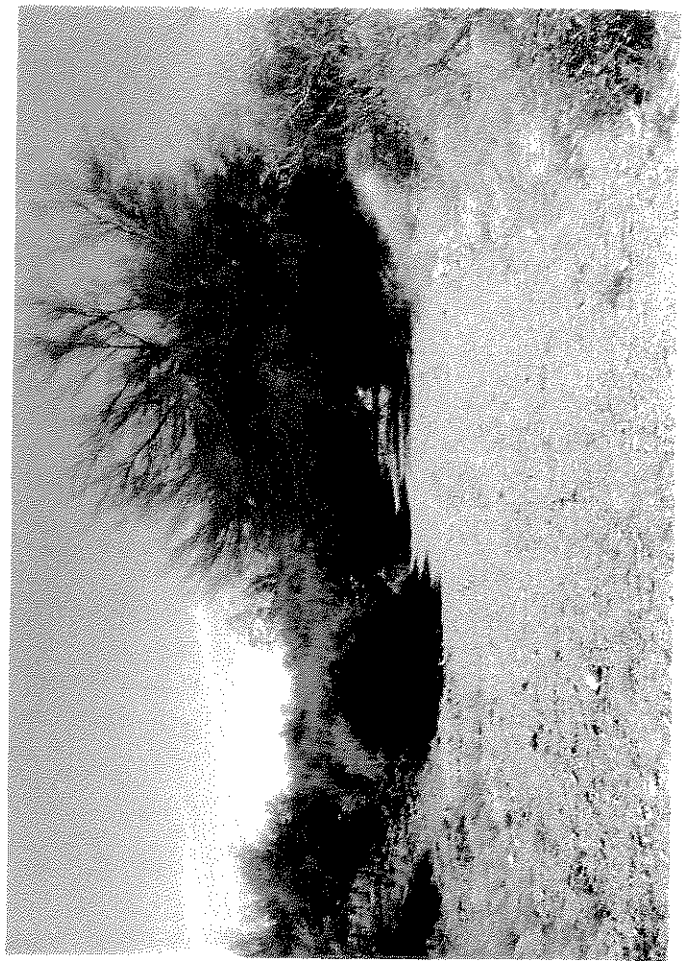
Cindy Lester

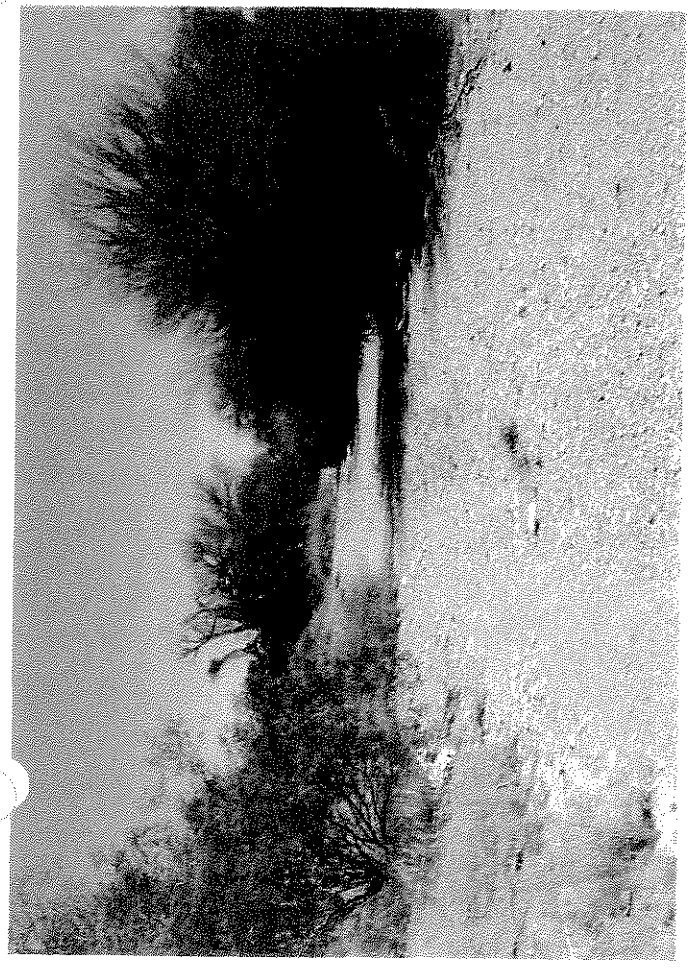
Cindy Lester P.E.
Chief, Arizona Section
Regulatory Branch

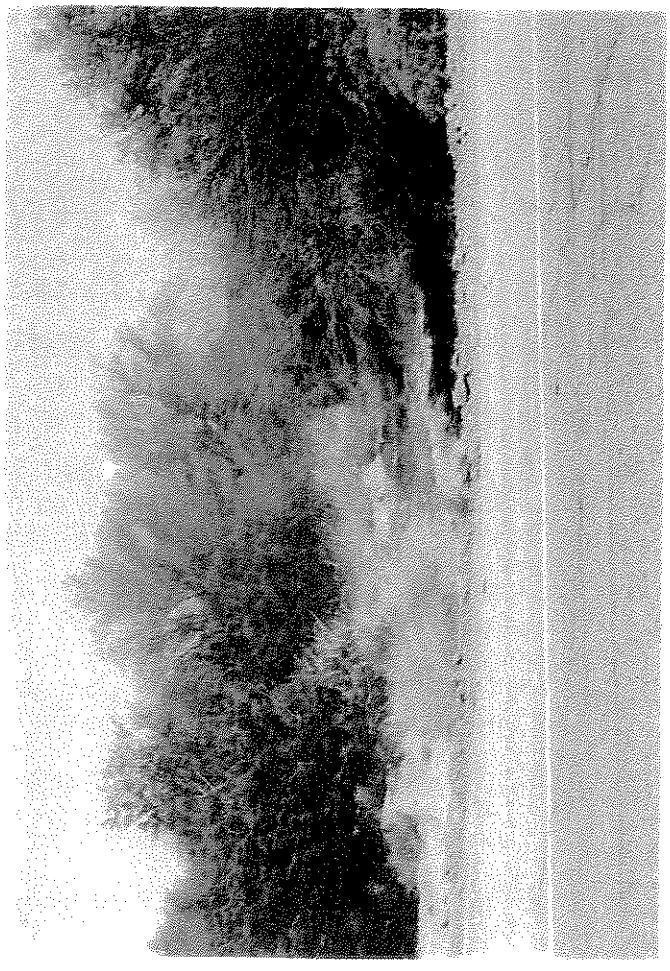
Copy Furnished:

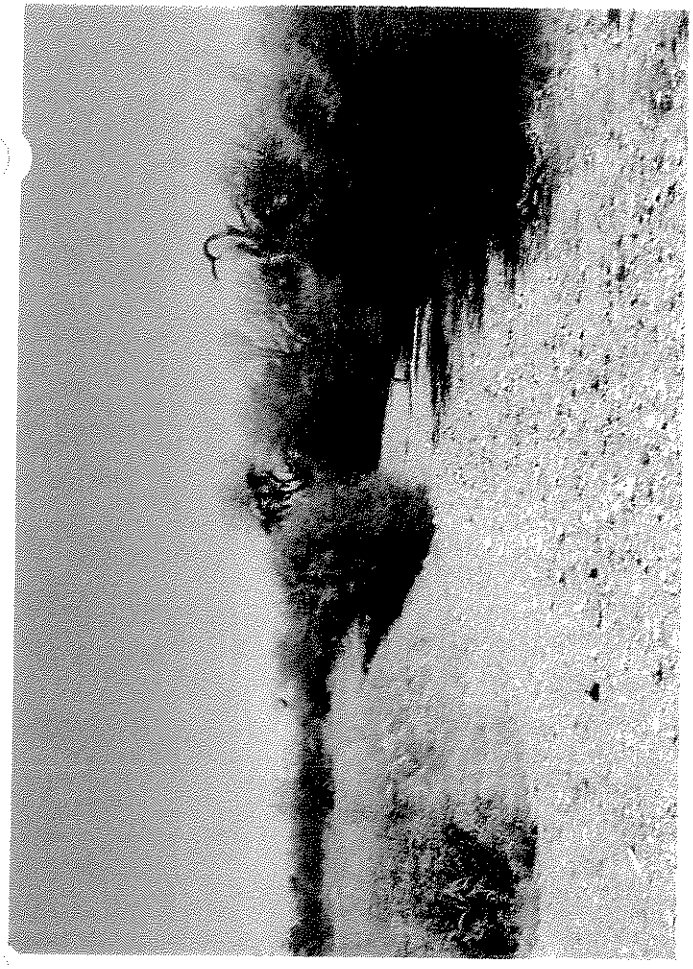
Mr. Joseph C. McGill
Neil/McGill Consultants, Inc.
1625 East Northern Avenue
Suite 202
Phoenix, Arizona 85020

