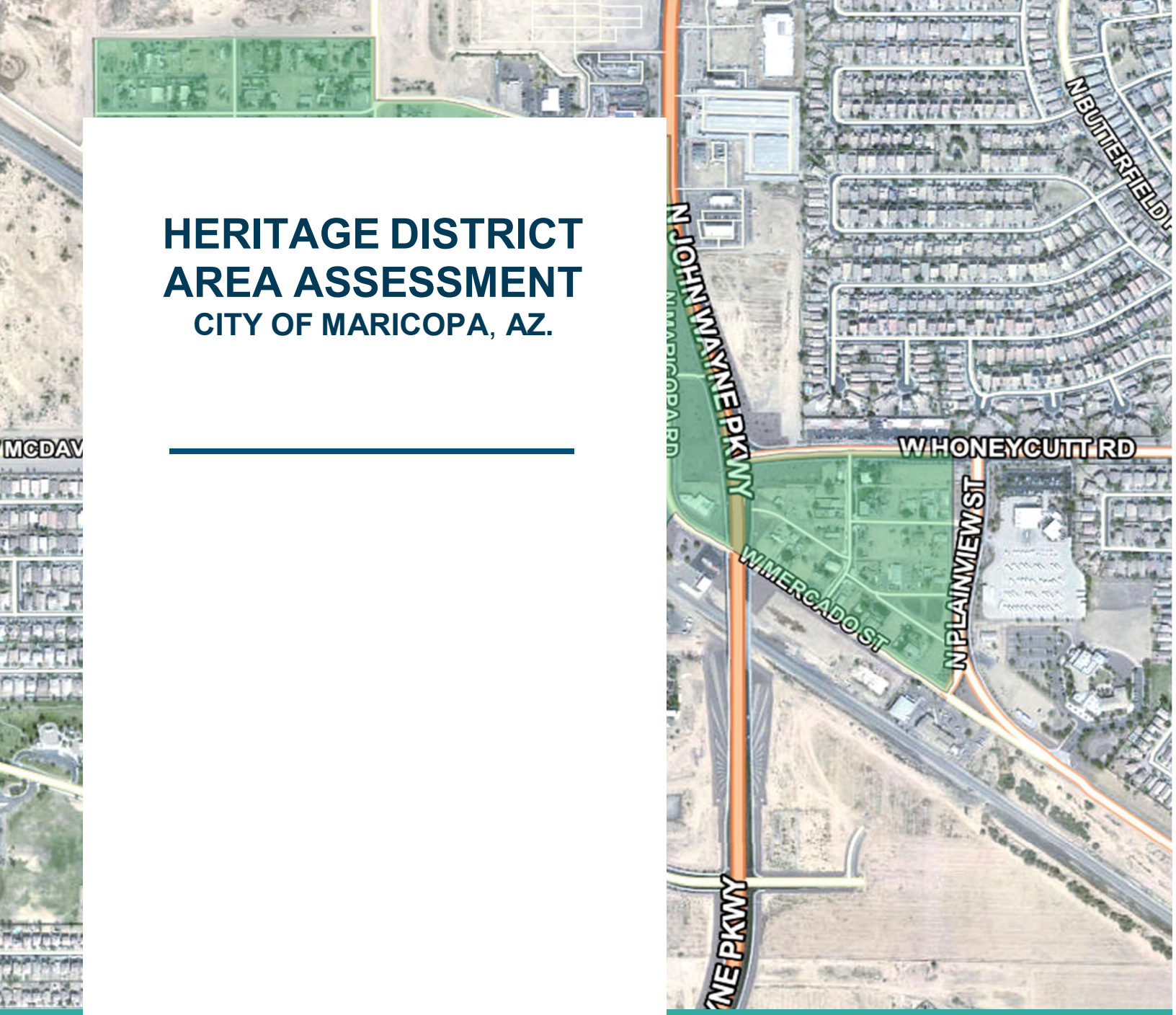


HERITAGE DISTRICT AREA ASSESSMENT

CITY OF MARICOPA, AZ.

SEPTEMBER 27, 2022

Authored by: CITY OF MARICOPA
Development Services Department

CITY OF MARICOPA
PROUD HISTORY · PROSPEROUS FUTURE

CONTENTS

1. INFRASTRUCTURE CONDITION SURVEY

1.1. SUMMARY

The purpose of this survey is to assess the current state of the infrastructure within the area known as “The Heritage District” (or “Old Town”) in the City of Maricopa in Arizona. The assessment of the conditions of the roads were performed using ASTM D6433-07 “Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys”.

It has been concluded that 85% of the roads are currently paved. However, 72% of the structural asphalt has a poor or very poor condition. Moreover, 81% of the roads do not have sidewalks and more than 60% of the streets need installation of curbs and gutters.

It was determined that the area has street lights. However, the majority of the light poles do not comply with the City’s lighting design as stated in section 18.95.040 of our city code. The lighting in certain areas of the neighborhoods is not adequate and does not meet lighting intensity requirements as outlined in section 18.95.030 of our city code.

1.2. BACKGROUND INFORMATION

The area includes three older neighborhoods, with homes built as early as 1960 many from 1970-1984. This was long before incorporation when the community was less than 5,000 people. Life was focused around the railroad and agriculture with most homes and businesses close to the intersection of the railroad and S.R. 347. The area is served by Maricopa Consolidated Domestic Water Improvement District for water and by Global Water for sewer; however, all older homes and many businesses are still on septic tanks. Upgrading inadequate infrastructure is a high priority. Much of the older area developed without the benefit of current zoning requirements for screening of parking and outside storage, paving and landscaping. There are unpaved streets in some areas and a lack of sidewalks and adequate streetlights. Many older homes would not meet current City code. There are many mobile homes, and some modular structures are used as temporary buildings for businesses. Some areas north of the tracks are also within a federally-defined floodplain.

