Report Prepared For:

Las Casas Contentas
Improvement Association

2019 ROOF INSPECTION REPORT

Property Address:

Las Casas Contentas
8450 N. 59th Avenue
Glendale, Arizona 85302

Report Prepared By:
Arizona's Roof Consultant
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July 10, 2019

Ordered By:
Joel Broder
Las Casas Contentas Improvement Assoc.
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Property Address:
Las Casas Contentas - 20 units
8450 N. 59th Ave.
Glendale, Arizona 85302

Inspector: Tim Broderick

The foregoing is an opinion of the general quality and condition of the roofing material.

Type of Roof:

There are three types of roof systems on the low-slope decks on the three different buildings that were inspected. Two of the three buildings have 8 residential units that make up the building. Six of the eight units are one story units and the remaining are two story units. The third building is a two story building containing four residential units.

The three types of roof systems existing on these buildings/units are as follows:

Urethane Foam Roof System
Built-Up Roof System
APP Modified Bitumen Roof System

All buildings and units have vertical tile mansards on different areas both on the front and rear of each unit. The tile mansards are covered with a one piece concrete tile system with a 30# underlayment.

Synopsis:

On June 18th and 21st, 2019 Tim Broderick of Arizona's Roof Consultant, LLC inspected all roof decks on the three buildings at Las Casas Contentas.

There are a total of 20 separate units within the three buildings and there are three distinct types of roofing systems.

All of the urethane foam roof systems have been coated with a white acrylic elastomeric coating. The Built-up Roof systems have one of the following type of surfacing materials, brown granulated cap sheet, aluminum reflective coating or white acrylic elastomeric coating. The APP modified bitumen roof systems have been coated with a white acrylic elastomeric coating.

Per local building codes it is prohibited to have more than two roof systems installed on any one roof deck. Of the 20 units in this community seven have at least three layers of roofing existing, eight units have two roofing systems which currently exist, and five have a single roofing system existing.

Of the five units which have a single roof system four of those units' systems are in poor condition.

Seven of the eight units which have two roof systems existing are in poor condition.

In addition to being in violation of code specifications the six of the seven units that have three roofing systems existing are in poor to very poor condition.

All roofing systems on all units are installed over a wood deck.

The tile mansard decks are in fair to poor condition. There is a single layer of tile on each mansard.

Inspection/Evaluation:

A spread sheet has been provided at the end of this report itemizing the type of roof systems (on low-slope decks) on each unit, the number of roof systems on each unit, the condition of the existing roof system, the total mils of coating existing on each roof system, and if applicable the thickness of the foam roof system and/or the insulated recover board system.

Urethane Foam Roof System:

Six of the 20 units have a foam roofing system existing. Of those six units there are two units that the foam is the only existing roofing system on the unit. On the other four units the foam roof system is the second or third roofing system that has been installed.

Two roof systems is the maximum number of roof systems allowed per local building codes.

Four of the six foam systems are in poor condition and the other two are in fair condition.

Built-Up Roof System:

There are 13 units with a Built-Up Roof System existing. Two of the 13 units have a single layer of a roofing existing and six units have two layers. The remaining five units have three or more systems existing and are in violation of local building codes.

Twelve of the 13 BUR systems are in poor condition and one is in fair condition.

APP Modified Bitumen Roof System:
There is one unit which is covered by an APP modified bitumen roofing system. The system is the second system to have been installed on this unit. The system is in poor condition.

The low-slope roofing systems were inspected paying special attention to all flashings and counter flashings, all roof top equipment, roof penetrations, skylights, and anything adversely affecting the condition of the roof.

The coatings on all roof systems were found to be 25 mils or less, most units had between 5 and 10 mils of roof coating.

Those units with 15 mils or less of coatings were experiencing a greater rate of deterioration to the coating as well as the roofing system itself.

All of the roof decks and roof systems had areas which pond water to some degree or another which accelerates the coating deterioration process.

On Building #1 the first story tile mansards have scuppers coming through the mansard, yet there is no scupper opening on the low-slope roof decks. It appears that at one time the scupper was designed to have water exit the low-slope roof deck through a scupper running through the parapet wall of the low-slope deck and out past the mansard deck. The low-slope deck parapet wall is now roofed over and there is no evidence of a scupper opening.

Please review photo pages for each individual unit which will show the areas of greatest concern for each of the units.

Following is a list of deficiencies and/or areas of concern that were found on one or more of the roof decks inspected.

