

BARRIO CAPITAL DE ANALCO

A LIVING CAPITOL NEIGHBORHOOD FOR SANTA FE, NEW MEXICO



This project was recognized by the Congress for the New Urbanism with a 2010 Charter Award of Excellence www.cnu.org/awards

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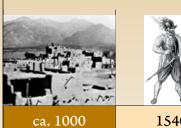
SAN MIGUEL MISSION



OLDEST HOUSE ON DEVARGAS STREET



FIRST CAPITOL - 1886



Barrio Capital de Analco

Pueblo Indians were the first to occupy the area around Santa Fe, New Mexico building kivas and adobe villages.



Officially settled in 1608, Santa Fe was established as a new capital for the province of New Mexico, which was a part of New Spain. The capital was laid out in accordance with the Laws of the Indies, which regulated the town location, urban plan, and local relations.

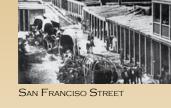
1610

The Pueblos united together and drove out the Spanish. They subsequently transformed the main plaza into two plazas with a ceremonial kiva in the center of each.

1680

Lieutenant Joseph de Urrutia drew a detailed plan of Santa Fe which reveals the extent to which Santa Fe followed the Laws of the Indies.

1766



1848

started renovations on the current

buildings and throughout the city, which was described to be in a

"perpetual state of decay, with loose

women, gambling, cowardice, lack of

proper hygiene, and immoral clergy". These renovations became known as

the Territorial Style.



ANALCO STREET (NOW DE VARGAS ST)



Railroad came to Santa Fe which brought more people and ease of New Mexico was denied its statehood by the United States. Americans access to new materials. The railroad also brought many new and different architectural styles. Santa Fe switched from an era of modest adobe buildings to an era of specialized builders and building types and of imported materials and styles.

1880









The Living Tradition of Santa Fe

Diverse cultures and the high desert have always defined the unique American story of Santa Fe. For centuries Santa Feans have shaped their city's buildings and spaces for economic opportunity while conserving the precious natural resources of northern New Mexico. This history of continuous change and preservation has yielded the distinctive identity of Santa Fe. Its spirit and values are manifested in its people and culture, its art and architecture, and its health-giving natural beauty. Within this context, Santa Fe seeks to cultivate a LIVING TRADITION, rooted in its past and anticipating the future. Restored and improved for the next generation of Santa Feans, BARRIO CAPITAL DE ANALCO continues this timeless tradition of community building.





DE VARGAS STREET



Don Gaspar Avenue



PASEO DE PERALTA

"This centering of a community in a living, breathing plaza, rooted in the land, is a powerful image of local culture."

> - Chris Wilson, author of 'The Myth of Santa Fe"



OLD SANTA FE TRAIL



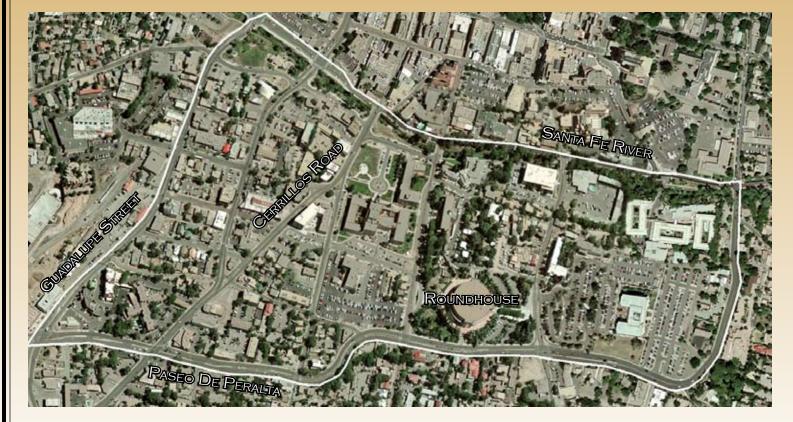
THE P.E.R.A. BUILDING PARKING LOT







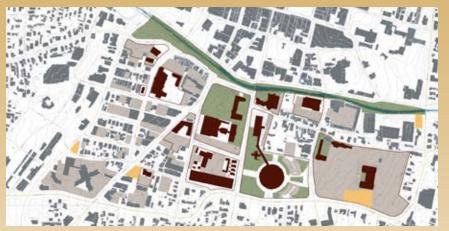
CERRILLOS ROAD



A Premier Opportunity

Northern New Mexico's most significant redevelopment opportunity lies just south of downtown Santa Fe. Anchored by San Miguel chapel, the early suburb of Barrio de Analco evolved within the agricultural landscape south of the Santa Fe River. A number of superb adobe buildings can still be found in this area, especially on Old Santa Fe Trail and De Vargas Street. Today, state government complexes have claimed most of the land surrounding the historic barrio. A five-minute walk from the downtown plaza, and only steps away from the oldest church in the country, lies a vast underutilized and automobile-dominated environment composed of parking lagoons, suburban landscape strips, cobra-head streetlights, and an office-culture that abandons the neighborhood in the late afternoon.

During the railroad era, new construction settled on a grid of blocks east of the historic depot. This predominantly commercial district between Guadalupe Street and Cerrillos Road continues to welcome automobile and rail travelers arriving from the southwest today. Its eclectic mix of architecture is largely protected by the Transition Historic District, but pedestrian life all but ceases after regular business hours as much of the area has given way to haphazard parking lots, wide roadways, mono-functional office parks and strip development patterns. Named Barrio Capital de Analco, the combined east and west sides of this approximately 120 acre urban area represent the most significant real estate and community-building opportunity in Santa Fe. Greatly defined by unbuilt land, scattered landmarks, and existing infrastructure, this site offers an attractive and sustainable infill alternative to continued development of Santa Fe's sprawling periphery.



REDEVELOPMENT **O**PPORTUNITIES



he largely open P.E.R.A. superblock represents perhaps the biggest opportunity for а repaired neighborhood fabric. Surrounded by the great neighborhoods of the Historic Eastside, South Capitol, and Westside-Guadalupe, Barrio Capital de Analco envisions a living, breathing city center that has been restored for Santa Feans. And by rebuilding a dignified setting for the state's most significant public institutions, this revitalized capitol neighborhood hopes to reaffirm the values and hopes of all New Mexicans and their communities.

\prec Organizing Principle No. 1 \succ

PROMOTE COMMUNITY

IN DIVERSE, SAFE, AND WALKABLE SANTA FE NEIGHBORHOODS



anta Fe's exceptional quality is partly due to its walkability, primarily around the plaza and the historic neighborhoods. In these areas urban blocks are relatively small, which allows for many alternate routes for pedestrians. Most streets are narrow, which naturally slows traffic and reduces crossing time. Pedestrians generally feel safe, even among cars, which park on the street or out of view. Most significantly, many types of destinations are within an easy walk. Uses are mixed: homes, shops, churches, offices, restaurants, parks and schools can be accessed on foot in these relatively compact neighborhoods. The great New Mexican plazas provide places for social interaction and public gathering. Buildings front public space with storefronts, entrances, windows, portales, courtyard gardens. All of this improves real and perceived safety, in part because more people are on the street. This physical form helps to promote public life because it makes outdoor life in the city more convenient and safer. Most new places are not built this way because of broad public policy and short-term economic practices. But the physical form of timeless traditional neighborhoods in New Mexico can be learned and used to build new places and repair existing ones, including the Barrio Capital de Analco.

≺ORGANIZING PRINCIPLE NO. 2≻

AFFIRM AUTHENTICITY

IN PLACES THAT ARE ROOTED IN THE LAND AND THE CULTURE OF SANTA FE



he physical form of Santa Fe is greatly shaped by the unique landscape and cultures of northern New Mexico. Early 20th century Santa Feans inherited a distinct urban place, centered on a plaza and carefully sculpted into the land, its watershed, its topography and geology over centuries. These same citizens developed a unique architectural tradition inspired by the indigenous adobe buildings of varied local cultures. Buildings are low and have monolithic walls. Their colors and textures are of the earth. Details are crafted in accordance with centuriesold traditions. Graceful garden walls protect native species. Openings, walls and portales orient themselves by the sun, the wind, and the city. Roofs and parapets respond to the scarcity of timber and rain. Santa Fe was made by Santa Feans for this particular place in the world, and it is this authenticity that inspires its citizens and visitors. Unfortunately, this very authenticity is threatened by a removal of ordinary uses and places in favor of tourism and automobile-dominated environments. A city center that cannot support the ordinary activities of its citizens ceases to be authentic and undermines itself. And an architecture that ignores the very reasons for its form risks obsolescence. Barrio Capital de Analco roots its design in the land and culture of Santa Fe in order to provide space for everyday city life.