Recognizing the importance of Old Town to the identity of Maricopa and the area's need for preservation and redevelopment, the City Council of Maricopa adopted boundaries for the Redevelopment Area (RDA) of Maricopa on September 2, 2008. The purpose of this survey is to evaluate the previously designated RDA and its revitalization efforts through the use of Community Development Block (CDBG) funds.

The City's goal is to create adequate infrastructure to improve current standards without creating unaffordable burdens on existing residents.

Objective 1: Explore affordable options to provide adequate and reliable water volumes and sewer service to all parcels in the RDA that are not adequately served at the present time.
Objective 2: Develop a plan to improve street pavement and road preservation.
Objective 3: Determine the cost to install sidewalks and streetlights at intersections for safety and accessibility of the residents.
Objective 4: Property acquisition to eliminate potential land development obstacles.

To provide safety features, adequate infrastructure and achieve Objectives 2 and 3, the City has begun paving portions of the unpaved streets, and continues its efforts to enhance these neighborhoods through the use of Community Development Block Grant (CDBG) funds.

1.3. MAP OF THE AREA SURVEYED

The area to be surveyed is depicted below, in Figures 1.1 and 1.2. A list of the streets within the redevelopment area is provided on Table 2.1.

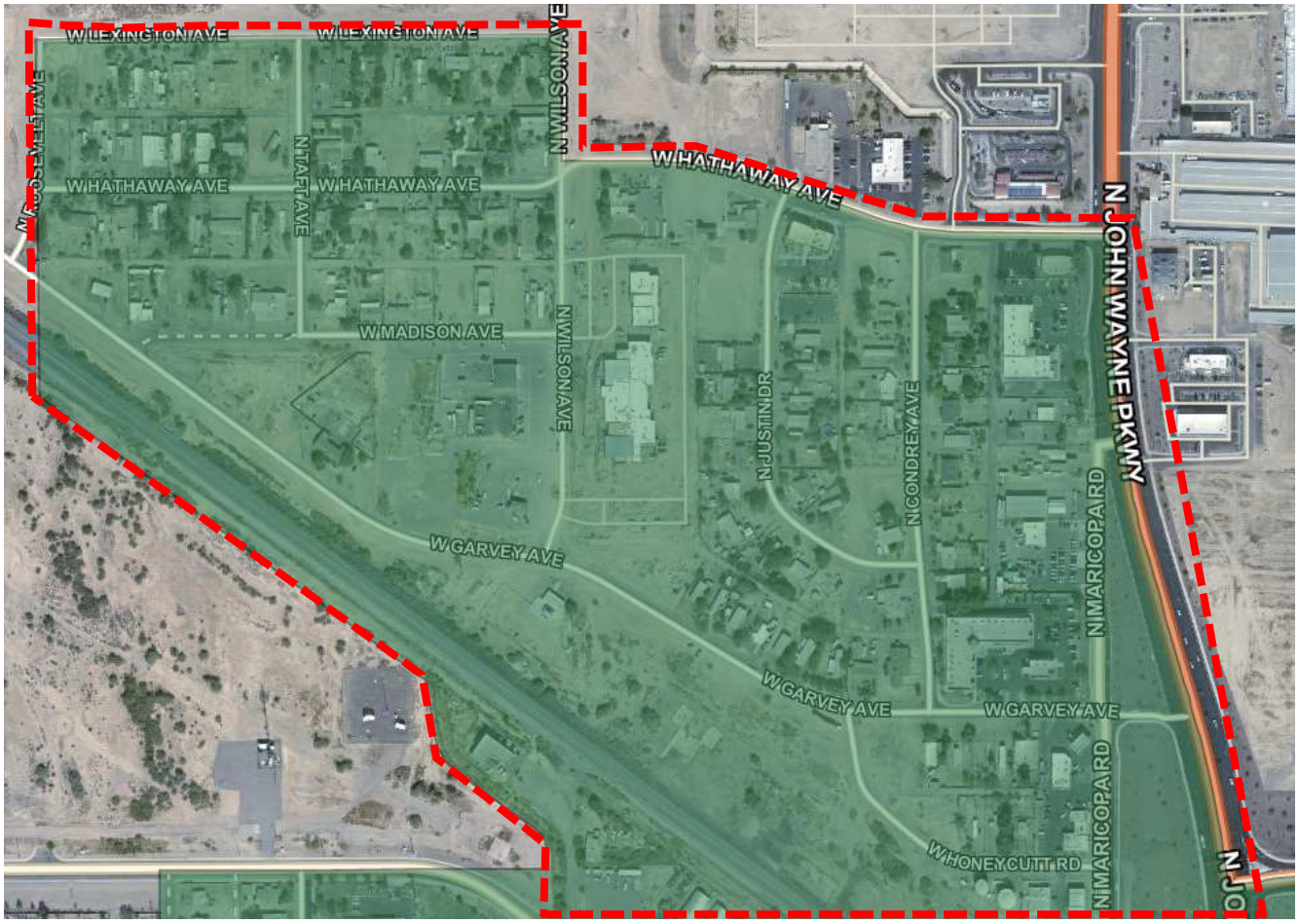


Figure 1.1 Redevelopment area to be surveyed (north of Honeycutt Rd).