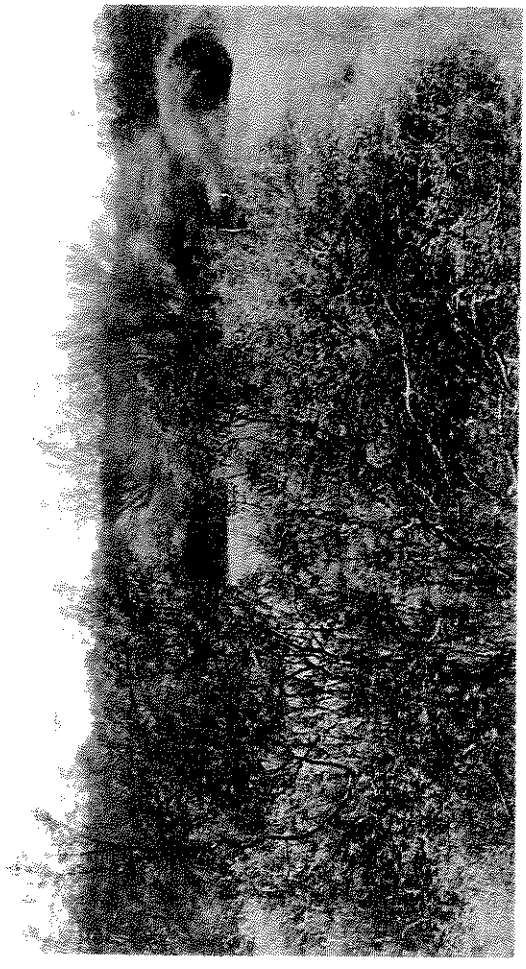


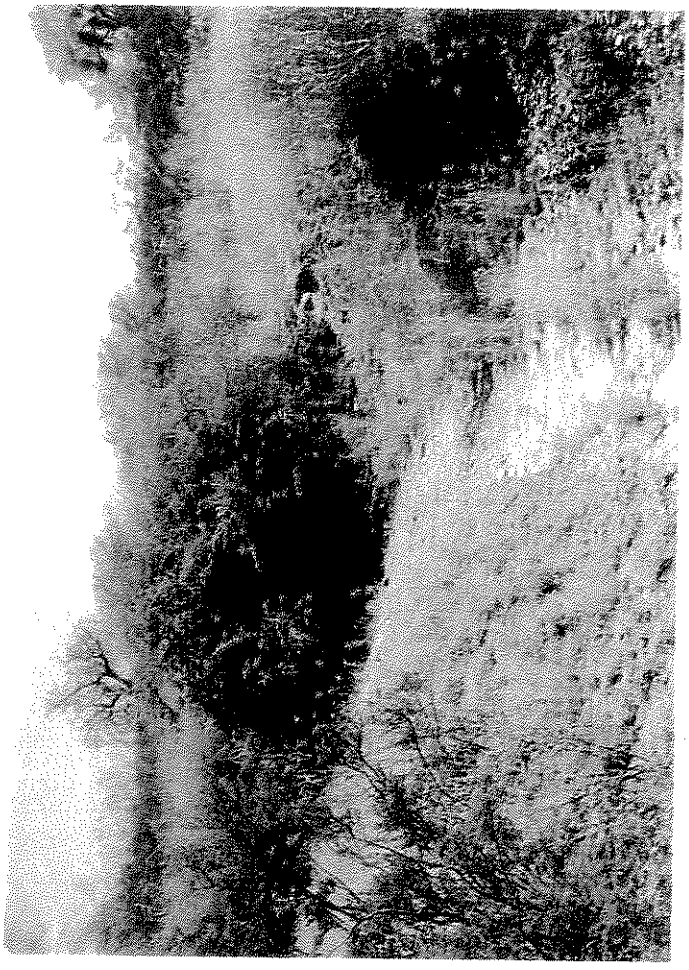


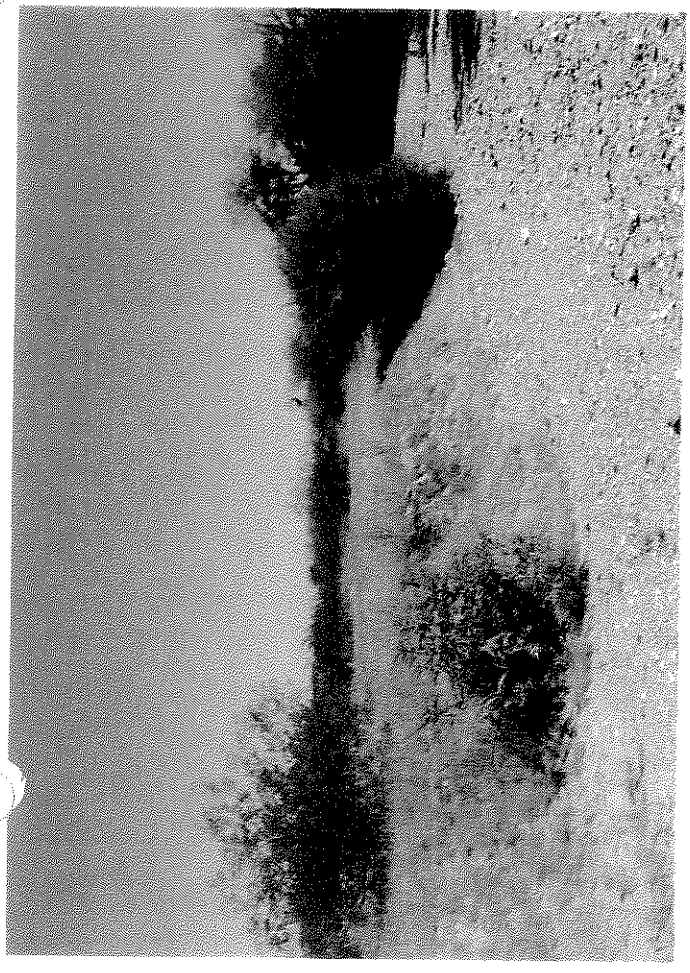


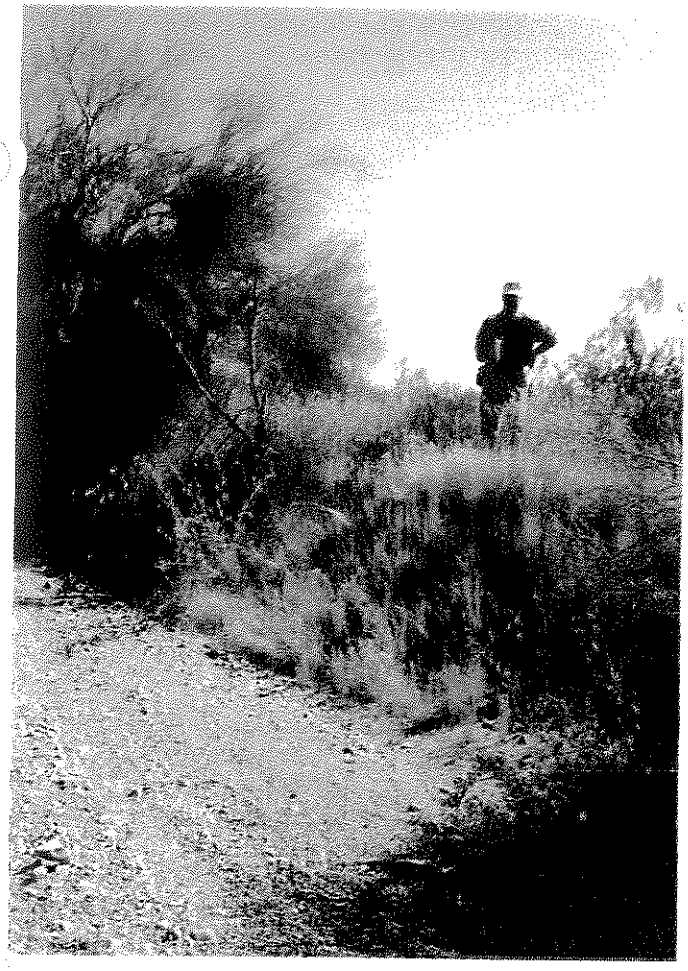


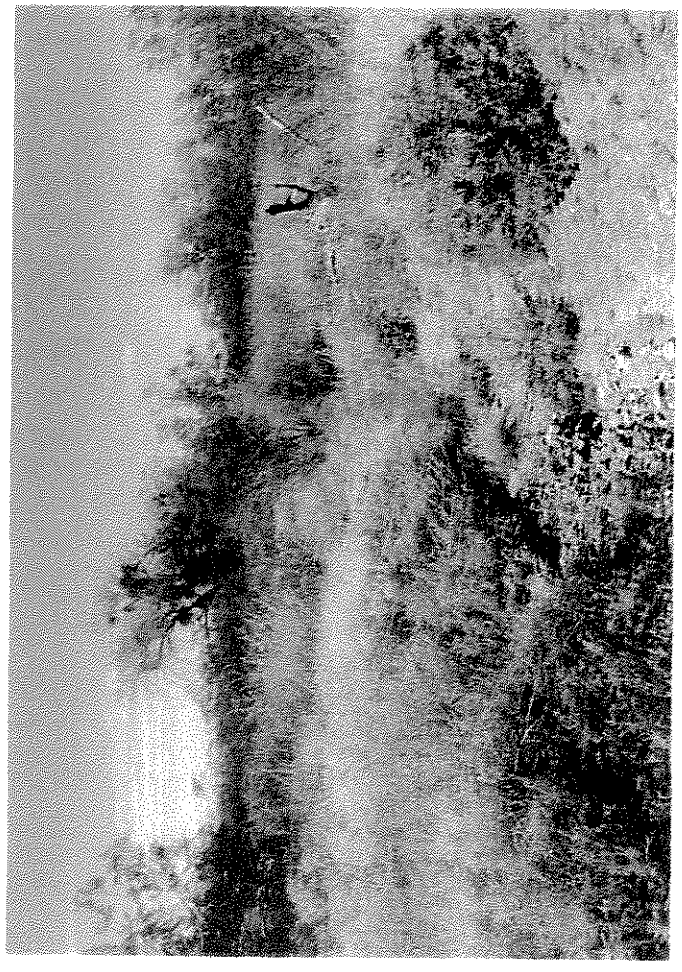


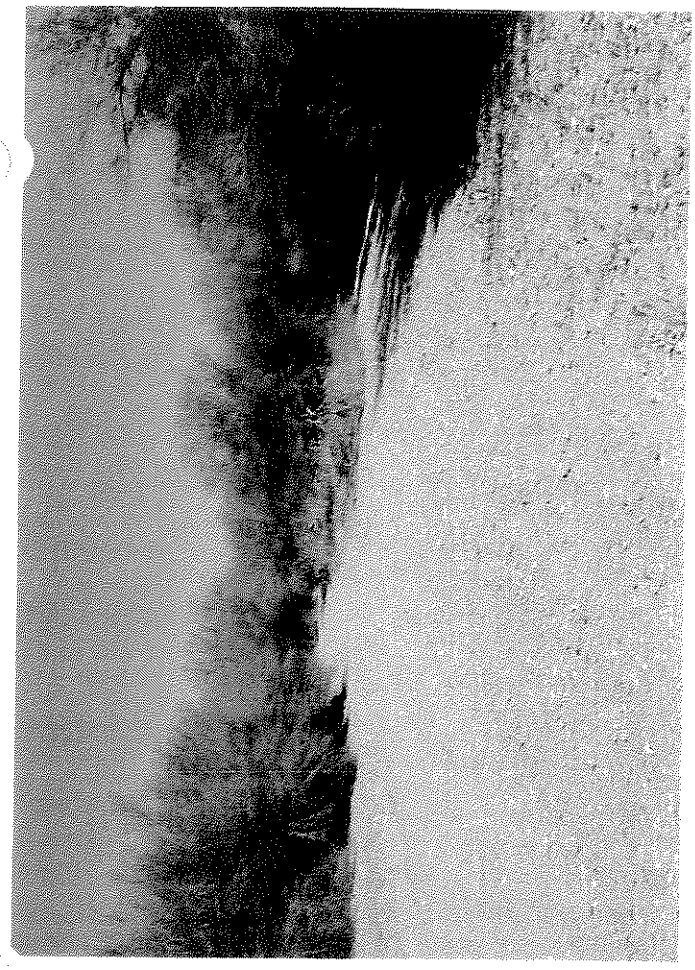


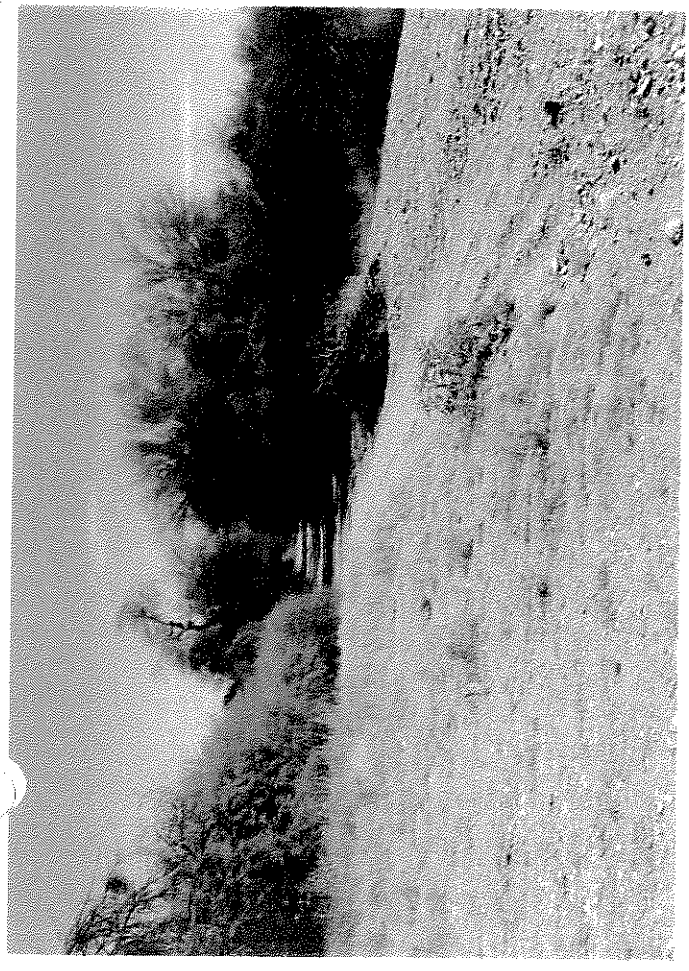


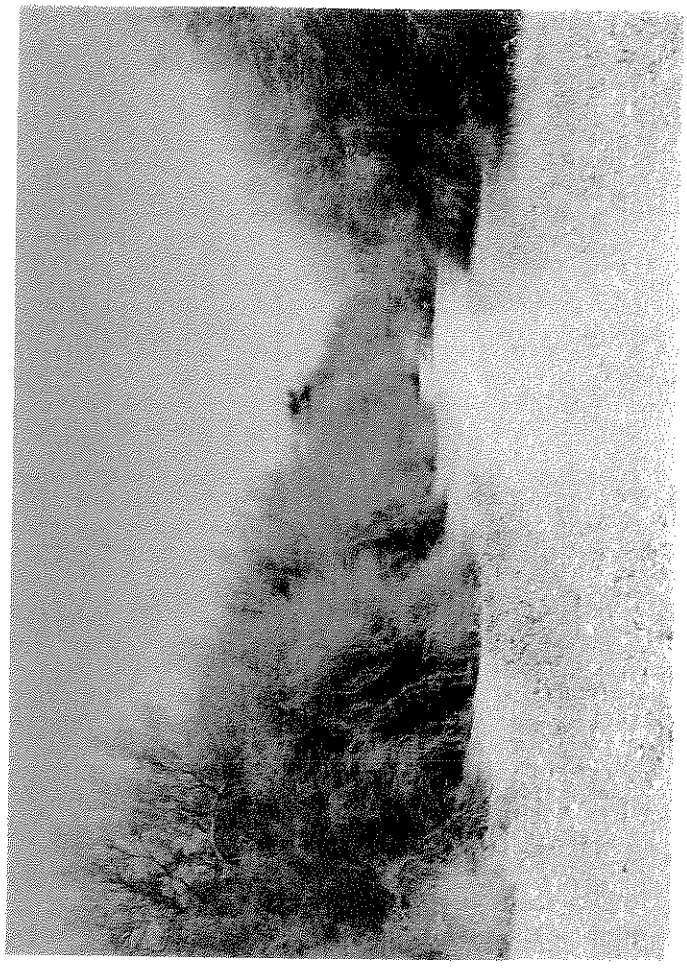


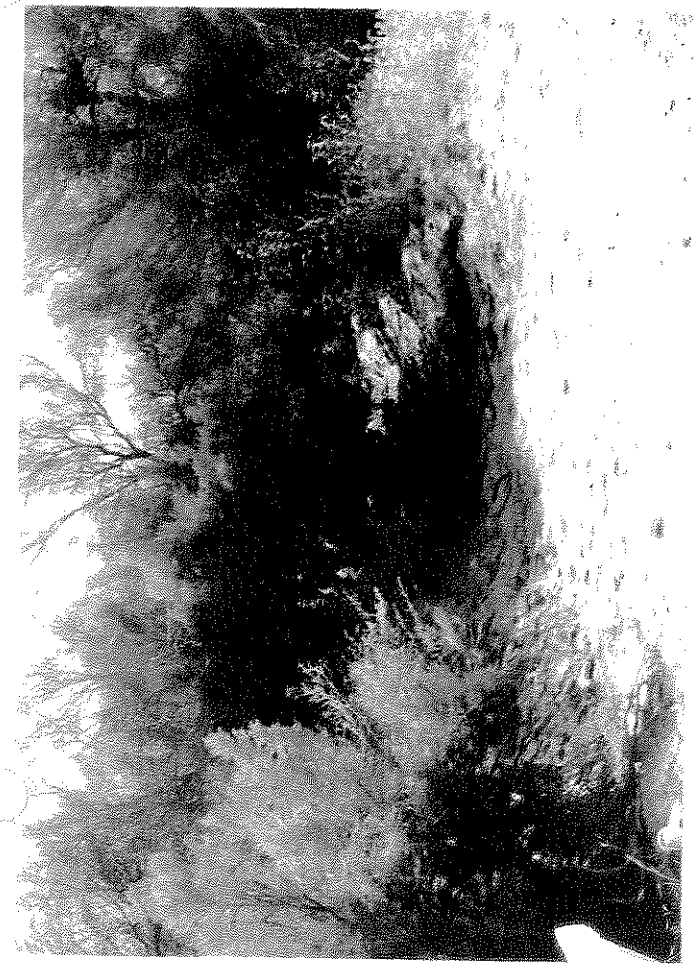


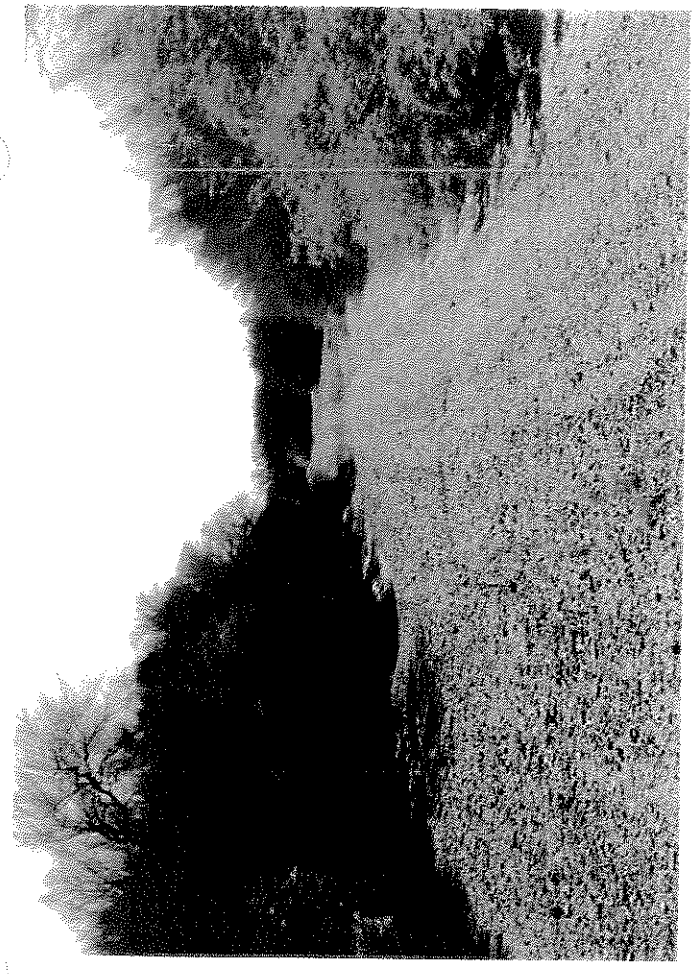


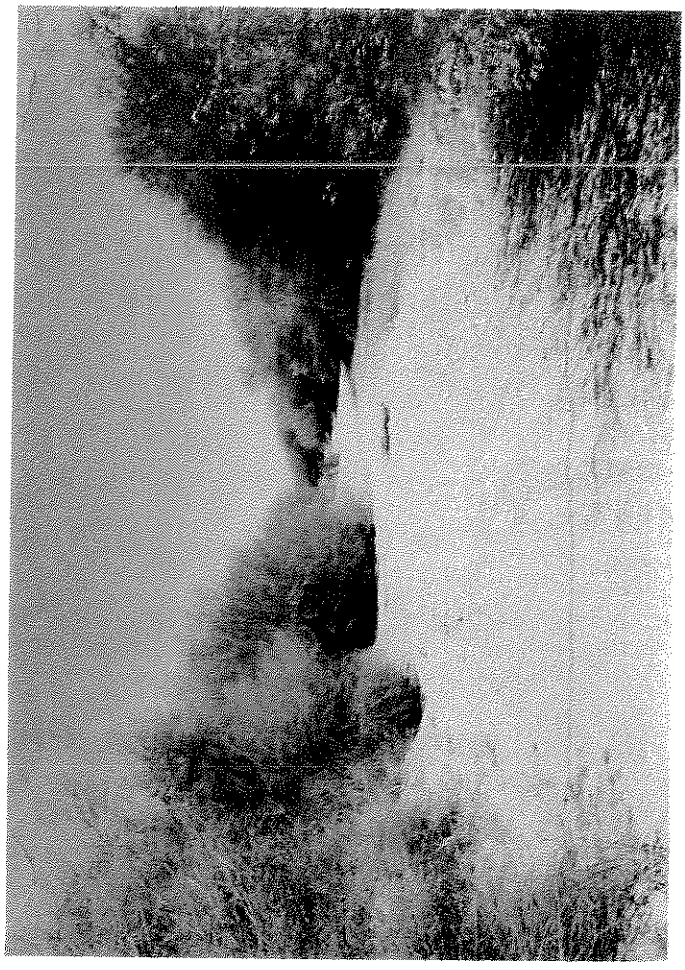


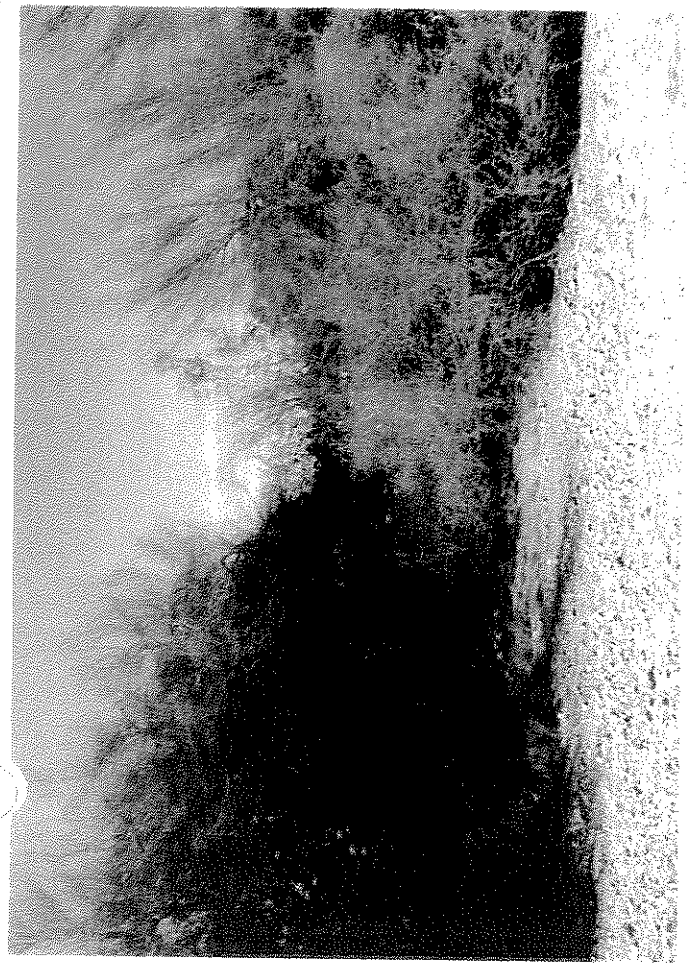


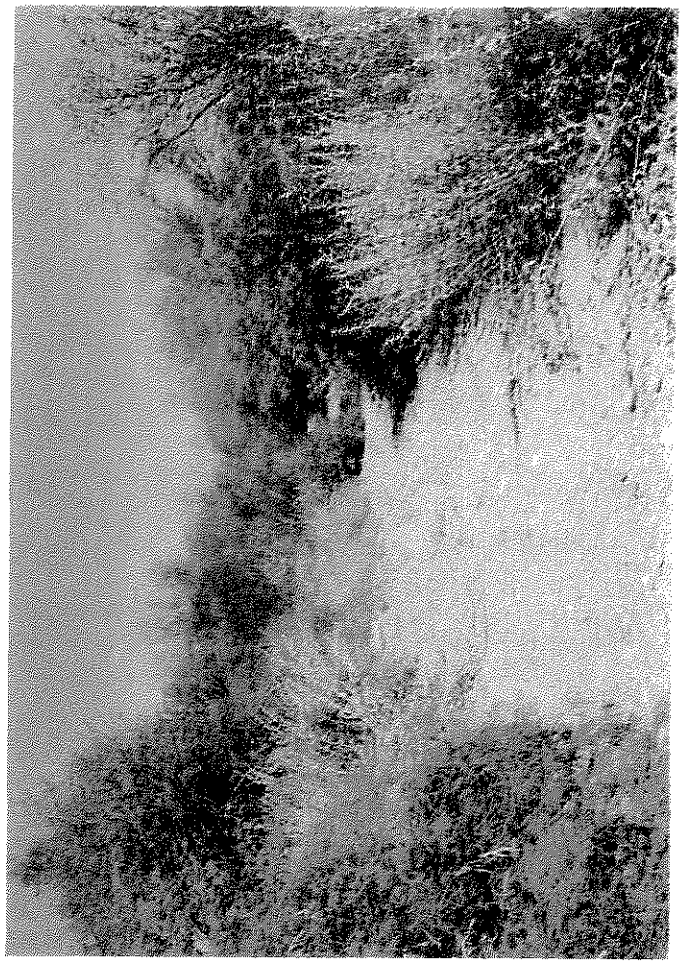


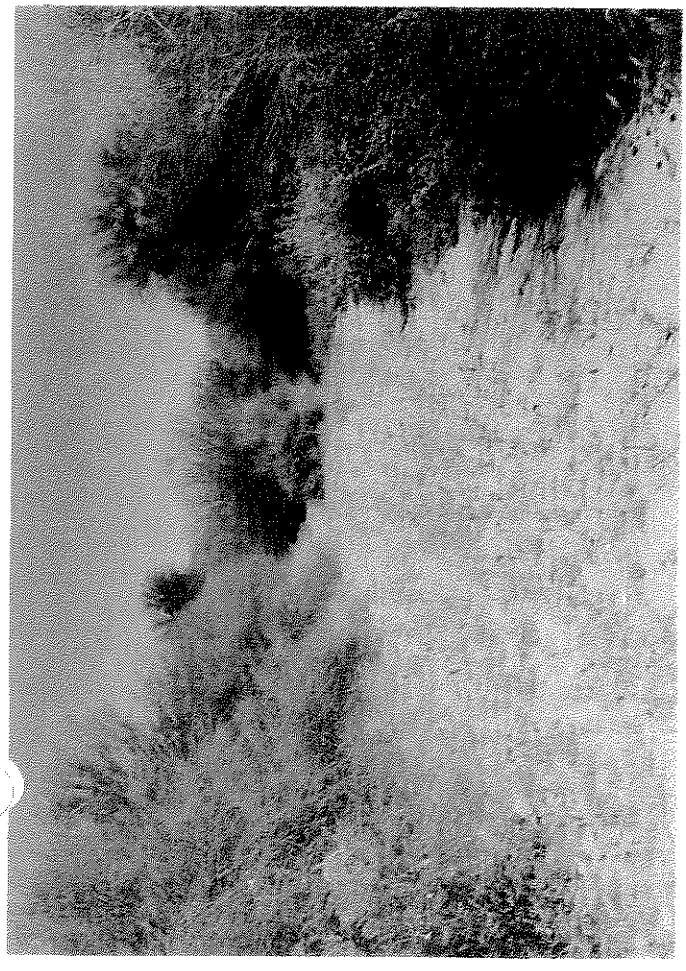


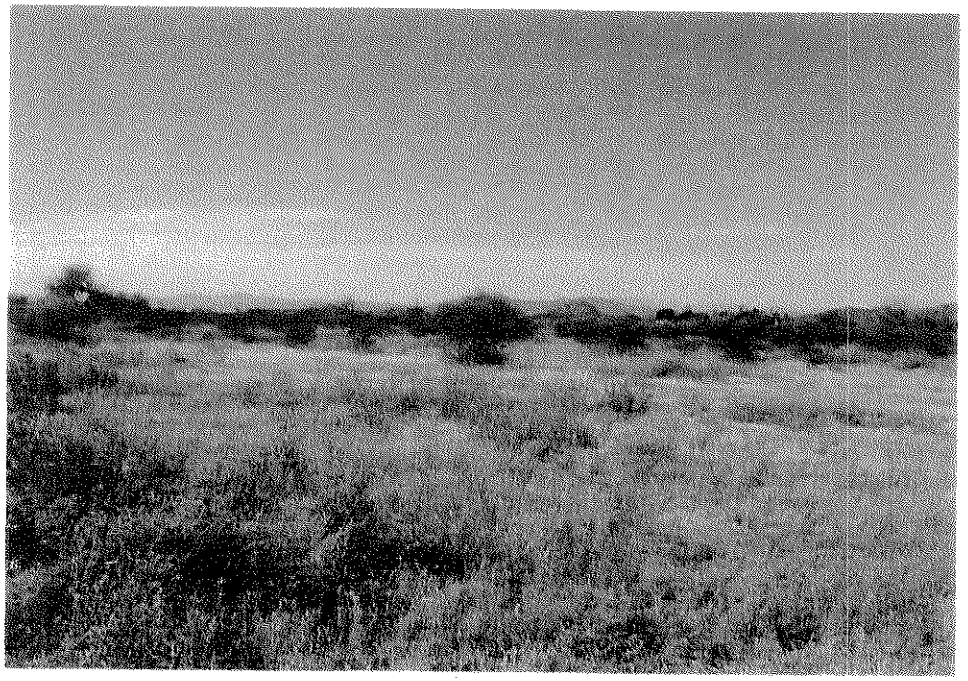


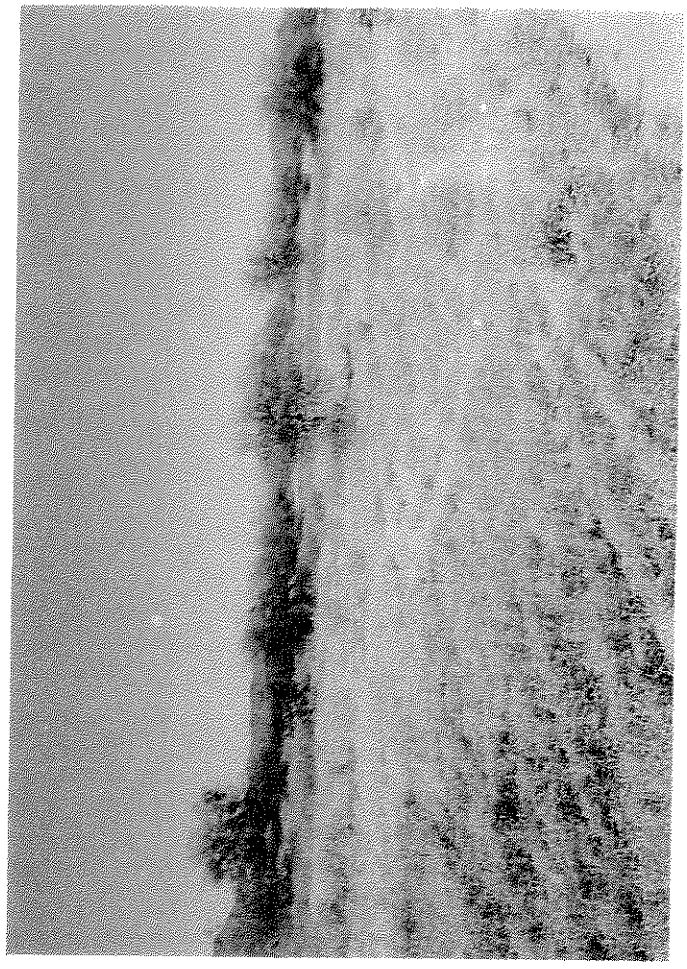


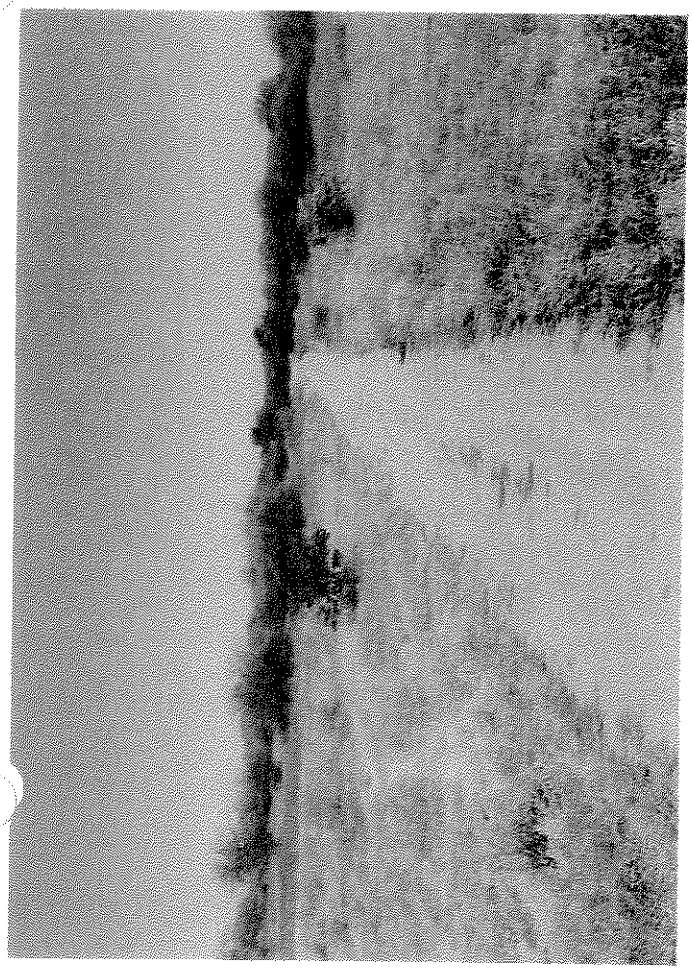


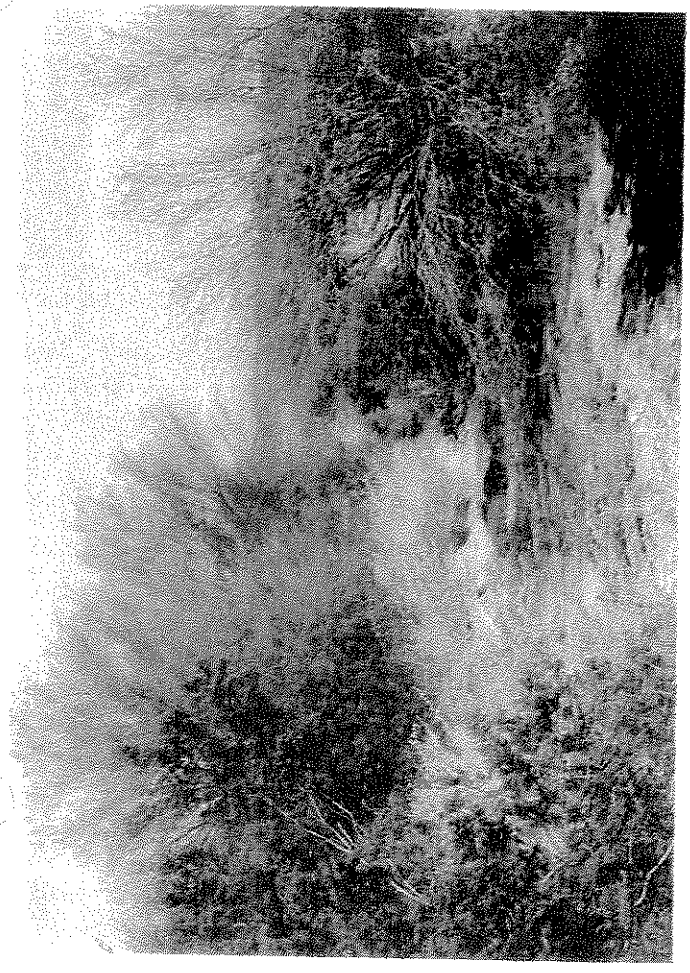












tierra verde East

Parcel 3

A Portion of the Northwest quarter of Section 5, Township 4 North, Range 1 West of the Gila and Salt River Meridian, Maricopa County, Arizona

PLANNED AREA DEVELOPMENT AMENDMENT

Development Guide

November 3, 2006
February 1, 2007
April 19, 2007
Revised: October 30, 2007
Approved: November 8, 2007

Submitted to:

The City of Surprise
12425 West Bell Road, Suite D-100
Surprise, Arizona 85374

Prepared for:

Voyager Surprise 100, LLC
6900 East 2nd Street, Suite 1000
Scottsdale, Arizona 85251
480.675.7238
480.874.0678 fax
Attn: Mark Voigt
mvoigt@voyagerproperties.com

Prepared by:

Coe & Van Loo Consultants, Inc.
4550 North 12th Street
Phoenix, Arizona 85014-4291
602.285.4752
602.279.4665 fax
Attn: Dave Coble
dcoble@cvlci.com

CITY OF SURPRISE
PLANNING AND ZONING DEPARTMENT
APPROVED
Case No.: PADA06-45
P&Z Comm. Approval: 6/19/2007
City Council Approval: 11/29/2007
B.O.A. Approval: N/A
Stipulations: (X-1)

Tierra Verde East PADA
PADA06-455

STANDARD STIPULATIONS:

A. Major changes to this PAD with regard to use and intensity, must be processed as a revised application with approval by the City Council upon recommendation of the Planning and Zoning Commission. Minor changes to this PAD may be administratively approved by the Community Development Director, Water Services Director, Fire Marshall, and City Engineer.

So noted.

B. The applicant shall submit a Written Response to Stipulations. The Response to Stipulations shall consist of a written response to the approved stipulations and five (5) copies of the PAD document revised as necessary to comply with these approved stipulations. Said submission must be under one (1) transmittal package and shall be submitted within fifteen (15) day of City Council approval.

So noted.

C. The applicant shall include these stipulations and all necessary revisions to text and exhibits in the final PAD document.

So noted.

D. All items to which the PAD document commits within the Design Guidelines compliance section of the zoning document are hereby stipulated.

So noted.

E. By its submittal of the PAD, the applicant – as landowner – agrees and approves in writing to the open space designated in the approved PAD plan.

So noted.

F. Approval of the PAD is contingent upon the Council approving the ordinance annexing the property into the city.

So noted.

G. The lighting standard for the project shall be subject to further review and approval by the Community and Development Director, and the applicant shall comply with any adopted lighting standards that exist prior to the first final plat approval.

So noted.

H. If the U.S. Postal Service requires "gang"-type boxes, applicant shall install adequate lighting over said postal receptacles.

So noted.

I. 149th Avenue is under review and may not be required to be constructed. 149th Avenue will need to be reviewed and approved by the City Engineer.

So noted.