≺ORGANIZING PRINCIPLE NO. 3≻

ENABLE PROSPERITY

BY SAFEGUARDING A VISION AND SUPPORTING ECONOMIC OPPORTUNITY



orm is inseparable from the economic life of urban places. Pedestrian-oriented commerce requires an attractive environment that promotes diverse business opportunities and the presence of walking customers. Developers require plans that allow for the strategic placement of anchor stores, entertainment venues, restaurants, social gathering spaces and small business incubators. Parking and offices must be conveniently located but cannot dominate the landscape. The mixed distribution of dwellings, offices, retail, recreation, and civic institutions helps to promote a 24-hour environment that is safer and more profitable. Residential developers are learning that a broad range of dwelling types provides more flexibility to weather market cycles and enables a greater diversity of people to have access to amenities, jobs, and civic life. And compact neighborhoods help to reduce long-term municipal expenses on infrastructure. Current Santa Fe zoning and policy discourages these practices or makes them illegal. Barrio Capital de Analco advances a new legal code that enables flexibility, streamlines the approvals process, and safeguards the overall vision for the benefit of residents and investors.

≺ORGANIZING PRINCIPLE NO. 4≻

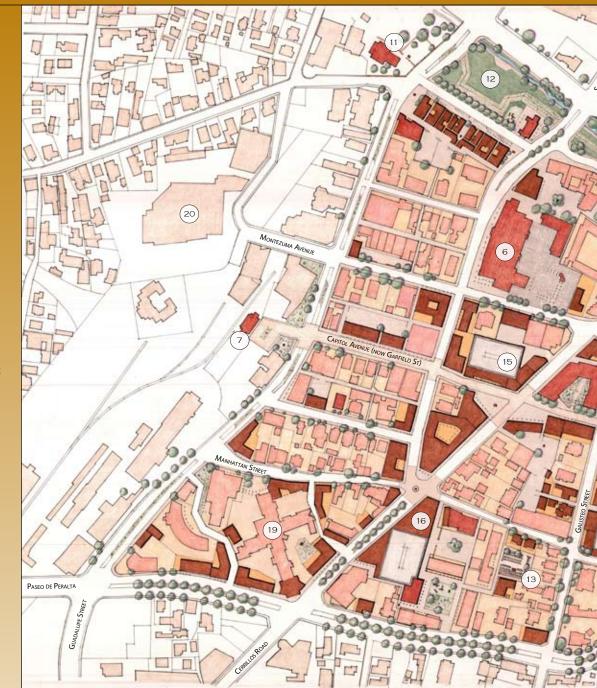
CONSERVE RESOURCES

IN PLACES THAT RESPOND TO CLIMATE, GEOGRAPHY AND LOCAL CULTURE



nergy has always been indispensable, and Santa Fe's historic building tradition uses local natural resources efficiently in order to conserve it. This ancient knowledge of adobe, latillas and the sun is embodied within its buildings, even if current practices frequently ignore the conservation potential of their aesthetic. Modern technologies and methods can augment this knowledge and reintegrate sustainability and beauty. As in centuries past, genuine solutions must be sustainable by the local building culture rather than imported as mere gizmo-green inventions. Water resources must be especially protected through harvesting, reduced use, and stormwater management. Like the canales found in historic architecture, new water management tools will need to be reconciled with aesthetic goals that the broader local culture can accept and implement at all scales. This includes public infrastructure such as streets and parks, which can function simultaneously as beautiful civic amenities and engineering infrastructure to filter runoff, recharge the aquifer, channel and detain stormwater, and thermally cool urban spaces.

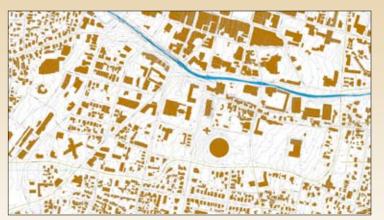
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- 1. SANTA FE PLAZA
- 2. STATE CAPITOL (ROUNDHOUSE)
- **3. STATE SUPREME COURT**
- 4. BATAAN MEMORIAL BUILDING
- 5. STATE CAPITOL NORTH ANNEX
- 6. SANTA FE COUNTY COURTHOUSE
- 7. SANTA FE DEPOT
- 8. COMMUNITY HEALTH CENTER (FORMER P.E.R.A. BUILDING)
- 9. STATE LAND OFFICE
- 10. SAN MIGUEL CHAPEL
- 11. OUR LADY OF GUADALUPE
- 12. RIVER PARK AMPHITHEATER
- 13. COMMUNITY GARDENS
- 14. BATAAN MEMORIAL GARDEN TERRACE
- 15. CERRILLOS PLAZA RETAIL AREA
- 16. MANHATTAN THEATER DISTRICT
- 17. COMMUNITY POOL
- 18. EL CASTILLO RETIREMENT RESIDENCES
- **19. HOTEL SANTA FE**
- 20. SANBUSCO MARKET CENTER
 - PERVIOUS PAVER SURFACES
 - New and Existing Civic Buildings
 - New Private Sector Buildings
 - EXISTING BUILDINGS
 - NEWLY DEVELOPED PARCELS



B arrio Capital de Analco's masterplan illustrates an approximate outcome of its proposed urban code. Unlike the code, it is not prescriptive but merely summarizes the long-term vision and intended outcome of the proposed policies. Also clearly shown is the immediate proximity of the downtown plaza. Barrio Capital de Analco is designed as a traditional mixed-use neighborhood – the only sustainable model of urban development that has proven itself over centuries. Its most significant concentration of new development is planned for the state-owned P.E.R.A. superblock, which has been subdivided into multiple smaller and compact blocks. The existing building is reused and surrounded by a diversity of new dwellings, live-work opportunities and a small retail center that faces the east front of the Roundhouse. New development has been carefully integrated with state government buildings to capitalize on the existing workers' presence, but also to celebrate New Mexico's civic institutions within a vibrant and honorable city center fabric. Some new state buildings have been illustrated in consideration of future needs. Redeveloped properties face the historic riverfront to activate it and offer additional pedestrian connectivity from the barrio to the river. The west side of the site shows long-term infill opportunities in and around the Transition Historic District, most notably the development of Capitol Avenue, which combines the aligned S Capitol Place and Garfield Street to establish a commercial spine from the depot to the Roundhouse. Cerrillos Road is redesigned as an urbane gateway to the downtown and enters the barrio as a grand avenue with a planted median.

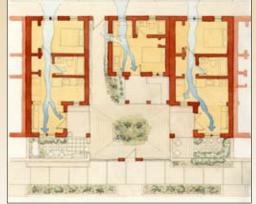


he jumbled intersection and underutilized properties at Manhattan Avenue and Sandoval Street are retooled as a small but vibrant entertainment destination, including a proposed theater that helps to promote life in the evenings. In all cases, parking is limited to the street, mid-block surface lots or parking structures. Throughout the site, the network of streets and blocks has been civilized and enriched by new plazas, passages, tree lined avenues and intimate streets. Proposed as a public-private partnership, Barrio Capital de Analco comprehensively repairs this disjointed and underutilized area to advance a model redevelopment effort for the state and the nation. (For comparison, see approximate existing conditions to the right)



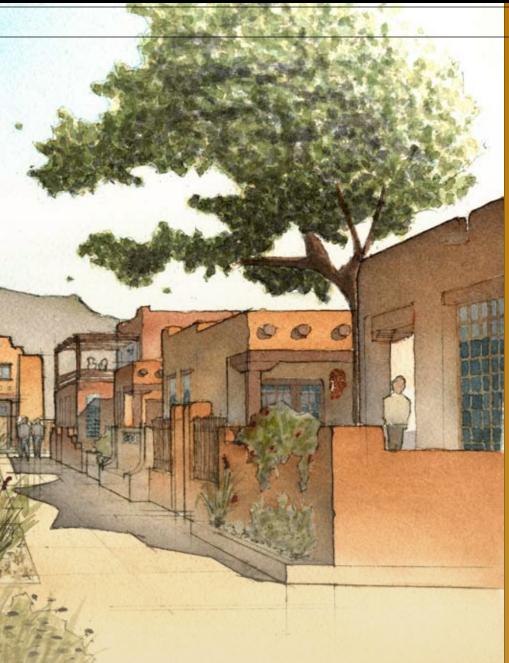




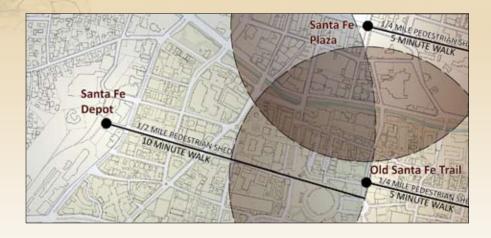


STARTER HOMES

To broaden the range of residential opportunities, the redevelopment of the P.E.R.A. property includes smart, affordable, compact housing mixed with other dwelling types. Especially here, low-tech energy conservation design promote natural ventilation and the effective use of in- and outdoor space.



LOOKING EAST TOWARDS ATALAYA MOUNTAIN ON A NEW RESIDENTIAL STREET.





EXISTING VIEW ON P.E.R.A. PARKING LOT

principal aim of Barrio Capital de Analco is the establishment of a significant residential population immediately south of the river. An authentic, vibrant and sustainable city center requires resident citizens who populate the streets, shop locally, maintain properties, and keep the neighborhood safer through their presence. Designed for a diverse range of ages and incomes, this capitol neighborhood emphasizes walkability and beautiful streets and plazas. Inspired by New Mexico's best historic neighborhoods, Barrio Capital mixes compact single-family homes, condominium compounds, timeless apartment buildings, and loft units above commercial space. The fine grain of streets and blocks promotes convenient access to neighborhood playgrounds, parks and plazas, and is carefully sited to preserve dramatic views of nearby mountain ranges, including Atalaya Mountain.

