Supplementary Listing Record

NRIS Reference Number: SG100007418	Date Listed:
Property Name: Orchard River Garden Park	
County: Pima	State: AZ
This Property is listed in the National Register of His nomination documentation subject to the following e notwithstanding the National Park Service certification	exceptions, exclusions, or amendments,
Jefferson Mansell	02/09/2022
Signature of the Keeper	Date of Action
Amended Items in Nomination: Section 5. Classification. Change classification to discontains 35 buildings, 68 structures and a site.	======================================
DICEDIDITEION	
DISTRIBUTION:	

DISTRIBUTION:
National Register property file
Nominating Authority (without nomination attachment)

United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property	
Historic name: Orchard River Garden Park	
Other names/site number: Orchard River Townhor	mes
Name of related multiple property listing: n/a	
(Enter "N/A" if property is not part of a multiple property	erty listing
2. Location	
Street & number: 5701 E. Glenn St.	
	County: Pima
Not For Publication: Vicinity:	
3. State/Federal Agency Certification	
As the designated authority under the National Histori	c Preservation Act, as amended,
I hereby certify that this <u>X</u> nomination <u>request</u> request the documentation standards for registering properties. Places and meets the procedural and professional requ	in the National Register of Historic
In my opinion, the property X meets does not recommend that this property be considered significant level(s) of significance:	
nationalstatewide	
AB <u>X</u> CD	
Signature of certifying official/Title: State or Federal agency/bureau or Tribal Gove	30 Dec 202 Date Date Trails
In my opinion, the property meets does n	not meet the National Register criteria.
Signature of commenting official:	Date
Title:	State or Federal agency/bureau or Tribal Government

National Park Service / National Register of Historic Places Registration Form NPS Form 10-900 OMB Control No. 1024-0018 Orchard River Garden Park Pima, AZ Name of Property **County and State** 4. National Park Service Certification I hereby certify that this property is: ___ entered in the National Register ___ determined eligible for the National Register ___ determined not eligible for the National Register ___ removed from the National Register ___ other (explain:) Signature of the Keeper Date of Action 5. Classification **Ownership of Property** (Check as many boxes as apply.) Private: Public – Local Public - State Public – Federal **Category of Property** (Check only **one** box.) Building(s)

District	
Site	

Object

Structure

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Number of Resources within P		
(Do not include previously listed Contributing	1 resources in the count) Noncontributing	
		buildings
_1		sites
68		structures
		objects
_104		Total
Number of contributing resource	es previously listed in the Natio	onal Register <u>n/a</u>
6. Function or Use		
Historic Functions		
(Enter categories from instruction		
DOMESTIC: multiple dwelling	<u>ng</u>	
Current Functions		
(Enter categories from instruction	ons)	
DOMESTIC: multiple dwellir		
		

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7. Description		
Architectural Classification		
(Enter categories from instructions.)		
MODERN MOVEMENT: Other (Regional Modern)		

Materials: (enter categories from instructions.) Principal exterior materials of the property:

Foundation: concrete

Walls: other: concrete masonry

Roof: <u>asphalt</u> Other: <u>aluminum</u>

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Orchard River Garden Park Townhomes are located in northeast Tucson, Arizona and were constructed between 1972 and 1974. The primary character-defining features of Orchard River are the parallel walls of slump block masonry, the planning layout, the distinctive courtyards, and the landscape setting, which integrates scores of pecan trees from a pecan orchard that existed on the site prior to construction.

There are 34 residential buildings on the site, all of which are contributing resources. The swimming pool complex is also a contributor. In addition, there are 68 parking shade structures that are contributors. The original landscaping is largely intact, although there have been some minor modifications. The property is intact and retains and expresses its original character.

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Narrative Description

The Orchard River Garden Park complex includes 136 townhouses within 34 buildings on approximately 16.2 acres. It was constructed between 1972 and 1974.

Location

Orchard River is located in Tucson, Arizona approximately seven miles northeast of the city's downtown business district. Tucson is located in the southern portion of the state, 60 miles north of the Mexican border, and is surrounded by the Sonoran Desert. The Santa Catalina Mountains are located approximately six miles north of the subdivision. The subdivision is located in the southeast 1/4 of the northwest 1/4 of Section 36 of Township 13 South, Range 14 East of the Gila and Salt River Meridian.

Orchard River is located at 5701 E. Glenn Street, 1/4 to 1/2 mile east of the intersection of Glenn and Craycroft Roads. Glenn Street forms the southern edge of the property and is the only access into the development. The property is located adjacent to the Pantano Wash, which forms the eastern edge of the development. It is also located within a 1/2 mile of the confluence of the Pantano Wash and the Tanque Verde Wash; both washes are major drainageways of the Tucson basin and merge into the Rillito River. The property is also directly adjacent to Fort Lowell Park, which borders Orchard River on the north and west. South of Glenn Street is Catalina Vistas, a single-family residential subdivision that was developed around 2005.

Fort Lowell Park is part of the Fort Lowell Historic District, which encompasses historic and prehistoric developments in the area, including the original Fort Lowell, a fort built by the U.S. Army in the 1870s. The area was also once the location of a prehistoric Hohokam community more than 500 years ago.

Orchard River was built on property that was previously a private pecan orchard. Many of the pecan trees remain and were incorporated into the development.

At the time of construction, Orchard River was located in unincorporated Pima County. It was annexed into the City of Tucson in 1992.

Boundaries

The boundaries of Orchard River are defined by the boundaries of the original development configuration. The property is surrounded by Fort Lowell Park to the north and west, the Pantano Wash to the east, and Glenn Street to the south. (fig. 1)

Lavout

Access to Orchard River is via Glenn Street. A single asphalt driveway with concrete curbs winds through the property and connects to Glenn at both the east and west ends of the property. (fig. 1-3) A spur extends off of this road at the northwest corner of the property and was originally intended to provide access to the adjacent property to the north for future expansion of the development. The driveway was originally constructed of soil cement (cement-stabilized earth), but was covered with asphalt within the first 5-10 years after construction. The curbs were added at a later date. The original driveway would have provided the development a more rural and naturalistic character.

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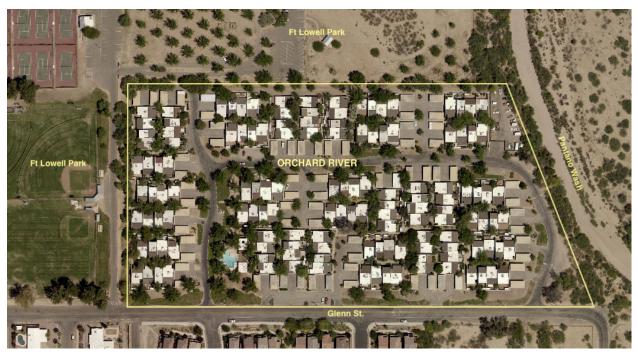


Fig. 1: Aerial photo

The 136 townhouses are arranged in clusters of four attached units, or quads (short for "quadrominium," a term used by the developers). Each quad is typically paired with another quad on opposite sides of a courtyard. Each quad is irregular in shape and varies in layout, but fits within a rectangle that is 119 feet in length and 55 feet wide. There are 34 separate quads laid out in a campus-like setting. The units are oriented either east-west or north-south, and vary throughout the development. (see quad plan, fig. 21; and partial site plan, fig. 24)

The primary entrance for each residence is located within the courtyard. The courtyard is a narrow, elongated space that typically measures 106 to 118 feet in length, and typically ranges between 20 and 30 feet in width. The narrow width, two-story height of some units, and tree canopy combine to create a shaded and intimate space. (fig. 4)

In a few cases the quad is not paired with another, but is instead located at the end of a courtyard framed by two other quads; in these locations the landscape entry space has a more open character.

More than 100 pecan trees are located throughout the property, including in courtyards, along the driveways and parking areas, in private patios and in the narrow interstitial spaces between quads. The original tree spacing was approximately 50 feet on center, located in rows oriented north-south approximately 43 feet apart.

Parking is clustered into small lots that are directly adjacent to each courtyard and pair of quads. Ramada structures provide covered parking for most of the spaces; parking areas are paved in asphalt and covered in gravel. Parking areas were originally paved with soil cement.

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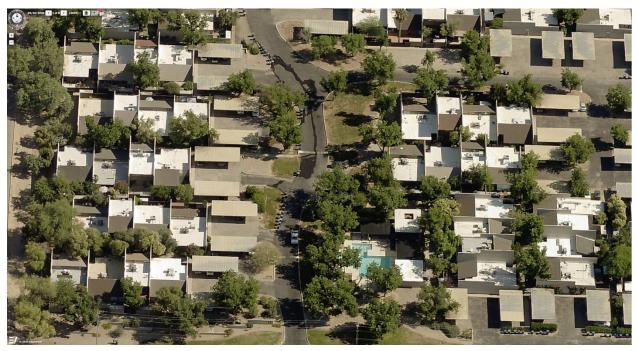


Fig. 2: Aerial view of the southwest portion of Orchard River (Pima County Assessor)

Each residence has a private patio, enclosed by walls and fencing, located at the back of the unit away from the entry courtyard. Sidewalks provide access to the rear yard of each residence. The two-story units also have a small, semi-private patio within the entry courtyard, enclosed by wood slatted fencing.

A swimming pool facility is located near the southwest corner of the property, adjacent to the intersection of Glenn Street and the primary neighborhood driveway.

In addition, a small portion of the property in the northeast corner of the site is fenced off and reserved for storage.

Architecture

The architecture of Orchard River is primarily characterized by the visual layering of planar walls constructed of slump block masonry. Openings and offsets between walls provide access to the entry courtyards, which are accessed from the adjacent parking area. (fig. 5)

Each quad includes three 1-story units and one 2-story unit. The 2-story units are never located at the end of the quad, which minimizes the scale of the building upon approach. The residences are publicly visible from all sides, depending on orientation and location on the site.

Each quad is composed of five parallel planes of gray slump block masonry that range in height from 10 to 22 feet. The masonry walls provide separation between each unit, and also step down and provide enclosure on each side of a patio that is located at the rear of each residence. The ends of the walls are offset from one another along the courtyard, stepping in and out in relation to the space. The walls are also not aligned with the walls of the adjacent quad located on the opposite side of the courtyard, except occasionally at each end. The front

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Fig. 3: View of primary driveway

facades of the residences are also offset from the adjacent units along the courtyard side, and laterally offset from the units that are located across the courtyard. As a result of these variations and offsets in all three primary directions, there is no clear pattern to the arrangement. The courtyards have an irregular, intricate, meandering quality. (fig. 4, fig. 22, 23)

The entry facades of each unit facing the courtyard (between the masonry walls) are composed of painted wood sheathing and windows. The painted sheathing was originally stained roughsawn wood. Some of the wood sheathing has been replaced over the years with new engineered wood or cement board sheathing to match. The windows were originally clear anodized aluminum, but some of the windows have been replaced over the years.

Each townhouse has both a flat and a pitched roof. The additional height of the pitched roof accommodates a series of clerestory windows. Sloped roofs are covered with asphalt shingles. The original sloped roofs were constructed using built-up roofing with a decorative crushed red brick covering. The wood fascia of the roofline is painted. The narrow dimension of the courtyard, the masonry walls, and the tree canopy combine to limit the visibility of the sloped roofs.

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Fig. 4: View of one of the entry courtyards

Slatted wood fences enclose small front patios within the courtyard. Similar fencing originally screened roof-mounted mechanical equipment from view. Most of these rooftop screens have been removed, and almost all of the original front patio screens have been rebuilt. The screens are constructed of vertical boards arranged in an alternating pattern, resulting in vertical shadow lines.

Wood fencing also encloses the back patio and a storage building for each unit. The back fencing also screens an area for trash containers. The rear fence of each unit is typically aligned with the adjacent units in the quad. Several of the two-story units have balconies overlooking the back patio, some of which were part of the original construction and a few that were added at a later date. The variation in building height, fencing height and paint colors creates variation in the rear facade. (fig. 6)

The swimming pool complex includes a pool, patios, ramada, pool house, and enclosure fencing. The pool design is an irregular geometric form, resembling an offset cruciform shape. The construction materials are consistent with the townhouses, and include slump block and painted wood framing. Wrought iron is also used for the pool fencing. The original wood posts that supported the ramada have been replaced by steel posts of a similar dimension.

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Fig. 5: View of parking ramadas and planar walls of townhomes

68 carport structures provide covered parking for the complex. Each carport provides shading for four cars. The shade structure is constructed of two masonry piers each supporting an 8x12 wood beam cantilevered in two directions. The beams support light gauge steel framing and decking. The horizontal and linear character of the roof structure provides a counterpoint to the vertical and planar character of the masonry walls. Two carports are located adjacent to each quad, and a total of four carports are arranged around the entrance of each courtyard (fig. 5).

Landscape

The landscape setting in Orchard River along Glenn St., along the primary driveway, and around the parking areas is primarily characterized by green lawns, pecan trees, and broadleaf shrubs. The deep greens and bright greens of these plants stand out in contrast to the graygreen of most desert plants. Common plants in these areas include: pecan trees, grass lawns, juniper, xylosma, privet and oleander shrubs. Less common plants include: cypress, bougainvillea, and acacia.