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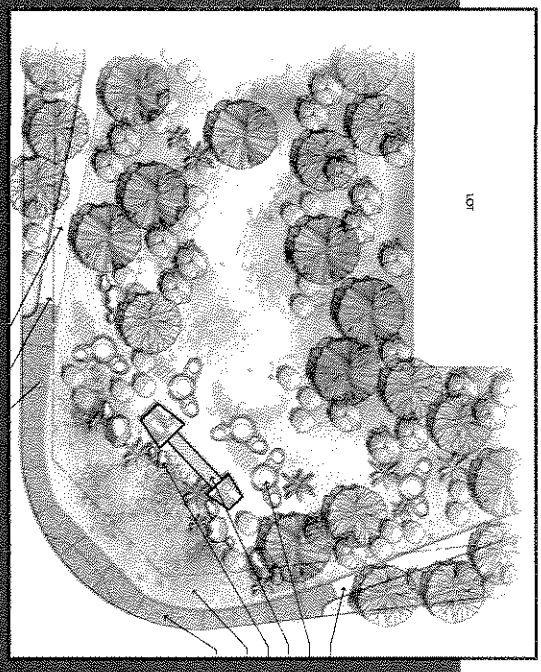
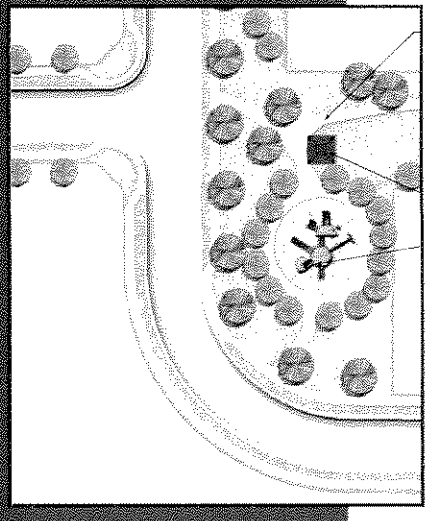
DIRECTORY OF EXHIBITS

tierra verde East

Parcel 3





tierra verde East Parcel 3

1.0 INTRODUCTION

1.1 Purpose of Intent

The development team of Voyager Surprise 100, LLC seeks this opportunity to amend Tierra Verde East, an approved 259-lot Planned Area Development (PAD) located at the northeast corner of Happy Valley Road and 155th Avenue (see Exhibit A – Vicinity Map). Tierra Verde East (Parcels 1 & 2) has a total gross land area of approximately 99.37 acres and consists of Assessors Parcel Numbers 503-54-011B, and 503-54-012.

The primary intent of this application is to obtain approval and adoption of a Planned Area Development Amendment for Tierra Verde East. This amendment is for the addition of approximately 19.61 acres, Assessors Parcel Number 503-54-013C, which lies adjacent to Tierra Verde East, approximately 600 feet north of the Happy Valley Road Alignment and the 151st Avenue Alignment. With the addition of the 19.61 acres ("Parcel 3"), the total gross land area for Tierra Verde East is approximately 118.98 acres (see Exhibit B – Surrounding Area Map).

The subject property is currently zoned as R1-43. Furthermore, the review and approval of a preliminary plat application is requested.

1.2 Description of Proposal

The property is currently zoned R1-43 and is designated as a suburban residential area (SR), with a density range of 1-3 dwelling units per acre (du/ac) in the current Land Use Plan of the City of Surprise's General Plan 2020 (see Exhibit C – Surprise General Plan 2020).

The approved Tierra Verde East provides an overall gross density of 2.61 du/ac. With the addition of "Parcel 3," the total gross density will be 2.69 du/ac; Tierra Verde East complies with the intent of the current General Plan. The proposed land uses are within the permitted density range and conform to the land use policies of the City of Surprise. The project is consistent with the goals and objectives established by the City of Surprise and will serve as a supporting residential land use area for neighboring employment opportunities.

The proposed development emphasizes design, sustainability and community identity. Its approach reflects building a sense of community. Thoughtful

consideration of the development's land use, housing and landscape components created a distinctive project, designed to provide the community with an exceptional development that will increase in property values over time.

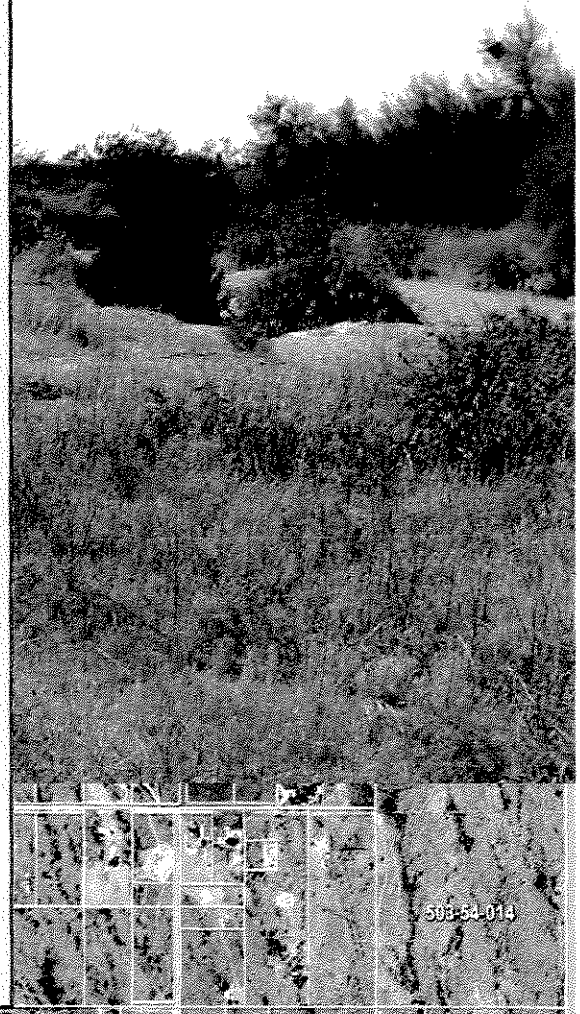
1.3 Relationship to Surrounding Properties

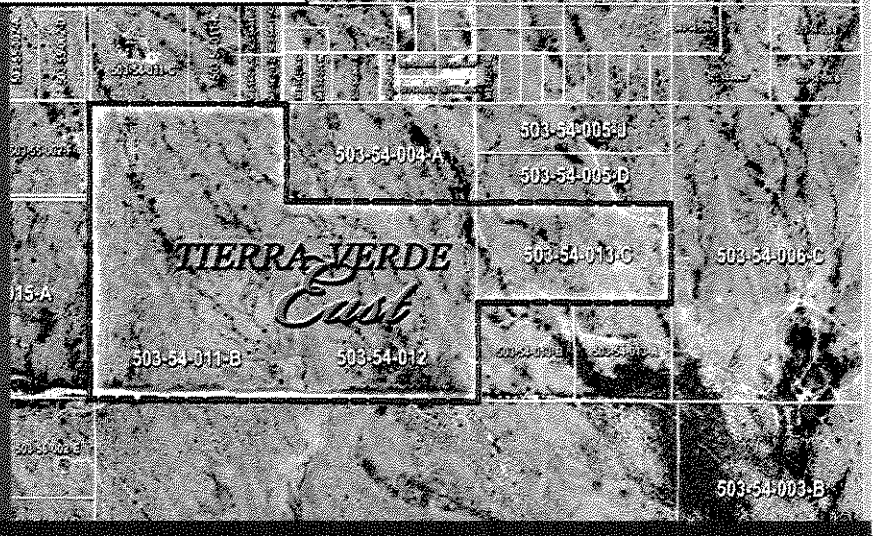
Land use in the general vicinity is typified by light residential use and vacant desert land. A planned area residential development called "Pinnacle Peak Country Estates" is located approximately one-quarter of a mile at the southern vicinity of the property, while "Desert Oasis," a planned area development, is approximately one-half of a mile away at the northwest vicinity of the property. "Rancho Mercado," a proposed PAD, is adjacent to the east.

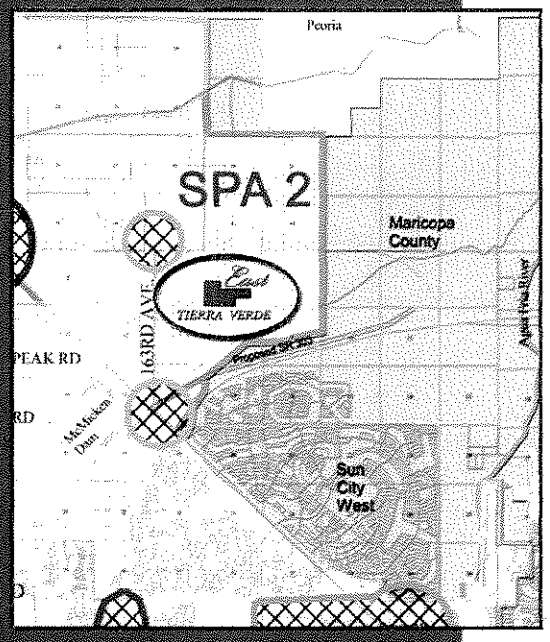
The property lies within the City of Surprise's Special Planning Area 2 (SPA2) and is part of the primary planning area. The special planning areas are currently under great development pressure due to the remarkable strength of the residential real estate market. The special planning areas are envisioned to provide opportunities for people to live, work and play in close proximity.

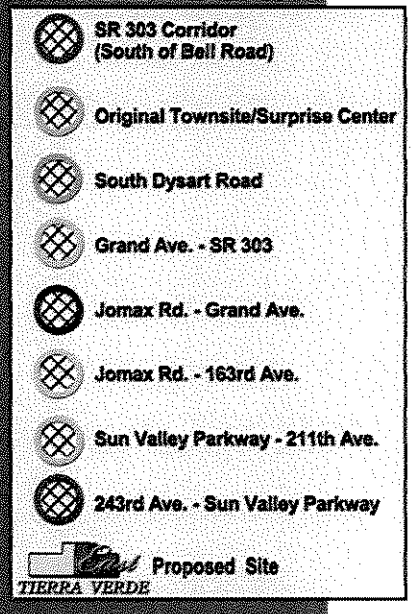
The SPA2 is associated with significant constraints as it is traversed by large washes. Topography within the area generally exhibits slopes between 2% to 4% and generally drains from northwest to southeast. Approximately 30% of the area appropriated for residential uses has been rendered unbuildable by the terrain. There are no existing multi-modal facilities within the SPA2.

Based on current development trends, growth within the next ten years is anticipated to occur within SPA's 1, 2, and 3. Within these three SPA's, there are eight identified









"Growth Areas." Tierra Verde East is within close proximity to three growth areas: Jomax Road – Grand Avenue, Jomax Road – 163rd Avenue, and the Grand Avenue – SR 303 Growth Area (see Exhibit D – City of Surprise Growth Areas).

Luke Air Force Base is 13 miles south of the site. Tierra Verde East is not within the 65 LDN contour lines of Luke Air Force Base.

2.0 LOCATION AND ACCESSIBILITY

2.1 Location

The site is a portion of Section 5, Township 4 North, Range 1 West of the Gila and Salt River Meridian, Maricopa County, Arizona. "Parcel 3" is bound on the west by 151st Avenue and is approximately 660 feet north of the Happy Valley Road alignment.

2.2 Roadways and Circulation

Tierra Verde East has a strategic regional location and is served by major thoroughfares that consist of a principal arterial and three major arterial roadways. Primary regional access to the site can be gained from Grand Avenue, an expressway, while Jomax Avenue, a proposed parkway, will provide east-west access to the property. The Jomax Road alignment is intended to provide access from the SPA2 to the proposed SR 303.To support anticipated developments and growth within the area, 163rd Avenue has also been identified as a proposed parkway and will provide north-south connection to the site and will also offer a connection from Grand Avenue to SR 74 (see Exhibit E – Transportation/Circulation Plan).

3.0 EXISTING CONDITIONS

3.1 Natural Characteristics

3.1.1 Existing Land Use and Vegetation

The site is generally undeveloped; there are a couple of dirt roads on the site. The existing land use pattern within the vicinity of the property generally consists of residential uses. The site is typified by moderate growth of desert brush, trees, and cacti. There are no major rock outcroppings, streams or ponding areas located on the site, although there are some miniscule washes traversing the site.

3.1.2 Soil Conditions

Several geotechnical subsurface explorations in the general vicinity have been performed by Geo-Technologies, Inc. Soil borings extended to depths ranging from 4.0 to 11.5 feet below ground surfaces typically encountered brown, sandy, silty, clayey soils that generally are associated with low permeability characteristics.

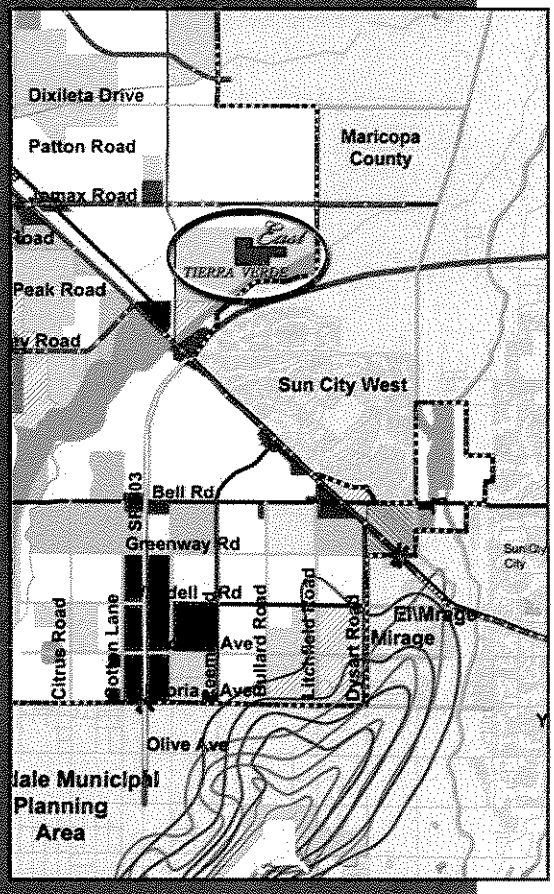
3.1.3 Existing Topography

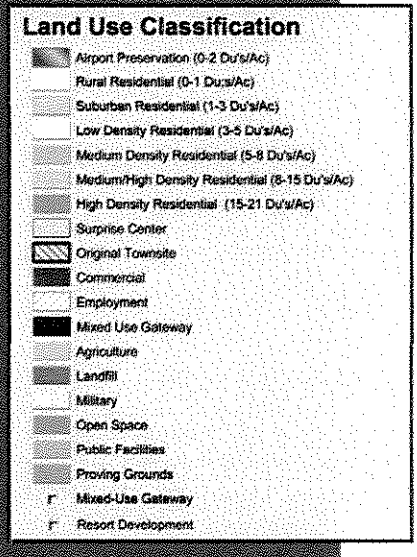
While the site is relatively flat, there is a slight slope gradient of 1.8% towards the southeast. Surface elevations range from a high of approximately 1,370 feet to a low of 1,360 feet. The lowest point of the site is at the southeast corner, while the highest point of the site is along the northwest portion of the property, along 151st Avenue. The site drains in a southeasterly direction with an ultimate outflow at the southeast corner of the property.
(see Exhibit F – Topography Map).

3.1.4 Existing Drainage Patterns

A portion of the site lies within an unstudied zone "A" floodplain area as shown in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Maricopa County, Arizona and incorporated Areas.

The property is not subject to Section 404 of the Clean Water Act and as such a Section 404 permit is not required of the proposed development. A determination letter was provided by The Department of the Army Corps of Engineers, dated December 13, 2004, and is provided





in the appendix of the Drainage Report. A concurrent survey and investigation for a Section 404 delineation for the western section of the site is being conducted by the Department of the Army Corps of Engineers.

3.2 2020 General Plan Land Use and Zoning

3.2.1 Compliance to the General Plan

The property is designated in the current City of Surprise's General Plan as Suburban Residential Area, SR (see Exhibit C – Surprise General Plan 2020) with a target density of 1-3 dwelling units per acre.

The approved Tierra Verde East 259-lot residential development has a density of 2.61 du/ac. With the addition of "Parcel 3" (61 lots), the density will be 2.69 du/ac, which is within the allowed density range and conforms to the land use policies of the City of Surprise. The project is consistent with the goals established by the General Plan, and will serve as a supporting residential land use area.

3.2.2 Existing Zoning

"Parcel 3" and the surrounding property to the north, east and south are currently zoned R1-43 and undeveloped. Tierra Verde East to the west is an approved PAD.

3.3 Existing Community Facilities and Services

3.3.1 Schools

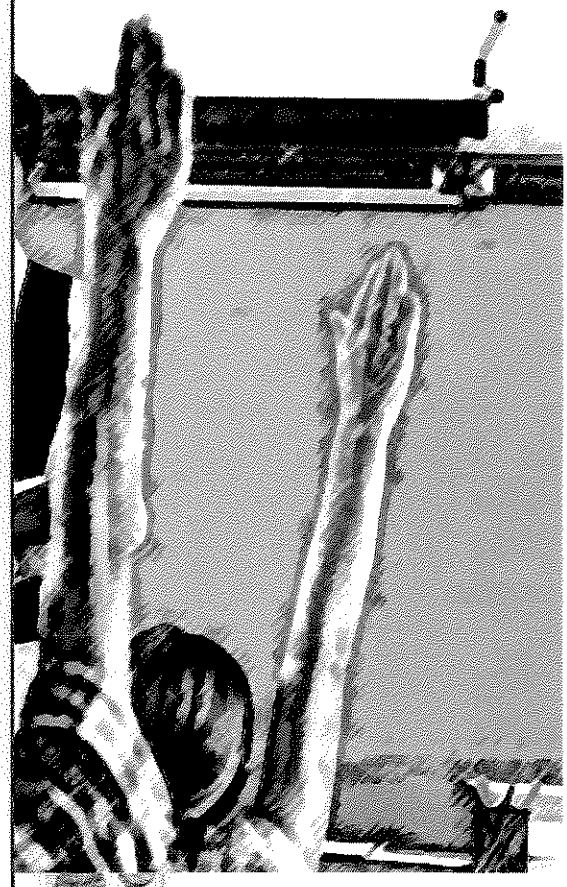
Tierra Verde East is within the boundary of the Dysart Unified District No. 89. By using U.S. Census data, Tierra Verde East Parcel 3 is projected to have approximately 96 students (at full build out) attending both elementary and high school. Elementary school residents of Tierra Verde East can receive education from the Kingswood Elementary School, while high school residents can enroll at the Willow Canyon High School. Additionally, the Dysart High School facility is located at Dysart and Varney Roads, approximately nine miles southeast of the property. Moreover, there is an opportunity to take advantage of the elementary school site dedicated by the Desert Oasis-Lancer Parcel, located approximately 2.5 miles northwest of the property.

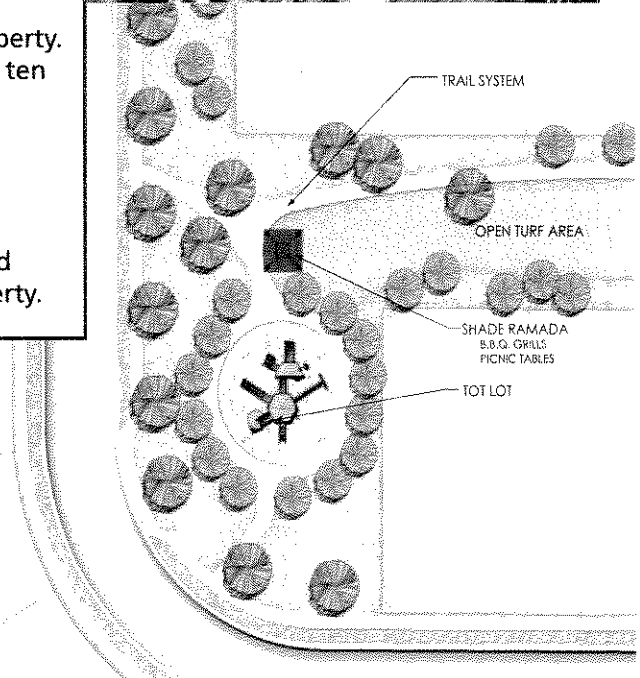
3.3.2 Parks

There are no public parks in the immediate area. The residents of Tierra Verde East can avail themselves of the open space, trails, and amenities contained within the development. Tierra Verde East proposes tot lots, half basketball courts, ramadas and picnic areas for residents of all ages, within suitable walking distances from their homes. The White Tank Mountain Regional Park is located approximately 11 miles southwest of the property. Lake Pleasant Regional Park is located approximately ten miles to the northeast of the special planning area.

3.3.3 Libraries

The Northwest Regional Library located within the Surprise Recreation Complex is found at North Bullard Avenue. It is approximately ten miles from the property.





3.3.4 Golf Courses

There are several private golf courses within the vicinity. The Hillcrest Public Golf Course, located at Meeker and RH Johnson Boulevards, is roughly six miles from the property.

3.3.5 Airports

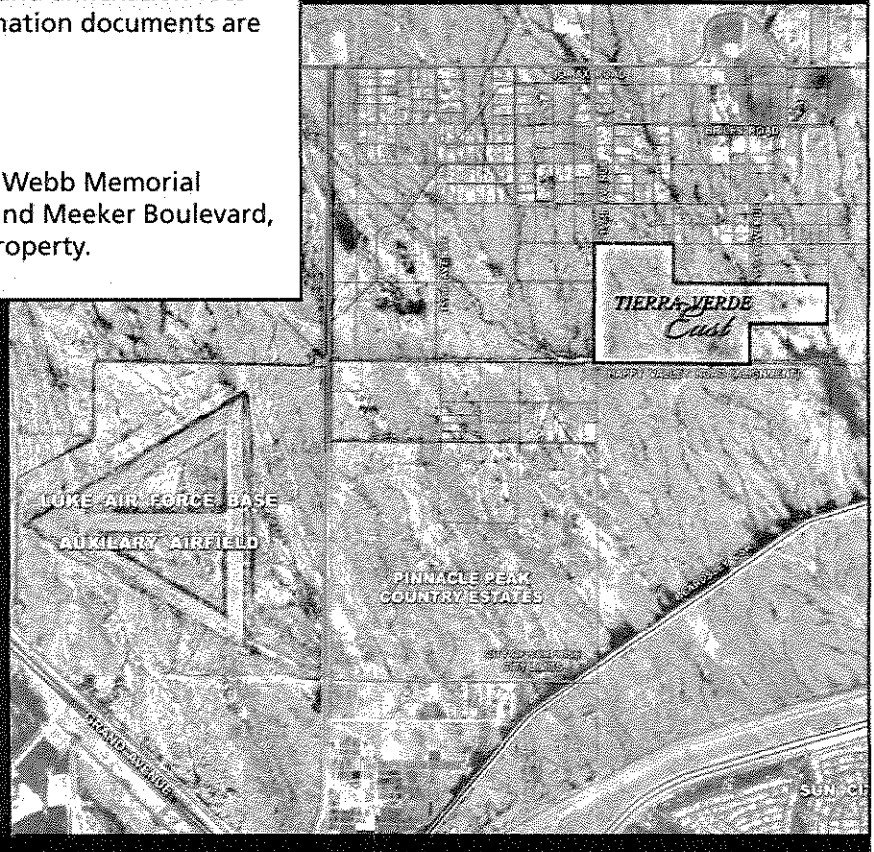
The abandoned Luke Air Force Base Auxiliary Airfield is approximately one mile west of the site. Luke Air Force Base is located approximately 13 miles south of the property while the Phoenix Sky Harbor Airport is about 25 miles away.

3.3.6 Police, Fire Protection and Ambulance Service

The Surprise Police Department currently has a station located at 18600 North Reems Road, approximately six miles south of the project; it will respond to public safety calls of the residents of Tierra Verde East. The City of Surprise Fire Station 304 located at 22443 North 163rd Avenue, approximately three miles from the site, is anticipated to extend fire protection and emergency medical services to the property. Appropriate dues and annexation fees will be determined at the time formation documents are finalized.

3.3.7 Hospital

Tierra Verde East is close to the Del Webb Memorial Hospital located at Grand Avenue and Meeker Boulevard, approximately seven miles to the property.



3.4 Existing Infrastructure and Utilities

3.4.1 Existing Water Facilities

The City of Surprise will provide water to the property and is responsible for determining the 100-year assured water supply.

There is an existing 16" water line within the right-of-way of 163rd Avenue and services "Desert Oasis," a Planned Area Development located one-quarter of a mile northwest of the property. Proposed Improvements are discussed in Section 7.2.

3.4.2 Existing Wastewater Facilities

The property is not served by any sanitary sewer collection and treatment system at this time. Proposed improvements are discussed in Section 7.3.

3.4.3 Existing Roadway Conditions

The Happy Valley Road alignment is currently a dirt road, a portion of which currently lies within a wash. There are no paved roads that serve the site at this time.

4.0 IMPACTS OF THE PROPOSED PLANNED AREA DEVELOPMENT

4.1 Regional Benefits

The land use plan of the City of Surprise designates five Special Planning Areas (SPA's) to provide a balance in mix of land uses. The SPA's are intended to interlink and support the diverse needs of each area and to provide opportunities for people to live, work, and play in close proximity.

Tierra Verde East lies within the City of Surprise Special Planning Area 2 (SPA2). Ninety-one percent of the total SPA2 is designated as residential while commercial areas other than neighborhood commercial are excluded from the mix. SPA3 contains the major commercial facilities found along Grand Avenue. Tierra Verde East will serve to sustain the balance among residential, employment and commercial land uses within the planning areas. It is primed to present greater opportunities for housing choice and will support the housing requirements of a rapidly growing community. Tierra Verde East will positively impact the development patterns of the City of Surprise.