Only a five-minute walk from Santa Fe's downtown plaza and ten minutes from the rail runner depot, a significant number of new dwellings are proposed for the state-owned P.E.R.A. property, which is currently dominated by parking and vacant turf areas. The State of New Mexico therefore plays a key and exemplary role in advancing the sustainable redevelopment of this underutilized urban area through a public-private partnership.

All new architecture responds to existing historic preservation requirements, but a new form-based code ensures that the aesthetic is supported by complimentary building placement, modified height limits, and frontage characteristics. New parking is on street or behind buildings, while government parking is moved to centralized parking structures.

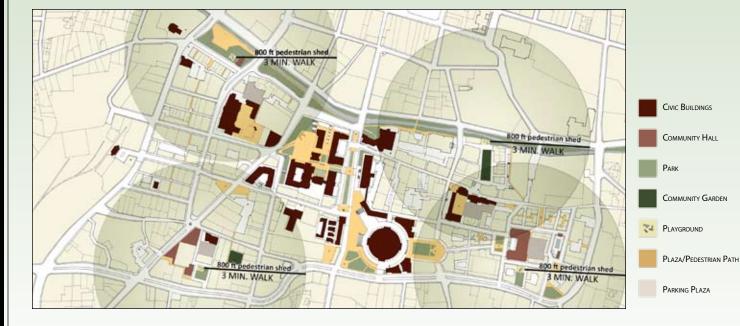
HEALTH & WELLNESS

art of livability includes the opportunity to live a healthy lifestyle, and Barrio Capital de Analco is designed to offer a broad range of choices for recreation, social interaction, local food production, and outdoor living. Because streets and blocks are designed for convenient walking, the neighborhood promotes a healthy transportation alternative at all times of day. Parks and playgrounds are carefully distributed throughout, and the siting of new development provides increased access to the river park that connects to the broader park system of Santa Fe. For the benefit of children, several schools already exist within easy walking distance of the site. Also important to human well-being is social interaction, which is encouraged in various mixed-use plazas and several small community centers, including one near Our Lady of Guadalupe and one embedded within the block at Cerrillos Road and Paseo de Peralta. In certain locations where parking demand is very low after regular business hours, Barrio Capital is

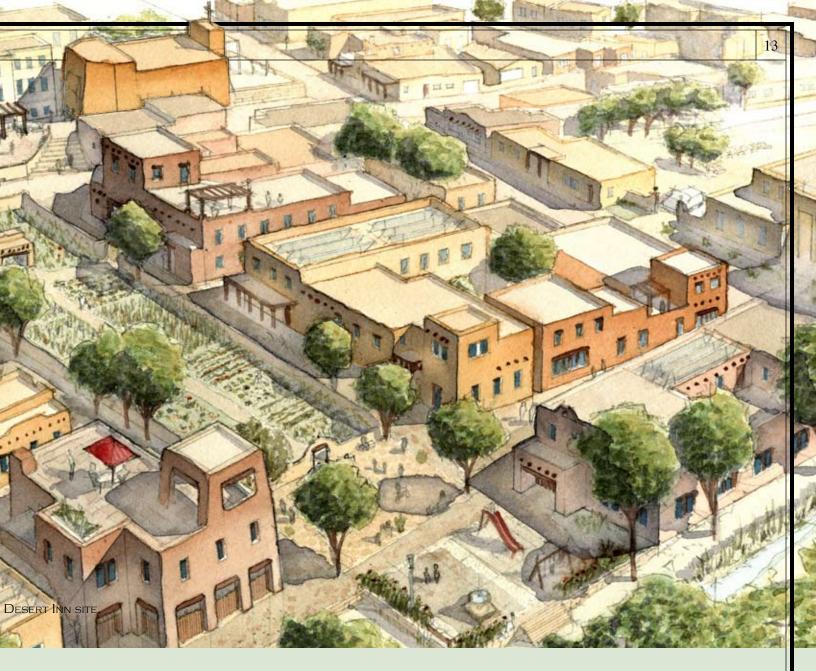
equipped with 'parking plazas' plazas that are crafted for comfortable human occupation but designed for parking during the day. In the early evening these spaces become available for informal social interaction and neighborhood pick-up games. Barrio Capital also dedicates certain spaces for community gardens to promote holistic physical activity and a healthy diet. The largest such garden is located within the redeveloped Desert Inn site, surrounded by new dwellings and an inn that opens up towards the river and the historic back of San Miguel chapel.







Barrio Capital de Analco





The former P.E.R.A. building is adapted as a leading community health & wellness center, including medical offices, a spa, a fitness center, community activity spaces and classrooms for a remote college campus. The surrounding mixed-use neighborhood features a community pool on this formerly underutilized land.





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LOOKING EAST ON CAPITOL AVENUE, ACROSS CERRILLOS ROAD TOWARDS THE ROUNDHOUSE



🖷 Barrio Capital de Analco

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hile the existing city center is renown for its superb townscape and walkable scale, the downtown economy is dominated by tourism and Santa Feans have few other options but to drive to sprawling commercial areas for most daily tasks. Barrio Capital is designed to provide a local yet diverse selection of ordinary retail needs to neighborhood residents, including the residents of surrounding historic districts. On the east side of the barrio, Old Santa Fe Trail is reinforced as a neighborhood-scale commercial center, including a new mixed-use plaza fronting the Roundhouse. On the west side, Garfield Street and S Capitol Place are combined and developed as Capitol Avenue - the new commercial spine of the barrio. Anchored by the rail depot to the west and a new mixed-use plaza at Cerrillos Road, Capitol Avenue offers an unobstructed view of the Roundhouse, its new capitol tower, and

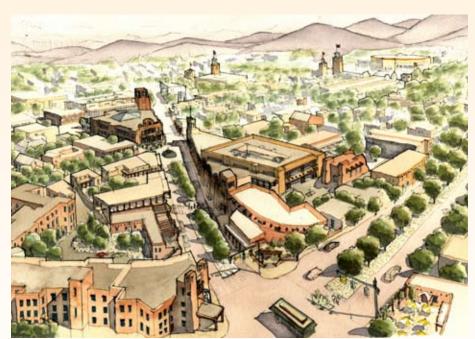


Atalaya Mountain. As Rail Runner service continues to expand, Capitol Avenue is positioned to become the principal hinge for transit-oriented development that benefits travelers, residents and local workers.

the То southwest, conventional suburban development patterns have been retrofitted as mixed-use urban blocks. Underutilized landscape strips and parking areas are developed as profitable structures and new humanscaled streets improve access and walkability here. In particular, the Santa Fe Hotel property has been expanded and retrofitted with an improved frontage onto a revitalized Cerrillos Road. A valet parking structure (also shared by the theater district) is located across the street through a publicprivate development partnership. In general, parking has been accounted for on-street (where presently not permitted), on mid-block surface lots, and in strategic structures. To promote a diversity of business opportunities, careful attention has been paid to providing live-work opportunities near retail centers. While this specific map is not prescriptive and the code allows for considerable flexibility, it does approximately reflect the intent of the code and summarizes the property management and marketing strategy.

Looking northeast, Cerrillos Road is significantly redeveloped, as underutilized properties are replaced by new mixed-use structures. At Paseo de Peralta, Cerrillos Road is transformed as an elegant avenue that welcomes drivers to the center of Santa Fe. The jumbled intersection at Sandoval and Manhattan is reinvented as an urbane, low-speed roundabout that anchors a small theater and entertainment district.





Spirit of Place



A rchitectural landmarks play an important role in celebrating local culture, history and character. The plan for Barrio Capital de Analco takes full advantage of the rich inventory of buildings that are scattered throughout the site. The form of new development is carefully composed to respect these cultural icons and to shape vibrant urban spaces that can support their defining role. Illustrated below is a new plazuela and farmers market structure behind San Miguel chapel. A staircase leads towards the river to the north.





LOOKING EAST AT THE BATAAN MEMORIAL GARDEN TERRACE



anta Feans value their natural and architectural landmarks, and Barrio Capital de Analco is designed to celebrate the surrounding mountains and historic iconic structures. Views of existing landmarks such as Our Lady of Guadalupe are currently lost within the scattered urban landscape, so new construction has been carefully crafted to preserve the best views and allow landmarks to stand out. New landmarks belonging to future state and community buildings are integrated as part of a network of civic icons that provide orientation and safeguard shared values. All significant mountain views are preserved as focused street vistas, across plazas, or as backdrops to significant urban landscapes. One of the most striking panoramas can be enjoyed from Cerrillos Road upon passing the Bataan Memorial Building, downtown nestled against the distant Fort Marcy Hill. Despite its significance as a memorial site, the current oversized windswept slope and its parking lot do little to enhance this view or provide for a dignified memorial setting. The proposal features a carefully sculpted garden terrace to provide an appropriate setting for the veteran's memorial. A future state annex has been discreetly inserted within the space and frames the memorial garden terrace and its mountain views.