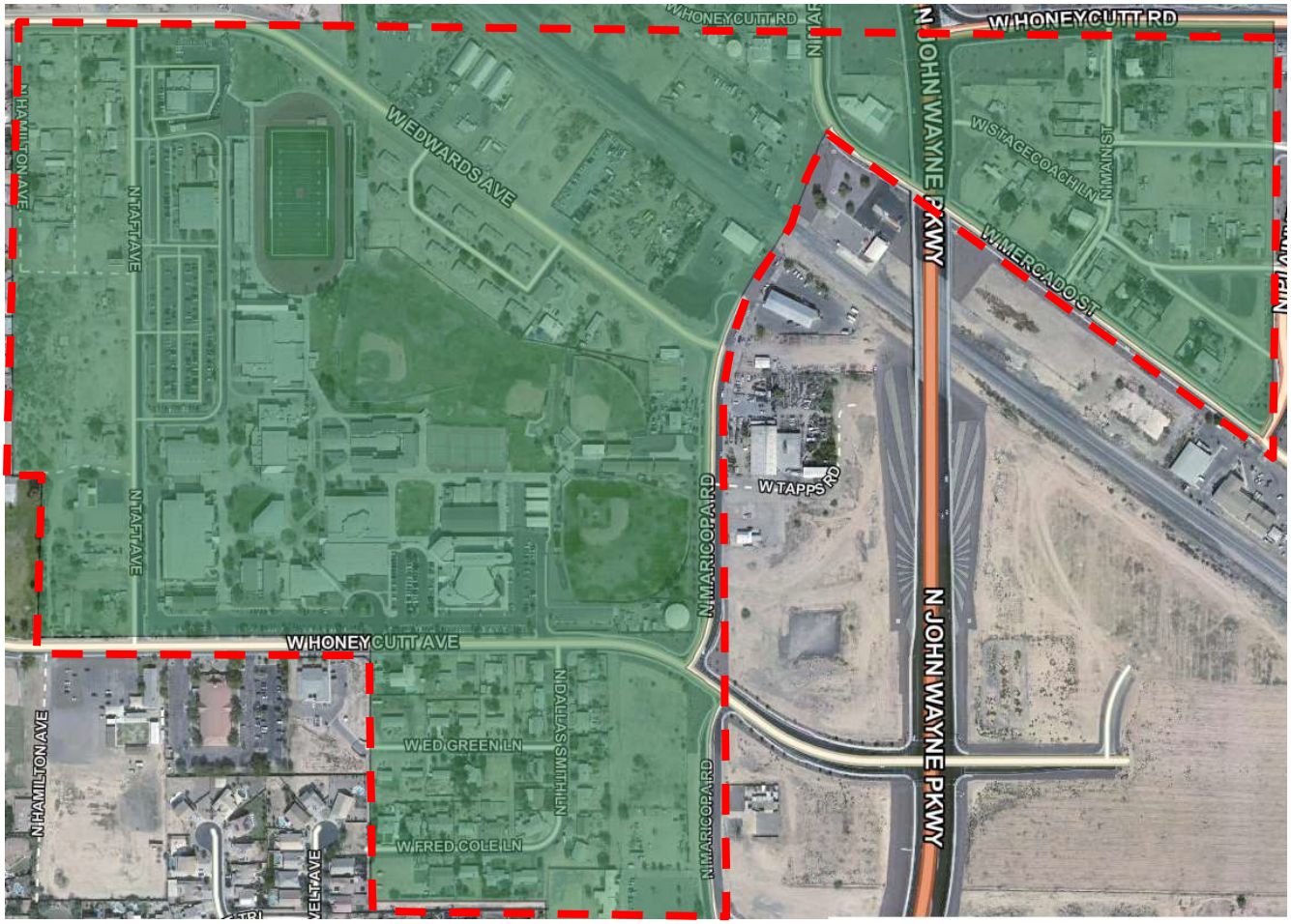


Figure 1.2 Redevelopment area to be surveyed (south of Honeycutt Rd).

Table 2.1: Streets surveyed.

STREET NAME	LENGTH (FT)	WIDTH (FT)
W LEXINGTON AVE	1300	20
W HATHAWAY AVE	1377	20
W MADISON AVE	1055	20
N ROOSEVELT AVE	560	20
N TAFT AVE (NORTH MCDAVID RD)	750	20
N TAFT AVE (SOUTH MCDAVID RD)	1830	20
N WILSON AVE	1310	20
W GARVEY AVE	3160	20
N JUSTIN DR	1200	20
N CONDREY AVE	1210	22
W HONEYCUTT RD	320	25
N ESCALADA DR.*	-	-
N MARICOPA RD.	1360	60
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	700	25
W EDWARDS AVE	1670	30
D DALLAS SMITH LN	590	35
W ED GREEN LN	563	35
W FRED COLE LN	535	35
N MAIN STREET	775	20
W STAGE COACH LN	500	20
W HERITAGE LN	480	20
W CESAR CHAVEZ LN	537	20
W BURKETT AVE	437	25

*Street to be abandoned by the City. It will be converted into a linear park.