4.2 Community Integration

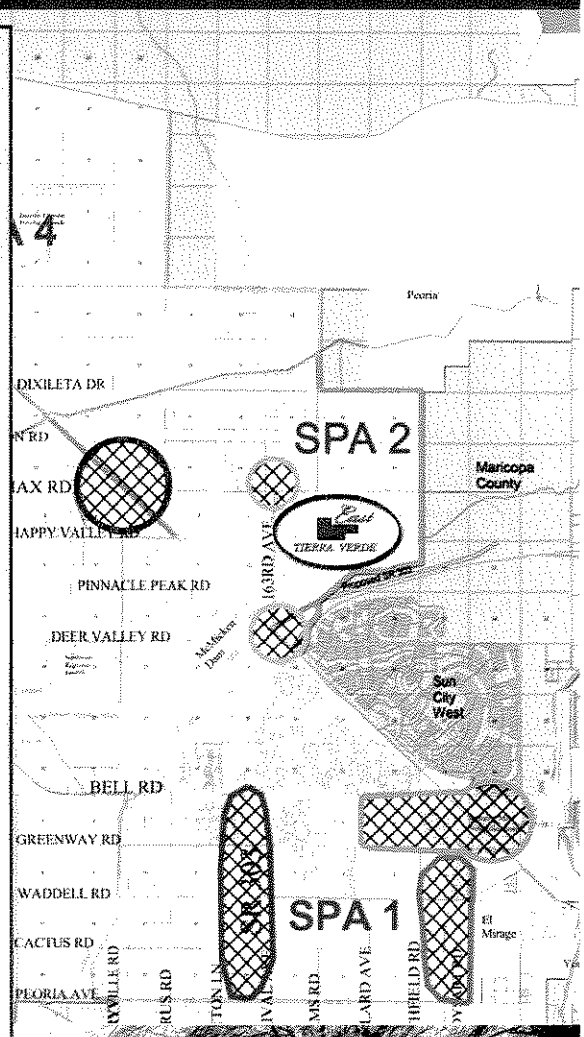
Tierra Verde East is designed to help realize the goals and objectives of the SPA2. Implementation of the project will result in the integration of an exceptional neighborhood that is compatible with existing and anticipated land uses in the area. Tierra Verde East will complement existing planned area developments found within the vicinity. "Pinnacle Peak Country Estates" is located south of Tierra Verde East while "Desert Oasis" is along the northwest vicinity of the property; "Rancho Mercado" lies to the east.

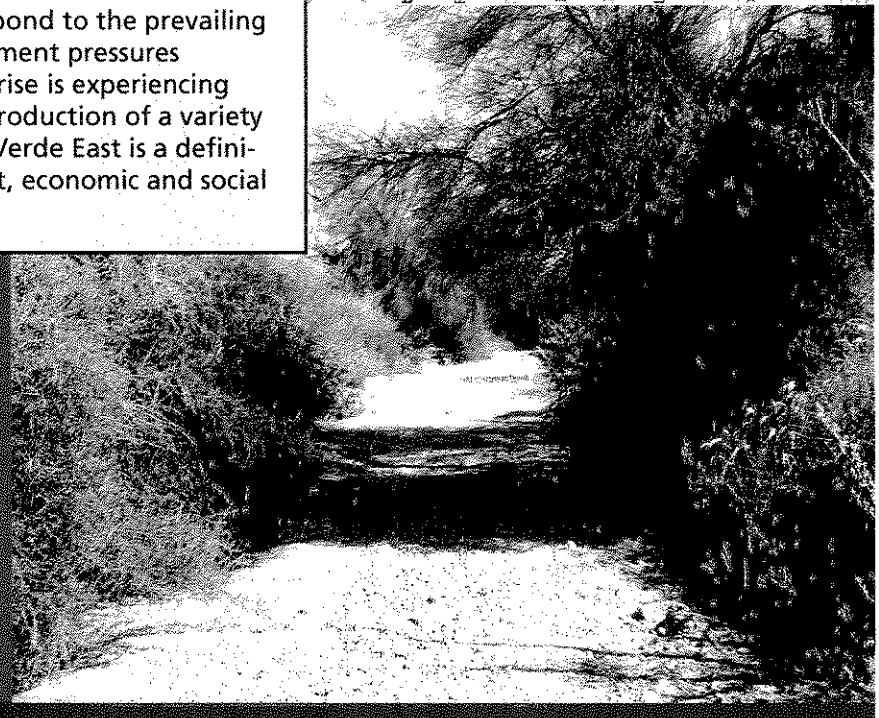
4.3 Environmental Impacts

Tierra Verde East presents comprehensive solutions for water, sewer, infrastructure and emergency services. Specific engineering design and studies have been undertaken to provide the framework for future detailed engineering design improvements. Likewise, opportunities for integrated solutions to drainage, utilities, traffic circulation, as well as improvements to the open space network are offered by the development. Moreover, the widening and improvement of several public roadways that bound the site will consequently serve to improve and extend the roadway network and circulation system within the area.

4.4 Socioeconomic Trends

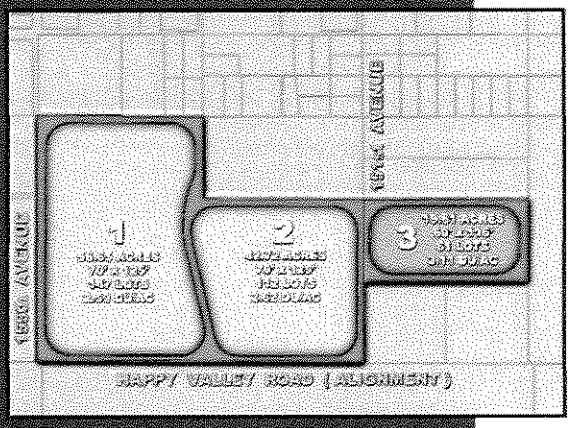
Tierra Verde East is designed to respond to the prevailing socio-economic trends and development pressures within the region. The City of Surprise is experiencing a tremendous growth rate. The introduction of a variety of housing opportunities by Tierra Verde East is a definitive response to the variable market, economic and social requirements within the area.

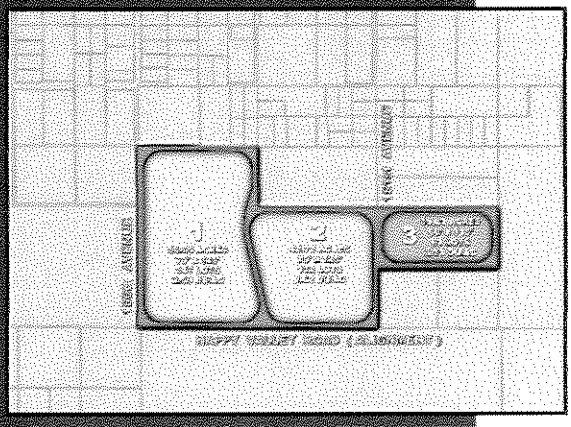




tierra verde East

Parcel 3





LAND USE TABLE

PARCEL	ACREAGE	LOT SIZE	LOT YIELD	DENSITY
1	56.65	70'x125'	147	2.59
2	42.72	70'x125'	112	2.62
3	19.61	60'x115'	61	3.11
TOTAL	118.98		320	2.69

5.0 PROPOSED LAND USE AND DEVELOPMENT

5.1 Land Use Plan

The proposed land use for Tierra Verde East presents real strategies for a sustainable development. It reflects a comprehensive understanding of existing site conditions and constraints in a plan that benefits from the characteristics inherent to the site. Tierra Verde East will incorporate several distinct design features into its land plan to ensure long-term growth of community property values. Value-added amenities will be provided to increase the desirability of the development. Site features such as the washes that traverse the site are turned from constraints into focal points of interest.

With the addition of "Parcel 3," Tierra Verde East proposes an overall gross density of 2.69 du/ac and complies with the intent of the PAD zone use. The proposed land uses are within the permitted density range and conform to the land uses and land use policies of the City of Surprise. The amended development consists of a total of 320 dwelling units with a minimum lot size of 60' x 115'. (See Exhibit G – Land Use Tabulation Table, Exhibit H – Land Use Plan, and Exhibit I – Single Family Residential Design Guidelines.)

5.1.1 Parcel Plan

Specific design and development of each parcel will comply with the current City of Surprise Subdivision Ordinance and the PAD zone use regulations.

Parcel 1 consists of approximately 56.65 acres and contains approximately 147 70' x 125' (minimum 8,350 sf) single-family lots at a density of 2.59 du/ac.

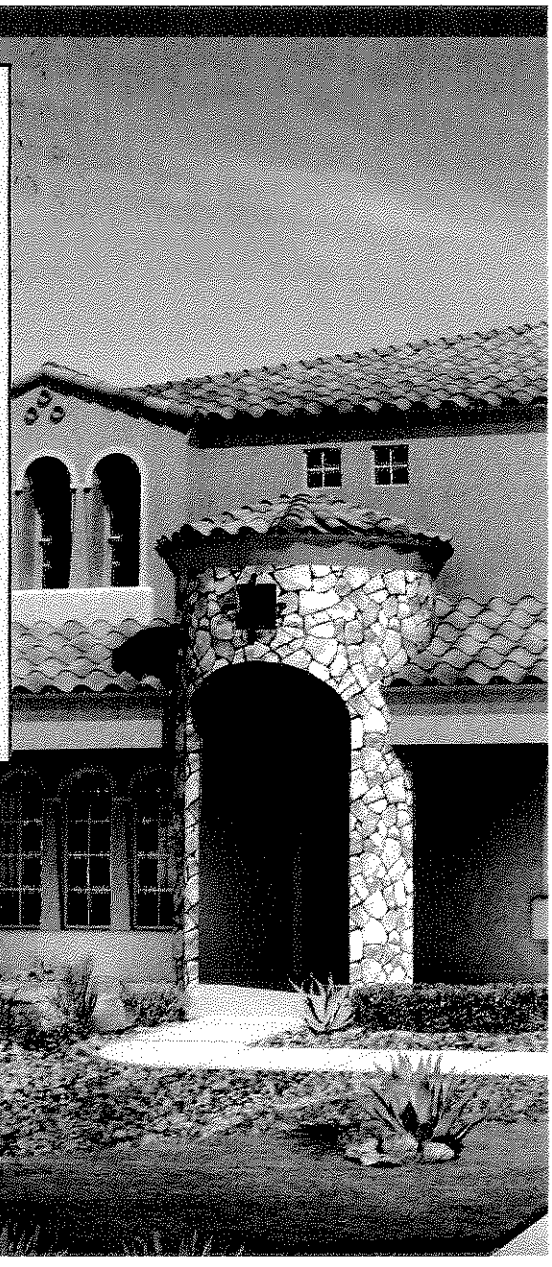
Parcel 2 consists of approximately 42.72 acres and contains approximately 112 70' x 125' (minimum 8,350 sf) single-family lots at a density of 2.62 du/ac.

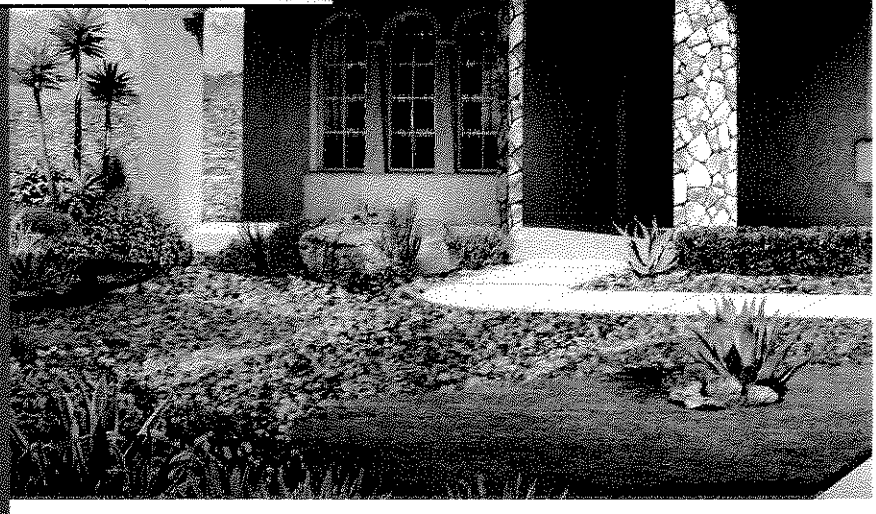
Parcel 3 consists of approximately 19.61 acres and is proposed to contain approximately 61 60' x 115' (minimum 6,750 sf) single-family lots at a density of 3.11 du/ac (see Exhibit J – Typical Lot Layout).

5.2 Single-Family Residential Criteria

The Single-Family Residential Design Guidelines of the City of Surprise regulates the development of Low Density Residential (LDR) developments to ensure conformance to the goals, objectives and requirements adopted and contained in the Surprise General Plan. Tierra Verde East lies within the Suburban Residential (SR) land use category. The Single-Family Residential Design Guidelines developed by the City of Surprise was used to validate the achieved lot mix and density for the project.

Tierra Verde East is an exceptional community and intends to meet or exceed the purpose and objectives of the City of Surprise for residential developments. As such, the proposed development is designed to provide specific performance standards listed under the Single-Family Residential Home Product Design Guidelines to validate its departure from conventional zoning principles as warranted by its creativity, diversity, and amenities.





5.2.1 Residential Design Criteria

The site will consist of varying detached single-family housing types and floor plans, with an emphasis on a common architectural theme. Assorted lot frontages and setbacks will contribute to the aesthetic diversity. Integrated open spaces and recreational amenities will create pedestrian linkages with surrounding developments as well as enhance the overall design of the site. The goal is to provide a community that exceeds the minimum standards set forth in the current Planning and Zoning Design Guidelines and the Single-Family Residential Design Guidelines.

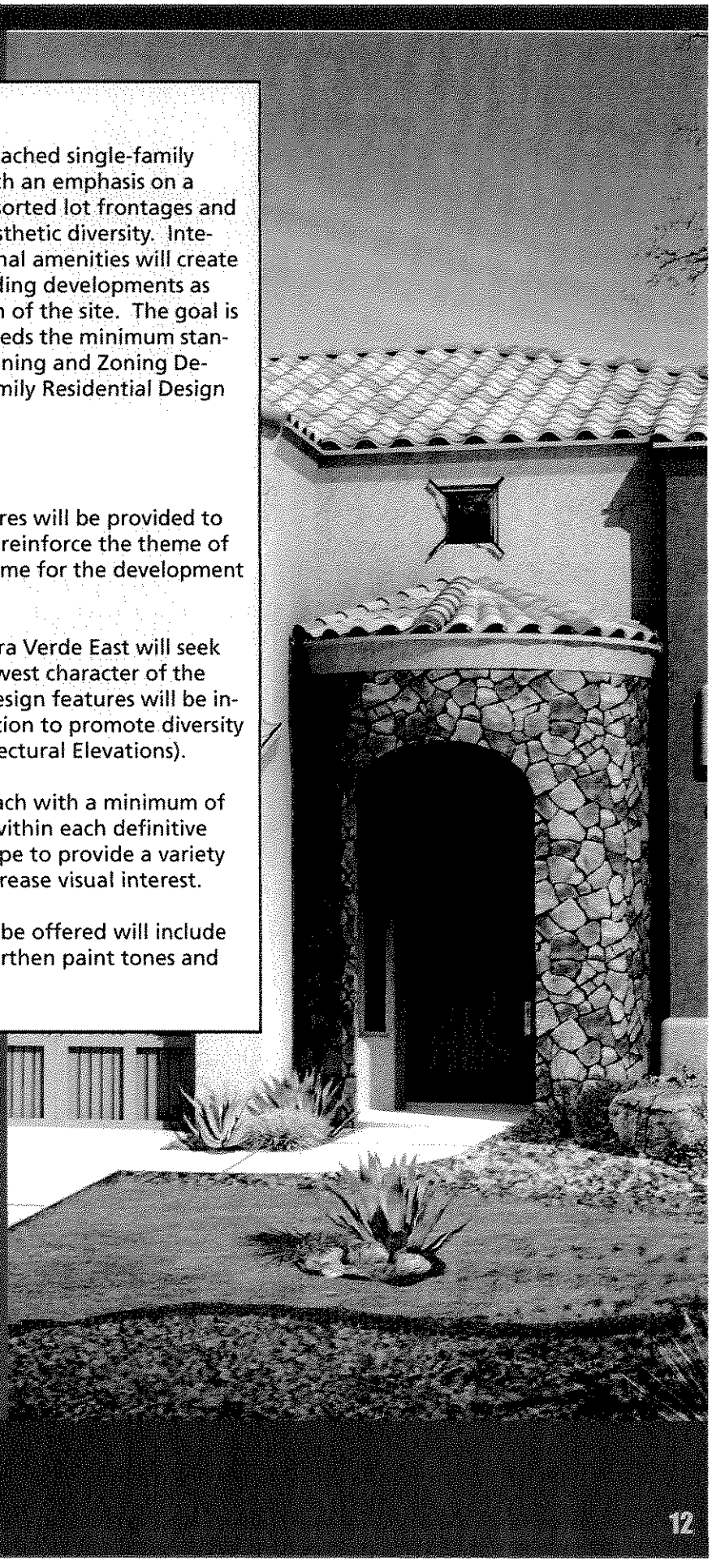
5.3 Architecture

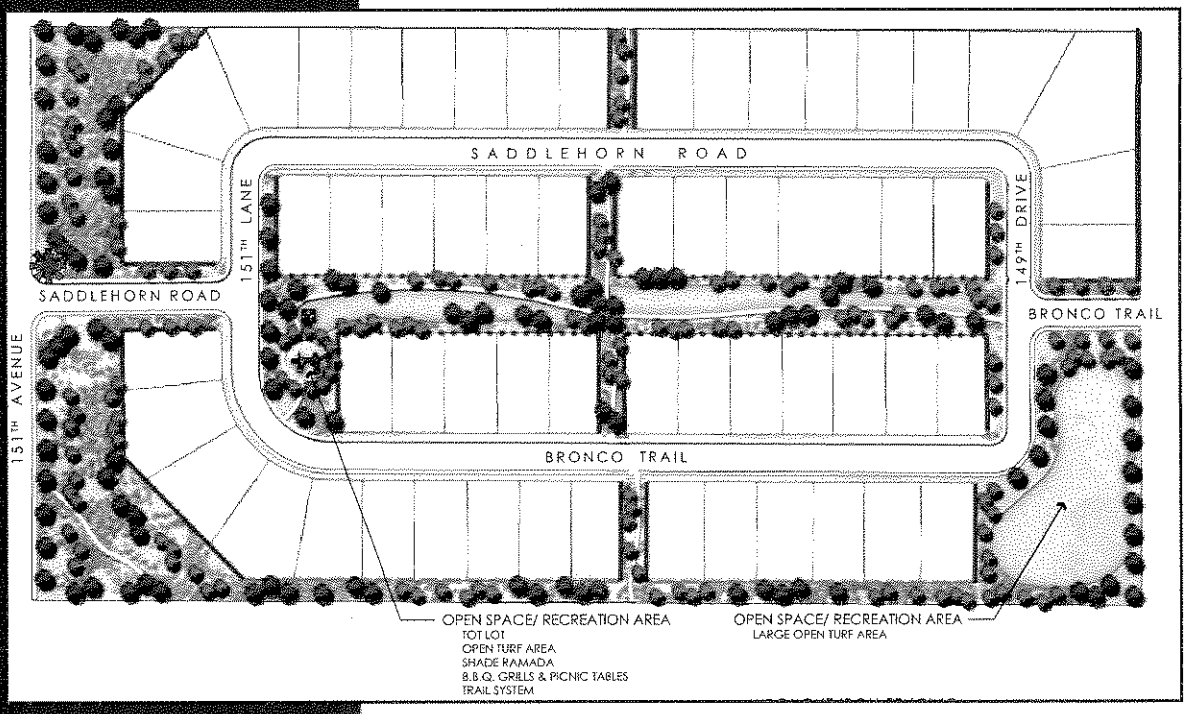
A comprehensive palette of features will be provided to establish the framework that will reinforce the theme of Tierra Verde East. The overall theme for the development will be Southwest in nature.

The architectural style within Tierra Verde East will seek to preserve and reflect the Southwest character of the area. A variety of architectural design features will be incorporated into each home elevation to promote diversity (see Exhibit L – Conceptual Architectural Elevations).

A minimum of four floor plans, each with a minimum of three elevations, will be offered within each definitive housing price range or product type to provide a variety of housing alternatives and to increase visual interest.

A variety of building materials to be offered will include concrete tile and parapet roof, earthen paint tones and other compatible materials.





5.4 Comprehensive Open Space and Amenity Plan

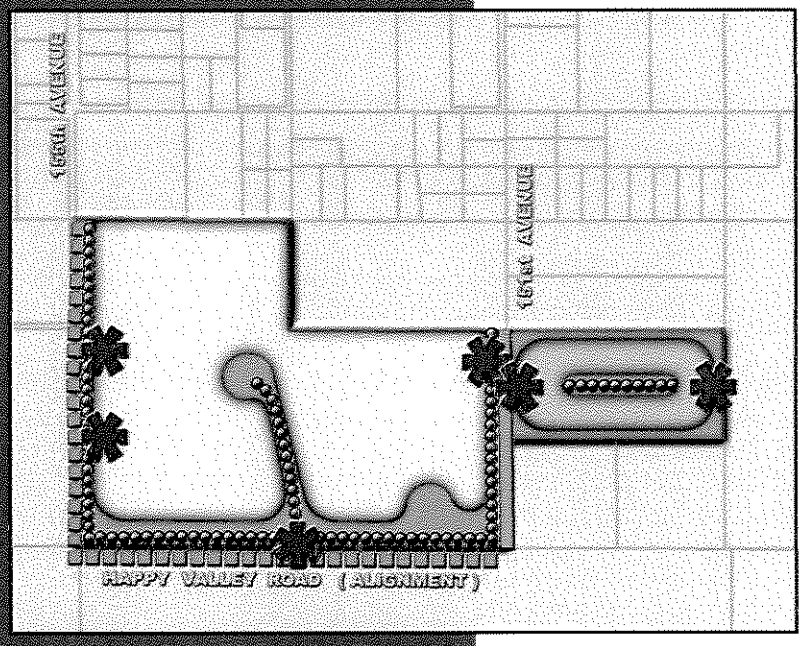
5.4.1 Master Landscape Plan/Open Space Plan

The landscape architecture design of the project will reinforce the Southwestern theme of the development. The various elements of the landscape plan will be carefully selected to enhance the theme. The theme will be applied to features such as the entry monumentation, as well as to theme elements of the common areas, parks and open spaces.

The community and neighborhood entry monuments are designed to complement the design of the primary entry monuments and will consist of four-foot splitface concrete masonry, while the columns will consist of concrete masonry with cultured stone veneer.

The perimeter walls will consist of splitface concrete masonry units with fluted CMU caps and columns. The wall color will directly complement the architecture to retain a sense of continuity.

Theme walls, fences, and picnic ramadas will consist of the same materials and designs established with the entry monuments. The plant palette will be a combination of native plants. The parks and open spaces will be designed to support the theme and will include turf areas to maximize active play.



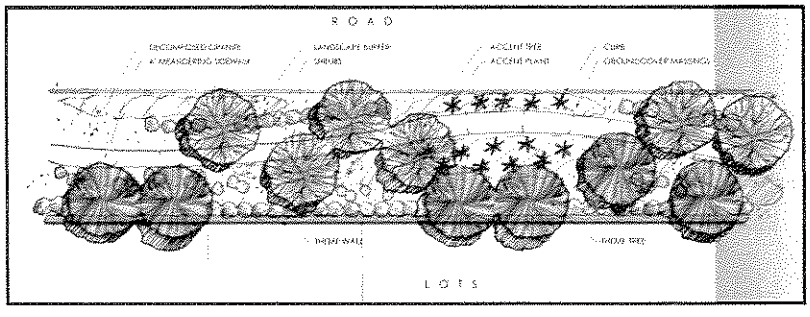
The open space tracts are strategically located to provide not only passive and active recreational facilities, but also significant storm water holding capacity. The proposed amenities include parks, walking trails, ramadas with benches, and tot lots (see Exhibit M – Landscape Exhibits).

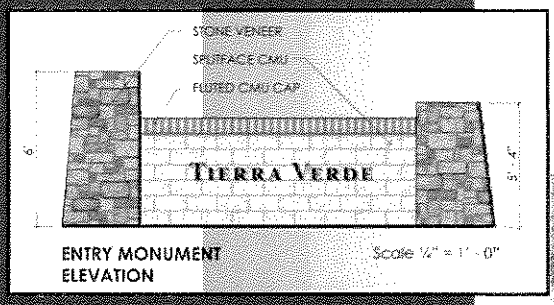
5.4.2 Trails, Open Space, Parks and Recreation System

"Parcel 3" will provide a minimum of four acres or 20% of the gross residential area for open space and recreation. Careful consideration has been given to the appropriation of the open space areas in locations that will offer optimum use to future residents and add value to the community.