VIEWS TERMINATED BY LANDMARKS

SIGNIFICANT MOUNTAIN VIEWS

CIVIC IDENTITY

s the country's oldest capitol city, Santa Fe has a rich and varied history of celebrating its most significant civic institutions through architecture. But while most of the state's buildings were constructed or retrofitted in the handsome territorial style, much of their site planning has been in keeping with conventional post-war suburban practices. The result is a sprawling complex of haphazardly scattered buildings, parking lots, planter strips, and exposed utilitarian support structures. At the heart of the plan for Barrio Capital de Analco lies the restoration of a whole and honorable state capitol campus that expresses a civic identity. In general, the plan proposes an urban campus that embeds itself within the neighborhood. As proposed, the Roundhouse would front a new enclosed plaza to the east and a more open ceremonial plaza to the west. Emphasizing its elevated position with a more urbane, less shrouded terrace, the state capitol would once again be visible and relevant to the urban experience. The vacuous Don Gaspar Ave has been

Barrio Capital de Analco

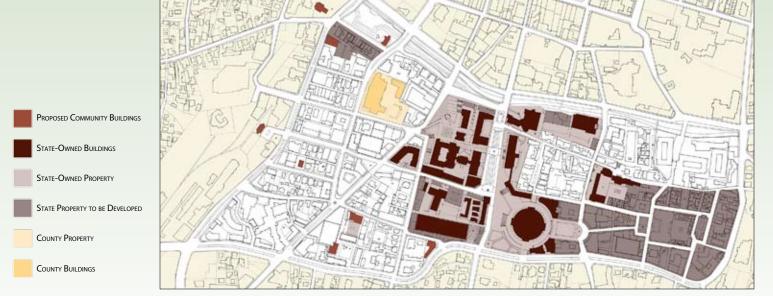
transformed as a grand civic mall flanked by state buildings, finally providing an appropriate memorial location at its southern terminus. Inspired by Meem's towers and the Spanish tradition of freestanding campanarios, the plan includes two new territorial style towers that frame the view of the Roundhouse. As part of a series of future state buildings within the capitol campus, the tallest capitol tower terminates the view from downtown looking south on Don Gaspar Avenue. A uniquely New Mexican capitol campus embedded within a living, breathing city center.







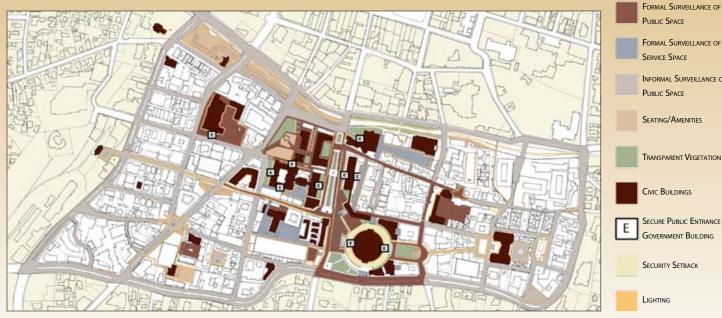






LOOKING AT THE ROUNDHOUSE FROM PASEO DE PERALTA AND DON GASPAR AVE





FORMAL SURVEILLANCE OF SERVICE SPACE INFORMAL SURVEILLANCE OF PUBLIC SPACE Seating/Amenities TRANSPARENT VEGETATION CIVIC BUILDINGS SECURE PUBLIC ENTRANCE TO GOVERNMENT BUILDING SECURITY SETBACK LIGHTING

SAFE PUBLIC SPACE

afety and security are significant challenges for all urban places and state capitol facilities. Simultaneously, these concerns need to be balanced with the public purpose of state offices and the at times conflicting needs of a living, breathing city. Barrio Capital de Analco has been designed accordance with the leading in interdisciplinary approach to deterring criminal behavior: Crime Prevention Through Environmental Design (CPTED), which guides decision-making for the benefit of security staff and public safety. Because research has shown that decisions preceding criminal acts are highly influenced by the perceived risk of being caught, CPTED design and planning practices promote natural surveillance, natural access control, reinforcement, natural territorial maintenance, and activity support.



This is best promoted by buildings with numerous windows, slower vehicular and pedestrian traffic as surveillance assets, and planted landscapes that offer visibility, as proposed by the Roundhouse. Natural access control and territorial reinforcement includes the promotion of appropriately scaled and non-threatening garden walls, the clear definition of public space and secure service space, and the maintenance of property. Appropriate tree planting helps to reinforce ownership in neighborhoods and helps to deter crime. Most significantly, CPTED strongly advises against large void spaces, hidden corners, a lack of boundaries and a blending of public and service spaces. Instead, buildings should work hard to promote 24-hour pedestrian activity in spaces that naturally distinguish between public and private. In this light, the proposed Santa Fe capitol campus has been designed for vibrant urban life that is safe and promotes a secure and honorable government presence.

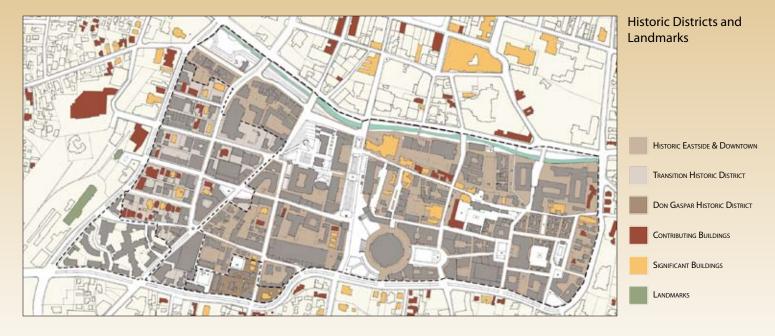
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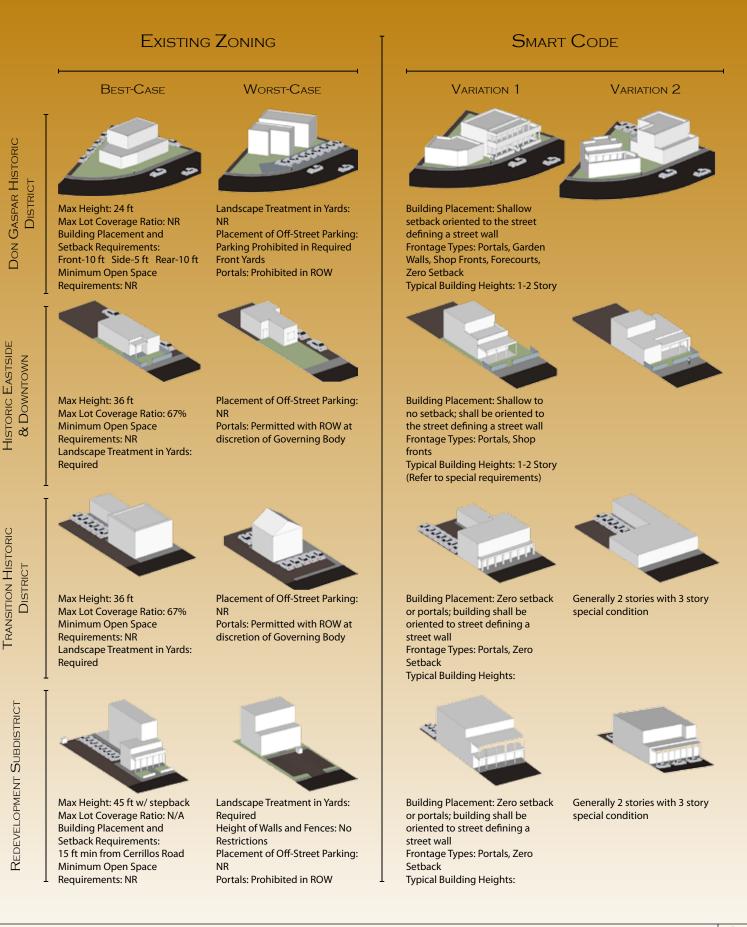


CODING FOR IMPLEMENTATION



Planning efforts in Santa Fe have provided national leadership in preservation, aesthetic control, and sustainability. Yet the underlying zoning of the city by and large promotes automobile-dependent environments and discourages compact, mixed-use alternatives, sometimes making critical practices illegal. Even in center city locations much of the existing zoning fails to promote predictable results and encourages sprawling or awkward development patterns, albeit in the required Santa Fe style. Ironically, despite the best efforts to control aesthetics, existing policy is mostly incapable of yielding a coherent whole in which urban buildings contribute to the shaping of great streets and plazas. The planning team of Barrio Capital de Analco found that the existing underlying and relatively conventional zoning is generally too unpredictable regarding building placement and too frequently restrictive regarding the flexibility of use and size. While these factors are today tightly controlled to minimize the impact of poor building placement and composition, the more effective strategy would be to be inform general placement and composition and allow for more flexibility in use and size. For this reason, Barrio Capital de Analco proposes a form-based code, specifically a SmartCode, to enable successful implementation. A summary of selected comparisons regarding building placement and composition is presented to the right. Representing an overview of requirements for selected building sites, each historic district and zoning subdistrict is evaluated according to its worst-case and best-case scenario. The comparison with the SmartCode suggests that although existing ordinances frequently make reasonable solutions possible, they also make undesirable automobile-dominated sprawl patterns possible. Such uncertainty is not conducive to the profitable redevelopment of attractive urban neighborhoods. The Barrio Capital SmartCode was designed to safeguard the plan's vision while respecting the intent of existing preservation law across multiple historic districts. Its carefully crafted plan works to support all protected historic buildings and adjoining neighborhoods with a coherent environment that lives up to the original purpose of Santa Fe preservation culture.