1.4. METHOD OF ANALYSIS

The assessment of the street lights was performed by visual inspection and compared with city code section 18.95.040 “All public and private streets shall adhere to and install the minimum required streetlights per the city’s Design Standard Manual and shall also be of a decorative style as deemed acceptable by the city of Maricopa.” The city’s Design Standard Manual section 8.3. B3-B4 states “Local street streetlights a. Required for all new construction. b. Shall be located at end of blocks, midblock, and intersections (including trail intersections). c. Shall be mounted at a height of fifteen feet (15’). 4. Collector street streetlights a. Shall be spaced at 300 feet and at midblock crossings or trail intersections. b. Shall be mounted at a height of twenty feet (20’)”
The survey and visual inspection conducted determined number of existing street lights, location, and decorative style of streets lights and poles.

The assessment of the conditions of the roads were performed using ASTM D6433-07 “Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys”. This practice covers the determination of roads and parking lots pavement condition through visual surveys using the Pavement Condition Index (PCI) method. The PCI for roads and parking lots was developed by the U.S. Army Corps of Engineers. It is further verified and adopted by DOD and APWA.

The PCI is a numerical rating of the pavement condition that ranges from 0 to 100 with 0 being the worst possible. Pavement condition rating is a verbal description of pavement condition as a function of the PCI value that varies from “failed” to “excellent” as shown on Figure 2.1.

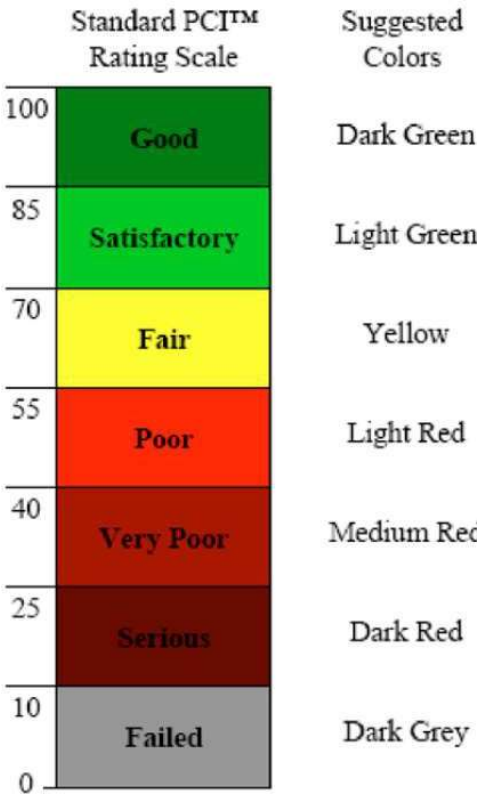


Figure 2.1 – Pavement Condition Index (PCI), Rating Scale, and Suggested Colors.

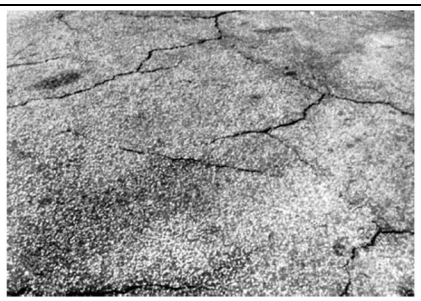
The survey and visual inspection of a sample determines the level of pavement distress which are

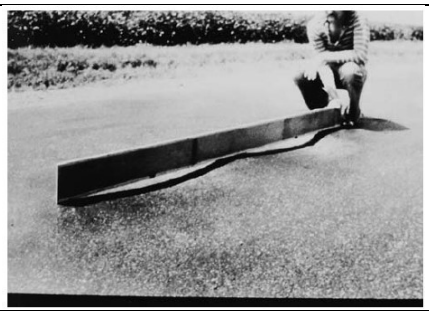
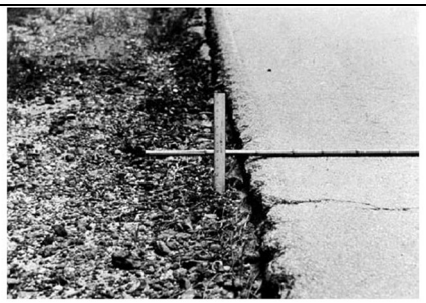
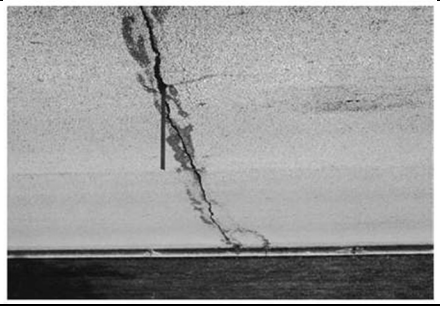
external indicators of pavement deterioration caused by loading, environmental factors, construction deficiencies, or a combination thereof. Typical distresses are cracks, rutting, and weathering of the pavement surface. The quantity of the distress is measured and used to calculate the PCI for each sample unit of the road. The PCI of the pavement section is determined based on the PCI of a sample unit within a section of the road.

The PCI is a numerical indicator that rates the surface condition of the pavement. The PCI provides a measure of the present condition of the pavement based on the distress observed on the surface of the pavement, which also indicates the structural integrity and surface operational condition (localized roughness and safety). The PCI cannot measure structural capacity nor does it provide direct

measurement of skid resistance or roughness. It provides an objective and rational basis for determining maintenance and repair needs and priorities. Continuous monitoring of the PCI is used to establish the rate of pavement deterioration, which permits early identification of major rehabilitation needs. The PCI provides feedback on pavement performance for validation or improvement of current pavement design and maintenance procedures.