Most of these original landscape plantings are intact. However, some portions of the lawns have been removed over the years to reduce water use. This is a minor proportion of the original grass lawns, and the general overall character remains. Shrubs with greater drought tolerance have been installed in these locations, including texas ranger and lantana. Low profile masonry landscape walls have also been installed in some of these locations.

Because of the offset relationship of the townhouses, the courtyards--including planters and walkways--have a rectangular but irregular layout. There is also no structure to the planting arrangement; the variation in the landscape plantings add to the complexity of the courtyard

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space. Disparity in plant spacing, sizing and type also results in significant variation in the character and daylight from courtyard to courtyard.

The offset pattern of the courtyards carries through the paving layout. Walkways are constructed of exposed aggregate concrete, and feature distinctive paving patterns. Narrow strips of concrete provide access to the front entry of each unit. River rock is used as ground cover in some locations; wood chips in others. In a few courtyards, there are built-in planters constructed of slump block or cast-in-place concrete. (fig. 22, 23)

The courtyard vegetation is characterized by broadleaf trees, shrubs and groundcover plants. Plants commonly found in the courtyards include: pecan, olive, privet, oleander, yew pine, pittosporum, nandina, xylosma, rosemary, vinca major, star jasmine and small palm trees.

Additional plants found in the courtyards, but with less frequency include: cypress, rhus lancia, weeping juniper, eucalyptus, allepo pine, fig, euonymus, pineapple guava, texas mountain laurel, crepe myrtle, mexican bird of paradise, ivy, creeping fig and cat's claw, among others. Some of the plants in the courtyards have been replaced over the years, but replacement plantings are generally in character with the original plantings.

Small, semi-private patio areas enclosed by wood slatted fences are located within the courtyard adjacent to each two-story unit.

There are also interstitial spaces between the quads (along the back sides of each quad) with sidewalks that provide access to the rear patio of each unit. These spaces are also landscaped, but with less density and more drought tolerant species. Plants found in these areas include: mesquite, aloe, prickly pear, mexican bird of paradise, pecan and texas ranger.

Some of the plants growing in private patios are also publicly visible. These include: privet, citrus, and pecan trees, along with several vines including banksia and cat's claw.

Slump block retaining walls 2-3 feet tall are used to mediate elevation changes within the property. Low-profile wood signage is used to identify the unit numbers along the primary driveway and Glenn St.

A chain link fence with barbed wire is located along the west and north property lines, adjacent to Fort Lowell Park. The fence was added after the original construction. A number of mesquite and pecan trees are located along this fence.

A new landscape wall displaying the Orchard River entry sign was added in 2015.

(Note: plant lists are not exhaustive.)

Integrity at Orchard River

Design: The primary character-defining features at Orchard River are the parallel walls of slump block masonry, the subdivision planning layout, the design of the courtyards, and the landscape setting, which integrates scores of pecan trees from a pecan orchard that existed on the site prior to construction. The landscape is also characterized by grass lawns, along with primarily broadleaf plantings within the courtyards and elsewhere.

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Fig. 6: View of back (patio) side of townhomes from primary driveway

The walls, planning layout, and courtyard layout are all entirely intact. The landscape setting is also largely intact, although it has evolved over time. Portions of the original lawns have been removed and replaced with drought-tolerant plantings to reduce water use. In addition, some individual plants have been replaced; in most cases, these plants have been replaced with plants that are consistent with the original design.

Setting: The setting surrounding Orchard River has evolved. At the time of construction, the property was bounded by: Fort Lowell Park on the west; the Hardy residential property to the north (which was primarily characterized by the pecan orchard and native desert vegetation); the Pantano Wash to the east; Glenn St. and native desert vegetation to the south; and single-family and multi-family housing to the southwest. In approximately 2005 a subdivision of single-family houses was built directly south of the subdivision. In 2017, a publicly-accessible pedestrian path was installed along the east edge of the property, adjacent to the Pantano Wash.

Feeling: Orchard River's lawns and broadleaf trees gives the neighborhood a park-like character. The walls provide a formidable character from the street, while the layering provides architectural interest. Walls within courtyards invoke curiosity, creating hidden and revealed

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space. The irregular and offset character of the architecture and paving within the courtyards result in distinctive spaces that have an intricate and meandering quality, reinforced by a lush planting design that contrasts with Tucson's desert context. The self-shading of the narrow courtyard form combined with the tree canopy and extensive plantings create a shaded space that also contrasts with the desert.

Although some of the plants have been removed and/or replaced, the overall character along the primary driveway and within the courtyards remains intact.

Materials: The primary building material, slump block masonry, is intact and in good condition throughout the property. The originally stained rough-sawn wood on the entry facades has been painted. Some of the wood sheathing has been replaced over the years with new engineered wood or cement board sheathing to match. Most of the original anodized aluminum windows remain, but the windows on some units have been replaced over the years. Approximately 20% of the publicly visible windows (including windows facing the courtyard, second story windows, and clerestory windows), have been replaced, which includes approximately 10-15% that have been replaced with a non-compatible window frame material.

Sloped roofs are covered with asphalt shingles. The original sloped roofs were constructed using built-up roofing with a decorative crushed red brick covering. Flat roofs are covered in built-up asphalt roofing, and are not visible from the ground level.

Slatted wood fences enclose small front patios within the courtyard on some units. Similar fencing originally screened roof-mounted mechanical equipment from view. Most of these rooftop screens have been removed, and almost all of the original front patio screens have been rebuilt.

Workmanship: There is evidence of workmanship in the quality and precision of the masonry construction. There is little additional evidence of traditional workmanship at Orchard River, which is to be expected of the simple forms and unadorned surfaces of the Modern period.

Association/Age: Orchard River continues to be a multi-family residential development that has an identity as a distinct and cohesive property.

	ver Garden I	Park	Pima, AZ
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8. St	atement of	Significance	
		nal Register Criteria	
(Mark listing		or more boxes for the criteria qualifying the property	for National Register
	-	rty is associated with events that have made a signific patterns of our history.	ant contribution to the
	B. Proper	rty is associated with the lives of persons significant in	n our past.
х	constru or repr	rty embodies the distinctive characteristics of a type, puction or represents the work of a master, or possesse resents a significant and distinguishable entity whose dual distinction.	es high artistic values,
	D. Proper history	rty has yielded, or is likely to yield, information impo	rtant in prehistory or
	a Consider 'x" in all th	rations ne boxes that apply.)	
	A. Owned	d by a religious institution or used for religious purpo	eses
	B. Remov	ved from its original location	
	C. A birth	hplace or grave	
	D. A cem	letery	
	E. A reco	onstructed building, object, or structure	
	F. A com	nmemorative property	
	G. Less th	han 50 years old or achieving significance within the	past 50 years

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A
Areas of Significance
(Enter categories from instructions.)
C: Architecture
C: Landscape Architecture
Period of Significance
1972-1974
_1012-1014
Significant Dates
<u>n/a</u>
Significant Person
(Complete only if Criterion B is marked above.)
_n/a
Cultural Affiliation
Architect/Builder
Robert J. Swaim
Guy S. Greene
Douglas L. Seaver
_Dan R. Elder
MW Contractors
Doubletree Inc.

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

Orchard River Garden Park is significant as an outstanding example of a garden apartment complex in Tucson, Arizona and as an example of the Critical Regionalism and Planar subtypes of the Modern Movement in architecture. The primary character-defining features are the parallel walls of slump block masonry, the planning layout, the distinctive design of the courtyards, and the landscape setting, which integrates scores of pecan trees from a pecan orchard that existed on the site prior to construction. These forms are associated with local and national trends of the period. The period of significance relates directly with the period of construction, 1972 to 1974. Orchard River is eligible for listing on the National Register under Criterion C, at the local level of significance.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Background--Tucson Region

Tucson is located in Pima County in the southern portion of the state of Arizona, approximately 60 miles north of the Mexican border. It is located within the Sonoran Desert and surrounded by several mountain ranges, including the Rincon Mountains to the east, the Santa Catalina Mountains to the north, and the Tucson Mountains to the west.

The Tucson region was continuously inhabited for millennia by native people, but the Spanish first established the town of Tucson in the 18th century. After becoming part of Mexico during the Mexican Revolution, the region was incorporated into the U.S. as part of the Gadsden Purchase in 1853. The harsh environment and remote location limited Tucson's growth until the arrival of the railroad in 1880. The late 19th and early 20th century saw Tucson become a destination for the cattle industry, agriculture, mining interests, tourists and respiratory health seekers.

After World War II, Tucson evolved from a small town into a busy metropolis. Like many cities in the southwest, the Tucson region grew dramatically in the post-war period from a population of less than 70,000 in 1940 to more than 250,000 in 1960. Tucson's sunny climate was the primary draw for veterans and others, and particularly for people seeking respite from the severe winters of the upper midwest. The expansion of the military and the defense industry in the region along with the expansion of the University of Arizona all fostered population growth.

The growth exacerbated an existing housing shortage; there had been little residential construction between the start of the Great Depression and the end of the war and veterans returned to find a serious housing shortage. The production housing industry emerged and expanded to accommodate the demand for housing, and from 1945-1975 more than 50,000 houses were built in Tucson. Because of the geography of the Tucson basin the city primarily expanded eastward.

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Property Background and Development History

Orchard River is located 7 miles northeast of downtown Tucson, on approximately 16.2 acres directly adjacent to the Pantano Wash. The property is situated within 1/2 mile of the confluence of the Pantano and the Tanque Verde Wash, which join together to become the Rillito River. The proximity to two perennial watercourses within the extreme environment of the Sonoran Desert meant that the area was a highly desirable location historically.

Archeological excavations have identified significant pre-historic activity in the immediate vicinity of the Orchard River property. Estimates are that a village-sized Hohokam community, known as the Hardy site, developed in the area between 300 and 1400 A.D. (Gregonis; Pima County)

The property is also adjacent to the historic Fort Lowell, which was in operation from 1873 to 1891 and was built to address regional conflicts with the native Apache tribe. In the late 19th and early 20th centuries, farmers and ranchers began to settle and develop the area along the watercourses. In the 1890s, a small Hispanic community emerged among the ruins of the fort; in

later years a tuberculosis camp also utilized portions of the fort's remains. The Fort Lowell Historic District encompasses the prehistoric Hohokam sites, the ruins of Fort Lowell, and properties that were developed in subsequent years. (Poster Frost) The area was primarily agricultural until the 1920s, when the Desert Sanatorium was built approximately 3/4 of a mile southwest of the Orchard River site. The facility treated respiratory health diseases.



Fig. 7: Adobe ruins of Fort Lowell

The property where Orchard River is located was purchased by John H. and Isabelle T. Hardy by 1950. John Hardy had founded the El Rancho Market in Tucson. (TDC, 16 May 1950) The Hardys owned approximately 40 acres upon which they built a house, corral and stables on the north side of the property. They also established a pecan grove that covered most of the property. Pecans had become a major crop in southern Arizona, and were one of the few tree-based agricultural products that could succeed in Tucson's desert climate.

In 1971, the Hardys split the property and sold the southern 18 acres to the Doubletree Corporation, which developed Orchard River.

Based in Phoenix, Doubletree Inc. (also known as Inn Properties) had been founded by Samuel Kitchell and Peter Bidstrup as a subsidiary of Kitchell Contractors in 1968. Kitchell was primarily involved in construction, but during the mid-1960s the company had gained experience in building and managing Rodeway Inn motor hotels in several southwestern cities. Doubletree was conceived as a development and management company to develop moderately upscale restaurants, hotels, and multi-family residential properties throughout the western United States.

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(AR 27 July 1969; AR 1 Sept. 1974) In subsequent decades, the Doubletree company grew to become a major hotel brand, and eventually became part of the Hilton conglomeration.

Before entering the Tucson market, Doubletree had developed hotels and restaurants in Scottsdale and Seattle, and a condominium complex in La Jolla, California. Doubletree first entered the Tucson market in the early 1970s with the Doubletree Restaurant and, soon after, plans were developed for a new hotel. Orchard River was the third major Doubletree development in Tucson. The \$4.5 million project would eventually include 136 townhouses.

The development of the Orchard River project was managed by J. W. (Jim) Moyer. Moyer and Doubletree completed substantial market research that identified an upscale, niche market for townhouses. (Seaver) Rezoning of the property was approved in the summer of 1971, but was controversial because proper notice had not been provided to residents in the area.

Doubletree hired architect Robert Swaim Associates in 1971 to design the project. According to Swaim, the developers were looking for something distinctive in housing design, and wanted to retain as many of the pecan trees as possible.

Swaim and project architect Douglas Seaver developed a design concept that arranged four attached units (quad) in a narrow, elongated form, to maximize the potential to retain rows of pecan trees on either side of the building form. The quads were typically arranged in pairs around a narrow entry courtyard. The courtyard concept emerged in part from a distributed parking layout that located parking near, but not directly attached to, the townhouse units. The goal was to create a pleasant, shared entry experience in a garden setting. (Swaim; Seaver)

Swaim hired Guy Greene, a landscape architect and planner, to consult on the project. Both firms were involved in developing the site plan and the distribution of the units. (Seaver)

The 34 quads were organized around 15 small courtvards. The designers "planned how the units should be sited to take the greatest advantage of views, (and) how a large percentage of pecan trees which grew in the area might be saved to provide additional beauty for the site." (Brown, TDC, 6 Feb. 1973) The subdivision plat was completed by surveyors Cella, Barr and Evans. The plat dedicated nearly two acres of the property that was located within the Pantano Wash to Pima County.