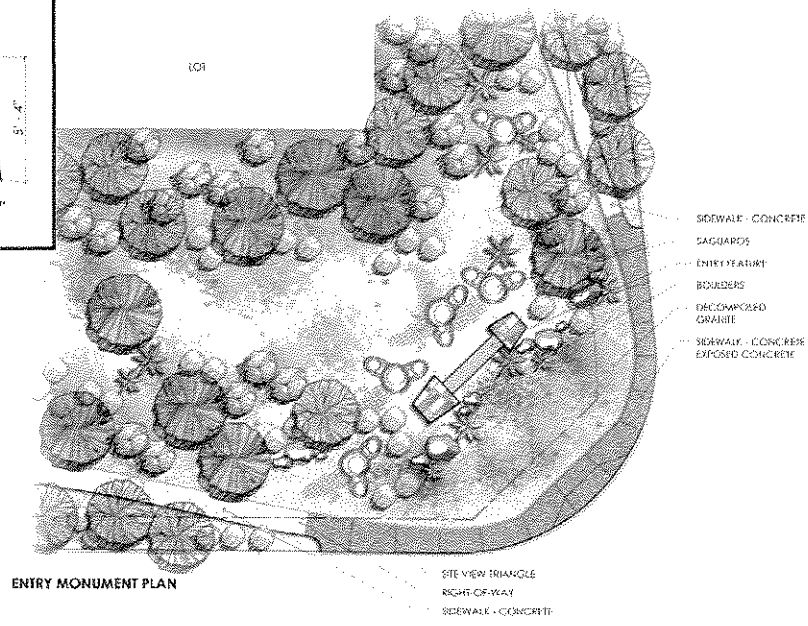
A trail system within the landscaped and improved open space corridors is incorporated into the land use plan to maximize utilization of the open space. The trail system corridor links the entire community by providing direct access from the individual residential lots to the various open space areas. The trail system is designed to provide a connection with future development and the proposed regional trail system along Happy Valley Road.

Tierra Verde East has been master planned to offer residents easy access to open space through the careful placement of open space areas. Pocket parks that offer a variety of opportunities for recreational activity are provided throughout the development. The parks are improved with turf areas, shade ramadas, play structures and trail systems (see Exhibit M1 – Master Landscape Plan). Generous open space and landscape elements are also provided at community entryways. Entryways are enhanced by community themed features and landscaping (see Exhibit M-2 for details of entry features).





ENTRY MONUMENT ELEVATION



ENTRY MONUMENT PLAN

5.4.3 Signage

Signage for Tierra Verde East will reinforce the Southwestern theme of the area and will meet the requirements of the City of Surprise for signs.

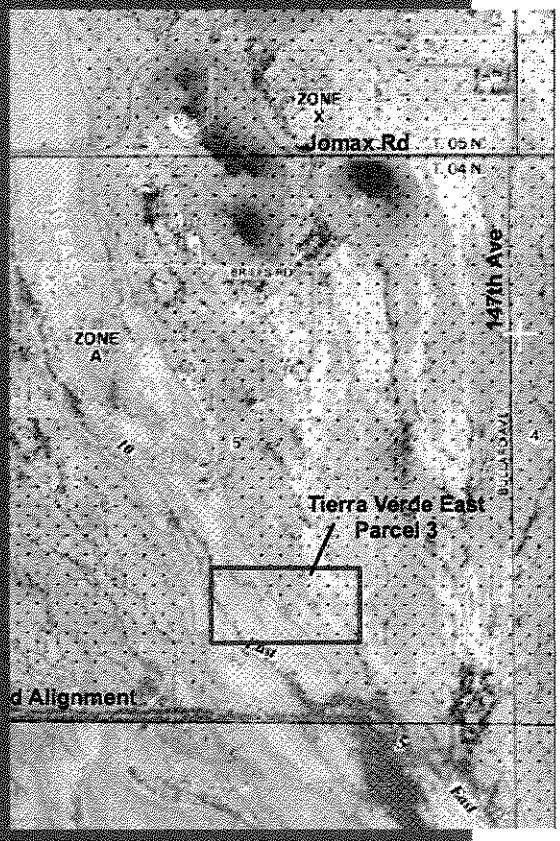
5.4.4 Lighting

Provisions for outdoor lighting within the development will be designed with minimized intensity. The primary entry nodes will be provided with pole-mounted lighting fixtures while the homes will be illuminated with low-mounted lighting fixtures that emit low-level, non-glare lighting.

5.5 Circulation System

The proposed circulation system plan has been designed to afford a high level of internal vehicular mobility and provide opportunities for effective modes of navigation of the site. Tierra Verde East includes three entry nodes. Entry points are provided off Happy Valley Road, 151st Avenue, 155th Avenue and 149th Avenue. The provision of multiple development entrances allows easy access to the site (see Exhibit K – Open Space and Circulation Plan).

Development of the site shall include half-street improvements to ultimate width for Happy Valley Road, 151st Avenue and 155th Avenue. All public roadways will be constructed according to the minimum standards established by the City of Surprise.



An interior local street with a 55-foot public right-of-way will provide primary access points to the site. The interior local streets shall be designed to provide 32 feet of pavement from back-of-curb to back-of-curb with a five-foot landscape area and five-foot-wide detached sidewalks on both sides of the street. Parking will be allowed on both sides of the street. Each home will have access to at least two off-street parking spaces.

All rights-of-way shall be dedicated to the City. All internal roadway improvements shall be designed and built to minimum City of Surprise standards.

6.0 DRAINAGE

6.1 Existing Flood Plain Conditions

The existing topography of the Tierra Verde East "Parcel 3" slopes from the northwest to the southeast. The Tierra Verde East "Parcel 3" parcel is traversed by one wash. According to the Flood Insurance Rate Map (FIRM), the wash crossing the Tierra Verde East "Parcel 3" parcel from west to east is named 10 East. 10 East flows along the western property boundary. The Tierra Verde East "Parcel 3" property is located in an unstudied Zone A floodplain as shown in Exhibit N – FIRM Map.

According to the Wittmann Area Drainage Master Study (WADMS) performed by the Flood Control District of Maricopa County, the Tierra Verde East project area is located in the Picacho Wash Sub-Watershed. The 100-year 24-hour flows conveyed in each channel are listed as follows:

- 10 East (R606A) – 200 cfs

Notice above that the channel is named by both FEMA designation and the HEC-1 card designation used in the WADMS.

6.2 Proposed Improvements and Floodplain Solution

6.2.1 Off-Site Storm Water Flows

Perimeter channels around the property boundary will be constructed to collect the offsite flows impacting the site from the northwest. The flows from northwest will be conveyed around the site and discharged at the southwest corner. The flows impacting at northeast corner of the site will be conveyed into the channel located in the adjacent property on the east side of the site. The off-site discharges are conveyed around the site in proposed perimeter channels. The off-site flow will discharge back into its historic/existing conveyance corridors at the proposed (downstream) development property line. The routed discharge will be

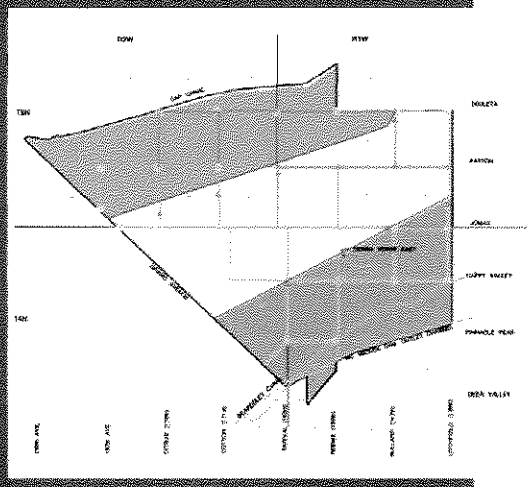
equal to or less than the existing discharge at the existing exit point from the proposed downstream development boundary. The offsite drainage will be coordinated with the FCDMC WADMS.

A Conditional Letter of Map Revision (CLOMR) will need to be filed with the Federal Emergency Management Agency (FEMA) to request a Letter of Map Revision (LOMR) to reclassify the flood zone designation to Zone X on the FIRM Maps and eliminate the property from being in a flood zone.

6.2.2 On-Site Storm Water Retention

Retention/detention facilities are strategically located within common area open space tracts throughout the proposed Tierra Verde Project. Retention for the on-site flow will be provided to collect the 100-year 2-hour storm. The storm water runoff produced during the design storm will not be allowed to pond greater than three feet of depth measured from the bottom of the retention basin. Also, the detention basin will be designed such that it will be drained within 36 hours. All proposed on-site retention basins will provide a minimum of one foot of freeboard and that the high water surface elevation will be at least one foot below adjacent finish floor elevations.

All drainage design will be done in accordance with the City of Surprise "Preliminary and Final Drainage Report Guidelines," the City of Surprise Municipal Code (Chapters 15 and 16), and the FCDMC hydrology and hydraulics manual(s). The off-site drainage will be based on the WADMS Update.



LEGEND

- SPA2 BOUNDARY
- 12" WATER LINE
- 16" WATER LINE
- PRESSURE NODE
- PRV

PRESSURE ZONES

- ZONE 5
- ZONE 6
- ZONE 7

7.0 INFRASTRUCTURE IMPROVEMENTS

7.1 Traffic Impact Analysis

An amended "Traffic Impact Analysis" has been prepared by TASK Engineering and is included in this submittal.

7.2 Water Service

Water service will be provided by the City of Surprise. Dual water systems are required, both potable and non-potable. Irrigation of all common areas must be done with non-potable water. Service by the City's non-potable water system will be required, as it becomes available.

The Project is within the City of Surprise Water Infrastructure Master Plan study area, and is located in City of Surprise Water System Pressure Zone #5. The City is currently expanding their water system to accommodate future growth in the area. Per the City's requirements, existing City Water Master Planned looping lines must be extended. Off-site 12-inch ductile iron looping water lines are required on north/south mile and half-mile alignments. Off-site 12-inch ductile iron looping water lines are required on east/west mile alignments. Over-sized 16-inch water distribution looping lines are required on Happy Valley Road and 155th Avenue (Reems Road), and must be extended from the appropriate water supply facility. Booster pump system(s) and locations must be provided.

Anticipated demands for this Project are as follows:

# of DU's = 325	(Assume 3.2 people/DU)
ADD = 142 gpm	MDD = 284 gpm
PH = 426 gpm	FF = 1750 gpm (Residential only)

See Exhibit O – Proposed Water Plan.

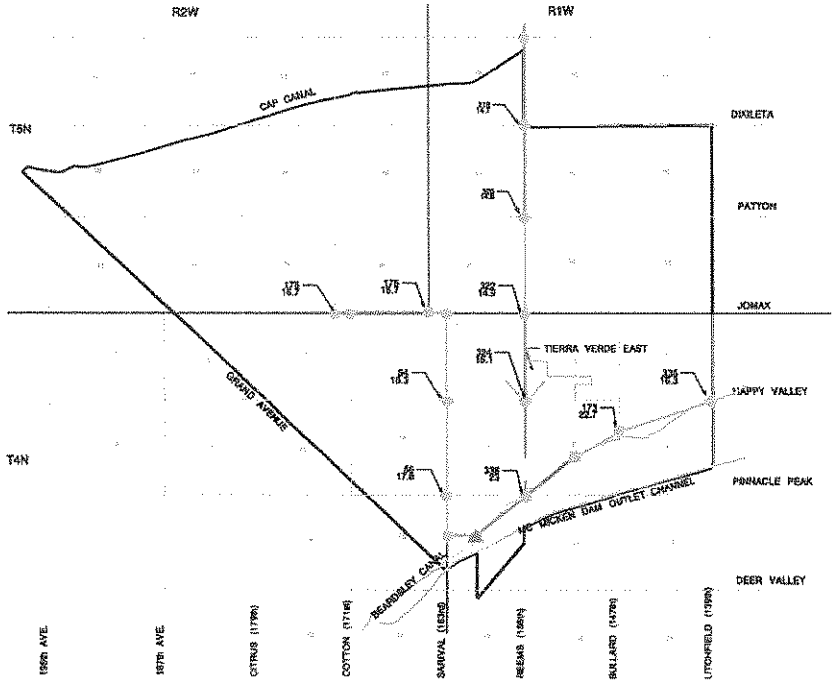
7.3 Wastewater – Sanitary Sewer

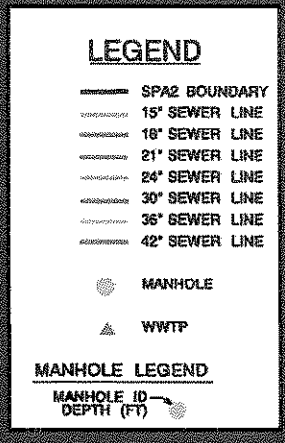
It is anticipated that wastewater service will be provided by the City of Surprise. The project is dependent on annexation of the property into the City and upon the construction of the City's Regional SPA2 Master Planned Wastewater Treatment Facility. Upfront capitalization is required for the construction. The City and the developers are working on a development agreement to fund the construction of 2.5 MGD of capacity and required interceptor sewers.

While no sewer capacity is currently available, the City's master plan does identify the Tierra Verde East area. In the master plan, the project is currently identified as connecting at the NWC of Happy Valley Road and 147th Avenue. Tierra Verde East Parcel 3 will sewer to 147th and Happy Valley through Rancho Mercado.

Anticipated flows from this development are as follows:
# of DU's = 320 (Assume 3.2 people/DU)
ADF = 102,400 gpd MDF = 0.41 MGD

Please see Exhibit P – Proposed Sewer Plan.





Please see Exhibit P – Proposed Sewer Plan.

8.0 PUBLIC UTILITIES AND SERVICES

Dry utilities such as electric, gas, telephone and cable television utilities will be placed underground within the public utility easements. The following utilities and services are available to the residents of Tierra Verde East through the following entities:

8.1 Electrical Services

The surrounding area is currently serviced by the Arizona Public Service (APS). There are existing power pole lines along 155th Avenue (Reems Road). There appears to be adequate service capacity for this project and the surrounding area; however, new facilities may be required as this area develops.

8.2 Natural Gas

Service will be provided by Southwest Gas Corporation.

8.3 Telephone

Communication services in the area are currently provided by Qwest Communications.

8.4 Cable TV

The area is currently serviced by Cox Communications. There are no existing cable TV manholes or junction boxes.

8.5 Water

The City of Surprise will provide potable water to Tierra Verde East. The development will utilize reclaimed water for irrigation purposes.

8.6 Sewer

The City of Surprise will extend its sewer lines into the development.

8.7 Solid Waste

The City of Surprise will provide service to Tierra Verde East.

9.0 MANAGEMENT AND MAINTENANCE

A Homeowners' Association (HOA) will be created to manage and maintain common areas and open spaces owned by the HOA. The HOA will assume maintenance responsibility for median landscaping and landscaping within public rights-of-way adjacent to all major/minor arterial and collector roadways within the community's boundary. Residents of Tierra Verde East will automatically be members of the HOA and will be required to pay annual dues for the operation and maintenance of the community facilities.

10.0 DEVELOPMENT SCHEDULE

Tierra Verde East will be constructed in two phases. Construction is anticipated to commence for Parcels 1 and 2 in the second quarter of the calendar year 2007. "Parcel 3" is anticipated to commence in the first quarter of the calendar year 2008. The ultimate development schedule is contingent upon the prevailing market and economic conditions, absorption rates and industry factors at the time of consideration.

11.0 COVENANTS, CONDITIONS AND RESTRICTIONS

The developer will create and record a set of Covenants, Conditions and Restrictions (CC&R's) establishing a mater homeowners' association (HOA) that will be responsible for the maintenance of the perimeter theme walls, signage, landscape buffers and landscaping in all common areas and rights-of-ways.

TIERRA VERDE EAST
PLANNED AREA DEVELOPMENT
DIRECTORY OF EXHIBITS

VICINITY MAP	Exhibit A
SURROUNDING AREA MAP	Exhibit B
SURPRISE GENERAL PLAN 2020	Exhibit C
CITY OF SURPRISE GROWTH AREAS	Exhibit D
TRANSPORTATION/CIRCULATION PLAN	Exhibit E
TOPOGRAPHY MAP	Exhibit F
LAND USE TABULATION TABLE	Exhibit G
LAND USE PLAN	Exhibit H
SINGLE-FAMILY RESIDENTIAL DESIGN GUIDELINES	Exhibit I
TYPICAL LOT LAYOUT	Exhibit J
OPEN SPACE AND CIRCULATION PLAN	Exhibit K
CONCEPTUAL ARCHITECTURAL ELEVATIONS	Exhibit L
LANDSCAPE EXHIBITS	Exhibit M
FIRM MAP	Exhibit N
PROPOSED WATER PLAN	Exhibit O
PROPOSED SEWER PLAN	Exhibit P

tierra verde East

Parcel 3

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

VICINITY MAP

NORTH

0 700
350 1400

EXHIBIT A

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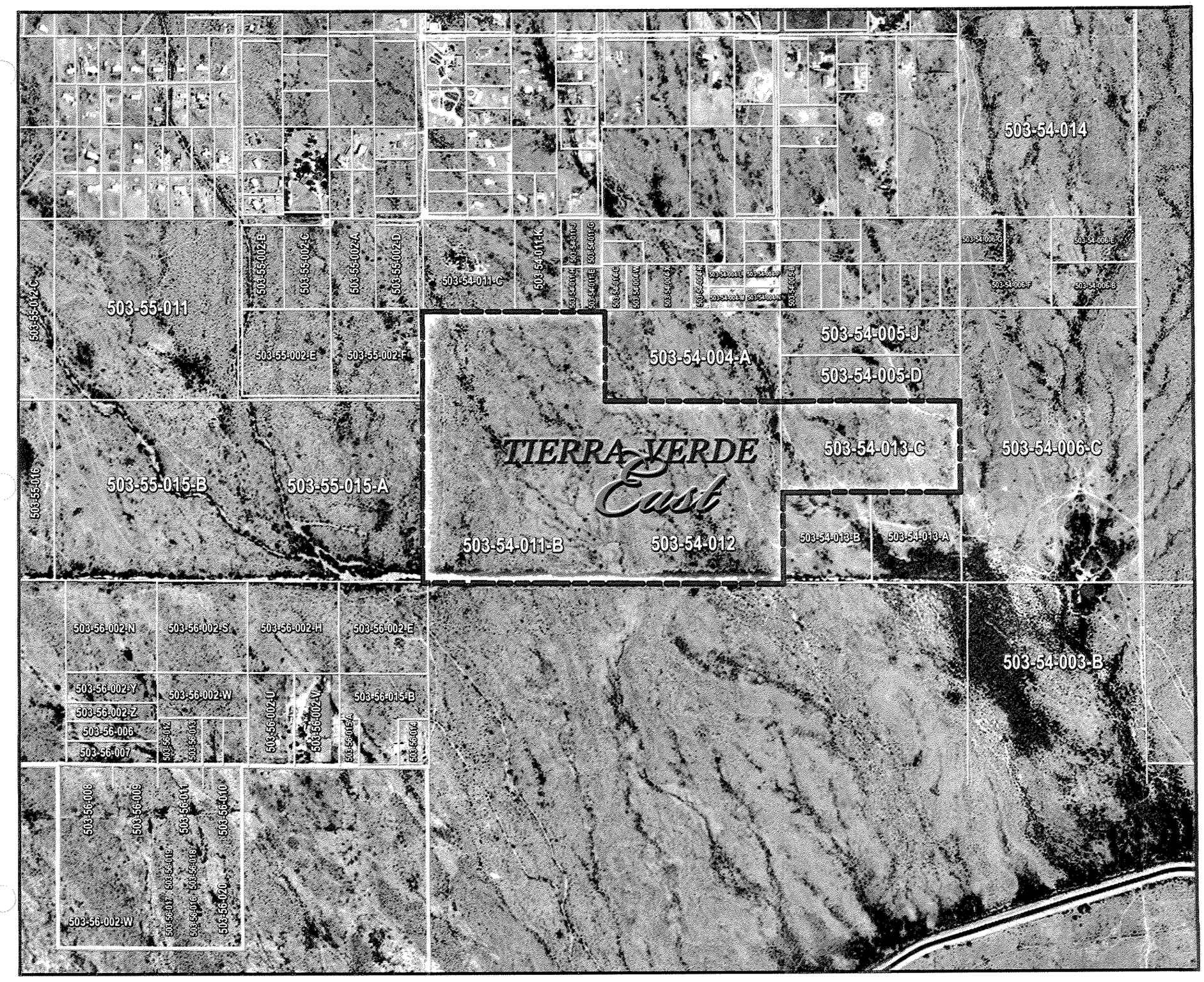

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

SURROUNDING AREA MAP

NORTH

0 300

150 600

EXHIBIT B

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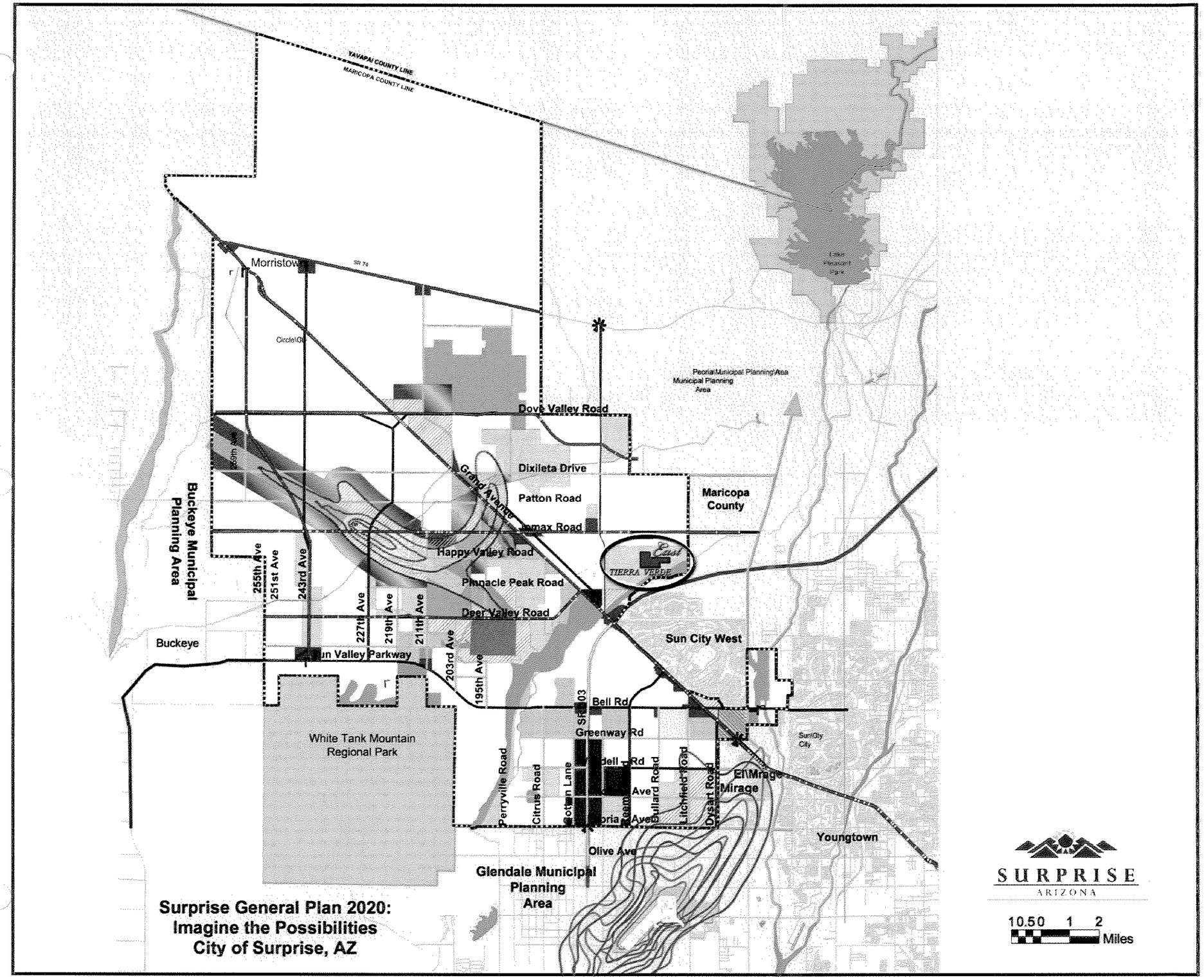

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

SURPRISE GENERAL PLAN 2020

Land Use Classification

- Airport Preservation (0-2 Du's/Ac)
- Rural Residential (0-1 Du;s/Ac)
- Suburban Residential (1-3 Du's/Ac)
- Low Density Residential (3-5 Du's/Ac)
- Medium Density Residential (5-8 Du's/Ac)
- Medium/High Density Residential (8-15 Du's/Ac)
- High Density Residential (15-21 Du's/Ac)
- Surprise Center
- Original Townsite
- Commercial
- Employment
- Mixed Use Gateway
- Agriculture
- Landfill
- Military
- Open Space
- Public Facilities
- Proving Grounds
- Mixed-Use Gateway
- Resort Development

Street Classification

- Principal Arterial
- Major Arterial
- Minor Arterial
- Proposed Principal Arterial
- Proposed Major Arterial
- Proposed Minor Arterial
- Special Corridor
- PARKWAYS

- 1988 MAG Noise Contours
- 1995 Luke A.F.B. Noise Contours (1997 Revised)
- Aux 1 F-16 Noise Contours
- City General Planning Area
- Maricopa County Boundary
- APZ I
- APZ II
- CLEAR ZONE

NORTH

EXHIBIT C

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TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