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T1 NATURAL ZONE

T2 RURAL ZONE

T3 SUB-URBAN ZONE

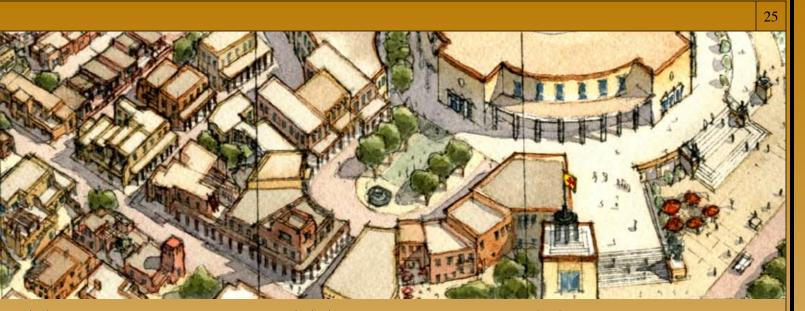
BARRIO CAPITAL SMARTCODE

The primary purpose of a form-based code is to shape a coherent physical environment that promotes the diverse activities of human culture.

A s an alternative to conventional zoning, form-based codes use physical form, rather than separation of uses, as the organizing principle of the code. The SmartCode is a model form-based code and is intended to be calibrated for local implementation and adoption (a local example of an adopted version can be found in Taos, New Mexico). Instead of zones defined by separate uses, the SmartCode uses transect-based zones to distinguish between different types of environments. The transect helps to guide coherent decision-making regarding the appropriate placement of all urban elements and forms within the rural-to-urban continuum. Certain varieties of building placement and composition are permitted within certain transect zones (T-zones), but not in others. This approach helps to shape predictable physical environments in which all buildings and spaces are complimentary towards each other, while use remains secondary and can be more flexible.

The SmartCode for Barrio Capital de Analco is written as a special overlay zoning district to be administered by the City of Santa Fe – the SmartCode is intended to supersede all underlying zoning that conflict with its requirements. The geographic distribution of transect zones can be found on the regulating plan, which is proposed to supersede existing zoning maps. Three transect zones are included: T5 Urban Center is coded to shape places that are analogous in form to historic downtown Santa Fe. The two General Urban zones decrease in urban intensity to serve as an appropriate transition to surrounding historic neighborhoods and pockets of historic fabric within the Barrio. The code and regulating plan also identify a Capital Campus District (CCD), which serves to recommend appropriate formal characteristics on non-jurisdictional state and county property. The above drawing is an idealized diagram that helps to illustrate the intent of each T-zone and the special district. A significant function of the code is to regulate how all buildings within a T-zone generally front public streets and plazas (i.e.: range of setbacks, heights, configurations, openings, encroachments, etc.)

Some of the code's special requirements are identified in the Special Requirements Regulating Plan. This includes special areas where step-backs or storefronts are required, vistas must be terminated, or special height provisions apply. In general, the SmartCode is designed to at least maintain existing entitlements regarding density, height, and use, although in many cases these entitlements are expanded for the benefit of the neighborhood and as an incentive for the property owner. The complete code is comprehensive and is intended for legal adoption, although the current draft format must be reviewed by city and state attorneys and must undergo the appropriate public processes before being considered for official adoption. The complete SmartCode for Barrio Capital de Analco is available for review and download online at <u>www.andrewsurbandesign.org</u>.



T4 GENERAL URBAN ZONE

T5 URBAN CENTER ZONE

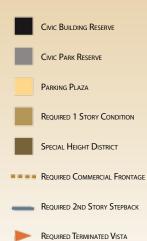
CCD CAPITOL CAMPUS DISTRICT

Transect-based Regulating Plan



CIVIC SPACE RESERVE

Special Requirements Regulating Plan



n important advantage of the SmartCode is that it integrates zoning with standards for street design. Many existing streets in and around the capitol neighborhood are automobile-dominated because they are built in accordance with conventional highway engineering standards. Paseo de Peralta, Cerrillos Road, parts of Old Santa Fe Trail, Sandoval Street, and many other streets are entirely unsuitable for diverse, walkable neighborhoods and must be modified over time. Because most of these streets feature wide lanes, limited on-street parking, large turning radii, and excessive numbers of travel and turning lanes, average speeds are too high for comfortable and safe pedestrian activity. Livable and vibrant redevelopment must be accompanied by a retrofitted transportation infrastructure, which is why the SmartCode sets out thoroughfare assembly standards for the entire project area. A broad

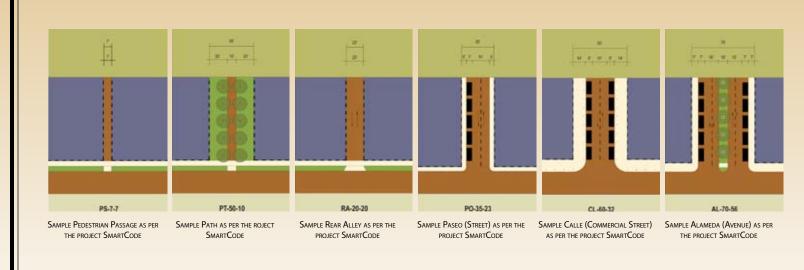


TROLLEY BUS NETWORK

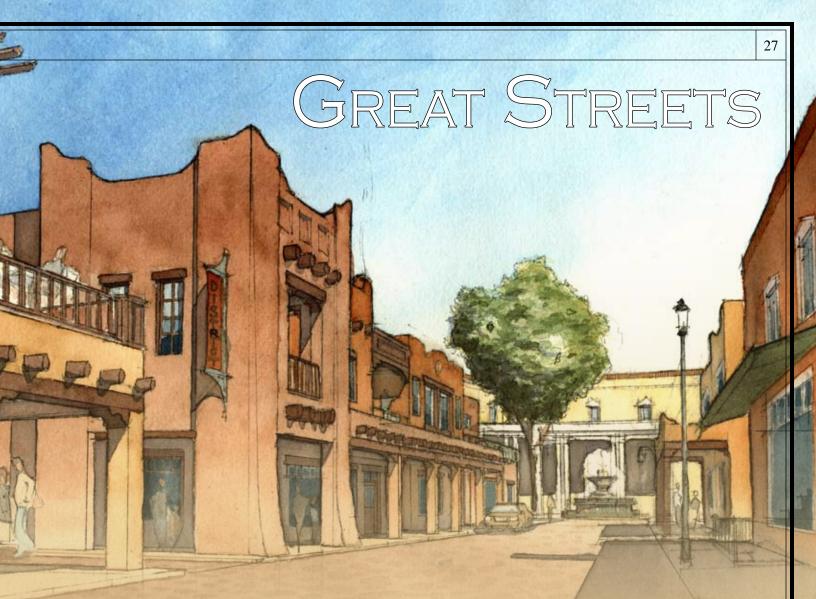


range of passages, alleys, streets (paseo), commercial streets (calle), and avenues (alameda) is modeled New Mexico's favorite after walkable streets in order to provide a high quality public environment throughout the project site. Many streets feature pavers, native species planting, or portales that encroach into the sidewalk, partly to maintain comfortable thermal qualities. The Thoroughfare Assemblies Regulating Plan identifies the geographic distribution of street types for the SmartCode. Ultimately, the code seeks to reclaim the city's streets for public life and pedestrian-based commerce. To provide a diverse range of transportation options, Barrio Capital de Analco also advances a public trolley bus system designed to loop around downtown and connect service to key shopping, employment and educational centers. The trolley is intended to run frequently and serve the entire historic fabric of Santa Fe.

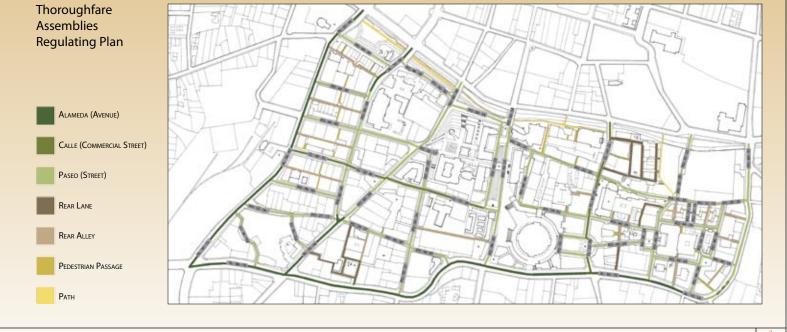




Barrio Capital de Analco



LOOKING EAST ON A NEW STREET TOWARD THE FORMER P.E.R.A. BUILDING



LIGHT IMPRINT

anta Fe's Green Building Code and strategic sustainability planning are good first steps in protecting one of the region's most precious resources: water. Barrio Capital de Analco asserts that sustainable practices must occur at all scales in order to be effective. For this reason, the capitol neighborhood is equipped with a Light Imprint street infrastructure - the leading stormwater approach management used in sustainable urban development. It uses green paving, channeling, storage and filtration tools to facilitate natural drainage and cost-effective management over the long term. These natural drainage and filtration techniques help to recharge the local aquifer and protect the watershed from pollutants found on city streets. The Light Imprint approach also integrates civil engineering tools with urban and landscape design so that the stormwater management infrastructure can double as a beautiful civic amenity.