Fig. 8: Historic photo (early 1970s) of entry side of townhomes

There were 3 model floor plans ranging from 1200-1650 s.f.

There were two 1-story units, and one 2-story unit. A primary design goal was to avoid repetition, so each model had alternate versions for the elevation or the roof configuration, and

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each model was reversible. In total, there were 13 distinct quad variations deployed on the site. (fig. 21)

The landscape architecture firm of John Harlow and Associates was hired to manage the landscape design and implementation. Daniel Elder, a landscape architect on Harlow's staff, was primarily responsible for the planting selection and layout. The courtyard design utilized broadleaf plants to create substantial shade and a lush environment. Elder noted that the courtvard plantings were also selected in part to emphasize textures at the pedestrian scale. In keeping with the effort to avoid repetition, the plantings varied in each courtyard.

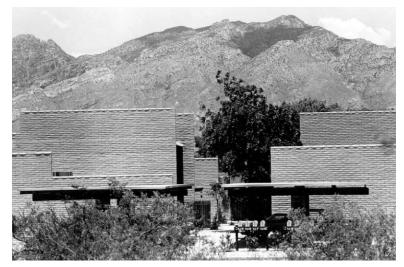


Fig. 9: Historic photo (early 1970s) from south side of Glenn St., looking north

Orchard River was built by Doubletree through a subsidiary, MW Contractors. Construction began in mid-1972, and took place in several phases. Phase one consisted of 20 units, three model homes and a sales office, which were located near the southwestern corner of the property.

Orchard River's grand opening took place in February of 1973. Prices for the two bedroom models started at \$27,400.

Orchard River received substantial publicity in the weeks after the grand opening, when the Tucson Citizen published a series of four articles by home feature writer Mary Brown that documented the construction process of the model homes.

An extensive and innovative marketing campaign was developed for Orchard River by the Wettstein Advertising agency. The logo developed for Orchard River--a circular tree canopy 'O' superimposed on the letter R--was consistent with the two-tree logo of Doubletree. Even the "Doubletree" name paired well with the design concept to build housing within the mature landscaping of an existing pecan grove. Each word of the name given to the development-"Orchard River Garden Park"--referenced a landscape setting that was uncommon in the Tucson desert, clearly establishing landscape as the theme. This was particularly effective in a region where water was limited and lush landscaping was at a premium. (fig. 20)

Orchard River's stylistic advertising focused on the landscaping, but it also described the "garden park homes" as a new kind of housing that facilitated a leisure lifestyle in a garden setting. Doubletree even introduced the new term 'quadrominium' to the Tucson lexicon to describe the arrangement of four attached owner-occupied units; the new terminology reinforced the idea that this was a new kind of housing (the term did not catch on). The advertising also focused on amenities--including the garden-like landscaping, pecan grove,

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mountain views, swimming pool facility, and the recreational facilities available in the adjacent Fort Lowell Park.

According to Orchard River's advertising, 52 units had been sold by the end of April. Perhaps not coincidentally, the prices had also increased by April, and ranged from \$28,800 to \$33,300. The prices were competitive with contemporary single-family housing at the time. One of the sales managers estimated that the primary reason Orchard River sold well was "because it was a unique design;" there was nothing else like it on the market. (Motschall)

The housing market in Tucson slowed substantially in 1974, with sales down more than 35% from the previous year. (TDC 30 Dec. 1974) This significantly impacted sales at Orchard River. As sales slowed, Doubletree offered incentives, including cash rebates, better loan rates, rent-to-own options, and even a small new car with purchase.

Subsequent advertising targeted empty nesters by emphasizing that exterior maintenance was provided. Later advertising also targeted young professionals. The "Come Join the Achievers" campaign presented profiles of current owners and also focused on the professional occupations of residents that had already purchased in Orchard River, which, according to the advertising included 11 architects, 6 realtors, 6 attorneys, and 8 members of the military.

In 1974, the subdivision received additional publicity when Mary Brown wrote two stories in the Tucson Citizen featuring the interiors of new Orchard River residences. That same year, Swaim's design for the swimming pool facility received a national Gold Medal honor award from the National Swimming Pool Institute.

(Three independent anecdotal sources suggest that Orchard River also received an award in 1974 or 1975 that acknowledged the design for 'fitting the project into the pecan grove;' the accuracy of this information has not been confirmed, and the organization responsible for this award has not been verified.)

Construction of the development was complete by April of 1974, and sales were completed by the spring of 1975.

Although Orchard River was originally planned for potential expansion northward onto the



Fig. 10: Historic photo (early 1970s) of entry side of townhomes

Hardy's remaining 22 acres, Doubletree decided not to pursue that option, likely because of a national recession and the downturn in the homebuilding industry. Pima County purchased the rest of the Hardy property in 1975, and eventually demolished the Hardy house and

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outbuildings. In 1978, Pima County incorporated the Hohokam site and the entire northern portion of the Hardy property into Fort Lowell Park.

Orchard River was annexed into the City of Tucson in 1992, along with the adjacent park and the rest of the Fort Lowell Historic District. In 2000, the landscape irrigation along the primary driveway was converted to use reclaimed water, in an effort to reduce potable water use.

Significance of Architecture and Landscape Design

Orchard River is significant as an outstanding example of a garden apartment complex in Tucson. The garden apartment building type was characterized by aggregated living units organized around shared exterior landscapes dedicated to greenery and open space. (See "Garden Apartments in Tucson" discussion below.)

The planning concept of organizing Orchard River's townhouses around small courtyards was unique in Tucson, and the cluster layout reduced the scale of a large development to a more intimate and private experience. The pecan orchard setting was a rare example of an agricultural landscape being transformed into suburban housing in southern Arizona, and was instrumental in creating a park-like environment. The quad design was shaped in part by the grid dimensions of the orchard; units were organized in a linear arrangement to maximize the opportunities to preserve trees on either side. This resulted in a more linear character for the courtyards as well. The irregular and offset character of the architecture and paving within the courtyards result in distinctive spaces that have an intricate and meandering quality, reinforced by a lush planting design that contrasts with Tucson's desert context. The self-shading of the narrow courtyard form combined with the tree canopy and extensive plantings to create a cooler micro-climate, which was essential for livable exterior spaces in the desert.

Orchard River is also significant for the planar character of the masonry walls. There are 170 independent and discontinuous walls on the property in a range of dimensions, spacing and orientations. The layered effect of successive wall planes is particularly distinctive, whether viewed from a distance or experienced from within the courtyard spaces. (See discussion on "Planar" forms, below).

The development is also significant for the use of slump block masonry. Slump block is a concrete masonry designed to simulate the appearance of adobe. The texture of Orchard River's slump block walls was reflective of the Fort Lowell adobe ruins located nearby, and of the adobe and burnt adobe building traditions in the region. The use of slump block was also consistent with trends towards a more regional influence in Modern architecture. (See "Critical Regionalism" and "Slump Block" below).

In 1999, Orchard River was lauded as the "Best Contemporary Building" in the Tucson Architectural Landmarks competition, co-sponsored by the *Tucson Weekly* and the University of Arizona College of Architecture, which recognized buildings more than 25 years old that had stood the test of time. In 2009, Orchard River was also included in the Modern Architecture Preservation Project's MODERN 50 project, which identified 50 "exceptionally significant examples of mid-20th century Modern architecture in Tucson."

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Garden Apartments in Tucson

The garden apartment was a prominent shift in housing design in the post-World War II era, particularly in temperate climates such as California, Florida and the southwest. There was a recognition of the value that vegetated landscapes could provide to create a more livable urban environment, particularly as cities became more densely populated. The garden apartment emphasized shared landscaping and open space as amenities, and offered the promise of indoor-outdoor living.

The garden apartment evolved in part out of the Garden City movement that had been a response to problematic living conditions found in major urban centers. Garden City planning efforts began in the early decades of the 20th century in places like New York and Los Angeles, often supported by local and federal housing programs designed to create attractive and affordable housing.

In Tucson, garden apartments were typically organized around one or more shared courtyards or landscaped spaces. The individual apartments were almost always accessed from the exterior, via the shared landscape space. The integrated landscaping usually featured lush, oasis-like plantings, which stood in distinct contrast to the region's sparsely vegetated desert environment. Thousands of units were built as part of Tucson's post-war building boom.

One of the earliest examples of a garden apartment complex was the El Encanto Apartments (2820 e. 6th Street; 1941), which was designed and developed by architect Orville A. Bell out of Phoenix. The layout included 44 units in five one- and two-story buildings located on 5 acres. The design emphasized indoor-outdoor living and recreation, and included patios, playgrounds and sun decks. The project was sponsored in part by the Federal Housing Administration (FHA) which was trying to fulfill a pressing need for affordable housing. According to the developer, the apartment complex was the largest of its kind at the time in Tucson. The Monterey-style complex is listed on the National Register of Historic Places.

In the first years after World War II, the garden apartment became a common building type, popular for its affordability and livability. These properties were usually courtyard-based and often symmetrical around a central green space that was characterized by lush landscape plantings. The central space was often open to the street, creating a picturesque landscaped foreground for the building that helped to market the apartments as an example of modern suburban living. Most developments were small, typically containing 6 to 20 units. Most were single-story, but two-story buildings were not uncommon. Typically, large windows provided visual access to the landscaped court. In a few cases, porches or patios established a more direct connection with the exterior. Most properties had additional amenities, such as laundry and recreational facilities. Some had swimming pools for recreation and leisure. Covered parking was usually discreetly located at the back of the complex. Most post-war garden apartments were shaped by the tenets of the Modern Movement in architecture or built in the Ranch style.

Landscaping in garden apartments was typically characterized by grass lawns, along with broadleaf trees and shrubs. Many of the plants originated from the Mediterranean region; these plants were well adapted to a high heat and low moisture environment. Common plants included privet, olive, palm, aleppo pine, citrus, cypress, juniper, arborvitae, oleander, pittosporum, xylosma and boxwood.

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An outstanding and quintessential example of the garden apartment was the Terra Alta Apartments (3122 e. Terra Alta Blvd., 1948), developed by brothers Edward and George Denhofer. (fig. 11) An extensive portion of the Terra Alta property was dedicated to landscaping and open space. The visibility and accessibility of the landscaped court from the street created an open and inviting environment. The architecture is characterized by expressed horizontal roof planes, painted concrete masonry, and large corner windows which provide extensive views of the gardens. Covered parking is inconspicuously located at the back of the property, accessed from the alleyway. Terra Alta was also one of the earliest complexes to provide central air conditioning, which was a significant upgrade for apartment living. A swimming pool was added a few years after the initial construction was completed.

Other significant examples included the Luna Vista Apartments (now the Victoria Apartments, 2811 e. 6th St.; Cecil Moore, 1946), Los Patios Apartments (3300 block of e. 1st St.; Green and Friedman, 1948), and the Los Nidos Apartments (Gordon Luepke, 1947; demolished). Most of these developments reflected the influence of Modern architecture or the Ranch style, though a few. such as Ranchito Sereno (3800 e. 4th, 1948; modified), reflected the influence of Spanish Colonial and Territorial revival styles.



Fig. 11: Terra Alta Apartments courtyard

A few larger garden apartment complexes were built during this

period. The layout of Town and Desert Apartments (331 s. Alvernon; 1949) consisted of nine one- and two-story detached apartment buildings laid out in a campus setting, resulting in several primary and secondary courtyard spaces. The development was expanded a year later onto an adjoining block, essentially doubling the size of the complex.

Unique in this early post-War era was the El Siglo Garden Apartments, designed by William and Sylvia Wilde and built by the Oshrin Building and Development Co. in 1948 (551 s. Alvernon; demolished). Rather than arranged around a centralized landscaped space, the 99 one-story units were organized in a diagonal grid across the 20 acre property, which provided each small unit views of and access to smaller garden spaces. The development gave priority to returning veterans.

The garden apartment continued to be a popular building type during the course of the 1950s, but there was a wide range of quality. (A large percentage of multi-family housing provided minor accommodations for landscape, but did not invest in it as a central feature). A common form for garden apartments during this period included a linear courtyard positioned

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perpendicular to the street front, framed by two linear apartment buildings, one on either side. In many cases, each building was built on a separate lot, which allowed the development to take place without re-platting or rezoning. This arrangement minimized the amount of open space and limited the privacy for each apartment, but still provided visual access to the courtyard. The apartments usually had a small private patio on the side opposite the courtyard. An example of note was the La Playa Apartments (3647 e. 2nd St., AE Consultants, 1959; modified).

In the late 1950s, the garden apartment evolved towards larger apartments with higher density. Two-story buildings became more common, as did patios and balconies. In addition, the central courtyard became more private. In earlier developments, the central space was often open to the street, creating a picturesque landscaped foreground for the building. But in later iterations, the central courtyard became more private and less connected to the public street. The larger scale allowed for more amenities to attract renters, and as a result, swimming pools and laundry rooms became standard. Examples of these larger developments include Villa Catalina (3000 block of e. 6th Street, 1957-61), the Royal Alvernon Cooperative Apartments (Terry Atkinson, 1962; modified), Century Park Apartments (765 w. Limberlost, 1964), Westwood Village Apartments (now American Village, 1200 block of w. Roger Rd., John Mascarella, 1964) and Avalon Terrace (4141 e. 29th St., John Mascarella, 1965).