SURPRISE GROWTH AREAS

SURPRISE
ARIZONA

- SR 303 Corridor (South of Bell Road)
- Original Townsite/Surprise Center
- South Dysart Road
- Grand Ave. - SR 303
- Jomax Rd. - Grand Ave.
- Jomax Rd. - 163rd Ave.
- Sun Valley Parkway - 211th Ave.
- 243rd Ave. - Sun Valley Parkway
- Proposed Site (TIERRA VERDE East)

NORTH

1 0 1 2
Miles

EXHIBIT D

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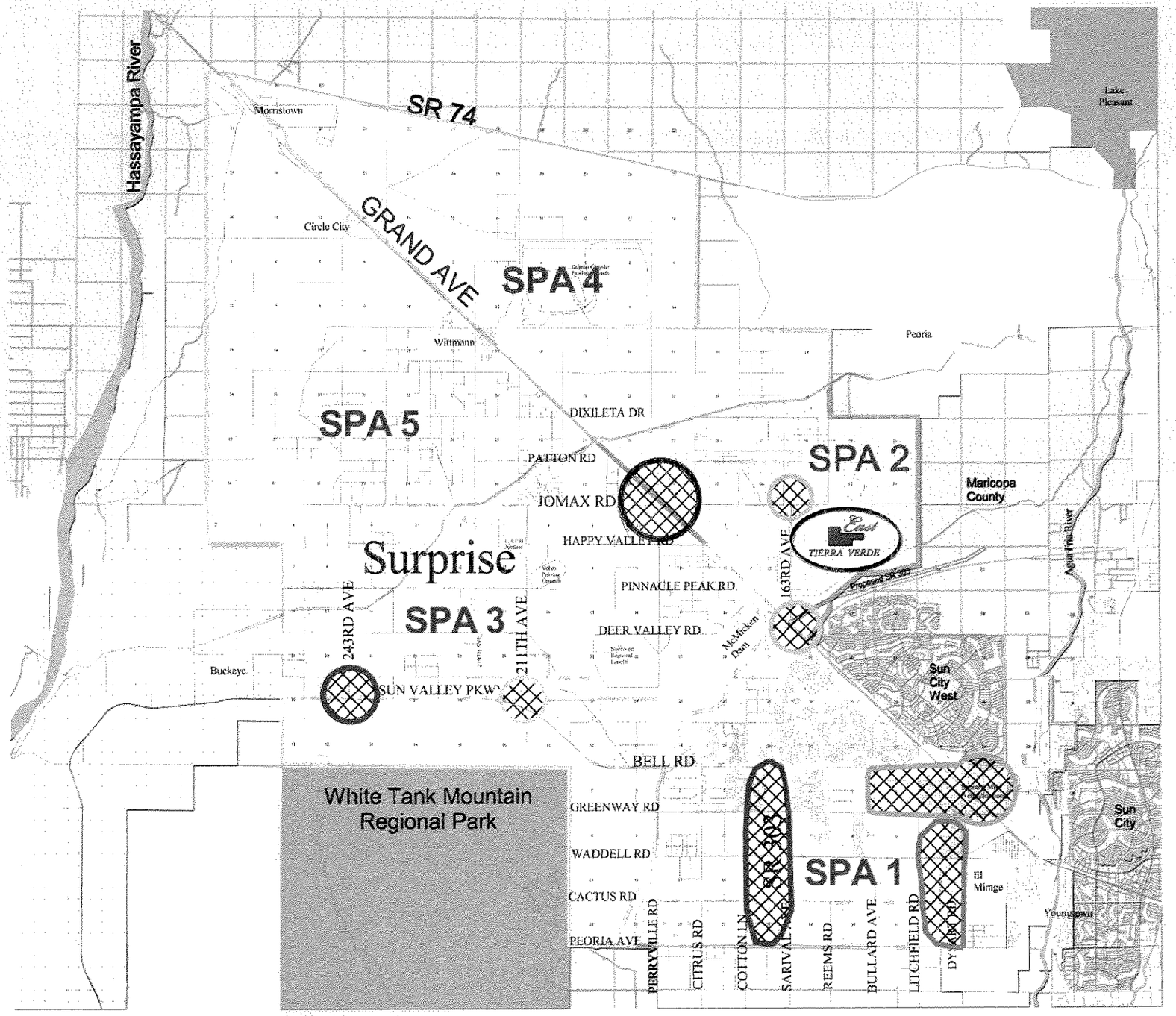


Surprise General Plan 2020: Imagine the Possibilities
City of Surprise, AZ

Partners for Strategic Action, Inc.
Neill/Vecchia and Associates
David Evans and Associates

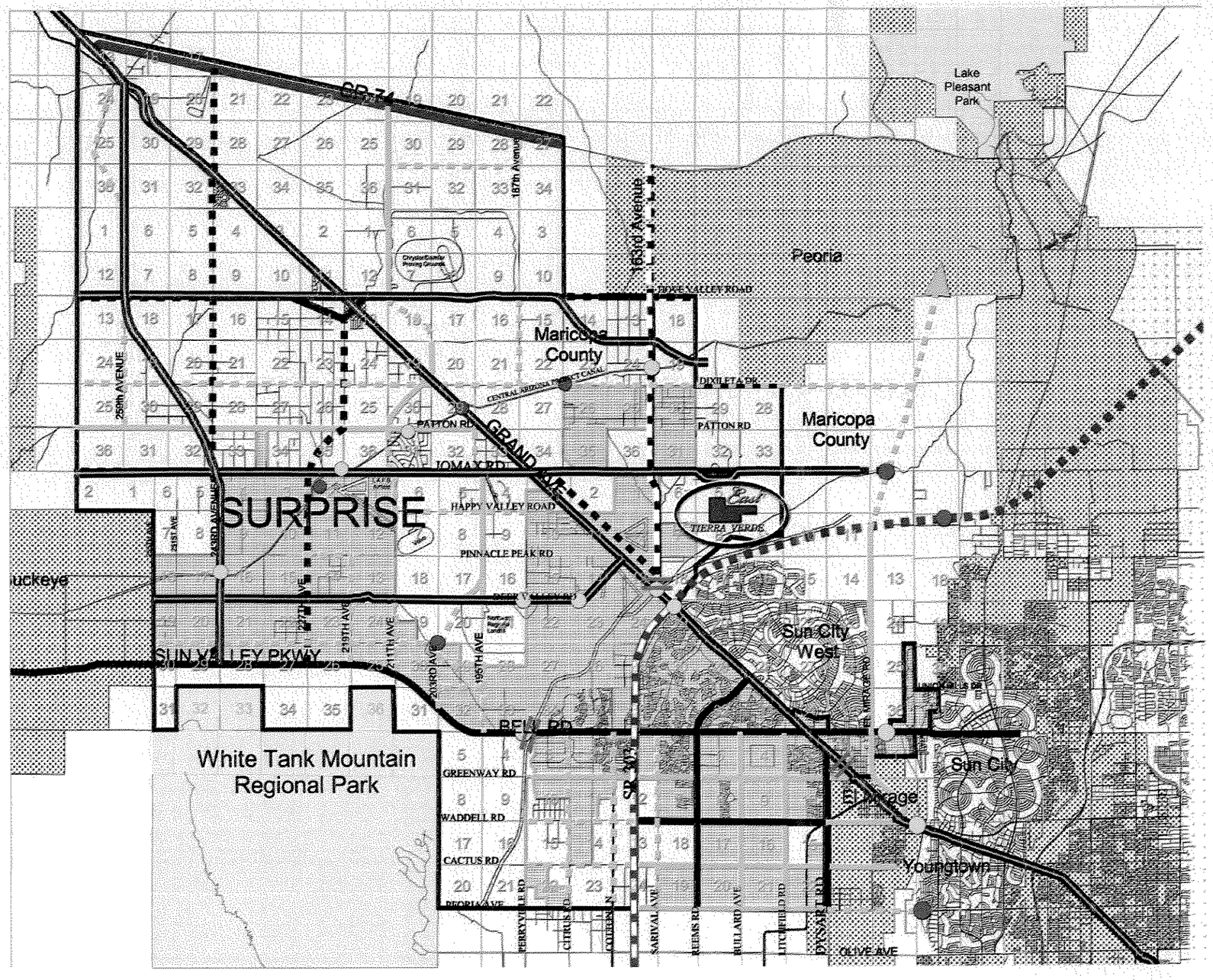
November, 2000

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

TRANSPORTATION CIRCULATION PLAN

SURPRISE
ARIZONA



Street Classification

- Principal Arterial
- Major Arterial
- Minor Arterial
- Proposed Principal Arterial
- Proposed Major Arterial
- Proposed Minor Arterial
- Special Corridor

Existing and Proposed Bridges

- Existing Road Bridge
- Proposed Road Bridge
- Proposed Pedestrian Overpasses
- Planning Area
- City Corporate Boundary
- Proposed Site

EXHIBIT E

CVL

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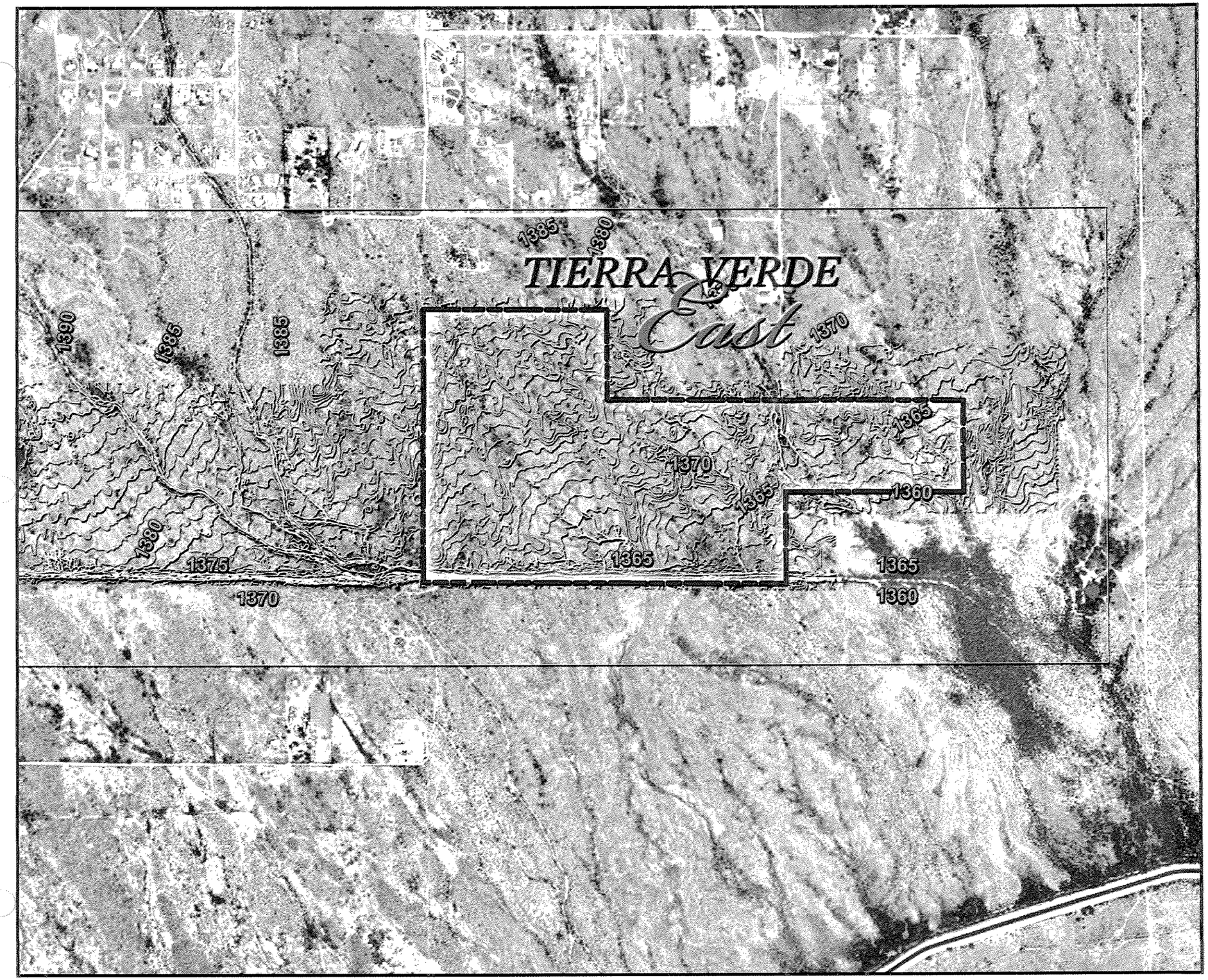

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

TOPOGRAPHY MAP

NORTH

0 200
100 400

EXHIBIT F

CVL

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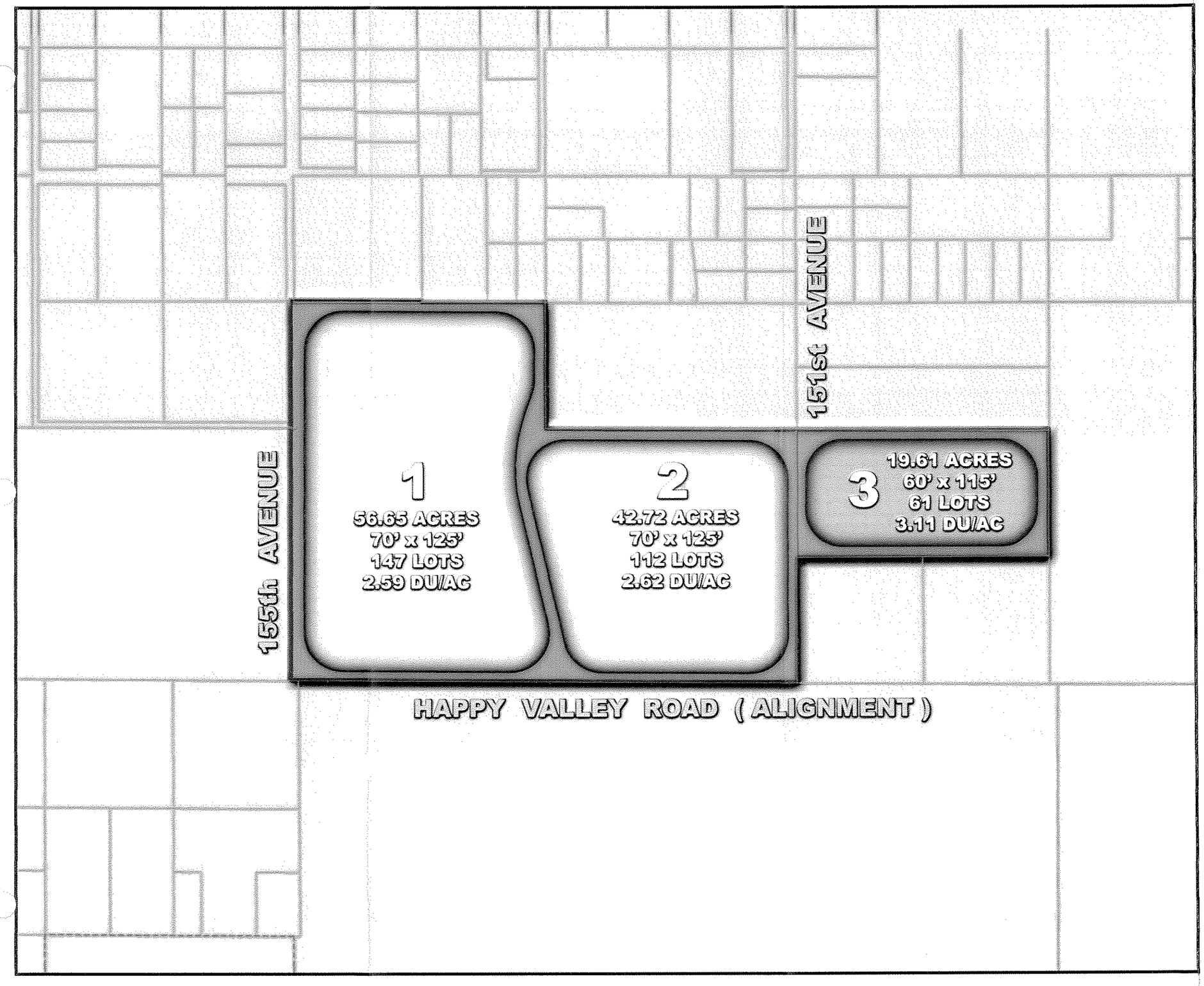
Land Use Tabulation

Land Use	Land Area Ac.	Lot Size	Dwelling Units	Density du/ac
Parcel 1	56.65	70' x 125'	147	2.59
Parcel 2	42.72	70' x 125'	112	2.62
Parcel 3	19.61	60' x 115'	61	3.11
Total	**118.98 Ac.**		**320**	**2.69**

EXHIBIT G



TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

LAND USE PLAN

LAND USE TABLE

PARCEL	ACREAGE	LOT SIZE	LOT YIELD	DENSITY
1	56.65	70'x125'	147	2.59
2	42.72	70'x125'	112	2.62
3	19.61	60'x115'	61	3.11
TOTAL	118.98		320	2.69

NORTH

0 500
250 1000

EXHIBIT H

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Single-Family Design Guidelines Comparison Table		
Regulations	Lot Category (A) Base Requirements	Proposed PAD Standards
Min. Front Setback	12' living/ 18' face Garage[1]	10' living/ 22' face Garage
Min. Side Yard Setbacks	5'/8' [2]	15' Aggregate
Min. Corner Side Setback	13' single story 20' multi-story	10' single story 15' multi-story
Min. Rear Setback	15'[3]	15'
Min. Lot Frontage Reg.	58'	60'
Max. House Width Permitted on Min. Lot	45'	47'
Min. Lot Size (sf)	6,380'	6,600

[1] Encroachments into tequired front and side setbacks will compy with Chapter 17.28, Article II and Section 17.32.070, the provisions of Chapeter 17.28, Article II shall apply.

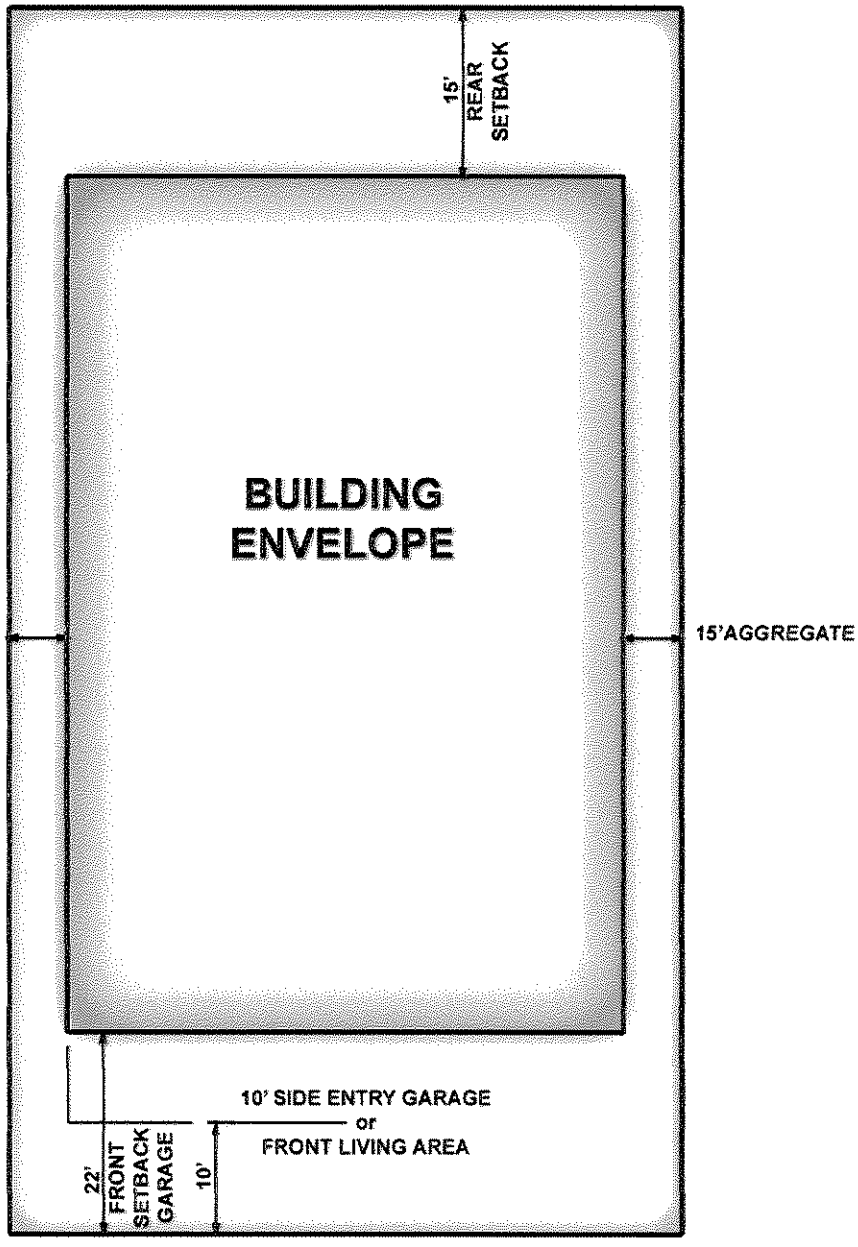
[2] Two adjacent multi-story houses must be separated by not less than 14 foot, and a multi-story house and an adjacent single-story house must be separated by not less than 12 feet. If any portion of a multi-story house has only one story adjacent to the side yard property line, the single-story setback will apply.

[3] Non-structural architectural features such as fireplaces, bay windows, pop-outs or patio covers may encroach into the rear setback, provided however, that a patio cover may not encroach more than ten (10') into the rear set back.

EXHIBIT I

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT



60' LOT WIDTH

N.T.S.