The following table has been taken from ASTM D6433 and summarizes the types of distresses evaluated:

TYPE OF DISTRESS	DESCRIPTION	PICTURE WITH EXAMPLE OF DISTRESS
Alligator Cracking	Alligator or fatigue cracking is a series of interconnecting cracks caused by fatigue failure of the asphalt concrete surface under repeated traffic loading.	
Bleeding	Bleeding is a film of bituminous material on the pavement surface that creates a shiny, glasslike, reflecting surface that usually becomes quite sticky	
Block Cracking	Block cracks are interconnected cracks that divide the pavement into approximately rectangular pieces. The blocks may range in size from approximately 0.3 by 0.3 m (1 by 1 ft) to 3 by 3 m (10 by 10 ft).	
Bumps and Sags	Bumps are small, localized, upward displacements of the pavement surface. They are different from shoves in that shoves are caused by unstable pavement.	

Depression	Depressions are localized pavement surface areas with elevations slightly lower than those of the surrounding pavement. In many instances, light depressions are not noticeable until after a rain, when ponding water creates a "birdbath" area; on dry pavement, depressions can be spotted by looking for stains caused by ponding water.	
Corrugation	Corrugation, also known as "washboarding", is a series of closely spaced ridges and valleys (ripples) occurring at fairly regular intervals, usually less than 3 m (10 ft) along the pavement.	
Edge Cracking	Edge cracks are parallel to and usually within 0.3 to 0.5 m (1 to 1.5 ft) of the outer edge of the pavement. This distress is accelerated by traffic loading and can be caused by frost-weakened base or subgrade near the edge of the pavement.	
Lane/shoulder drop-off	Lane/shoulder drop-off is a difference in elevation between the pavement edge and the shoulder.	
Longitudinal and transverse cracking	Longitudinal cracks are parallel to the pavement's centerline or laydown direction.	

Patching and utility cut patching	A patch is an area of pavement that has been replaced with new material to repair the existing pavement. A patch is considered a defect no matter how well it is performing (a patched area or adjacent area usually does not perform as well as an original pavement section).	
Potholes	Potholes are small—usually less than 750 mm (30 in.) in diameter—bowl-shaped depressions in the pavement surface. They generally have sharp edges and vertical sides near the top of the hole. When holes are created by high-severity alligator cracking, they should be identified as potholes, not as weathering.	
Polished aggregate	This distress is caused by repeated traffic applications. Polished aggregate is present when close examination of a pavement reveals that the portion of aggregate extending above the asphalt is either very small, or there are no rough or angular aggregate particles to provide good skid resistance.	
Shoving	Shoving is a permanent, longitudinal displacement of a localized area of the pavement surface caused by traffic loading. When traffic pushes against the pavement, it produces a short, abrupt wave in the pavement surface.	
Slippage cracking	Slippage cracks are crescent or halfmoon shaped cracks, usually transverse to the direction of travel. They are produced when braking or turning wheels cause the pavement surface to slide or deform.	
Swell	Swell is characterized by an upward bulge in the pavement's surface, a long, gradual wave more than 3 m (10 ft) long. Swelling can be accompanied by surface cracking. This distress usually is caused by frost action in the subgrade or by swelling soil.	

Weathering and raveling	Weathering and raveling are the wearing away of the pavement surface due to a loss of asphalt or tar binder and dislodged aggregate particles.	

1.5. RESULTS OF SURVEY

Survey results are summarized on Tables 4.1 through 4.6.

Table 4.1: Paved Roads

STREET	LENGTH (FT)	WIDTH (FT)	PAVED (Y/N)
W LEXINGTON AVE	1300	20	Y
W HATHAWAY AVE	1377	20	Y
W MADISON AVE	1055	20	CHIPSEAL
N ROOSEVELT AVE	560	20	Y
N TAFT AVE (NORTH MCDAVID RD)	750	20	Y
N TAFT AVE (SOUTH MCDAVID RD)	1830	20	Y
N WILSON AVE	1310	20	Y
W GARVEY AVE	3160	20	Y
N JUSTIN DR	1200	20	Y
N CONDREY AVE	1210	22	Y
W HONEYCUTT RD	320	25	Y
N MARICOPA RD.	1360	60	Y
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	700	25	N
W EDWARDS AVE	1670	30	Y
D DALLAS SMITH LN	590	35	Y
W ED GREEN LN	563	35	Y
W FRED COLE LN	535	35	Y
N MAIN STREET	775	20	Y
W STAGE COACH LN	500	20	CHIPSEAL
W HERITAGE LN	480	20	CHIPSEAL
W CESAR CHAVEZ LN	537	20	CHIPSEAL
W BURKETT AVE	437	25	N

Total area of roads: ***61,167 SY***

Area Paved with structural asphalt section (excludes chip-sealed roads): ***52,293 SY***

Percentage of roads that are paved: 85%

Table 4.2: Condition of Pavement Based on ASTM D6433

(See appendix “A” for more information)

STREET	PAVEMENT CONDITION
W LEXINGTON AVE	POOR
W HATHAWAY AVE	POOR
W MADISON AVE	N/A
N ROOSEVELT AVE	FAIR
N TAFT AVE (NORTH MCDAVID RD)	POOR
N TAFT AVE (SOUTH MCDAVID RD)	VERY POOR
N WILSON AVE	POOR
W GARVEY AVE	VERY POOR
N JUSTIN DR	POOR
N CONDREY AVE	FAIR
W HONEYCUTT RD	POOR
N MARICOPA RD.	POOR
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	N/A
W EDWARDS AVE	POOR
D DALLAS SMITH LN	FAIR
W ED GREEN LN	FAIR
W FRED COLE LN	FAIR
N MAIN STREET	GOOD
W STAGE COACH LN	N/A
W HERITAGE LN	N/A
W CESAR CHAVEZ LN	N/A
W BURKETT AVE	N/A