Villa Catalina was particularly distinctive. Developed by Lionel Mayell, the project consisted of 20 two-story buildings (82 units) which surrounded a large, lushly landscaped central courtyard that included two swimming pools and a shuffleboard court. The architecture is characterized by

extensive glazing, horizontal roof lines and decorative railing designs. Floor-to-ceiling window walls, deep overhangs, and large covered patios help to reinforce the emphasis on indoor-outdoor living. The apartments have extensive views of the courtyard and the Santa Catalina Mountains to the north. Garages, which were unusual for the time period, were located in a building at the back of the property. The development is listed on the National Register of Historic Places. (fig. 12)

Villa Catalina was also innovative as the first large scale, owneroccupied cooperative apartment complex in Tucson. Homeowners



Fig. 12: Villa Catalina Apartments courtyard

owned the interior of their unit and had a shared interest in the building exteriors and the common areas. Owner-occupied apartments was a relatively new concept that had the potential to make home ownership more affordable. However, there was no legal structure in place in Arizona that would allow for FHA mortgage financing of cooperative apartments. As a result, buyers were required to pay the full price of the Villa Catalina apartments upfront, which made them far from affordable and therefore inaccessible to a large segment of the market.

United States Department of the Interior	
National Park Service / National Register	of Historic Places Registration Form
NPS Form 10-900	OMB Control No. 1024-0018

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Innovative financing programs provided by large homebuilders, such as the Lusk Corporation (for cooperative apartments in Citation Park and elsewhere), made apartment ownership more accessible; but it wasn't until the Arizona state government passed legislation creating the legal mechanism for owner-occupied multi-family development in the early 1960s that financing became widely available.

With the new legal structure in place, owner-occupied apartments became more common. In 1962, developer William B. Addison announced that his new Sierra Del Sol Apartments, designed by Carl Lemar John, would be the first condominium complex in the state (this claim has not been confirmed). Sierra Del Sol was targeted specifically to retirees and organized in 8 triplexes around a central pool and courtyard. Carports were attached to each triplex to make the apartments more easily accessible to seniors. The distributed parking layout required a paved driveway that essentially encircled the entire complex. (15 oct 1962 ADS, p. 20)

Another building form that emerged in owner-occupied multi-family living was the townhouse. Like condominiums, townhouses had shared walls and shared common areas, but ownership also included the deed to the (plot of) land where the unit and the associated private exterior spaces were located. This relationship to platting meant that there was typically more definition to the individual living units, and more privacy for the exterior spaces.

The development of the townhouse coincided with a movement towards more privacy in multifamily housing. As a result, the townhouse form grew in popularity. Although most townhouses were designed to be owner-occupied, the building form was also occasionally used for rental apartments as well.

Townhomes tended to have more square footage, and fewer shared amenities; as a result, private laundry facilities in each unit became standard. Attached carports or garages were also common.

An early precedent for the townhouse concept in garden apartments was the Villa De Jardin Cooperative Apartments, built in 1958 (3300 block of e. 2nd St.). Although there was a central court and swimming pool, each unit had a large private patio enclosed by walls, which was uncommon for apartment living at the time. The homes were attached, but could be individually identified as distinct units from the street. The development was also unusual for its Spanish Colonial Ranch style.

Starting in the early 1960s, some garden apartments were composed of townhomes. The Catalina Foothills Estates Apartments (2600 e. Skyline Dr.; Juan Wørner Baz, with Tom Via and Taro Akutagawa; 1963) were rental townhomes built in the desert foothills well outside the city limits. The Mexican-inspired architecture was particularly distinctive, as was the landscaping. Much of the native desert landscape was retained within the low-density development. The desert plants were supplemented with a range of additional plantings, and the landscape planning was inspired by Japanese garden design. Carports with caryatid-inspired integrated artwork were attached to each unit. The unique property is listed on the National Register.

Other significant projects included Casa La Paz (Friedman and Jobusch, 1965), which had large floor plans, extensive glazing, and a green space that extended the length of the property. The

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development was one of the few townhouse projects where the individual units could not be distinctly identified upon visual inspection.

Of particular note was Casitas de Castilian, designed by architect Bennie Gonzales (600 block of w. Las Lomitas Rd.; 1966). The development included 30 detached single story buildings of 4 units each, loosely organized in a diagonal grid pattern across the property. Each unit opened onto a private patio courtyard, but had limited views to the shared landscape. Identified as "contemporary Spanish" style by developer Kenneth Kamrath, the distinctive architecture reflected a strong Mexican influence characterized by mortar-washed burnt adobe, catenary arches (made famous by Spanish architect Antonio Gaudi) and sweeping curves along the parapet roofline. The project also had distributed parking throughout the property; clusters of detached carports were located in proximity to the various townhouse buildings. (fig. 13)

In the mid-1960s, some of the earliest townhouse developments were built adjacent to the golf courses of Green Valley (Maxon Construction, 1965) and Tucson National (Casa Del Oro, Del Trainor developer; 1967), utilizing the fairways as a substitute for a central open green space. However, by and large, the townhouse concept diverged from the garden apartment, as shared landscape spaces were supplanted by a focus on private exterior spaces. With the emphasis on privacy, townhouses with attached carports or garages became more common.



Fig. 13: Casitas de Castilian

As seniors began to discover southern Arizona as a retirement destination, a number of developers began to target their garden apartment developments specifically to seniors or adults without children. In addition to Sierra Del Sol, examples included Silverbell West (N. Silverbell Rd.; 1964), and the Royal El Con Apartments (3660 e. 3rd St.; 1966). Unique among these--and among garden apartments in general--was the Theater West Condominiums (3320 e. 2nd St.; 1974). The small complex of 8 units was organized around a completely enclosed and irregular courtyard form. Each unit had a two-car garage.

As Tucson apartment complexes became larger, were targeted to retirees with more limited mobility, and as the car became more central to daily life, distributed parking layouts that put cars in closer proximity to apartments became more common. This convenience required more extensive driveways and as a result substantially reduced the area that could be dedicated to landscaping and open space.

A particularly innovative example of the garden apartment was Orchard River Garden Park (1972-74). Robert Swaim's design integrated 136 townhouses clustered around 15 small entry

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courtyards and was built within an existing pecan orchard. The densely planted courtyard spaces provide an intimate contrast to the large scale of the 16 acre development. Each unit also has a private patio. Orchard River is one of a very few housing developments situated within an orchard in Tucson; the limited extent of tree-based agriculture in the Tucson area meant that the grove setting was a rare landscape form.

One other garden apartment complex that was erected within the remnants of an agricultural landscape was Mission Palms Apartments (951 w. Orange Grove Rd.; 1978), which was built among the trees of an existing citrus grove. Substantial supplemental plantings, including large trees and lawns, were provided to create a lush and verdant landscape environment. The apartments are located within approximately four dozen two-story buildings spread throughout the campus setting. Each unit has one or two patios that have visual and/or physical access to the interstitial green spaces.

At La Plazuela de las Encantadas (3720-3754 e. 4th; 1948, modified 1973), developer Charles Lindsay expanded an existing low-density garden apartment complex by building two-story townhouses between the existing apartments. The architecture was built in a Spanish Colonial Revival style. The fully enclosed courtyard was densely planted.

One of the last and most distinctive garden apartments of the era was the La Querencia Townhomes, built in 1981 (3110-3124 e. 4th Street; John Hornburg Co. Developer). The small complex was composed of 8 two-story units, surrounding a courtyard and patio. The intricate architecture, courts and paint color are all reminiscent of the iconic Arizona Inn resort hotel.

The garden apartment became less and less common during the course of the late 1960s and 1970s. As the building type evolved, higher densities and distributed parking layouts--both of which required more space dedicated to parking and traffic circulation--combined to substantially reduce the area allocated to open space. The larger scale of developments also altered the more intimate relationship with the landscape that had been present in earlier versions of the building type, and largely eliminated the indoor-outdoor living concept.

In addition, the growing emphasis on privacy had significantly altered multi-family housing, and was limiting the areas dedicated to shared landscape. The townhouse, with private outdoor spaces, was becoming more common. The focus on privacy also led to smaller window sizes to minimize views into the apartments; this simultaneously reduced the visual access outward to the landscape. The emphasis on smaller windows was exacerbated by shifting architectural styles: Modern and Ranch forms were being replaced by regional vernacular and revival styles that traditionally had more limited fenestration patterns.

Finally, as Tucson came to grips with its limited water supply, new landscapes were typically characterized by drought-tolerant and often ornamental plantings. As apartment landscapes evolved away from a lush, oasis character and towards a more sparse environment, the garden apartment concept as it had originated largely disappeared. Although apartments continued to be built in a landscape setting, the relationship between the apartment and landscape had been so modified as to be a distinct successor building form.

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(Note: Although the garden apartment was a popular building type in the post-war era, the shifting perspective on water use in Tucson that has been evolving since the mid-1960s is threatening the long-term preservation of the building type. Water intensive garden apartments that retain the character of their original oasis-like landscaping are uncommon as of 2021. As water becomes more expensive, and high water use becomes less environmentally acceptable in the Tucson desert, these lush landscapes are being modified towards more drought tolerant installations. Lawns have been particularly vulnerable to replacement, but these modifications are taking place especially more frequently in recent years as older plants reach 60 and 70 years of age and die off.)

Architecture of the Modern Movement in Tucson 1945-1975

According to the organization DOCOMOMO (Documentation and Conservation of the Modern Movement):

the Modern Movement was an artistic and architectural movement that embodied the unique early 20th century notion that artistic works must look forward to the future without overt references to historical precedents. Modern design emphasized expression of functional, technical or spatial properties rather than reliance on decoration. Modern design was conscious of being modern: it purposefully expressed the principles of modern design.

The Modern Movement can find its roots in the Industrial Revolution of the late 19th and early 20th centuries, when tremendous advancements in engineering, materials, and construction techniques had a significant impact on design. New products, including steel, sheet glass, aluminum, and reinforced concrete allowed architects to envision the world in a whole new way.

In addition to changing technologies, new democratic institutions led to revolutionary ideas on how architecture should respond to the needs of the working class. Architectural problems were to be solved by rational thought rather than through pre-determined models; historical precedents were rejected as being associated with the tyrannies and aristocracies of the past. Neo-classical and other highly decorated styles were replaced with a reductive, utilitarian aesthetic where "form follows function" (Louis Sullivan) and "ornament is a crime" (Adolf Loos).

In Europe, population growth and a construction moratorium during World War I led to a tremendous post-war demand for low-cost housing. This provided the early modern architects an opportunity to implement their vision. Common architectural characteristics of the early European modernists were: simple, clean designs, the use of modern materials & technologies, an emphasis on geometric forms, asymmetrical compositions, functional planning, large expanses of windows, and an absence of ornamentation.

In Germany, architect Walter Gropius founded the Bauhaus in 1925, a school dedicated to modern design and the democratic collectivity of teamwork. The school became a training ground for young European architects and greatly influenced the shape of modern architecture worldwide. Another German architect, Ludwig Mies van der Rohe, developed an architectural vocabulary based on open planning, functional design, expression of structural materials and highly crafted details. Coining the expression, "less is more", Mies van der Rohe's work

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epitomized the "steel and glass" aesthetic most commonly associated with the Modern Movement.

In France, architect and artist Le Corbusier developed a philosophical and architectural vocabulary for his modern designs based on five points: piloti (a term coined by Le Corbusier to denote slender supports seen in a building where the principal floor is above an open ground level), a free plan, a free façade, a roof garden, and ribbon windows. His philosophy was less motivated by political or social issues and more by aesthetic possibilities. He envisioned buildings to be well-crafted "machines for living" reflecting the new machine age.

In the United States, Frank Lloyd Wright led an American version of the Modern Movement by using complex geometries, stark forms and asymmetrical compositions. In contrast to the Europeans, Wright used more traditional materials, was less controlled by function, and integrated more ornamentation into his work.

In the 1930s, political turmoil in Europe and the rise of Fascism led many of Europe's modernists to emigrate to the United States. The 1932 Museum of Modern Art's exhibition of "The International Style", curated by a young Phillip Johnson, had a significant role in disseminating the work of the European modernists to the United States. Gropius and Mies van der Rohe both became educators in American schools (Harvard and Illinois Institute of Technology, respectively) spawning a new generation of modernists in the U.S.

By the 1950s and 1960s, in an era of greater affluence, the Modern Movement shifted away from its early roots of "less is more" towards a broader exploration of form and structure. Greater experimentation and a more personal expression ensued. In this 'Expressionist' phase of the Modern Movement, "reduction and restraint were replaced by articulation and exuberance. Ornamentation began to gain acceptance if it was abstract and integral to the building. The result was greater variation and an expanded range of architectural aesthetic. Form was now less determined by function and utility, and more by aesthetic intention." (Evans and Jeffery, p.17)

Modern Architecture in Tucson

Prior to World War II, Tucson's architectural expression was defined by the revival of historical styles, and particularly those associated with a romantic image of the Southwest, e.g. Spanish Colonial, Mission, and Pueblo. Although Modernist tendencies were introduced prior to World War II by architects such as Henry Trost, Arthur Brown, and Richard Morse, it wasn't completely adopted in a town that embraced its image as "The Old Pueblo".