1. There is an enormous amount of debris built up on several of the decks which impedes the flow of water off the roof, accelerates the deterioration of the roof coatings and ultimately the roof system itself.

2. There are some blisters in the roof systems which have cracked open and are allowing water penetration.

3. The coatings are deteriorated. Cracking, splitting and peeling of the coating is occurring, consequently leaving the roofing system below the coating exposed to additional UV rays and decreasing the life of the roof overall.

4. Splitting and cracking of the roofing membrane at deck level and the wall flashings allowing water penetration. The tops of the stucco wall have areas where the stucco itself has deteriorated and split apart. The underlying lath is exposed in some areas.

5. Numerous areas on most every unit pond water which accelerates the deterioration of the coatings and/or surfacing material.

6. There are t-top roof penetrations as well as soil pipe penetrations that do not extend the required 8” above the roof deck.

7. The seals around some of the roof penetrations have cracked open and are no longer in a watertight condition.

8. There is PVC condensate lines that are run through the scupper areas which impedes the proper flow of water off the roof and promotes additional debris build up in the area of the scupper.
9. The area where the scupper exits the wall on the outside of the wall is not sealed in a watertight manner. Some of the stucco pop-outs surrounding the scuppers have severe deterioration of the stucco occurring and the underlying lath can be seen leaving the area susceptible to water penetration.

10. There are a number of previous repairs performed on the foam roof systems where the materials used to perform the repair where not compatible with the foam system and the repairs are failing.

11. There was abandoned TV dish components and mounting equipment found on the roof tops which pose a puncture hazard to the roof systems. There is also a lot of abandoned cable lines that are promoting debris build up and impeding the proper flow of water off the roof.

12. There are TV dish units that have no mounting platforms used and the cinderblocks that the dish is mounted on is puncturing the roof. There are other dish units that have mounting platforms however there is no protective slip sheet under the platform.

13. All conduit type pipes which run across a low-slope roof system of any kind should have blocks under the pipe and a protective slip sheet under the blocks to protect the roofing system surfaces. There are numerous areas on these units there are no blocks and/or slip sheets protecting the roof.

14. Some HVAC units have the condensate drain malfunctioning and the rusty water is spilling over onto the roof system which is detrimental to the roof system. Some HVAC units have a large amount of debris built-up under the unit itself.

15. Some of the HVAC unit connections between the unit and the duct work are not in a watertight condition. A number of the units do not have a watertight seal around the base of the duct work at the roof deck.

Tile Systems:
The major deficiencies found with the tile mansards are missing, broken, and/or cracked field and trim tiles which has left the underlayment exposed. In some cases the decking was exposed as the underlayment had completely deteriorated.

The metal coping running from the parapet wall low-slope wall flashing up and over onto the top of the tile deck is lifting and the seams are separating on some units.

Recommendations:

- Keep the trees trimmed back in all areas near roof systems.
- Put together a comprehensive plan for roof replacement timelines taking into consideration any units with current leaks.
- Plan on replacing all roofs on all units within a specific building, i.e.: Building #3 (8401-8429 N. 59th Dr.), not just one unit at time.
- Tear off all existing roof systems down to wood decking, replace any rotted or deteriorated decking and install new roof systems.
- Install new flashings and counter flashings throughout.
- No old roof penetration flashings to be re-used.
- Recommended order for roof replacement:

    1. Building # 1
    2. Building # 2
    3. Building # 3

If for some reason buildings #1 or #3 could not have all eight units within them roofed at the same time it is highly recommended that the two 2 story units in each of the buildings be completed prior to the one story units.

This is to protect the first story roof systems once they are installed. The second story units will require access from the first story units and you don't want to travel over and work on top of any new system on the first story.

ARC is qualified to write reroofing/maintenance/coating specifications for any roofing project and conduct a bid meeting so all contractors bid apples for apples.

We are also available to inspect during and/or after the completion of the specified work to insure the specifications were followed.

Please contact our office is you have any questions.

Arizona's Roof Consultant was only able to view the roofing at its present state. The inspection is an overview. All warranties are to be supplied by material manufacturers and contractors performing the application.

Tim Broderick, QAO

BUILDING ONE - 8315 N. 59th Drive in Bldg #1

This is the view of the front of the residence

The coating on this BUR roof system has completely deteriorated.