Area of roads with pavement in GOOD condition: 1,722 SY (**3%**)

Area of roads with pavement in FAIR condition: 10,767 SY (**21%**)

Area of roads with pavement in POOR condition: 28,716 SY (**55%**)

Area of roads with pavement in VERY POOR condition: 11,089 SY (**21%**)

Percentage of roads that are in poor or very poor condition: **39,805 SY (76%)**

Table 4.3: Sidewalks Inventory and Current Conditions

STREET	LENGTH (FT)	5' SIDEWALK (SF)	% OF STREET WITH SIDEWALK*
W LEXINGTON AVE	1300	0	0%
W HATHAWAY AVE	1377	0	0%
W MADISON AVE	1055	0	0%
N ROOSEVELT AVE	560	0	0%
N TAFT AVE (NORTH MCDAVID RD)	750	0	0%
N TAFT AVE (SOUTH MCDAVID RD)	1830	9,150	50%
N WILSON AVE	1310	0	0%
W GARVEY AVE	3160	0	0%
N JUSTIN DR	1200	0	0%
N CONDREY AVE	1210	1,050	9%
W HONEYCUTT RD	320	0	0%
N MARICOPA RD.	1360	13,600	100%
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	700	0	0%
W EDWARDS AVE	1670	10,020	60%
D DALLAS SMITH LN	590	0	0%
W ED GREEN LN	563	0	0%
W FRED COLE LN	535	0	0%
N MAIN STREET	775	7,750	100%
W STAGE COACH LN	500	0	0%
W HERITAGE LN	480	0	0%
W CESAR CHAVEZ LN	537	0	0%
W BURKETT AVE	437	0	0%

*Note: condition of existing sidewalks is good or satisfactory.

Required area of sidewalk (all streets with 5' sidewalk each side): **24,688 SY**

Total area of existing sidewalk: **4,618 SY**

Total area without sidewalk: **20,070 SY (81%)**

Table 4.4: Curb Inventory and Current Conditions

STREET	LENGTH (LFT)	CURB (LFT)	% OF STREET WITH CURB*
W LEXINGTON AVE	1300	1300	50%
W HATHAWAY AVE	1377	0	0%
W MADISON AVE	1055	0	0%
N ROOSEVELT AVE	560	560	50%
N TAFT AVE (NORTH MCDAVID RD)	750	0	0%
N TAFT AVE (SOUTH MCDAVID RD)	1830	1830	50%
N WILSON AVE	1310	0	0%
W GARVEY AVE	3160	0	0%
N JUSTIN DR	1200	0	0%
N CONDREY AVE	1210	2420	100%
W HONEYCUTT RD	320	0	0%
N MARICOPA RD.	1360	2720	100%
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	700	0	0%
W EDWARDS AVE	1670	1670	50%
D DALLAS SMITH LN	590	1100	93%
W ED GREEN LN	563	0	0%
W FRED COLE LN	535	1070	100%
N MAIN STREET	775	1550	100%
W STAGE COACH LN	500	1000	100%
W HERITAGE LN	480	960	100%
W CESAR CHAVEZ LN	537	1074	100%
W BURKETT AVE	437	0	0%
TOTAL	22,219	17,254	

*Note: condition of existing curb is good or satisfactory.

Total length of existing curb: **17,254 LF**

Required total length of Curb (curb on both sides of the streets): **44,438 LF**

Total length without curb: **27,184 LF (61%)**

Table 4.5: Gutter Inventory and Conditions

STREET	LENGTH (FT)	GUTTER (LFT)	% OF STREET WITH GUTTER
W LEXINGTON AVE	1300	1300	50%
W HATHAWAY AVE	1377	0	0%
W MADISON AVE	1055	0	0%
N ROOSEVELT AVE	560	560	50%
N TAFT AVE (NORTH MCDAVID RD)	750	0	0%
N TAFT AVE (SOUTH MCDAVID RD)	1830	1830	50%
N WILSON AVE	1310	0	0%
W GARVEY AVE	3160	0	0%
N JUSTIN DR	1200	0	0%
N CONDREY AVE	1210	2420	100%
W HONEYCUTT RD	320	0	0%
N MARICOPA RD.	1360	2720	100%
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	700	0	0%
W EDWARDS AVE	1670	1670	50%
D DALLAS SMITH LN	590	1100	93%
W ED GREEN LN	563	0	0%
W FRED COLE LN	535	1070	100%
N MAIN STREET	775	1550	100%
W STAGE COACH LN	500	0	0%
W HERITAGE LN	480	0	0%
W CESAR CHAVEZ LN	537	0	0%
W BURKETT AVE	437	0	0%

*Note: condition of existing gutters is good or satisfactory.