TYPICAL LOT LAYOUT

EXHIBIT J

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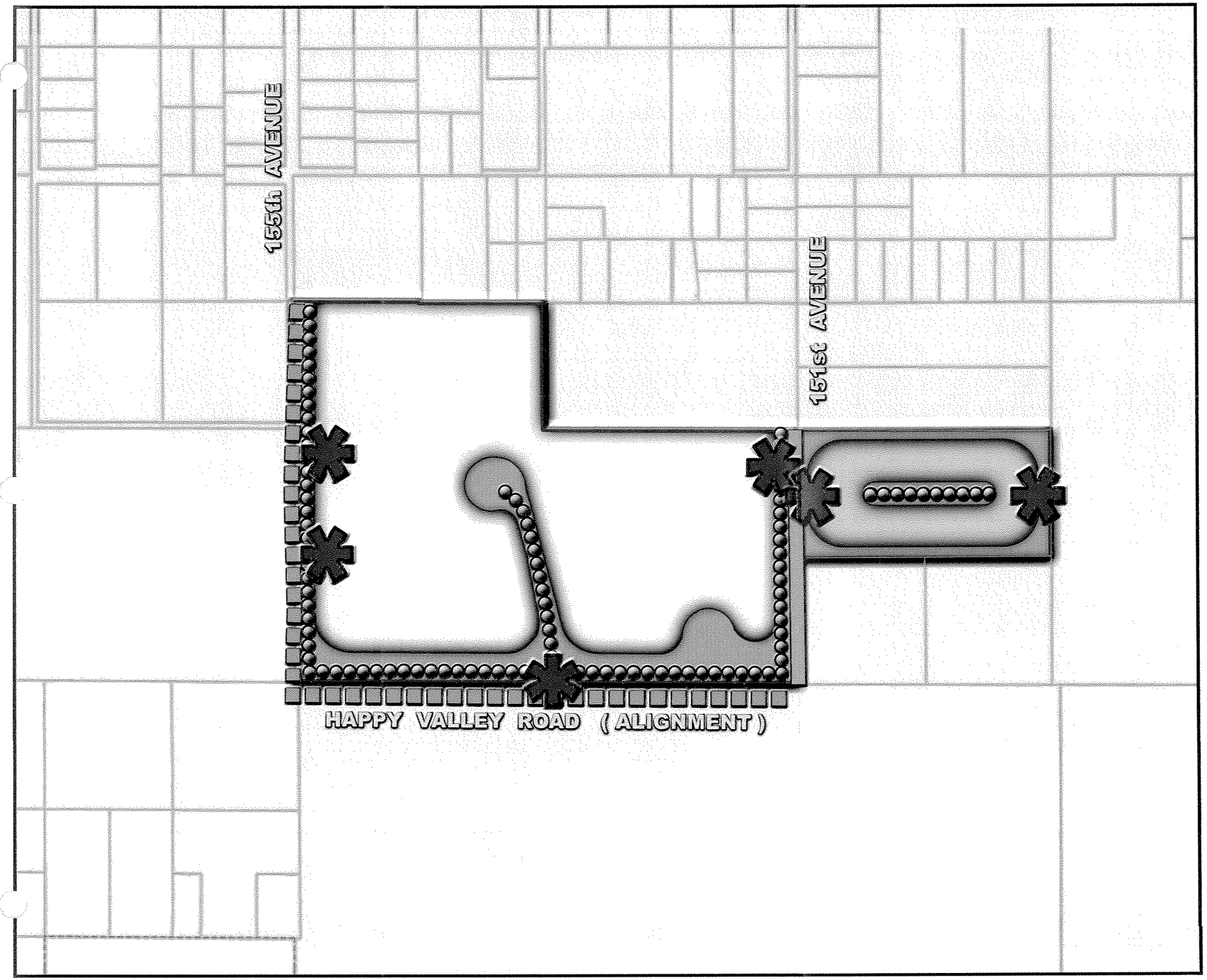

TIERRA VERDE East

PLANNED AREA DEVELOPMENT AMENDMENT

OPEN SPACE & CIRCULATION PLAN

LEGEND

PEDESTRIAN & BICYCLE TRAIL

COLLECTOR ROADS

MINOR ARTERIAL ROADS

ENTRY NODE

NORTH

0 500 250 1000

EXHIBIT K

CVL

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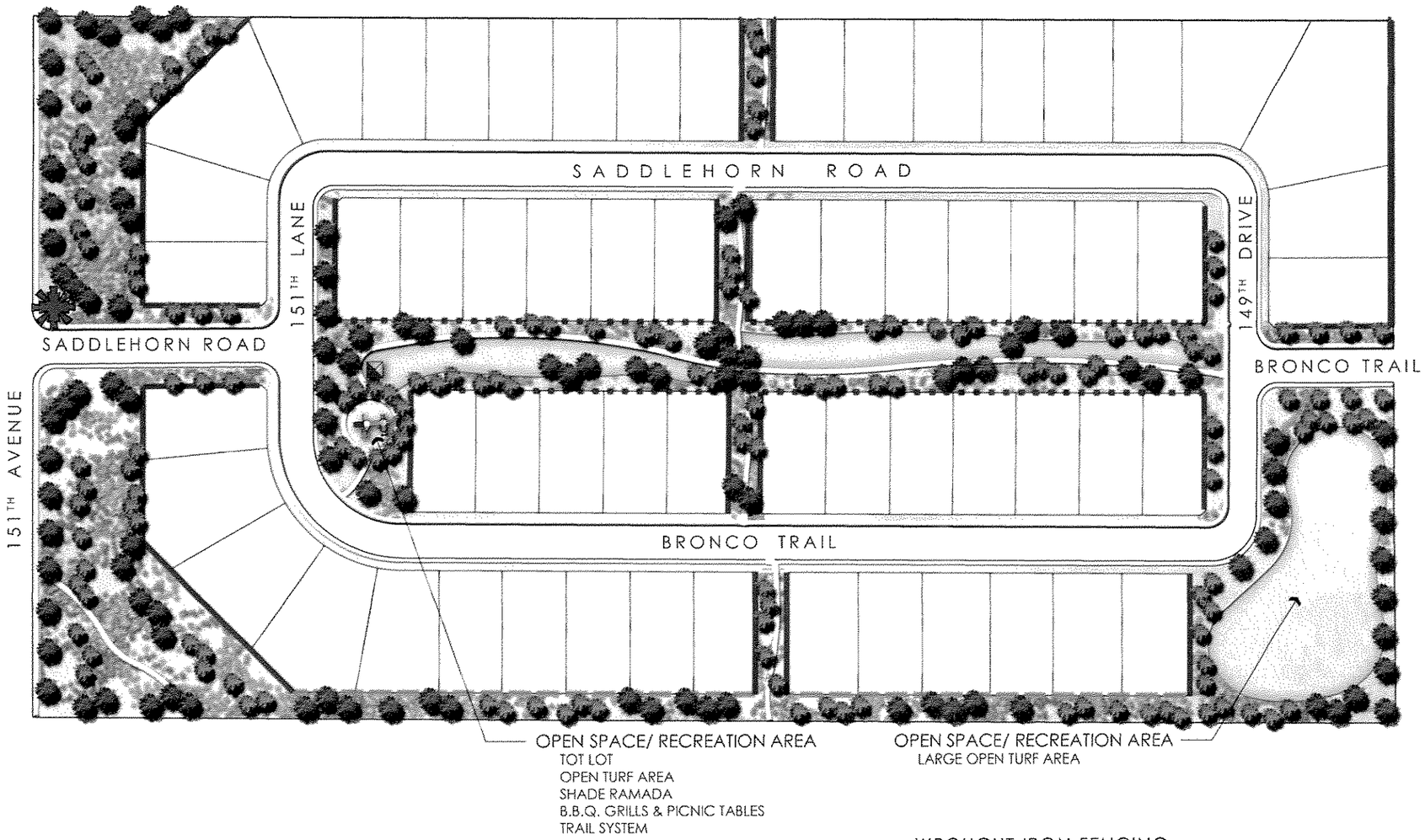


PLANT PALETTE

TREES:

Acacia farnesiana	Sweet Acacia
Acacia stenophylla	Shoestring Acacia
Chilopsis linearis	Desert Willow
Fraxinus velutina	Fantex Ash
Parkinsonia floridum	Blue Palo Verde
Prosopis velutina	Velvet Mesquite

SHRUBS:

Caesalpinia gilliesii	Yellow Bird of Paradise
Calliandra eriophylla	Pink Red Fairy Duster
Dodonaea viscosa	Hopbush
Encelia farinosa	Brittlebush
Ericameria laricifolia 'Desert Mountain'	Turpentine Bush
Hyptis emoryi	Desert Lavender
Justicia californica	Chuparosa
Larrea tridentata	Creosote bush
Leucophyllum laevigatum	Chihuahuan Sage
Simmondsia chinensis	Jojoba
Vauquelinia californica	Arizona Rosewood
Salvage Shrub	

ACCENTS

Agave geminiflora	Twin-flowered Agave
Carnegia gigantea	Saguaro
Dasilyrion wheeleri	Desert Spoon
Hilaria rigida	Big Galleta
Muhlenbergia lindheimeri	Autumn Glow
Muhlenbergia rigens	Deer Grass
Muhlenbergia rigida	Nashville Deer Grass
Penstemon parryii	Parry's Penstemon

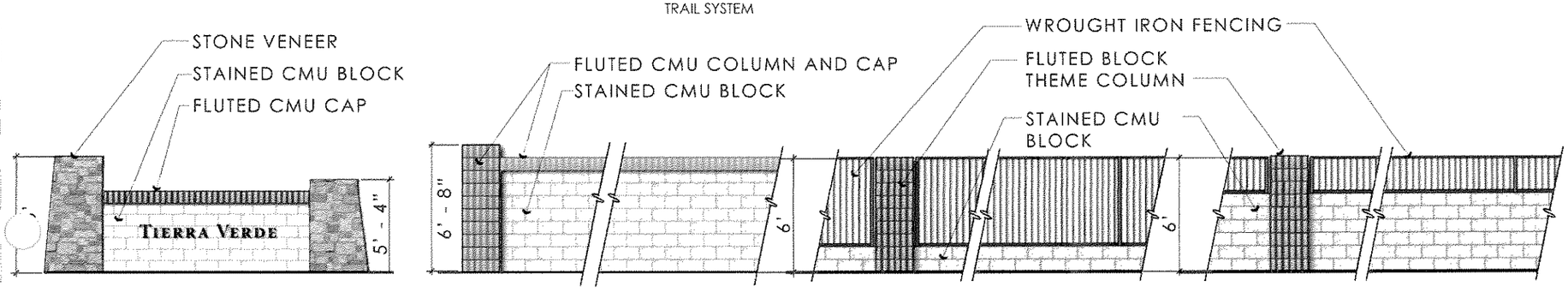
GROUNDCOVERS:

Ambrosia deltoidea	Bursage
Baccharis x 'Starn'	'Starn' Thompson
Baileya multiradiata	Desert Marigold
Glandularia goodingii	Gooding's Verbena
Psilostrophe cooperi	Paper Flower

LEGEND

- ENTRY MONUMENT
- TOT LOT
- VIEW FENCE
- THEME WALL
- MODIFIED VIEW FENCE

0' 30' 60'



ENTRY MONUMENT ELEVATION

THEME WALL

VIEW WALL

MODIFIED VIEW FENCE

LANDSCAPE MASTER AND WALL PLAN

TIERRA VERDE EAST PARCEL 3

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 15 October 2007

PLANT PALETTE

TREES:

Acacia farnesiana	Sweet Acacia
Acacia stenophylla	Shoestring Acacia
Chilopsis linearis	Desert Willow
Fraxinus velutina	Fantex Ash
Parkinsonia floridum	Blue Palo Verde
Prosopis velutina	Velvet Mesquite

SHRUBS:

Caesalpinia gilliesii	Yellow Bird of Paradise
Calliandra eriophylla	Pink Red Fairy Duster
Dodonaea viscosa	Hopbush
Encelia farinosa	Brittlebush
Ericameria laricifolia 'Desert Mountain'	Turpentine Bush
Hyptis emoryi	Desert Lavender
Justicia californica	Chuparosa
Larrea tridentata	Creosote bush
Leucophyllum laevigatum	Chihuahuan Sage
Simmondsia chinensis	Jojoba
Vauquelinia californica	Arizona Rosewood
Salvage Shrub	

ACCENTS

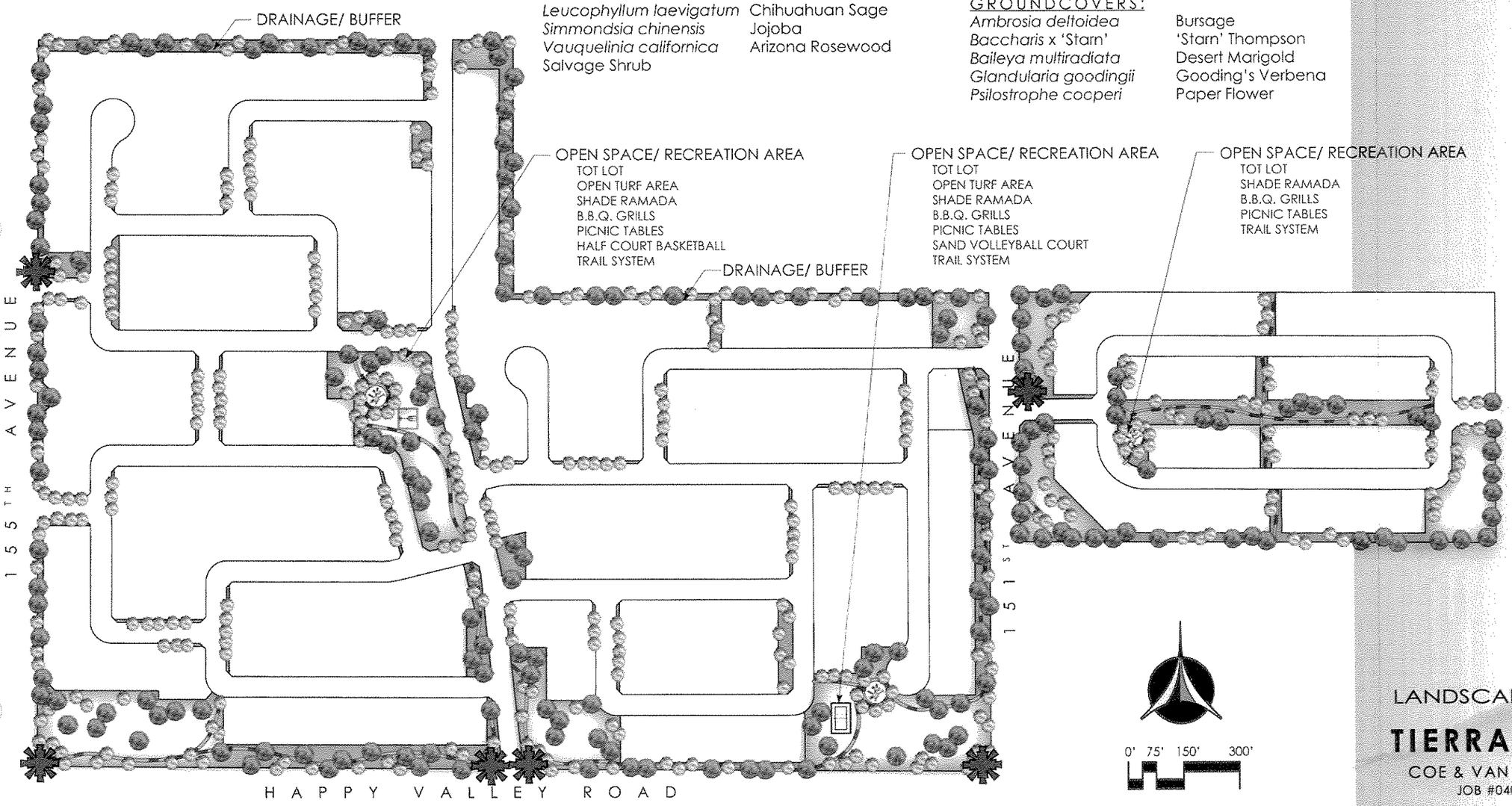
Agave geminiflora	Twin-flowered Agave
Carnegia gigantea	Saguaro
Dasilyrion wheeleri	Desert Spoon
Hilaria rigida	Big Galleta
Muhlenbergia lindheimeri	Autumn Glow
Muhlenbergia rigens	Deer Grass
Muhlenbergia rigida	Nashville Deer Grass
Penstemon parryii	Parry's Penstemon

GROUNDCOVERS:

Ambrosia deltoidea	Bursage
Baccharis x 'Starn'	'Starn' Thompson
Baileya multiradiata	Desert Marigold
Glandularia goodingii	Gooding's Verbena
Psilostrophe cooperi	Paper Flower

LEGEND

- ENTRY MONUMENT
- MULTIPURPOSE TRAIL
- TOT LOT

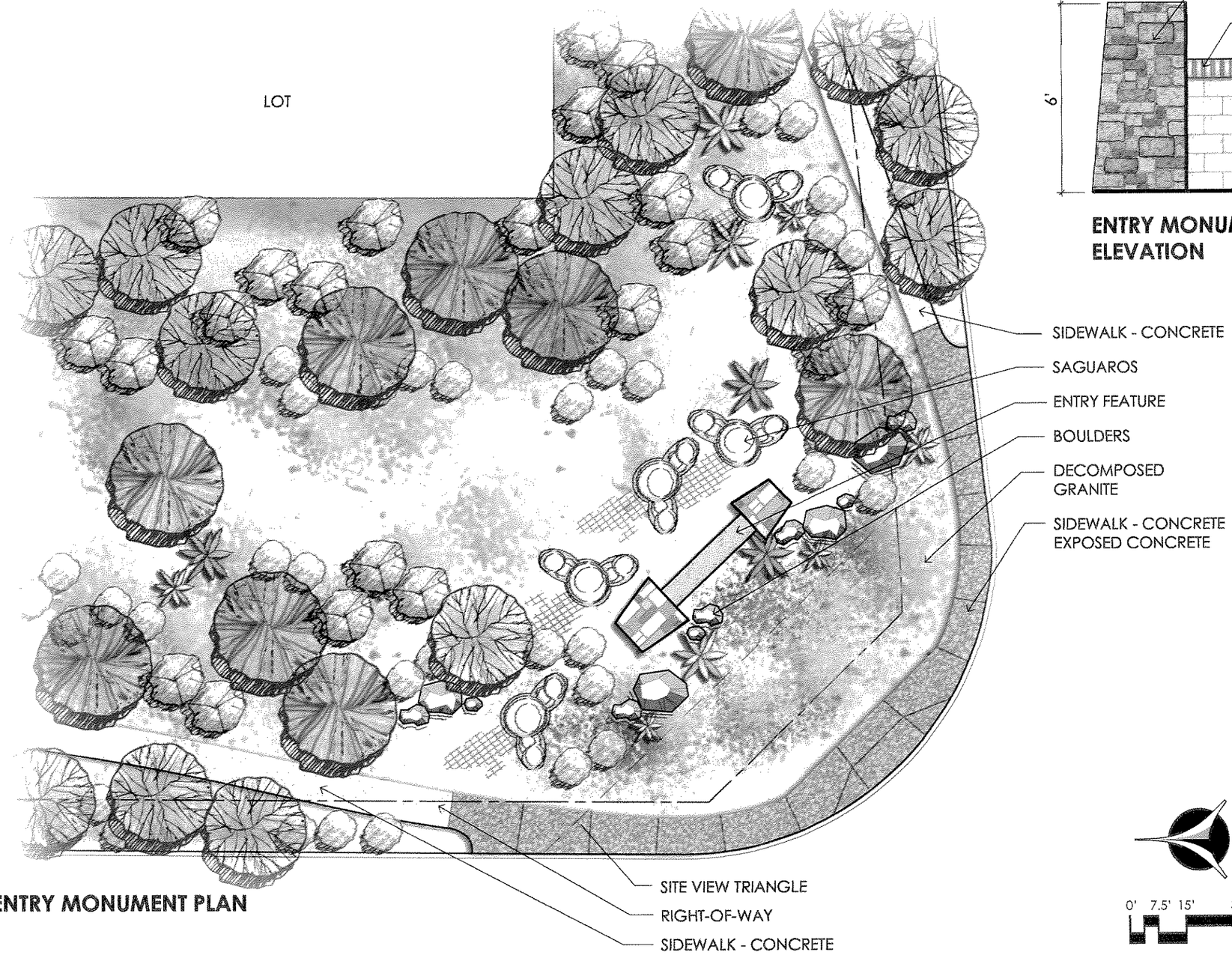


LANDSCAPE MASTER PLAN

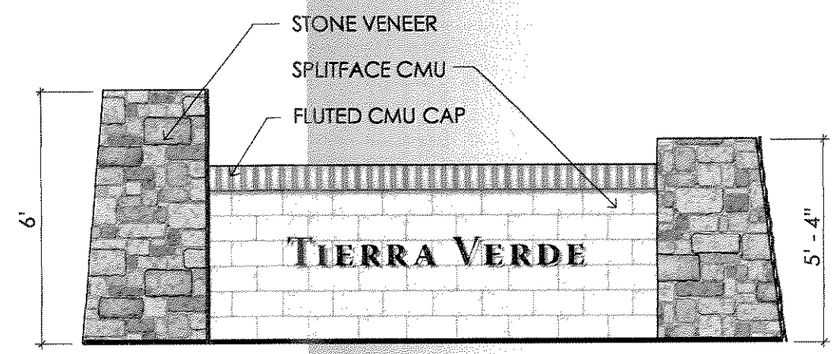
TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 15 October 2007



ENTRY MONUMENT PLAN



ENTRY MONUMENT ELEVATION

Scale ¼" = 1' - 0"

0' 7.5' 15' 30'

CONCEPTUAL LANDSCAPE
ENTRY FEATURE

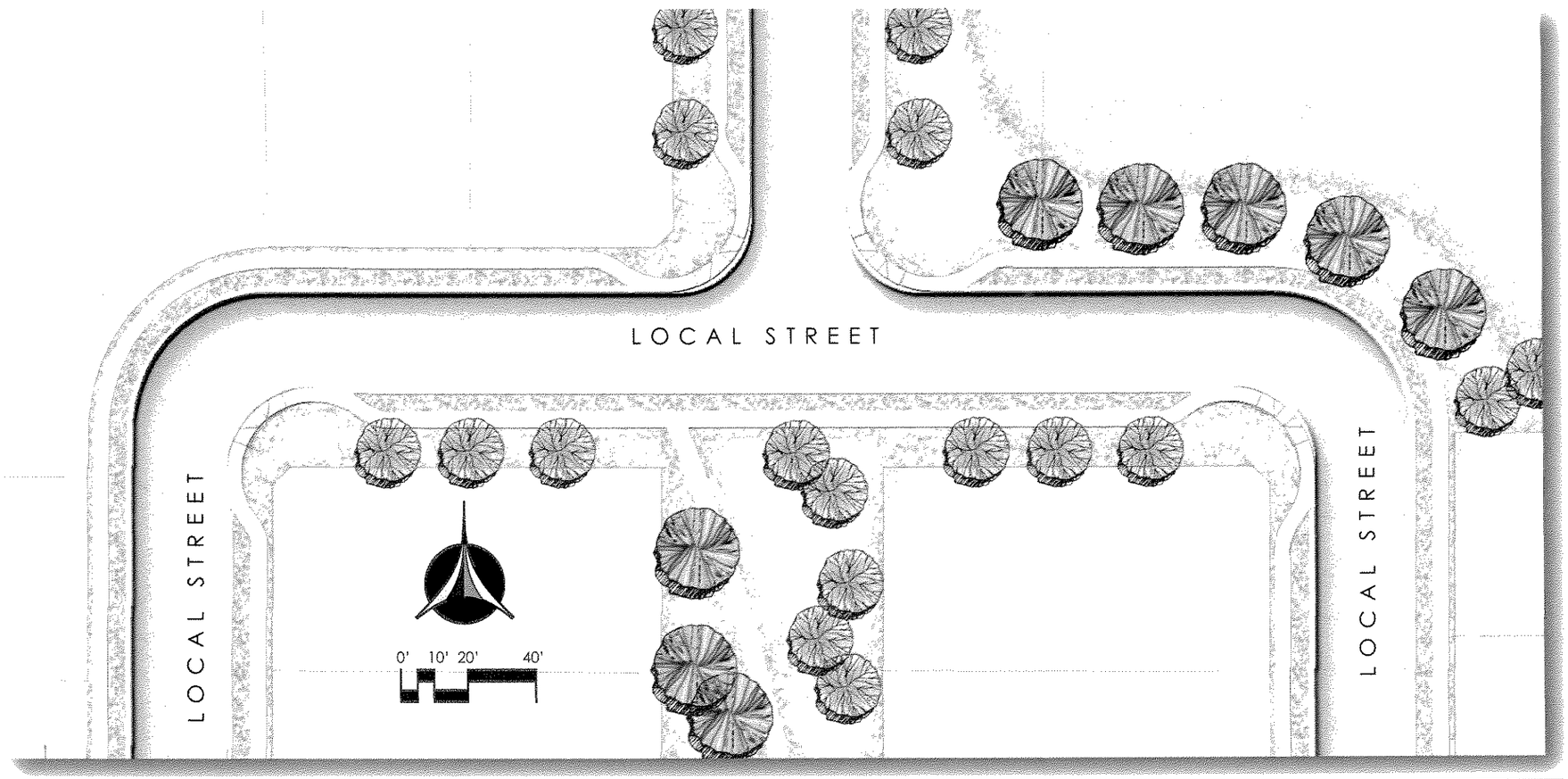
TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.
JOB #040134 24 January 2007

PAGE
M-2

CORNER LOT ELEVATION

N.T.S.



CORNER LOT PLAN VIEW

TIERRA VERDE EAST

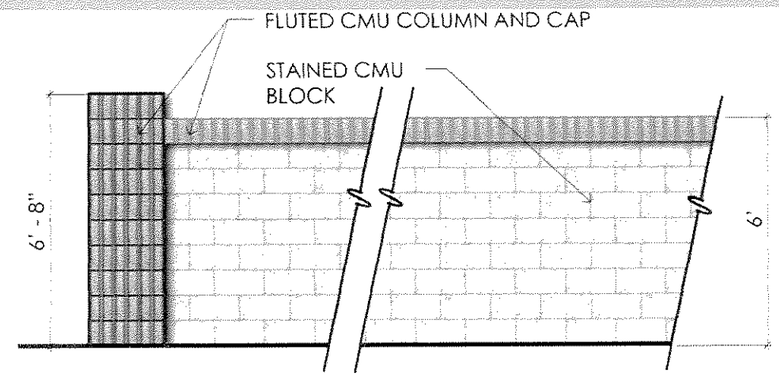
COE & VAN LOO CONSULTANTS, INC.