Tucson, like many cities in the Southwest, grew exponentially after World War II from a population of 35,000 in 1940 to 212,000 in 1960. Moreover, World War II created a local housing shortage and Tucson had few architects to satisfy the demands of its expansive growth. The arrival of Modern architecture in Tucson during this post war boom can be attributed to three prolific architects: Arthur Brown, William Wilde, and Nicholas Sakellar. Their award-winning and nationally published works were responsible for attracting young graduates and professionals to the desert, creating subsequent generations of architects steeped in the principles of the Modern Movement.

Sub-Types of the Modern Movement

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Within the Modern Movement, there were a number of different architectural expressions that reflected chronological phases of the movement. These variations were the result of experimentation with forms, materials and construction technologies as well as the concurrent social and cultural changes of the time. These expressions can be grouped to create sub-types within the Modern Movement. The most relevant sub-types in Tucson include:

Situated Modernism

Based on the integration of modern principles with specific contextual qualities, including local materials and vernacular traditions. This expression formed the roots for the later development of critical regionalism that is distinguished by a more mature blending of modern principles with regional characteristics of climate and site. In Tucson, this sub-type can most clearly be seen in the work of Henry Trost (Second Owl's Club - 1902), Josias Joesler (Joesler-Loerpabel House – 1936), Nicholas Sakellar (Diamos Residence, 1951) and Arthur Brown (Rosenberg Residence – 1947; Rose Elementary School – 1948, demolished; Tucson General Hospital – 1965, demolished 2004)

Utilitarian

Based in the reductionist principles of Austrian architect Adolf Loos, this sub-type stripped architecture of any unnecessary adornment or materiality; utility and cost efficiency were the guiding principles for design. In Tucson, this sub-type can most clearly be seen in the work of Arthur Brown (Cloverleaf House – 1942; University of Arizona Graham-Greenlee Residence Hall – 1954).

Planar

Based on Mies van der Rohe's Barcelona Pavilion (1929) and Wright's Fallingwater (1937), the intent was to define architectural form and space through the composition of roof and wall planes. In Tucson, this sub-type can most clearly be seen in the work of Nicholas Sakellar (Wilmot Public Library – 1965), William Wilde (College Shop – 1956, demolished 2001) and Robert Swaim (Swaim Residence – 1969, Orchard River Townhomes – 1972-74).

Sculptural Expressionist

Based on Wright's Guggehneim Museum (1959), Le Corbusier's Ronchamp Chapel (1955) and Saarinen's TWA Terminal (1962), this sub-type celebrated the liberation of architectural form from the constraints of box-like rectilinear forms by embracing curvilinear surfaces. In Tucson, this sub-type can most clearly be seen in the work of Scholer Sakellar and Fuller (Catalina High School – 1955), Arthur Brown (Hyperbolic Parabaloid Carport – 1958; McInnis House – 1959), and Charles Cox (Catalina Baptist Church – 1961).

Structural Expressionist

Based on Mies van der Rohe's Seagram Building (1957) and IIT's Crown Hall (1955), as well as Frank Lloyd Wright's Taliesin West (1939) this sub-type used the building's expressed structure as an abstract form creating patterns that were integral to the building's overall aesthetic. In Tucson, this sub-type can most clearly be seen in the work of Nicholas Sakellar (Broadway Kelly Building – 1964), William Wilde (Supreme Cleaners – 1964), and more modestly in the work of Thomas Gist (Gist Residence – 1958).

Construction Expressionist

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Based on the work of Louis Kahn, including Richard's Medical Center (1960) and the Salk Institute (1965), this sub-type focused on the articulation of building components and their interfaces, the process of construction, and the use of materials. The intention was to break down the scale of large buildings and find beauty in the assembly of discreet parts. In Tucson, this can best be seen in the work of Friedman-Jobusch on the University of Arizona campus (Arizona-Sonora Residence Hall – 1963, Main Library – 1977) and Kirby Lockard (Dove of Peace Church – 1966).

Pattern Expressionist

Based on Mies van der Rohe's Seagram Building (1957) and LeCorbusier's Unite' d'Habitation (1952), this sub-type emphasized the patterns that resulted from the repetitive use of building elements, at various scales. In Tucson, this sub-type can most clearly be seen in the work of Thomas Stanley (Transamerica Tower – 1961), Nicholas Sakellar (Broadway Kelly Building – 1964) and Art Brown (AAA Offices – 1960; Tucson General Hospital – 1965, demolished 2004).

Brutalist

Based on Paul Rudolph's Yale Art and Architecture Building (1963) and Kallman McKinnell Wood's Boston City Hall (1968), this sub-type emphasized mass and scale to create bold and dramatic forms. In Tucson, this sub-type can most clearly be seen in the work of CNWC (Cherrybell Post Office – 1972; US Federal Building – 1974) and Caudill Rowlitt Scott (Pima Community College – 1971).

Critical Regionalism

A later version of situated modernism based on a blending of modern principles with an appropriate application to the region, this sub-type was based on projects such as Frank Lloyd Wright's Taliesin West (1939), Marcel Breuer's Breuer Residence III (1951) and Charles Moore's Sea Ranch (1965). This sub-style may incorporate historical precedent (e.g. courtyard forms), but is more oriented toward climatic appropriateness and site integration. In Tucson, this sub-type can most clearly be seen in the work of John Morrison of CNWC (Tucson Music Hall and Little Theater – 1971), Judith Chafee (Viewpoint/Johnson House – 1974, Ramada House – 1975), John Howe (Mettler Dance Studio – 1963) Thomas Gist (Gist Residence – 1958) and Cliff May (Gordon/Ocotillo Residence – 1963).

Orchard River is an example of the Planar and Critical Regionalism sub-types of the Modern Movement. The masonry walls are constructed in planes, with no corners. And the slump block construction is a direct reference to adobe traditions in the region.

Planar

Mies Van Der Rohe's 1929 Barcelona Pavilion was an anomaly in early Modern architecture. The design was not based primarily on programmatic or humanistic needs, construction efficiency or new technologies as was most early modernism. The design's primary intent was to define space through the articulation and expression of the flat, rectangular roof and wall planes that composed the form. Aesthetic intention trumped any utilitarian goals. The building was a refinement of the Dutch DeStijl movement of the 1920's and had a huge impact on modern design. The asymmetrical, planar character was emphasized by minimizing the structural columns and using floor to ceiling glass to enclose the space.

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In the United States, two houses for Edgar Kaufman set the standard for early planar architecture: Fallingwater by Frank Lloyd Wright (1937) and the Desert House in Palm Springs by Richard Nuetra (1947). Both houses were asymmetrical compositions of horizontal planes and vertical stone piers. Planar floors and roofs were defined by the "cantilever" and the extent to which one could defy gravity; no building did this better than Fallingwater. Wright's reinforced concrete decks pushed the limits of contemporary construction techniques to cantilever outward over the water 15 feet. Low ceilings made the visitor acutely aware of the horizontal and planar character of the space. The rough stone and concrete of Fallingwater was unrelated to the steel, glass and polished marble of the Barcelona Pavilion, but both were seeking to define space through planes.

More related to Mies' work, Nuetra's Desert House was a continuation of the light and airy steel (wood) and glass aesthetic that came to be associated with southern California modern architecture in the 50's. The metal-faced roof planes articulated the horizontal line and sheltered light-filled, glass-enclosed spaces. The glass enclosure walls were retractable, blurring the line between interior and exterior and further articulating the roof plane.

In Tucson, there were early, subtle nods to horizontal roof planes in several garden apartment complexes, including the Terra Alta Apartments (1947) and the Los Patios Apartments (1948). Another early and unique example of the use of planes to define form can be found at the Victoria Apartments complex (2811 e. 6th st.; 1946 Cecil Moore). The roof planes are not differentiated from the rest of the building in materials or color, resulting in a building that appears to have something of a striped quality, similar to earlier Streamlined Moderne works. The building's rectilinear character clearly distinguishes it from that style, however. (The building also appears to have some relationship to some of Rudolph Schindler's work.)

A Modern architecture defined by a planar character was first implemented in Tucson at Scholer Sakellar Fuller's Tucson Clinic in 1953. The building is a composition of horizontal roof planes buttressed by brick volumes of varying sizes. The primary roof plane on the building's west façade cantilevers out over a wide expanse of glass. (fig. 14)



Fig. 14: Tucson Clinic

Orchard	River	Garden	Park
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Two buildings that raised the bar for planar modernism in Tucson were the College Shop of 1956 by William Wilde (demolished 2003), and the Paulin Motors Showroom (2121 e. Broadway; demolished 2007) by Ragnar Qvale in 1957. The College Shop was a great example of high-end modernism in the Tradition of Mies: Wilde used polished stone, steel, glass, and exceptional detailing. The Paulin Showroom was rooted more in southern California modernism (Qvale was from Los Angeles) with simple floating planes and floor-to-ceiling glass akin to Nuetra's Kaufman House. The floating roof planes accentuated the "display case" aspect of the showroom, and contrasted the rough native stone walls that provided the backdrop to the space.

One of the few Tucson residences defined by a horizontal roof plane was Art Brown's Altaffer Residence (1958). Designed around a courtyard, the long horizontal roof plane unifies the separate wings of the house and the courtyard into a single form. The courtyard is enclosed by glass on the front elevation and acts as an entry space. Brown pushed this aesthetic even further with his McInnes Residence (1959) where he twisted the roof plane into a hyperbolic paraboloid, giving it greater structural stability.

Planar architecture slipped into a utilitarian aesthetic in the 1960's with the increased use of precast concrete slabs (or lift-slab technologies) to build large scale buildings. The Tucson House of 1962 (Sakellar and others) epitomized the planar aesthetic of multi-story towers. Exposed balconies for the residences allowed for the recess of the enclosure system, which resulted in the articulation of floors and structural walls. This style became prevalent in beach communities like Miami and Honolulu, where the goal was to create spectacular views while producing buildings quickly and cheaply.



Fig. 15: Wilmot Branch of the Tucson Public Library

Nick Sakellar's Wilmot Library (1965) was a radically different approach to planar design. The library was an early example of Sakellar's effort to create a more sculpted aesthetic; as might be expected of a transition building, Sakellar integrated two separate characteristics— the sculptural quality was balanced by the roof's long horizontal roof lines and clerestory ribbon windows. Because the building is monochromatic and monolithic the roof plane is not set off from the rest of the building (as in previous planar buildings) and instead becomes part of the sculpture. (fig. 15)

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There was a shift in planar architecture in the late 1960's away from the lighter aesthetic of floating roof planes, and toward walls as the primary planar elements. This may have reflected the dominance of wall construction in the Tucson region's historic construction, but was also surely a reflection of the late 1960's expressionist emphasis on mass. John Mascarella's Randolph Recreation Center (200 s. Alvernon, 1967) utilized brick wall planes at varying angles to define several independent buildings in a campus-like setting. David Swanson's series of sloped walls for the Willmarth Residence (1968) referenced the mountain ranges in the region.

(fig. 16) Two other planar buildings of note by Bob Swaim include the Swaim Residence (1969) and the Orchard River Townhomes. The Swaim Residence emphasized the mass of cast-in-place concrete planes contrasted by large glass openings. The Orchard River Townhomes incorporate parallel planes of concrete masonry to provide privacy and definition to the individual townhome units. The expression of a planar aesthetic



Fig. 16: Willmarth Residence

may have arisen in response to the functional code requirement to provide fire separation between units within a multi-family housing complex.

Critical Regionalism

The early European modernists held that the tenets of Modern architecture were broadly if not universally applicable, and untethered by history or context. In addition, the embrace of modern technologies and materials was a de facto rejection of traditional materials. In the United States, however, there were several national and regional developments within Modern architecture that were leading toward a regional aesthetic. Frank Lloyd Wright adopted the broad sweeps of the mid-western landscapes as inspiration for his Prarie-style horizontality. On the east coast in the late 40s and 50s, Marcel Breuer was incorporating stone and wood into modern houses situated in natural settings. Edward Larrabee Barnes was incorporating abstract vernacular forms and materials into his New England houses as well. And in California, architects like Harwell Hamilton Harris were creating sleek modern designs in natural materials like rubble stone and wood. These were all attempts to contextualize Modern architecture.

In the desert southwest, the arrival of Frank Lloyd Wright in the late 1930s had a significant impact on architecture. Wright's organic philosophy led to the development of Taliesin West, a sprawling compound of concrete, native stone and wood in the desert. The intent was to integrate the structures into the landscape. The school at Taliesin West became a destination for students of architecture, and therefore had a significant impact on the development of design in the region.

Richard Neutra used stone to integrate the sleek Kaufman Residence (Palm Springs, California, 1947) into the rugged desert context, although the ashlar coursing of the stone was a more traditional application. Rubble stone was also widely used in southern California in the 1940s and 50s for Modern houses.