Total length of existing gutter: **14,220 LF**

Required total length of Curb (curb on both sides of the streets): **44,438 LF**

Total length without gutter: **30,218LF (68%)**

Table 4.6: Lighting Standards

STREET NAME	No. of Current Street Lights	Meets Code
W LEXINGTON AVE	3	N
W HATHAWAY AVE	2	N
W MADISON AVE	0	N
N ROOSEVELT AVE	3	Y
N TAFT AVE (NORTH MCDAVID RD)	3	Y
N TAFT AVE (SOUTH MCDAVID RD)	2	N
N WILSON AVE *lights all in front of Pinal County Office	*4	N
W GARVEY AVE	3	N
N JUSTIN DR	3	N
N CONDREY AVE	0	N
N MARICOPA RD	4	N
N HAMILTON AVE (NORTH HONEYCUTT AVE.)	0	N
W EDWARDS AVE	0	N
D DALLAS SMITH LN	2	N
W ED GREEN LN	1	N
W FRED COLE LN	1	N
N MAIN STREET	4	Y
W STAGE COACH LN	1	N
W HERITAGE LN	1	N
W CESAR CHAVEZ LN	0	N
W BURKETT AVE	0	N

Percentage of streets without adequate lighting and not meeting city code: **85.71%**

Per city code section 18.95.040 “All public and private streets shall adhere to and install the minimum required streetlights per the city’s Design Standard Manual and shall also be of a decorative style as deemed acceptable by the city of Maricopa.” The city’s Design Standard Manual section 8.3. B3-B4 states “Local street streetlights a. Required for all new construction. b. Shall be located at end of blocks, midblock, and intersections (including trail intersections). c. Shall be mounted at a height of fifteen feet (15’). 4. Collector street streetlights a. Shall be spaced at 300 feet and at midblock crossings or trail intersections. b. Shall be mounted at a height of twenty feet (20’)”

2. PROPERTY ASSESSMENT

2.1 BACKGROUND

In November 2021 the City of Maricopa conducted a survey of 288 housing, commercial, and other buildings within the boundaries of the Redevelopment District Area (RDA). The purpose of the survey is to assess the condition of the City's housing stock, commercial properties, and the land surrounding each. The survey results will be utilized to identify blighted areas and to design revitalization and redevelopment activities to enhance those distressed areas.

The survey utilized a set methodology to ensure consistency and accuracy of the review process. The following criteria was established and utilized by the survey team.

2.2 METHODOLOGY

The survey utilized a set methodology to ensure consistency and accuracy of the review process. The following criteria was established and utilized by the survey team:

Occupancy

Identifies if a parcel is vacant or has a structure located on it. If a structure is present, it was determined if the structure was vacant or occupied.

1. Occupied Structure
2. Vacant Structure
3. Vacant Lot

Structure Condition

1. Standard Condition: Unit appears habitable and in good condition. Needs no exterior repairs.
2. Slightly Deteriorated: Unit appears habitable but needs minor, non-structural repairs or maintenance, such as painting or new roof shingles.
3. Deteriorated: Unit appears habitable but needs major, structural repairs such as new windows, walls or corrections to foundation, sagging roofs, porches, etc.
4. Dilapidated: Unit appears uninhabitable and is badly deteriorated and in need of major structural repairs. Considerable effort and expenses would be required to rehab the structure, and rehab is probably not structurally or economically feasible.

Yard/Lot Condition

1. Acceptable: Yard has no overgrown grass or weeds and is free from any litter, trash, debris, junk, and inoperable vehicles. Has some type of soil cover like gravel, grass or any other form of landscape or hardscape.
2. Slightly Unacceptable: Yard has grass and/or weeds in excess of 12 inches and/or small amounts of trash, junk, or one inoperable vehicle that would require minimum effort to remove.
3. Poor Condition: Yard has grass and/or weeds in excess of 12 inches and/or large amounts of trash, outdoor storage, junk and inoperable vehicles that would require considerable effort to remove.

2.3 SURVEY RESULTS

Occupancy

Occupancy	Residential	Commercial	Surveyed	Percentage
Occupied Structure	165	26	191	66%
Vacant Structure	17	5	22	8%
Vacant Lot	75	0	75	26%
Total	257	31	288*	100%

*Results based on 288 individual parcels of property which represents the total number of parcels that were surveyed.

Structure Condition

The survey results indicate that the sum of all structures identified as slightly deteriorated, deteriorated, and dilapidated represent 60% of the surveyed structures. This demonstrates that a majority of the structures are in a condition of decline. Almost all of the housing was built or located prior to incorporation. A majority of the homes would not meet current codes. There are many mobile homes not subject to local government construction codes. Many would not meet current state codes for manufactured housing. There is evidence of structural deterioration. All observations were made offsite.

Condition	Residential	Commercial	Surveyed	Percentage
Standard Condition	63	23	86	40%
Slightly Deteriorated	59	0	59	28%
Deteriorated	38	5	43	20%
Dilapidated	22	3	25	12%
Total	182	31	213*	100%

*Results based on 213 parcels of property that represent the total number of structures that were surveyed, 75 vacant lots were excluded.

Yard/Lot Condition

The survey determined that 64% of the yards/lots are in acceptable condition according to the established criteria. However, it was noted that most of the yards do not have any type of soil cover like gravel, grass or any other form of landscape or hardscape that prevents dust, erosion or creates enhanced aesthetics. The survey found that 36% of the yards or lots are in slightly unacceptable or poor condition.

Condition	Residential	Commercial	Surveyed	Percentage
Acceptable	159	24	183	64%
Slightly Unacceptable	64	5	69	24%
Poor	34	2	36	13%
Total	257	31	288*	100%

*Results based on 288 individual parcels of property which represents the total number of parcels that were surveyed.

3. DIVERSITY OF OWNERSHIP

This section discusses the parcels under multiple ownership. These ownership patterns act as a potential obstacle to the assemblage of land for redevelopment. The unusual conditions of title increase the cost of development and deter private sector investment.

Diversity of ownership can prevent the free alienability of land. This includes factors such as multiple owners of a single property, single owners of multiple property, and complex title issues resulting from life estates and heir property. These ownership conditions can be a hindrance to land assembly in support of redevelopment projects and make it difficult to accommodate potential redevelopment projects that comply with current land development codes.