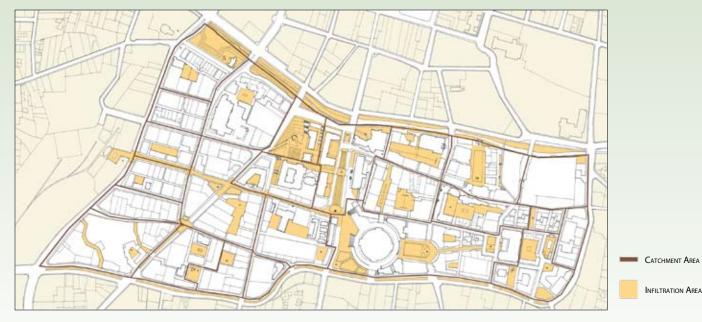
The entire site has been organized as a series of local rainwater catchment areas in which streets, plazas and parks serve to convey, detain, and filter water attractively and naturally. At least ten percent of each catchment area is dedicated



to public infrastructure set aside for natural infiltration. Important pedestrian environments are designed as celebrated stormwater management tools, including the new civic mall on Don Gaspar Avenue, which is shown here at high water stage after a rainstorm. While initial investment into Light Imprint infrastructure is higher, the long-term benefits include a vastly improved public realm to support real estate values, significantly greater protection of the river from run-off pollutants, more effective recharge of the aquifer, reduced bounce of the river flood elevation, and reduced use of conventional pipe-and-inlet infrastructure and expensive discharge treatment.



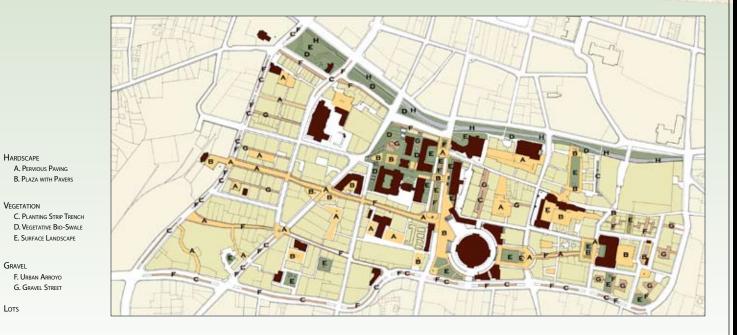
TERRACED DETENTION AND NATURAL INFILTRA AT THE NEW CIVIC MALL, LOOKING SOUTH TO T





HE ROUNDHOUSE

Lots





principal purpose of the Light Imprint approach is to protect the water quality of the Santa Fe River. The following pages illustrate a variety of Light Imprint tools design for Barrio Capital de Analco. This sustainable stormwater management infrastructure includes pervious pavers and pavement, stone detention terracing, urban arroyos that imitate historic acequias, native species xeriscape, bioswales, and under-pavement gravel detention and conveyance systems. All of these tools are inspired by historic methods and informed by leading contemporary techniques in order to act as beautiful and useful civic amenities. Effective tools are particularly important at the riverfront park because it is the last opportunity for infiltration before surface runoff flows into the Santa Fe River. The plan provides a system of elegant stone terraces that serve to detain and filter stormwater along most of the river. These stone terraces are interlaced with xeriscape infiltration areas, pervious paver walkways, and stone seating that provide rest opportunities for park visitors.

Where the river park widens near Our Lady of Guadalupe, this terrace system is designed to provide an amphitheatre-shaped seating arrangement for concerts and events in the park (please refer to the illustrative masterplan on page 8). Here, De Vargas Street has been realigned with the Guadalupe Sanctuary to provide a focused landmark vista. This modification helps to shape a more efficient park space and the more advantageous redevelopment of the existing and underutilized Department of Labor property. A new department building has been proposed facing Guadalupe Street, while the entire length of De Vargas Street has been fronted with new residential development facing the park. This new high-value residential presence will help to promote safe and attractive use of the park, which is also designed to host a small community meeting hall (on the right in the illustration). Barrio Capital de Analco seeks to restore the entire river park as a central and viable amenity to the community.



LOOKING WEST TO OUR LADY OF GUADALUPE FRONTING THE IMPROVED PARK



he riverfront terraces vary in their design depending on their location within the Barrio. Historic stone retaining walls and native species landscaping are intended to be preserved and inform the design of all new construction. Where appropriate, the new terracing will be introduced to help manage stormwater, provide seating, and extend riverfront pathways. Continuous public pathways and building fronts (with entrances and windows) are important to clearly identify the river park as a public and safe place that serves Santa Feans of all income and age groups.

31

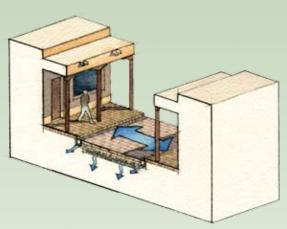
PROTECTING THE RIVER

RIVERFRONT TERRACING NEAR SANDOVAL STREET

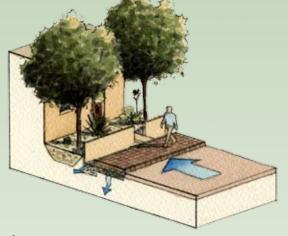
LIGHT IMPRINT STREETS

arrio Capital de Analco's streets are designed to naturally infiltrate stormwater as quickly as possible. Many sidewalks and streets feature pervious material and drain into xeriscape planters. In heavy downpours, excess water is detained in bioswales or conveyed via urban arroyos to plazas and parks that can detain and infiltrate larger volumes of runoff. Much of the existing and conventional inlet-and-pipe stormwater infrastructure will be retained as a backup system.

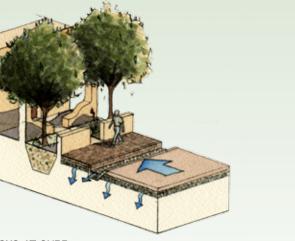




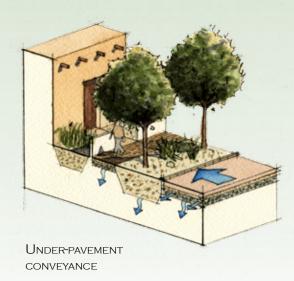
Twin French drain



ARROYO AT PROPERTY LINE



ARROYO AT CURB



32

Prepared for High Water

ost of the Barrio's urban area susceptible to flooding lies within the river park, but the parking lot behind the State Land Office and parts of the existing Desert Inn site lie well within the official flood plains. While flooding in these areas is not frequent, state regulations rightly prevent conventional redevelopment without significant mitigation. Both of these sites are key underutilized frontage opportunities on the river and have the potential to foster increased activity that can help to make the riverfront safer, more attractive, and more profitable. Because of this, the plan calls for both affected areas to be redeveloped using elevated structures with breakaway wall construction at ground level. Common in the southeastern United States, this technique has been adopted here using an architectural aesthetic appropriate to the Santa Fe style. Breakaway coyote fence panels help to screen parking areas at ground level, while an upper storey walkway with associated dwellings and riverfront cafes is located above.

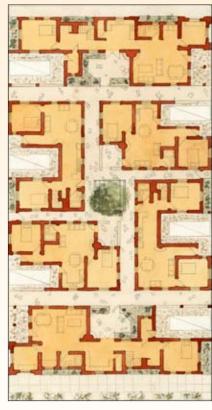




500 Year Flood Plain 100 Year Flood Plain Elevated Buildings

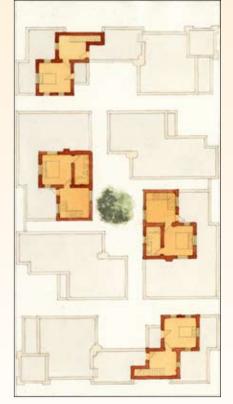
GENERAL DRAINAGE PATTERN

33



Barrio Capital de Analco

\mathbf{S} econd Floor



- 1 CANALES
- 2 RAIN BARRELS
- 3 PERVIOUS PAVING
- 4 XERISCAPE RAIN GARDENS
- 5 GRAVEL PARKING AND INFILTRATION

SMART DWELLING

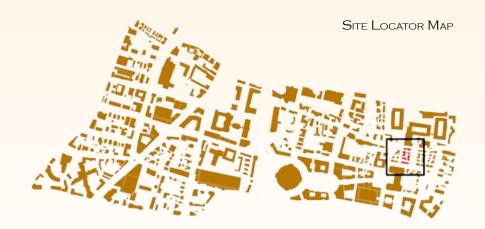
WATER INFILTRATION



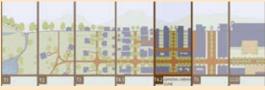
TRANSECT LOCATION OF THIS DESIGN

To effectively conserve our resources for the benefit of future generations, sustainable development must occur at all scales, including the neighborhood and the building. Especially in the new frugal economy, the places we dwell in will need to become smarter. By drawing on the best low-tech practices of history and on leading contemporary technology, Barrio Capital de Analco is proud to feature the next generation of urban architecture for Santa Fe. The Smart Dwelling concept is rooted in the local climate, geography, and culture and is intended for compact, mixed-use, walkable neighborhood. It emphasizes healthy outdoor living (to reduce the need for conditioned interior space), durability, urban agriculture, flexibility of use, and the frugal use of energy, air, water and materials. Perhaps most significantly, its aesthetic design hopes to be lovable to non-architects to promote a culture of generational conservation.