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Another significant development in Modern architecture in Arizona occurred in 1957 with the completion of the Chapel of the Holy Cross in Sedona. Designed by Anshen and Allen of California (along with the original owner, Marguerite Staude), the building is a testament to the complementary possibilities of colored concrete with the earthen landscapes of the desert. The building is strikingly modern—a bold, dynamic form, with clean lines and no ornamentation. But the design also sought to fit into the site and context; the exposed aggregate colored concrete reflected the deep red hues and rugged surface of the Sedona rock, and the building had been carved into the rock rather than imposed upon it. The building became a part of the site.

In the 1960s, an unease with the severity of international Modern design became more prominent. A shift was taking place towards an architecture that was, according to its proponents, more human. Robert Venturi's *Complexity and Contradiction in Architecture* was a significant event in this shift. Venturi sought a more meaningful architecture, and suggested several methods of achieving this. One of these was to look to context. This approach was epitomized by Charles Moore in northern California with Sea Ranch (1965), a sprawling condominium complex on a windswept cliff overlooking the Pacific Ocean. Sea Ranch in many ways was a modern building, but the building was also a direct response to the site. The abstraction of vernacular forms and materials (reflecting the wood barns of the region), the orientation of the building to consider climate conditions, and the attempt to integrate with the site rather than dominate it were all significant shifts in Modern architecture.

There were several early precedents in Tucson for a regional aesthetic. Ironically, one of the earliest of these was made by an architect out of Los Angeles; Ragnar Qvale Associates incorporated native stone into the design for the Paulin Automotive Showroom (2121 e. Broadway) in 1957 (demolished 2007). The massive walls were used as a foil or backdrop for

the sleek modern glass boxes and

planar roofs.

In 1963 John Howe, a former student of Frank Lloyd Wright, designed the Mettler Dance Studio at Ft. Lowell and Cherry Ave. The building clearly reflects Wright's influence in its relationship to the desert. Like Taliesin West, the dance studio does not attempt to dominate the site, but rather attempts to nestle into the landscape: the existing desert is left undisturbed, and earth berms surround portions of the building. The building is an aggregation of forms, which breaks down the overall scale of the building. Perhaps more importantly, the



Fig. 17: Mettler Dance Studio

aggregation of forms creates a reciprocity between building and landscape that allows the desert to grow integrally with the building; the edge between landscape and building is blurred. The most striking departure from other modern buildings, however, is the use of materials and

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colors to blend with the landscape. The concrete block is colored to replicate the colors in the earth, and the gray-green trim is almost identical to the color of the desert plants. (fig. 17)

Another precedent was the Tucson International Airport, also built in 1963 by Terry Atkinson (modified). TIA also used construction materials that reflected the desert, namely desert granite for the walls and earth-toned colored concrete. Atkinson's stone reflected Wright's work but attempted to achieve a cleaner appearance with tight grout joints and true masonry construction.

CNW took another approach to regional design when they incorporated copper into the Asarco Corporate Offices (1964). Asarco's primary business was mining copper, but copper was also a primary contributor to Tucson's financial and cultural resources. Thus copper was a regional material in its cultural connotations, and its' color complemented the earth tones of the desert. This was followed in later years by other copper buildings, most notably McKale Center (Place and Place, 1973) on the UA campus.

Two early and exceptional residential projects that made significant contributions to regional design in Tucson were the Gist Residence (Thomas Gist ,1958) and the Gordon Residence (Cliff May, 1963). The Gist Residence embraced the temperate seasons of Tucson's weather with three screened patios, where the roof and walls were both enclosed with open-air screens.

The house could be opened to these patios via 8 sets of patio doors, providing a new freedom of movement in indoor-outdoor living. The Gordon Residence, also known as the Ocotillo Residence, was unique in its application of an ocotillo lattice over the entire roof of the Modern Ranch house. The roof had an organic, almost thatched, quality. (fig. 18)

One other early contributor to a regional Modern architecture in Tucson is less obvious, but perhaps equally important. For years, Art Brown had been challenging convention by designing buildings that responded to the brutal desert climate. Prior to



Fig. 18: Gordon Residence

the introduction of active cooling systems in the 1930s, building design had been significantly limited by the severity of the climate. Historically, vernacular buildings responded by utilizing massive walls and minimizing window openings. Modern architecture's emphasis on large windows and lightweight construction, however, posed a difficult problem; and the new active cooling systems were not equipped to counter the full brunt of the desert heat to create comfortable environments. This required architects to devise innovative responses to the severe sunlight and accompanying heat gain. In the modern period it was rarely the primary determinant of form, but it had significant impact nonetheless.

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Beginning in the late 1940s, Brown was applying solar strategies and devices that would passively heat and cool his buildings. His efforts included structures such as trombe' walls (Rosenburg Residence, 1946), fixed and moveable shades (Ball/Paylore Residence, 1952), and simple strategies such as thermal mass and building orientation (Graham-Greenlee Hall, 1954). While his architecture did not appear to be regional in materials or color, his work was providing the early skeleton framework for the forms of buildings to come. Brown's efforts were well ahead of national trends to develop energy savings in modern building design.

After the early experiments by Brown, Howe, Atkinson, CNW and Qvale, the onset of a regional Modern architecture on a wider scale seems to occur around 1968. Materials and colors used in modern design began to reflect the desert context, and building forms tended to emphasize the heavy mass of concrete or masonry walls. And as energy costs began to rise in the late 1960s, architects began to more consciously examine and respond to climate conditions.

Architects such as Bob Swaim used concrete masonry as a regional material. Orchard River's 4x8x16 slump block approximated the size, shape, mass and feel of adobe, and the stark gray block responded to the muted colors of the desert.

John Morrison of CNWC made a significant contribution to regional modern architecture with his designs for the Tucson Music Hall and Little Theater (1971). The complex of buildings utilizes a split-faced colored concrete block that reflects the color and texture of the Sonoran Desert.

In 1971, Caudill Rowlitt Scott of Texas designed the Pima Community College Campus in collaboration with several local firms. The building is brutal in its character, but also regional. The massive, earth-colored concrete walls respond to the earthen tones and rugged massive forms of the surrounding desert. CNWC's Federal Building (1974) utilized pre-cast exposed aggregate colored concrete for a similar effect.

The RGA Building, by John Morrison of CNWC (1974), utilized a traditional southwest building form to address the severity of the desert—the courtyard. The 2-story high courtyard walls provide significant shade for the courtyard and the building, thereby creating a much more habitable interior and exterior environment.

In the early 1970s, Judith Chafee began a series of regional Modern houses that received national attention. Chafee utilized modern materials such as concrete and concrete block to achieve a rugged mass appropriate for the desert. The houses are sensitive to site and context; the buildings are rugged but delicately situated on the site, often responding to the topography. The houses also play off the contrast created by the sharp light and heavy shadows of the desert. The primary color of these houses was typically gray, which reflected the muted colors of the desert.

The shade structure of Chafee's Ramada House (1975) was a unique and innovative response to the desert sun. A wood trellis of 2x4s and telephone poles hovers above the building, shading the house in the summer months, while in the winter the low angle of the sun projects beneath the ramada to provide solar heating. The lattice appears to be a modern interpretation of Native-American ocotillo shade structures, while the irregular house below was constructed of mortar-washed slump block that approximated adobe. Chafee also utilized passive solar design at the

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Blackwell House (1979; demolished). The heavy thermal mass of concrete block walls and concrete floors, north-south orientation, deeply shaded openings and an innovative solar flue all contributed to making the house more habitable and energy efficient.

Slump Block Masonry

In the years immediately prior to World War II, residential construction in Tucson was primarily characterized by two wall construction systems: exposed brick, and stucco over masonry (typically concrete masonry, brick or adobe). In the first decade after the war, the burgeoning production housing industry was dominated by three primary wall construction materials: brick, concrete masonry and burnt adobe.

Concrete masonry was relatively new as a finished wall construction system. It was an efficient and inexpensive technology, and was primarily used for entry level housing. It was typically painted.

Burnt adobe was an adaptation of traditional mud adobe masonry, which is one of the oldest construction techniques in the southwest and was used by both Native Americans and European settlers. In contrast to traditional sun-dried adobe, burnt adobe acquires additional material properties as a result of the application of firing, including reduced moisture infiltration, greater cohesive stability and ease of handling. The aesthetic appearance is similar in size and shape to traditional adobe, but the color is usually distinct; most of the burnt adobe used in

Tucson was brick red or rust orange. The practice of firing adobe to improve quality dates to some of the oldest structures in southern Arizona, including the 18th century Mission at San Xavier del Bac.

In the early 20th century, burnt adobe had generally been perceived as an upgrade to standard adobe construction because it was less prone to water damage and could be used with conventional mortars. As a result, like traditional adobe, it was usually covered with stucco. But in



Fig. 19: Adobe ruins of Fort Lowell

the late 1920s and 1930s, architect Josias Joesler began using exposed burnt adobe for many high-end custom homes in the Catalina Foothills Estates just north of Tucson. Joesler usually used a light mortar wash over the adobe to give these houses a rustic character.

In the years after World War II, burnt adobe became popular as an exposed finish material and by the mid-1950s, it had become the predominant wall construction material for mid-priced production housing and custom homes in Tucson. It was widely used in Tucson largely because of the city's proximity to major production centers in northern Mexico. However, transportation costs limited the material's economic viability beyond a certain range and as a result the material was rarely used outside of southern Arizona.

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As burnt adobe became more popular, painted concrete masonry fell out of favor. By the mid-1950s, homeowners had higher expectations for new construction than the nondescript surfaces of conventional painted concrete masonry, and as a result it became a significantly smaller segment of the market.

In the late 1950s, Tucson's concrete masonry industry introduced slump block masonry to compete with burnt adobe. The material is referred to as "slump" block because, like adobe, the forms are removed before the concrete has fully set, and the block is allowed to slump to a shape with slightly convex faces. The material was nearly identical to burnt adobe in size, shape and texture, but it had several inherent technical advantages: concrete was a more stable material and had better moisture resistance, openings cast into the center of the blocks could accommodate steel reinforcing, manufacturers were able to provide better quality control, there was a range of colors available, and it was produced locally. But the material lacked the depth and richness of color of burnt adobe, or the association with brick construction. In 1958 the San Xavier Materials Company introduced slump block as "mission stone", and allowed homebuilders to market the material under their own name. (In the early years of use, the block was also known as 'slump stone.')

Although there had been efforts to introduce a concrete version of adobe in the years before World War II, slump block had first been used on a large scale by production home builders in Florida and California starting in the late 1940s and early 1950s. Slump block was particularly appropriate in the southwest, where there was a long tradition of adobe ranch houses. In Phoenix, where painted concrete masonry dominated the single-family housing market, a version of slump block masonry was available as early as 1954. Unlike Tucson, none of these communities had a tradition of burnt adobe construction for production housing--slump block was intended as an alternative to, or stand-in for, real adobe.

The Lusk Corporation, one of the largest home builders in Tucson, was the first builder to use slump block on a large scale in its Kingston Knolls and Citation Park subdivisions. In these early subdivisions, the block was usually painted, but was also available with integral color and/or mortar washed. Like painted concrete masonry, it was first associated with lower-priced housing; but over time it became a more accepted material for mid-priced production housing as well.

As slump block gained acceptance for single-family residential construction, architects and builders began to use it for other building types as well, starting in the early to mid-1960s. Slump block's greater structural capacity and construction advantages allowed designers to create larger projects with textured surfaces reminiscent of adobe construction. By the late 1960s, it had become part of the mainstream and was being used for major commercial projects, institutional buildings, and multi-family housing. Most of the earliest examples used an integral earth tone color. The natural gray color of concrete was also used, but was less common. Red and pink tones were used, but sparingly.

By the late 1960s, slump block had become the primary wall construction material for production housing in Tucson. The use of slump block accommodated a shift in building forms toward parapeted wall construction and houses influenced by the regional Territorial style in the late 1960s and 1970s. Although burnt adobe had better moisture resistance than standard mud

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adobe, it was still susceptible to moisture infiltration; so most burnt adobe construction relied on projecting roof eaves to protect the adobe from extensive exposure to precipitation. Parapeted walls of burnt adobe were rare among production builders, and as the trend toward parapet wall construction continued into the 1970s, slump block dominated the production housing market.

Slump block was not particularly popular for custom houses, though it was used occasionally. Some of the best examples implemented a painted mortar wash over the slump block, which created a more uniform surface by obscuring the details of how the wall was constructed. This was of particular value in irregular wall forms such as curvilinear and angular walls, where the shape of the concrete blocks did not lend themselves to the overall form.

In the late 1970s and 1980s, as Tucson homebuilders shifted to wood frame construction to reduce costs, the masonry industry shrunk dramatically. Slump block was rarely used for new residential construction. It continued to be used in other building types, though less and less over time. Today, slump block is only sparingly used for new construction.

Slump block was a way of building upon the tradition of adobe construction in the southwestern United States, but in a sense, it was a modern material. It was developed to address certain deficiencies in existing wall construction systems, and was an innovation that became synonymous with mid-century housing in Tucson.

Robert J. Swaim

Robert Swaim (1930-) was born in Omaha, Nebraska in 1930. Swaim grew up in Nebraska and attended the University of Iowa before completing his Bachelor of Architecture degree at the University of Nebraska in 1953. He served two years with the US Army Corps of Engineers in Korea from 1953-1955.