For the purpose of this study, all parcels that have more than one owner listed on a single property in the City of Maricopa GIS database, are assumed to be examples of multiple ownership. The GIS database indicates that 39% of parcels in the Heritage District have a particular ownership condition that can result in obstacles to facilitate investment and appropriate development in the area.

Multiple Ownership	Parcel Count	Percent
Two owners listed	41	14%
Parcels owned by single owners of multiple properties	71	25%
Parcels owned by single ownership	176	61%
Total	288	100%

*Results based on 288 individual parcels of property which represents the total number of parcels

4. UNSANITARY OR UNSAFE CONDITIONS

The Heritage District includes neighborhoods built long before incorporation in 2003, and, as a result, all homes and many businesses are on individual septic tanks. Pinal County's Aquifer Protection Division, regulates all aspects of construction, permitting and inspections of onsite wastewater disposal systems such as septic tanks. Records provided by Pinal County indicate that the septic installations range from 1958 thru 2018 with minimum replacements. Septic tanks must be pumped regularly and replaced periodically. Unfortunately, Pinal was unable to locate septic records for majority of the parcels, this means that 57% of the current septic tanks may have failures that are not documented and/or potentially in need of replacement. The lack of adequate sewer system has become an issue for future development. Limited sewer capacity has constrained the development and redevelopment potential of parcels in the Heritage District. Development of a separate sewer system to serve the area would be very expensive. Moreover, the absence of sanitary sewer service for all housing is a health and safety hazard.

	Septic Tanks	**Percent**
Records of Installation	103	36%
Records of Replacement	21	7%
No Records	164	57%
Total	288	100%

APPENDIX A: FIELD SHEETS AND PICTURES

FIGURE 3.1. EXISTING LIGHT POLES

FIGURE 3.2. EXISTING LIGHT POLES

FIGURE 3.3: MADISON AVE.

FIGURE 3.4: GARVEY AVE.

FIGURE 3.5: HATHAWAY AVE.

FIGURE 3.6: TAFT AVE (NORTH).

FIGURE 3.7: GARVEY AVE.

FIGURE 3.8: WILSON AVE.

FIGURE 3.9: LEXINGTON AVE.

FIGURE 3.10: LEXINGTON AVE.

FIGURE 3.11: GARVEY AVE.

FIGURE 3.12: HERITAGE LN.

FIGURE 3.13: MADISON AVE.

FIGURE 3.14: HATHAWAY AVE.

FIGURE 3.15:

FIGURE 3.16:

FIGURE 3.17: EDWARDS AVE.

FIGURE 3.18: EDWARDS AVE.

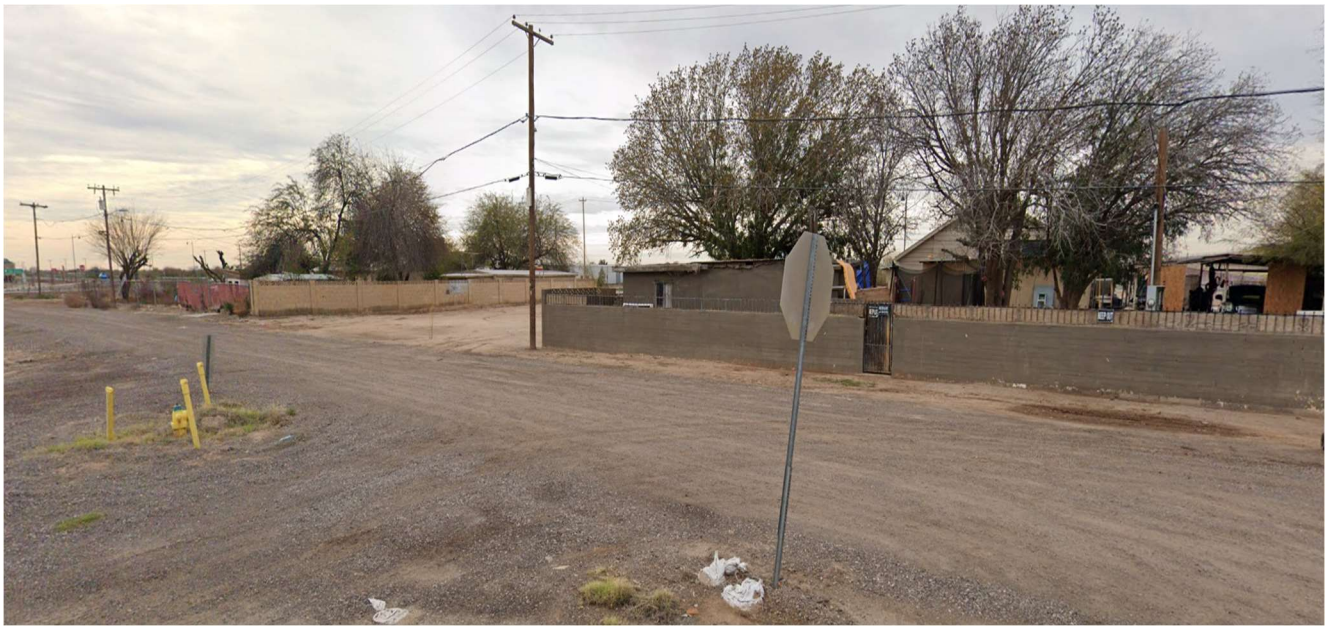


FIGURE 3.19