JOB #040134 24 January 2007

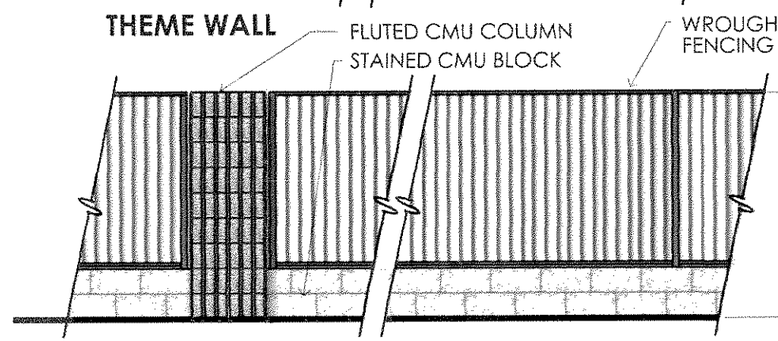
PAGE M-3

LEGEND

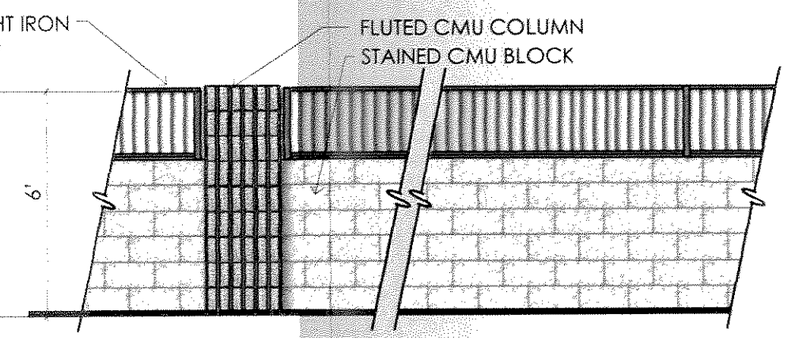
- Theme Wall
- View Fence
- Modified View Fence



THEME WALL

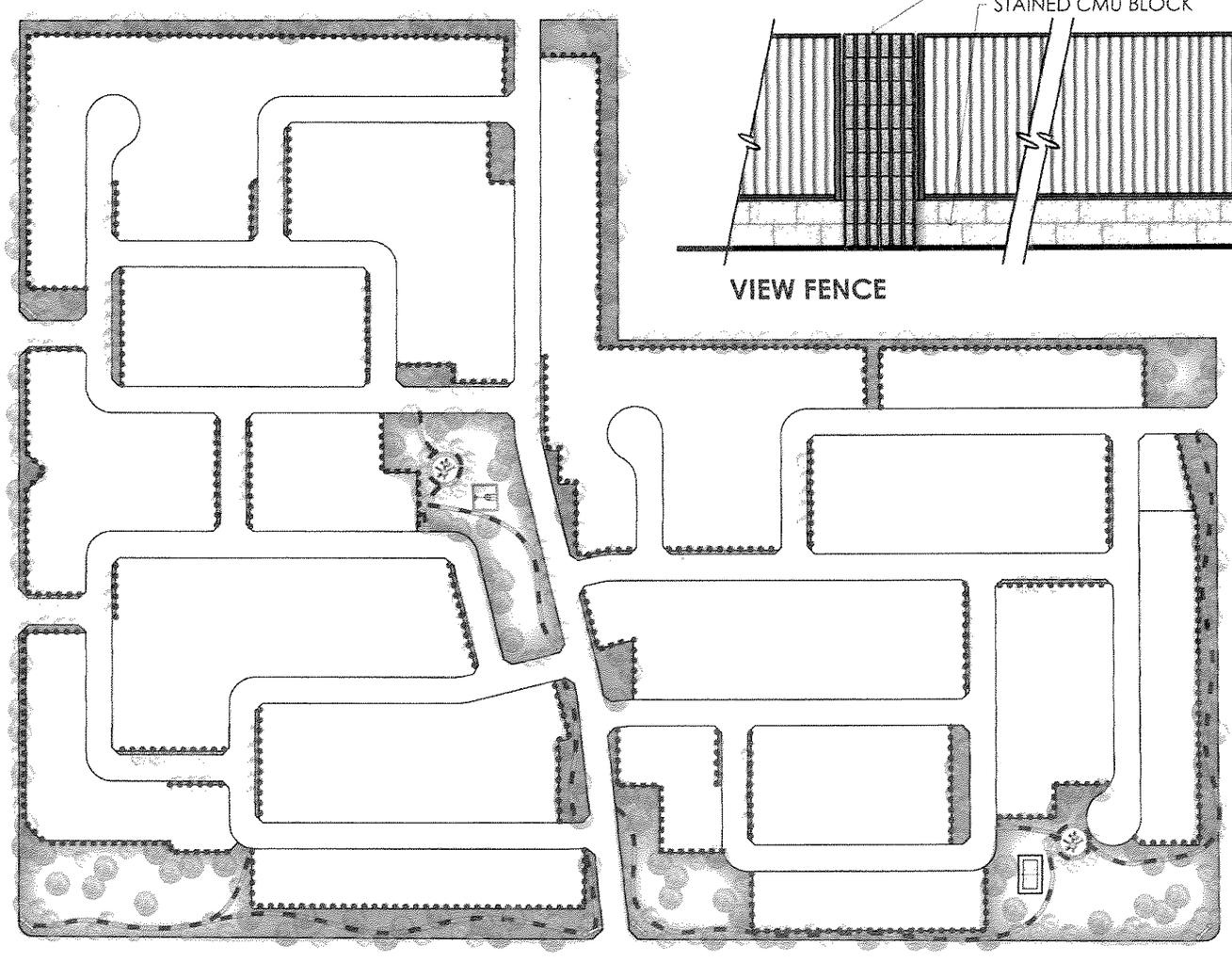


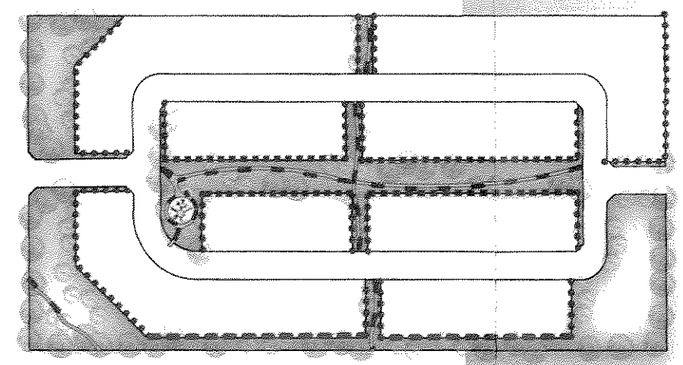
VIEW FENCE

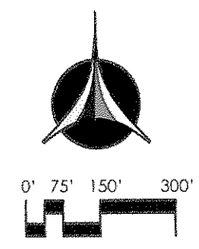


MODIFIED VIEW FENCE

Scale ¼" = 1' - 0"







CONCEPTUAL WALL PLAN

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 15 October 2007

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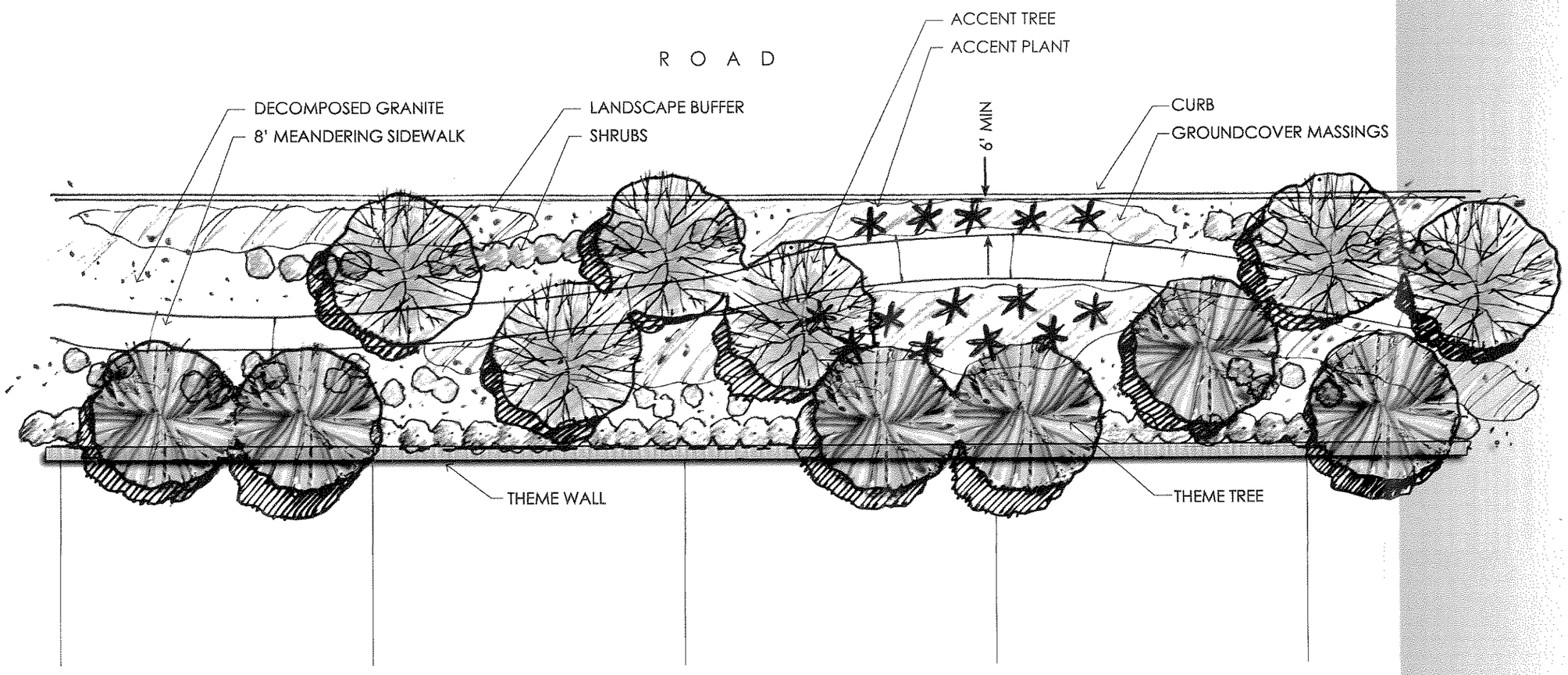


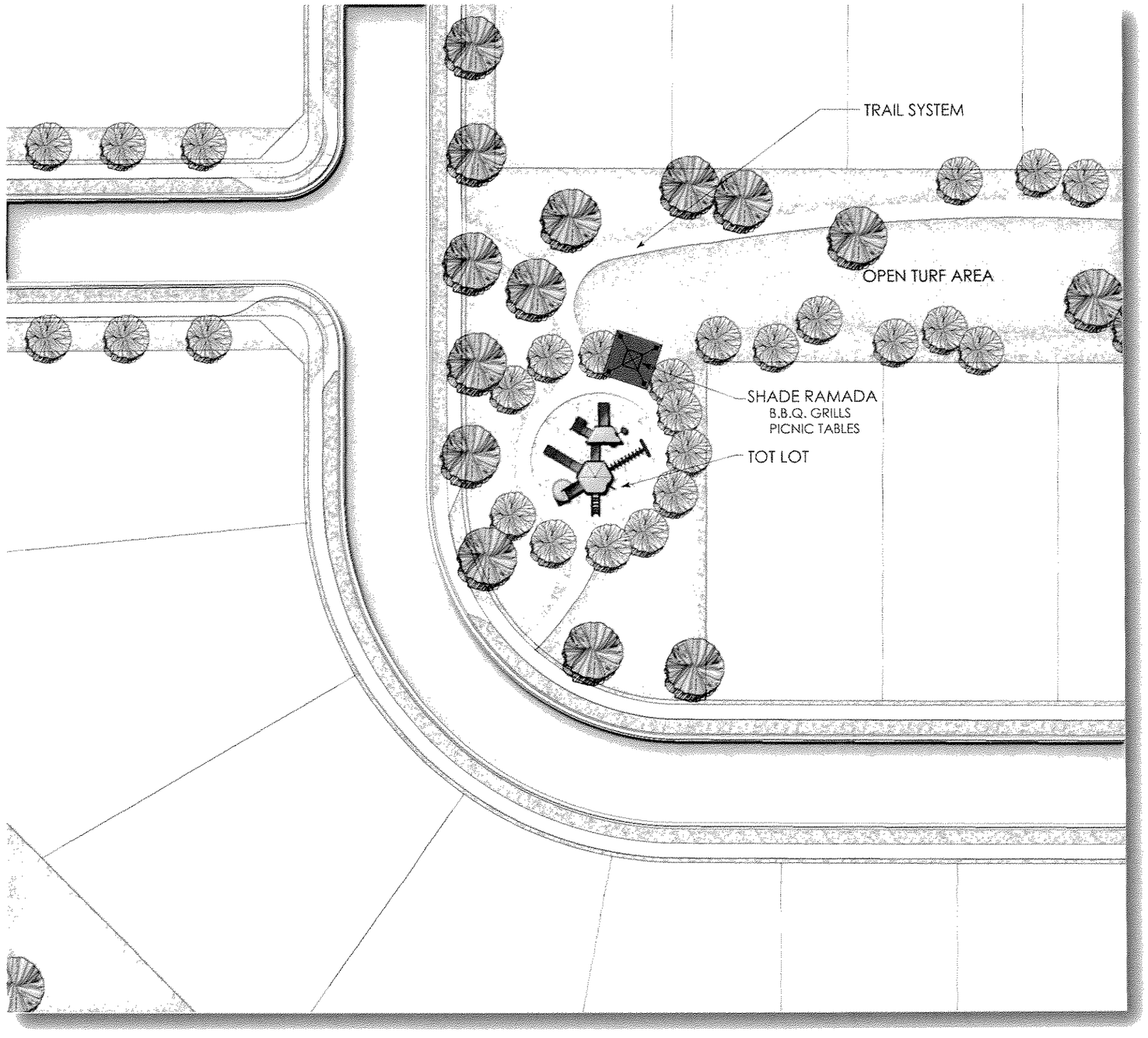
TYPICAL STREETSCAPE PLAN

NOT TO SCALE

CONCEPTUAL STREETSCAPE

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.
JOB #040134 10 OCTOBER 2006



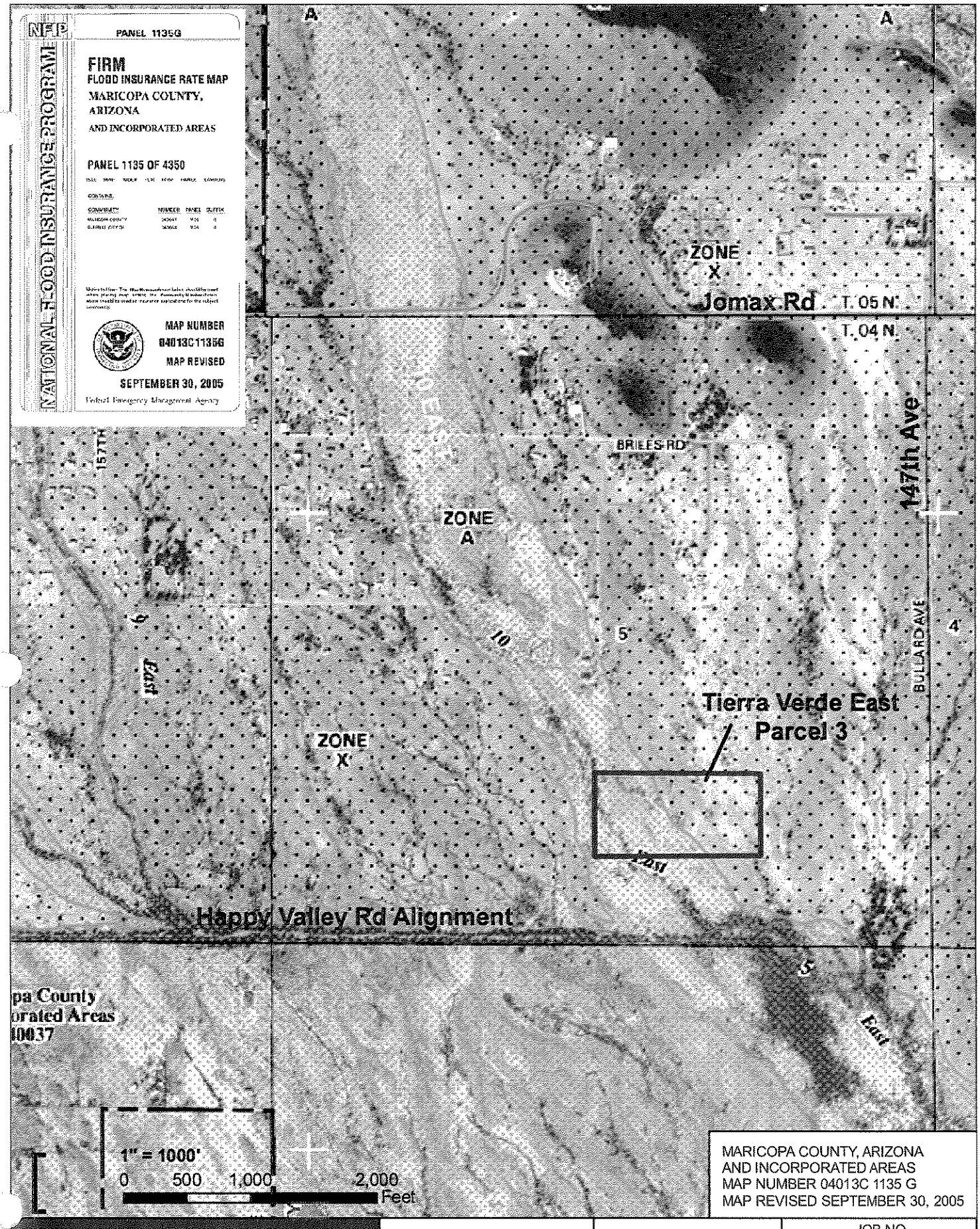
0' 10' 20' 40'

TYPICAL TOT LOT

TIERRA VERDE EAST

COE & VAN LOO CONSULTANTS, INC.

JOB #040134 15 October 2007



MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS
MAP NUMBER 04013C 1135 G
MAP REVISED SEPTEMBER 30, 2005

COE & VAN LOO
PLANNING ENGINEERING LANDSCAPE ARCHITECTURE
4550 NORTH 12TH STREET
PHOENIX, ARIZONA 85014 TELEPHONE (602) 264 - 6831

Tierra Verde East Parcel 3	FLOOD INSURANCE RATE MAP	JOB NO 0113201
		EXHIBIT N

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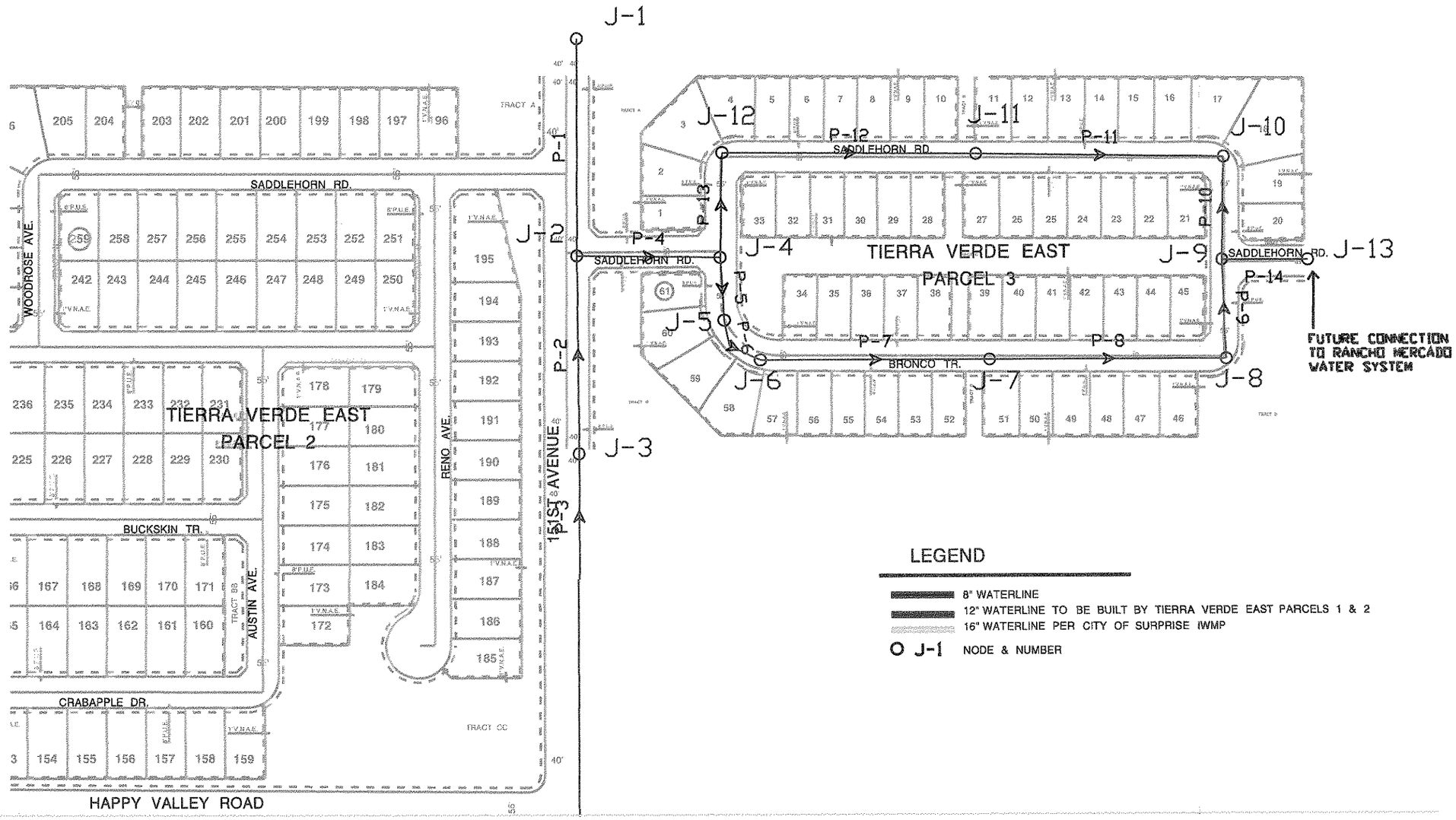

LEGEND

- 8" WATERLINE
- 12" WATERLINE TO BE BUILT BY TIERRA VERDE EAST PARCELS 1 & 2
- 16" WATERLINE PER CITY OF SURPRISE IWMP
- O J-1 NODE & NUMBER

SCALE: NONE

PROPOSED WATER SYSTEM

TIERRA VERDE EAST PARCEL 3

Coe & Van Loo Consultants, Inc.

CVL

4550 North 12th Street
Phoenix, Arizona 85014
Telephone 602-264-6831
http://www.cvlci.com

JOB NO

1.01.0113201

FIGURE

3

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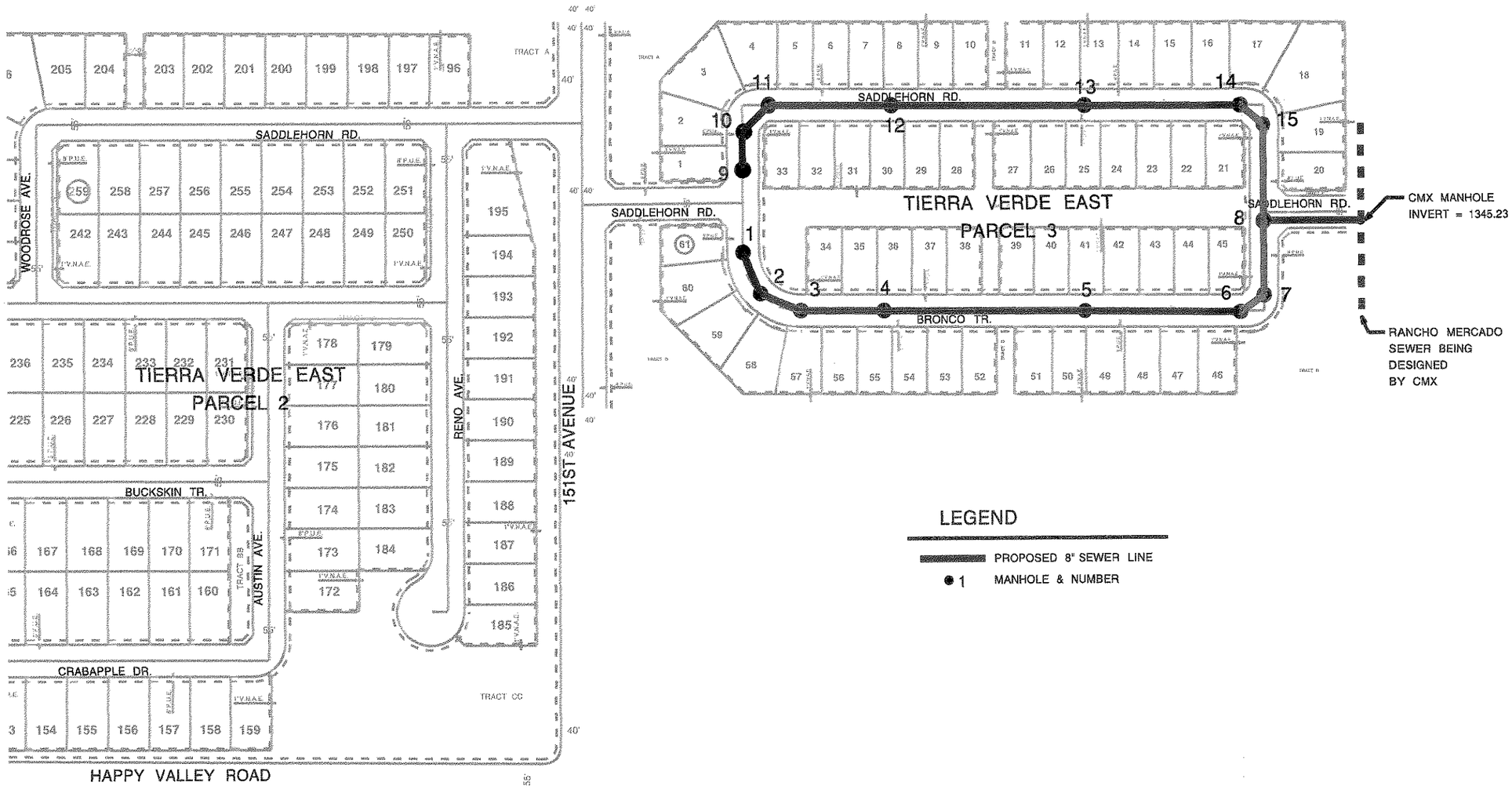

PROPOSED WATER SYSTEM

TIERRA VERDE EAST PARCEL 3

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JOB NO
1.01.0113201

FIGURE
3

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