After returning to the United States, Swaim and his wife Donna moved to Albuquerque where he went to work for the architectural firm Flatow, Moore, Bryan & Fairburn. In 1958, he moved to Tucson to join the firm of Nicholas Sakellar and Associates; like many young architects of his generation, he was drawn to Tucson because of Sakellar's national design reputation. In subsequent years, Swaim spent time in the offices of Friedman & Jobusch and William Wilde. He also spent a year working in the architectural office of James Fletcher-Watson in London. In 1961, he partnered with William Cook to create the firm Cook and Swaim. The partnership produced a number of significant and distinctive buildings in Tucson.

Cook and Swaim merged with the firm CNW in 1968, before Swaim started his own firm, Robert Swaim, AIA in 1969. For the next 25 years, Swaim produced some of Tucson's most distinctive architecture. The projects were often iconic, but were always focused on problem-solving and grounded in addressing client needs. Swaim would introduce creative and innovative concepts, construction systems and material applications to resolve design problems. His work is also notable for the pragmatic and collaborative solutions to projects of social and cultural significance; of particular note were a series of neighborhood centers for some of Tucson's underserved communities.

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In the 1980s, Swaim's son Phil joined the office and eventually became a partner. Swaim received the Arizona Architects Medal from the AIA in 1986 for his contributions to the community. He retired in 1995.

Guy S. Greene

Guy Greene (1922-2003) was one of the most influential landscape architects and planners in Tucson during the second half of the 20th century. Born in New York, Greene was a navigator in the Army Air Corps during World War II. He attended Amherst College, and eventually received a degree in Landscape Architecture from Iowa State University in 1948. In that same year, he came to Tucson to work with noted landscape designer John Harlow, who owned Harlow Gardens Nursery. Within a few years, Greene had established his own landscape architecture practice. Over the next 10 years, he established himself as a one of the premier designers in southern Arizona, able to work at both the small scale of individual plantings and residential gardens, and the large scale of community planning.

By the late 1950s, Greene was in demand as a planning consultant for larger developments and urban planning projects. His vision helped to shape Tucson and other communities in the southwest. The Tucson Home Builders Association hired him in 1958 to create preliminary planning for the city's eastward expansion, and advocate for zoning modifications east of the Pantano Wash. Developer Joseph Timan hired him along with architect Nicholas Sakellar and Brazilian planner Lucio Costa to create community-based planning for the new Horizon City near El Paso. He was also involved in planning the first phases of the retirement community of Green Valley, south of Tucson.

Perhaps his most influential small-scale project was the Desert Museum Demonstration Garden, developed in the early 1960s in association with the Arizona-Sonora Desert Museum and Sunset Magazine. The project re-envisioned desert gardening to include more native plants, and gave wide exposure to landscape practices and planting types suitable for the hot and arid conditions of the southwest.

As swimming pools became ubiquitous in southern Arizona backyards, Greene played a role in the integration of landscape and swimming pool design. Of particular note were his innovative concepts for black bottomed and negative edge pools, which anticipated and facilitated pool design merging with more natural landscaping.

In 1966, Greene, with horticulturalist Warren Jones, founded the University of Arizona's Landscape Architecture program. He remained a member of the faculty for ten years.

His advocacy for public green space along major watercourses beginning in the late 1960s, and his master planning for the Santa Cruz River Park, were both instrumental in leading the Tucson community to recognize the value of its perennial washes as resources. He encouraged public ownership of desert floodways as greenbelts, rather than as utilitarian and waste areas.

Greene also played a leading role in the emergence of the planned mobile home community; he created park-like settings for new developments in Tucson and across the southwest.

His work was featured in Sunset Magazine, the New York Times, the Los Angeles Times, Architectural Record, Architectural Forum, and Time-Life Books.

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Why Criteria Consideration G Does Not Apply to this Nomination

From the National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation (p. 41, column 3):

"Examples of Properties that DO NOT Need to Meet Criteria Consideration G: Properties that Have Achieved Significance Within the Last Fifty Years

- A resource whose construction began over fifty years ago, but the completion overlaps the fifty year period by a few years or less.
- A resource that is significant for its plan or design, which is over fifty years old, but the actual completion of the project overlaps the fifty year period by a few years."

Orchard River is significant for its design, which began in 1971 and is more than 50 years old. This meets the standard of "A resource that is significant for its plan or design, which is over fifty years old, but the actual completion of the project overlaps the fifty year period by a few years." Construction of Orchard River began in 1972 and was completed in 1974. This nomination has been submitted to the National Register in 2022, 50 years after construction started, also meeting the standard of "A resource whose construction began over 50 years ago, but the completion overlaps the fifty year period by a few years or less."

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9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Archival Collections

Arizona Daily Star newspaper database, 1879-2017. Newspapers.com.

www.newspapers.com.

City of Tucson geographic information systems

https://maps2.tucsonaz.gov/Html5Viewer/?viewer=maptucson

City of Tucson plat maps database https://www.tucsonaz.gov/apps/maps-and-records/smp

City of Tucson Historic Preservation Office online resources

http://www.tucsonaz.gov/historic-preservation

Modern Architecture Preservation Project--Tucson; archive and database.

Orchard River Garden Park Association--archive.

Swaim Associates--archive.

Tucson Daily Citizen newspaper database, 1941-1977. Ancestry.com. www.ancestry.com

Selected Articles, Books, Publications

Ames, David L. "Interpreting Post-World War II Suburban Landscapes as Historical Resources." *Preserving the Recent Past*, edited by Deborah Slaton & Rebecca A. Schiffer. Washington, D.C.: Historic Preservation Education Foundation, 1995.

Anderson, Jae, Gina Chorover, Helen Erickson, Jennifer Levstik, Crystal Cheek and Ryan Sasso. "Arizona Inn," Historic American Landscape Survey No. AZ-09. https://www.tucsonaz.gov/files/preservation/Arizonalnn_AZ-9.pdf; 2013.

Architectural Resources Group. "Garden Apartments of Los Angeles." Los Angeles Conservancy. 2012.

Arizona Daily Star (ADS). Tucson.

- 1940 Big Apartment will be Built. 31 July.
- 1941 Concrete Adobe Blocks Make Attractive Homes. 15 June.
- 1955 Nurserymen Offer Fall Planting Suggestions. 2 Oct.
- 1962 New Apartment Project Set in Sierra Del Sol. 15 Oct.
- 1964 Orient Fits into Desert Background. (Charlotte Cardon) 7 June.
- 1972 Northside Rezoning Upheld. 9 Feb.
- 1973 Advertisement for Orchard River. 4 Mar.
- 1974 Four Awards for Swimming Pool Design. 10 Feb.
- 1975 Advertisement for Orchard River. 1 Feb.
- 1976 Advertisement for Casitas Castilian. 7 July.
- 1989 New Style Market. (Bonnie Henry) 27 Sept.

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1997 A Walk Through Time. (Ed Severson) 8 Feb.

2003 Guy Greene Obituary. 5 June.

Arizona Republic (AR). Phoenix.

1969 Motels Centered on Commerce. (Henry Fuller) 27 July.

1974 Doubletree to Blossom in Four States. (A. V. Gullette) 1 Sept.

2006 Samuel Kitchell Obituary. 16 Sept.

"Bungalow Court." Wikipedia; viewed 2018. https://en.wikipedia.org/wiki/Bungalow court.

Darby, Gordon; interview conducted by Chris Evans. 17 Jan. 2019

Elder, Daniel R.; interview conducted by Chris Evans. 18 Dec. 2018.

Evans, Chris, Jennifer Levstik and R. Brooks Jeffery. *Post-World War II Residential Subdivision Development in Tucson, Arizona 1945-1975. National Register of Historic Places Eligibility Assessment.* City of Tucson. 2016.

Evans, Chris and R. Brooks Jeffery. *Architecture of the Modern Movement in Tucson, Arizona 1945-1975.* (draft). Tucson: Modern Architecture Preservation Project, 2005.

Gregonis, Linda. *Hardy Site at Fort Lowell Park*. University of Arizona Press. 1997; revised 2011.

Modern Architecture Preservation Project--Tucson. website: http://capla.arizona.edu/mapptucsonorg/; viewed in 2019.

Modica, Anthony; interview conducted by Chris Evans. 18 Sept. 2018.

Mottschall, Paul J.; interview conducted by Chris Evans. 18 Sept. 2018.

Nequette, Anne M. and R. Brooks Jeffery. *A Guide to Tucson Architecture*. Tucson, Arizona: University of Arizona Press, 2002.

Neumann, Christina, and Bob Vint. Southwest Housing Traditions: Designs, Materials, Performance. Housing and Urban Development 2005.

Pima County: Arizona State Inventory Form for Arizona Site BB:9:14 in the Fort Lowell Historic District; visited Fall 2018. https://maps2.tucsonaz.gov/preservation/inventoryforms/IL FtLowell-FtLowellPark.pdf.

Pope, Bonnie. "Bungalow Courts of San Diego, California." Save Our Heritage Organisation. 2005.

Poster Frost Associates. "Historic Fort Lowell Park: Master Plan and Restoration Plan." Public Presentation. 2012.

https://www.tucsonaz.gov/files/parks/docs/capital/Fort Lowell Final Master Plan Sept 2009.pdf

	r Garden Park	Pima, AZ			
Name of Property	y	County and State			
Pry, Mar	k. "Villa Catalina National Register of Historic Places Registration	Form." 2009.			
Seaver, I	Seaver, Douglas L.; interview conducted by Chris Evans. 1 Oct. 2018.				
Swaim, F	Robert; interview conducted by Richard Franz-Under. 17 Oct. 201	7.			
Swaim, F	Robert; interview conducted by Chris Evans. 28 Sept. 2018.				
Tucson L 1946 1950 1966 1972	Daily Citizen (TDC). Tucson. Advertisement referencing 2811 e. 6th St. 12 Oct. (Sale of 30 ft. strip of property to Pima County.) 16 May. New Ideas in Education. (Jim Johnson) 20 Aug. High Rise Projects get Council OK. 27 June. New AccountAnnouncement of Wettstein Advertising for Orch Nov.	ard River. 15			
1973	New Houses Nearly Ready. 4 Jan. Advertisement for Orchard River. 3 Feb. Construction Watcher has Field Day at Orchard River. (Mary Bin No End to Number of Workmen Needed to Build a House. (Mary Hundreds of Details Go into Housing Project. (Mary Brown) 8 Furnishings Final Touch. (Mary Brown) 9 Feb. Advertisement for Orchard River. 3 Feb.	ry Brown) 7 Feb.			
1974	William Stamm Home a Lesson in Graphics. (Mary Brown) 12 J Super Graphics 'Make' the Interior. 12 July. State Economy May Not Improve 'til Summer. (Edward Stiles) 3	•			
1975 2003	Advertisement for Orchard River. 14 Mar. Guy Greene Obituary. 6 June.				
Previous	s documentation on file (NPS):				
pre	eliminary determination of individual listing (36 CFR 67) has been eviously listed in the National Register	requested			
previously determined eligible by the National Register					
designated a National Historic Landmark					
recorded by Historic American Buildings Survey #recorded by Historic American Engineering Record #					
	orded by Historic American Landscape Survey #				
·	location of additional data:				
State Historic Preservation Office					
Oth	Other State agency				

chard River Garde	n Park	<u></u>	Pima, AZ
me of Property			County and State
Federal ag			
Local gov			
University	,		
X Other	anasitamu Orahard E	Pivor Cordon Bork Associat	ion: Cwaim Associates
name of r	epository: Orchard R	River Garden Park Associat	ion, Swaim Associates
Historic Resou	rces Survey Number ((if assigned):	
10. Geographic	 cal Data		
.			
Acreage of Pro	operty <u>16.2 acres</u>		
Use either the U	JTM system or latitude	/longitude coordinates	
Latitude/Longi	itude Coordinates		
Datum if other t			
(enter coordinat	es to 6 decimal places)		
1. Latitude:		Longitude:	
2. Latitude:		Longitude:	
3. Latitude:		Longitude:	
4. Latitude:		Longitude:	
0			
Or UTM Reference	200		
	ed on USGS map):		
Batam (marcate	a on obos map).		
NAD 192	7 or x NAD	1983	
1. Zone: 12S.	Easting: 512180	Northing: 3569240	
2. Zone: 12S	Easting: 512550	Northing: 3569240	
3. Zone: 12S	Easting: 512460	Northing: 3569040	
4. Zone: 12S	Easting: 512180	Northing: 3569040	

United States Department of the Interior	
National Park Service / National Register of	of Historic Places Registration Form
NPS Form 10-900	OMB Control No. 1024-0018

Orchard River Garden Park	Pima, AZ
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Verbal Boundary Description (Describe the boundaries of the property.)

The boundary of the nominated property is the legally recorded boundary lines of the Orchard River development, and is shown on the accompanying sketch map.

Boundary Justification (Explain why the boundaries were selected.)

The boundary of the nominated property reflects the extent of the original site and the legally recorded boundary lines of the Orchard River development, which includes all of the contributing buildings, structures and landscaping.