Sustainable stormwater management begins at the scale of the individual building and property. All buildings within Barrio Capital de Analco are designed to naturally infiltrate water as locally as possible. This occurs through on-site detention and retention at various scales, well-placed xeriscape raingardens, bio-retention tree wells, permeable paving and gravel infiltration areas. The rich tradition of Santa Fe landscaping and canales is a primary reference point for this comprehensive system. The example on this page illustrates a small compound of six compact single-family homes intended for a general neighborhood location within Barrio Capital de Analco. All exterior spaces function as outdoor living spaces, stormwater management infrastructure, and natural irrigation systems.



NATURAL VENTILATION

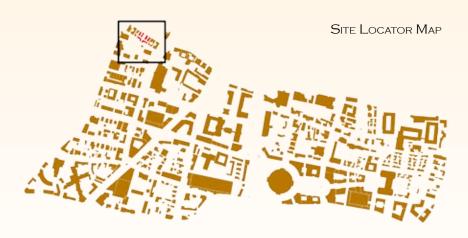


TRANSECT LOCATION OF THIS DESIGN

Ithough Santa Fe's climate is relatively mild, much can be done to reduce the need for mechanically conditioned interior spaces. Historic adobe walls work well to keep buildings cool during the warmer months, but this ancient construction technique may not be suitable for all building types, uses, or ownership conditions. New insulation technology can perform well but still require mechanical cooling or ventilation. To reduce the dependence on this, smart dwellings are designed to promote natural ventilation through building design and orientation. The example here illustrates a small compound of six semi-attached condominiums in a general urban location such as the Santa Fe River Park frontage. The compound itself is design to capture the prevailing breezes of Santa Fe, channeling them through shared exterior courtyards to reach all dwelling units. Private exterior spaces under portales are also placed in accordance with prevailing wind patterns and promote additional outdoor living opportunities. The concept of useful outdoor living space is significant not only because it reduces the amount of conditioned interior space (thereby reducing energy consumption), but also because a sustained and holistic outdoor lifestyle helps to acclimate people to temperature ranges that they otherwise would not feel comfortable in. This of course helps to reduce energy consumption by broadening the acceptable temperature range the thermostat seeks to control.

An optional tool is the windcatcher. Modeled on the traditional windcatchers of the Middle East, the tower is designed to draw warm air out of the building using the natural Coanda effect and by creating a pressure gradient that sucks cool air from a water reservoir underneath the house. This water reservoir, filled with harvested stormwater, aggregates the cold sinking nighttime air that is then trapped due to the less dense surface air until it is sucked up via the windcatcher.

The individual dwelling units are designed to promote easy cross-ventilation throughout all living spaces. This is chiefly accomplished by designing buildings as 'thin wings', but also by aligning windows and doors to enable cross-ventilation across hallways. Convenient natural cross-ventilation can help to keep buildings cool, brings fresh air into a healthy house, and encourages residents to be aware of what is happening outside, which promotes social interaction and community safety.



- WINDCATCHER TOWER
- 2 SINGLE ROOM WIDE SPACES

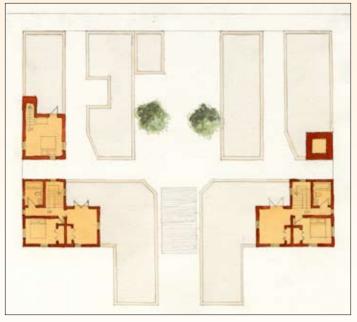
🗏 Barrio Capital de Analco

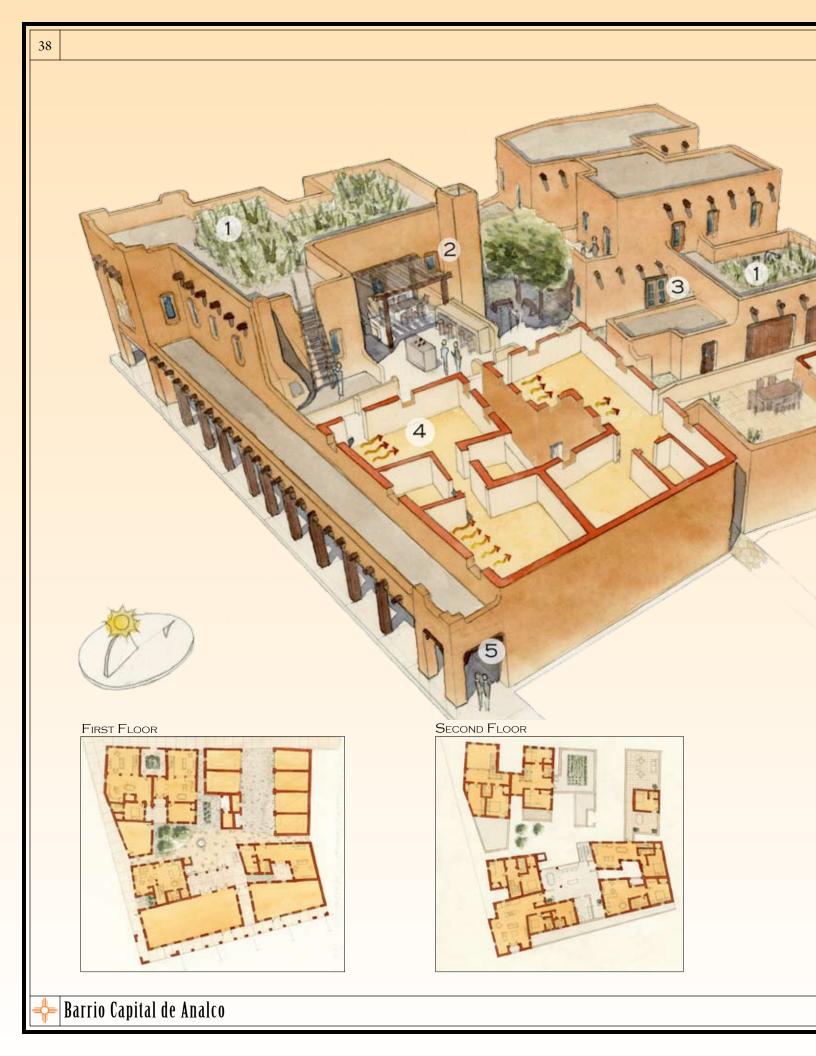


FIRST FLOOR



SECOND FLOOR





URBAN AGRICULTURE AND PASSIVE SOLAR

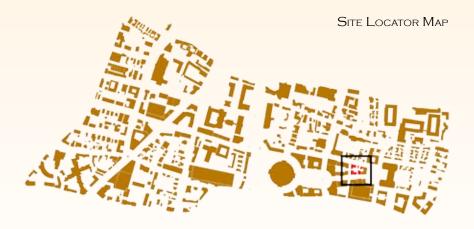


TRANSECT LOCATION OF THIS DESIGN

old nights and winter in the high desert require smart low-tech heating solutions. By harnessing the energy of natural sunlight, historic adobe architecture stores thermal energy and releases it again when heat gain eases to stabilize day/night temperature variations. In Barrio Capital de Analco, new construction is built for passive solar design using historic and modern materials, such as green ICF walls that prevent heat loss and gain to stabilize interior temperatures. Thermal mass is also provided by tile, brick, or concrete floors to passively heat dwellings with the low winter sun. The location of walls, windows, and living spaces is designed to respond to the local climate, especially in the southwesterly direction, to harness the power of natural sunlight.

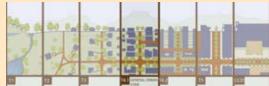
Other conditions require shade, including certain outdoor living spaces and storefronts with significant glazing. The example illustrated here shows a traditional New Mexican portale in front of ground floor retail space. This compact mixed-use building features six dwelling units of various sizes around a common courtyard and intended for urban center locations. Some of the units feature a diverse range of private outdoor spaces, including sunny rooftop terraces and shaded courtyard gardens. A shared outdoor grill and eating area is located in the courtyard, its shaded cool air drawn through the surrounding dwelling units.

Many buildings in Barrio Capital de Analco are equipped with 'living roofs': indigenous vegetation planted in 6" soil over gravel and various layers of protective barriers, flashing, and insulation. Living roofs help to prevent heat loss through the roof and reduce the heat island effect of urban areas due to the presence of plants. A range of native species is available for this, but residents may chose to engage in urban agriculture to grow local food for private consumption or small-scale organic farmers market purposes. Other walls within this compact design are equipped with vertical gardens.