	County and State
state: AZ	zip code: <u>85716</u>
	state: <u>AZ</u>

Additional Documentation

Submit the following items with the completed form:

- Maps: A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- Additional items: (Check with the SHPO, TPO, or FPO for any additional items.)

List of Figures (within text)

- 1. Aerial photo
- 2. Aerial view of the southwest portion of Orchard River
- 3. View of primary driveway
- 4. View of one of the entry courtyards
- 5. View of parking ramadas and planar walls of townhomes
- 6. View of the back (patio) side of townhomes
- 7. Adobe ruins of Fort Lowell
- 8. Historic photo (1970s) of the courtyard side of townhomes
- 9. Historic photo (1970s) from the south side of Glenn St., looking north
- 10. Historic photo (1970s) of the courtyard side of townhomes
- 11. Terra Alta Apartments courtyard
- 12. Villa Catalina Apartments courtyard
- 13. Casitas de Castilian
- 14. Tucson Clinic
- 15. Wilmot Branch, Tucson Public Library

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- 16. Willmarth Residence
- 17. Mettler Dance Studio
- 18. Gordon (Ocotillo) Residence
- 19. Adobe ruins of Fort Lowell

(after section 11)

- 20. Newspaper advertisement for Orchard River, 8 Feb. 1973.
- 21. One of the quad plan variations
- 22. Landscape plan of one of the entry courtyard variations
- 23. Paving and planting plans of one of the entry courtyard variations
- 24. Partial site plan from architectural plans of Robert Swaim; pecan tree locations highlighted in gray

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Orchard River Garden Park

City or Vicinity: Tucson
County: Pima
State: AZ

Photographer: Chris Evans

Date Photographed: 2021

Photo 1

View of entry and primary driveway from south of Glenn St.; pecan trees are just beginning to leaf out in early spring. 2021

Photo 2

View from Glenn St. looking northwest. 2021

Photo 3

View of entry and primary driveway from Glenn St., looking northwest. 2021

Photo 4

View of primary driveway and swimming pool complex. 2021

Photo 5

Orchard River G	arden Park
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Name of Property

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View of parking ramadas and planar walls from Glenn St. 2021

Photo 6

View of back (patio) of townhomes from Glenn St. 2021

Photo 7

View of parking ramadas and planar walls from Glenn St. 2021

Photo 8

View of parking area, planar walls, and entry into one of the courtyards, looking northwest. 2021

Photo 9

View of primary driveway, looking west; pecan trees are just beginning to leaf out in early spring. 2021

Photo 10

View of back (patio) side of townhomes from primary driveway, looking southwest. 2021

Photo 11

View of back (patio) side of townhomes from primary driveway, looking north. 2021

Photo 12

View along primary driveway, looking west. 2021

Photo 13

View along primary driveway, looking southwest. 2021

Photo 14

View of back (patio) side of townhomes from primary driveway, looking north. 2021

Photo 15

View along primary driveway, looking east. 2021

Photo 16

View of parking ramadas, planar walls and pecan trees, looking southwest. 2021

Photo 17

View of parking area and pecan trees. 2021

Photo 18

View of back (patio) side of quad from primary driveway, looking southwest. 2021

Photo 19

View of back (patio) side of quad from primary driveway, looking southwest. 2021

Photo 20

View of planar walls and pecan trees from primary driveway, looking southeast. 2021

Orchard	River	Garden	Park

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Photo 21

View looking north along primary driveway, with Santa Catalina Mountains in the background; pecan trees are just beginning to leaf out in early spring. 2021

Photo 22

View along primary driveway showing planar walls of townhomes, parking ramadas, and pecan trees. 2021

Photo 23

View of planar walls, parking area and entry into courtyard, looking west. 2021

Photo 24

View into entry courtyard from parking area, looking west. 2021

Photo 25

View within entry courtyard, looking west. 2021

Photo 26

View within entry courtyard, looking east. 2021

Photo 27

View of one of the entry courtyards. 2021

Photo 28

View of one of the entry courtyards. 2021

Photo 29

View of one of the entry courtyards. 2021

Photo 30

View of one of the entry courtyards. 2021

Photo 31

View into entry courtyard from parking area, looking north. 2021

Photo 32

View of one of the entry courtyards. 2021

Photo 33

View of one of the entry courtyards. 2021

Photo 34

View of one of the entry courtyards. 2021

Photo 35

View of one of the entry courtyards. 2021

Orchard Ri	ver Gard	len Park
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Photo 36

View of one of the entry courtyards. 2021

Photo 37

View of one of the entry courtyards. 2021

Photo 38

View of one of the entry courtyards. 2021

Photo 39

View showing offset relationship at the back of entry courtyard with adjacent pedestrian spaces. 2021

Photo 40

Close up view of one of the parking ramadas. 2021

Photo 41

View of one of the entry courtyards in winter; dormant pecan trees allow more sun into entry courtyards. 2021

Photo 42

View of one of the entry courtyards in winter. 2021

Photo 43

Winter view showing the layered character of the planar masonry walls. 2021

Photo 44

Winter view showing the layered character of the planar masonry walls. 2021

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Name of Property



Fig. 20: Newspaper advertisement for Orchard River, 8 Feb. 1973.

Pima, AZ

County and State

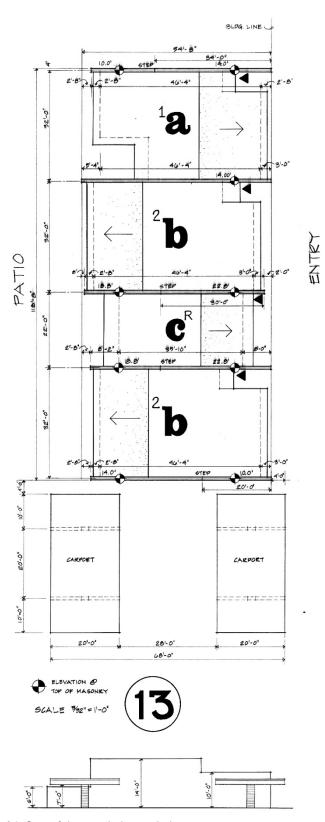


Fig. 21: One of the quad plan variations

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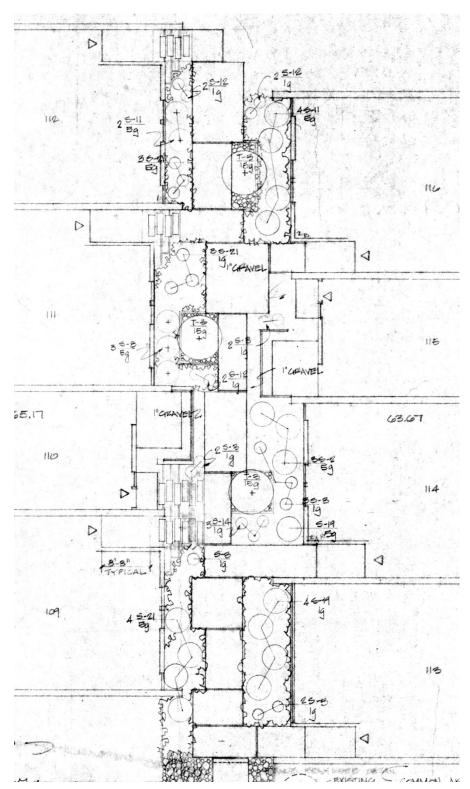


Fig. 22: Landscape plan of one of the entry courtyard variations

Orchard River Garden Park Name of Property Pima, AZ County and State LG' REEK; ODE THE DETAIL SA 66.80 F.F.E. 67.67 **\$132** EEE. 67.67 1-61 (Top) 版人 BK. er. YE ESTAIL LIL 67,00 bĸ.

Fig. 23: Paving and planting plans for one of the courtyard variations

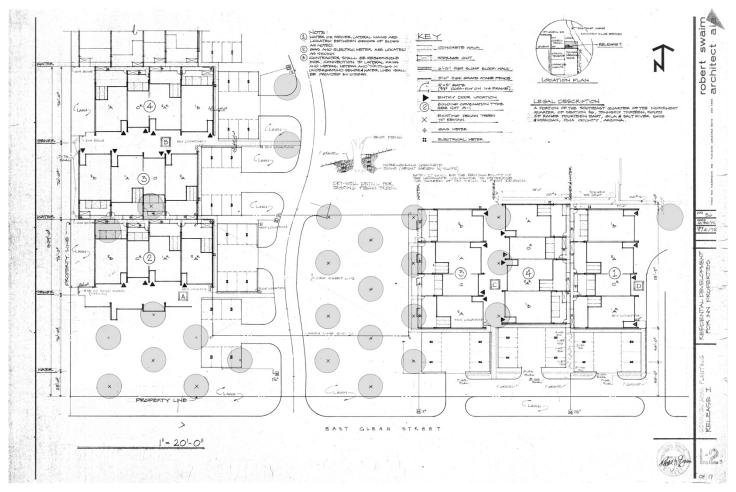
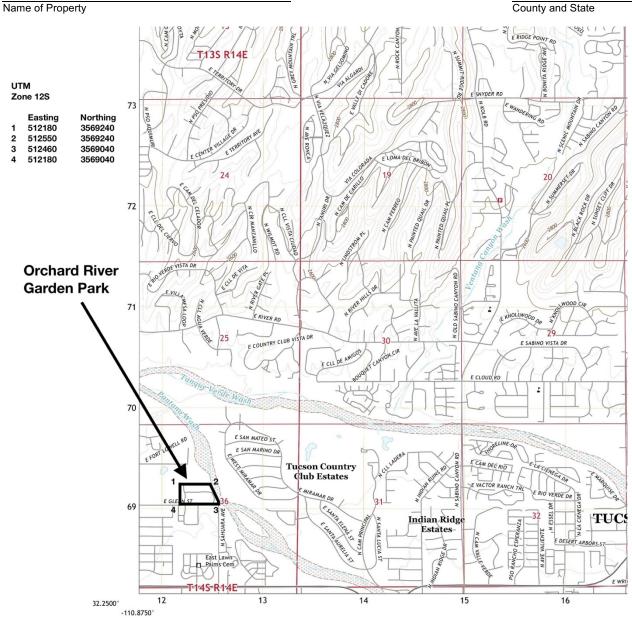


Fig. 24: Partial site plan from the architectural drawings of Robert Swaim; pecan tree locations highlighted in gray.



Pima, AZ
County and State



USGS Map: Excerpt of USGS Map showing location of Orchard River.

Orchard River Garden	Park
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Photographs



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Photo 5: View of parking ramadas and planar walls from Glenn St. 2021



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Photo 15: View along primary driveway, looking east. 2021



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Photo 27: View of one of the entry courtyards. 2021



Photo 28: View of one of the entry courtyards. 2021



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Photo 30: View of one of the entry courtyards. 2021



Photo 31: View into entry courtyard from parking area, looking north. 2021



Photo 32: View of one of the entry courtyards. 2021



Photo 33: View of one of the entry courtyards. 2021

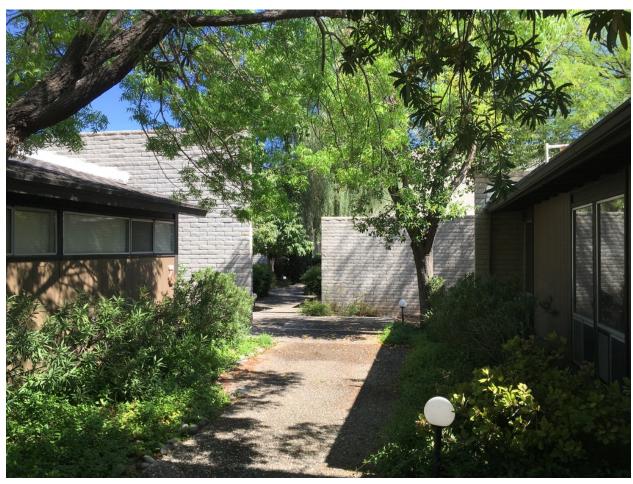


Photo 34: View of one of the entry courtyards. 2021



Photo 35: View of one of the entry courtyards. 2021



Photo 36: View of one of the entry courtyards. 2021



Photo 37: View of one of the entry courtyards. 2021



Photo 38: View of one of the entry courtyards. 2021

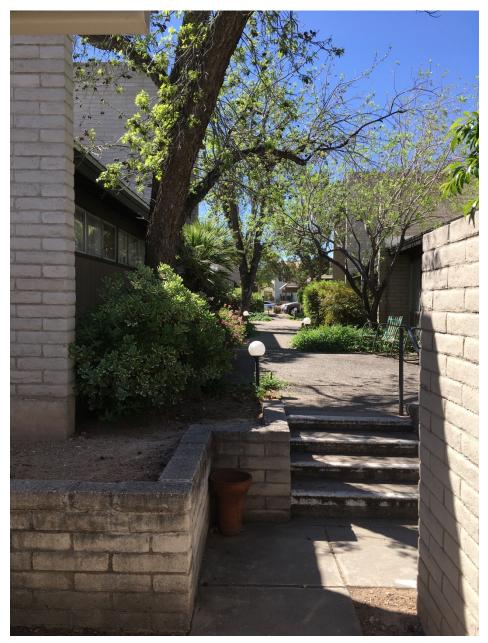


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