- 1 ROOF GARDEN
- 2 DUMBWAITER SHAFT
- 3 VERTICAL GARDEN
- 4 LIVING SPACE ON SOUTH WALL
- 5 PORTALES FOR SHADE

GREEN ENERGY AND WATER TECHNOLOGY

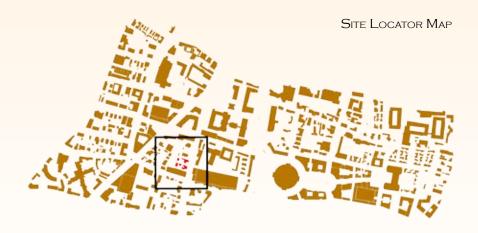


TRANSECT LOCATION OF THIS DESIGN

he Smart Dwelling concept is not limited to low-tech and passive solutions. Active green technology is an important complimentary component to sustainable urban dwelling. In Barrio Capital de Analco, green technology is aesthetically integrated with architectural design to ensure that buildings remain lovable to future generations rather than architecturally awkward gizmo-green devices.

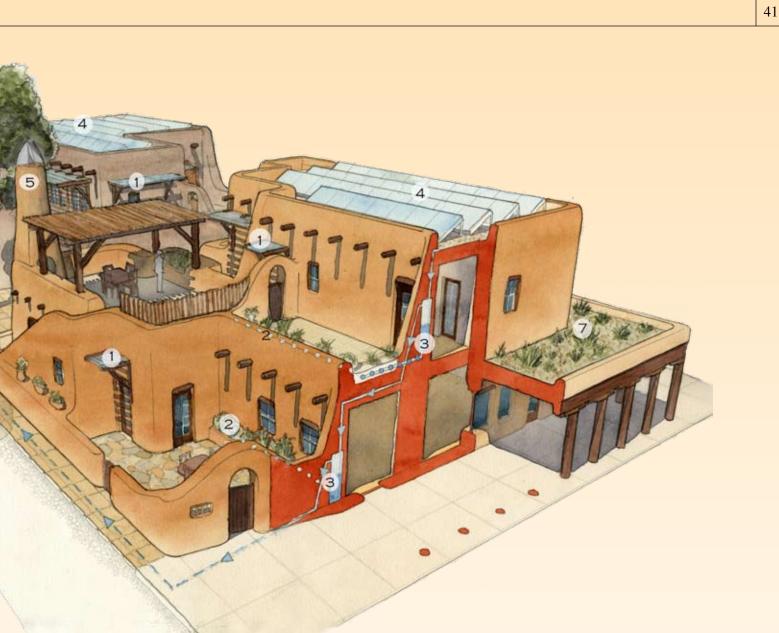
Energy is produced locally using rooftop photovoltaic (PV) panels, evacuated tube solar collectors, and vertical-axis wind turbines. The example on this page illustrates a mixed-use compound intended for a general urban condition, such as Galisteo Street. It features four condominium dwelling units and one live-work unit suitable for small retail or office use. In this example, the various dwellings share the cost of providing and maintaining energy production technology. PV panels are installed on the roof and located behind appropriately scaled parapets to conceal their presence from the street. Barrio Capital de Analco is also planned for a proposed future comprehensive service agreement with Public Service Company of New Mexico (PNM), whereby all PV panels are installed and maintained on eligible rooftops by PNM in return for a rooftop 'rent' paid to the property owner. This proposal, in which PV-generated power would feed the overall electric grid rather than the single rooftop owner, would significantly broaden the application of PV technology within the Barrio. South-facing evacuated tube collectors help to provide hot water as integrated awnings above doorways and windows. A domestic vertical-axis wind turbine is architecturally integrated in a manner reminiscent of traditional chimneys.

Water harvesting technology is integrated as part of the traditional system of roof parapets. Thick walls and buttresses are designed to contain water storage tanks that help to manage stormwater and store it for drip irrigation purposes. A shared cistern is located within the common courtyard to store water for irrigation and grey-water use throughout the compound. Many blocks in Barrio Capital de Analco are also designed to house small geothermal energy plants shared by the cluster of dwellings within a block. Primarily intended for newly developed blocks east of Old Santa Fe Trail, this locally-scaled production provides an additional means of reducing dependence on conventional energy in Santa Fe.



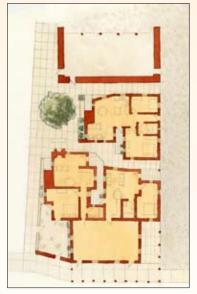


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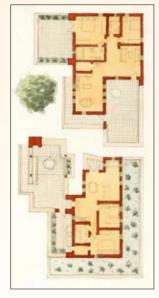


First Floor

- 1 SOLAR WATER HEATING TUBES
- 2 DRIP IRRIGATION
- 3 WATER STORAGE
- 4 SOLAR PANELS
- 5 WIND TURBINE TOWER
- 6 CISTERN
- 7 ROOF GARDEN FOR DETENTION



 $S_{\text{ECOND}}\,F_{\text{LOOR}}$



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BARRIO CAPITAL DE ANALCO A Living Capitol Neighborhood for Santa Fe, New Mexico

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Santa Fe: A Walk Through Time, by Kingsley Hammett Santa Fe Then and Now, by Sheila Morand The Essence of Santa Fe, by Jerilou Hammet, et al. The Myth of Santa Fe, by Chris Wilson Chris Welsch/Scripps Howard News

This document and the complete SmartCode for Barrio Capital de Analco are available online at:

WWW.ANDREWSURBANDESIGN.ORG

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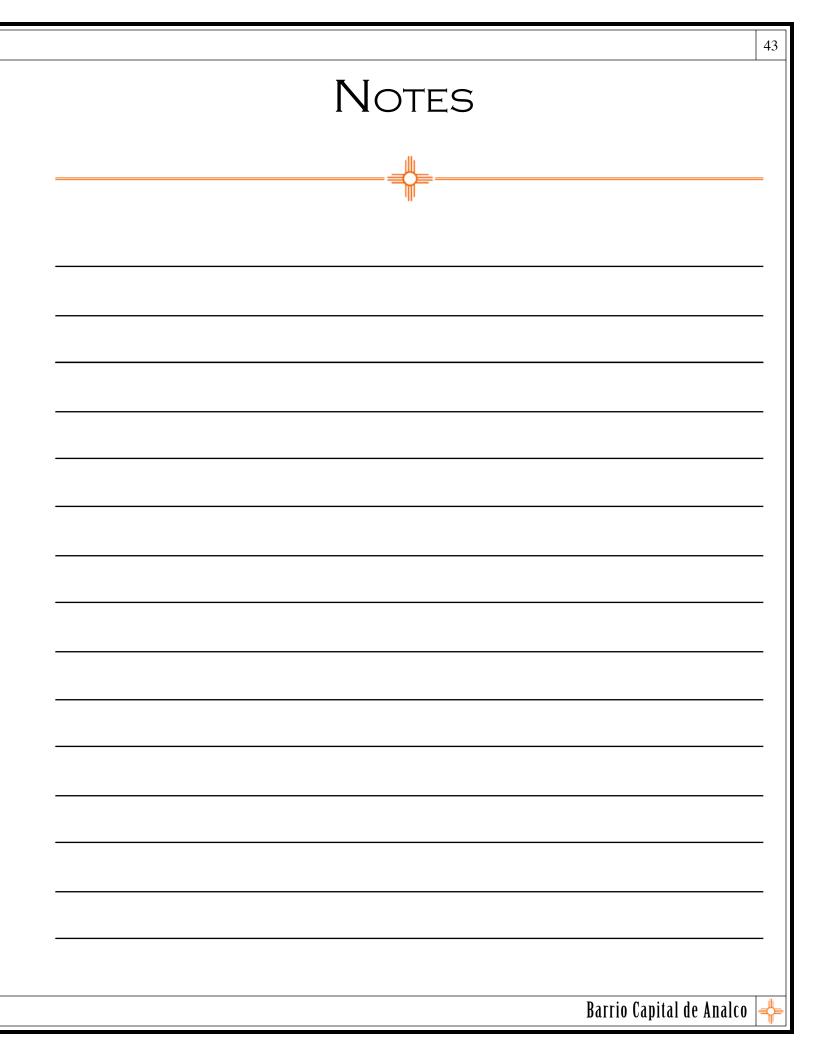
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LaFonda on the Plaza 100 E. San Francisco Street Santa Fe, New Mexico



About the Name

Barrio Capital is Spanish for "Capitol neighborhood".

"Barrio de Analco" is the historic name of the area surrounding San Miguel chapel, and the name of the existing historic district in the same place.

The name "Analco" comes from the Nahuatl language spoken by the Tlaxcalteca Indians that accompanied the Spanish to Santa Fe. It means "place next to the water".

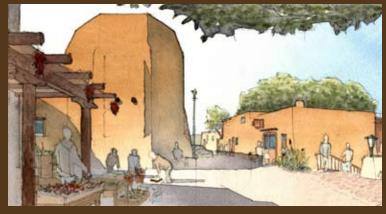
Barrio Capital de Analco is the capitol neighborhood next to the water.

BARRIO CAPITAL De Analco



This project was recognized by the Congress for the New Urbanism with a 2010 Charter Award of Excellence www.cnu.org/awards

Barrio Capital de Analco



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