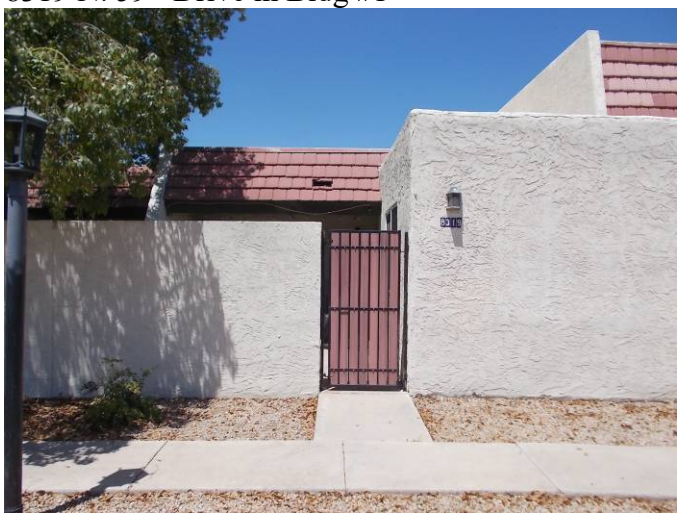
This is an overview of the BUR roof system at 8315 N. 59th Dr. which is in very poor condition.

Numerous cracks and splits in the roofing membrane were found. Lots of debris on roof

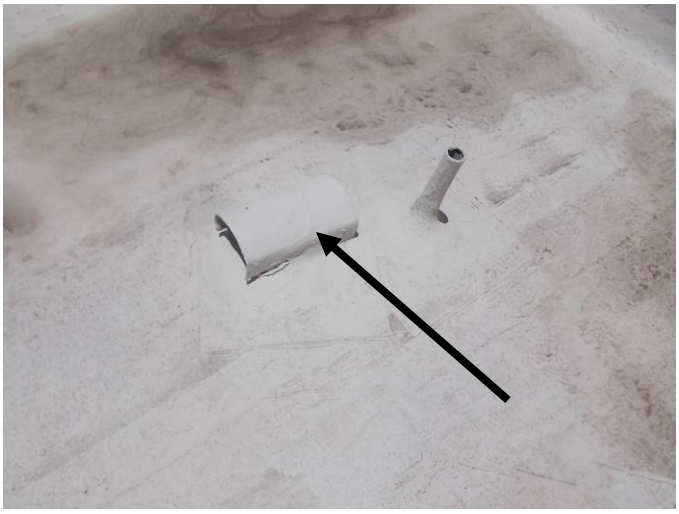
The PVC line is run through the scupper contributing to the debris build up which is impeding proper drainage. Wall flashing buckled.

There are abandon TV dishes on this roof which present a puncture hazard to the roofing membrane. The dish mounts don't have slip sheets under them.

8319 N. 59th Drive in Bldg #1

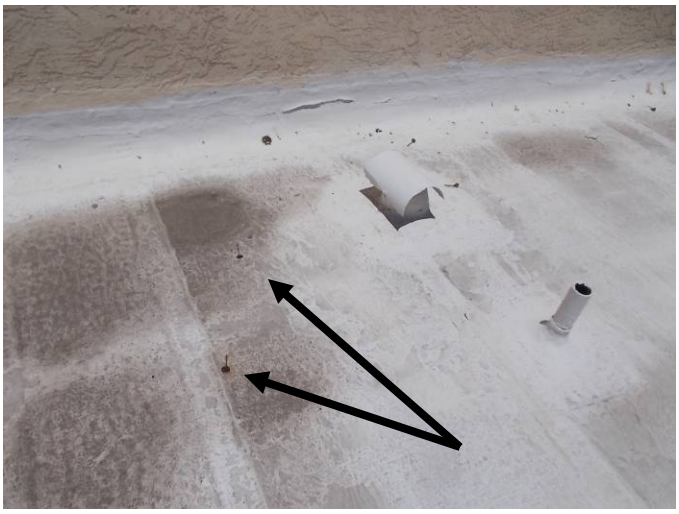


This is the view of the front of the residence at 8319 N. 59th Drive. Glendale, Arizona 85302



The t-top should extend 8” above the roof deck and it does not.

This is an overview of the BUR roof system on 8319 N. 59th Dr. which is in fair condition. Considerable ponding taking place



These are fasteners from previous work on the building that have been left on the roof and pose a puncture hazard to the roof system.

The PVC line has been run through the scupper which impedes the flow of water off the roof and promotes debris build up in front of the scupper.

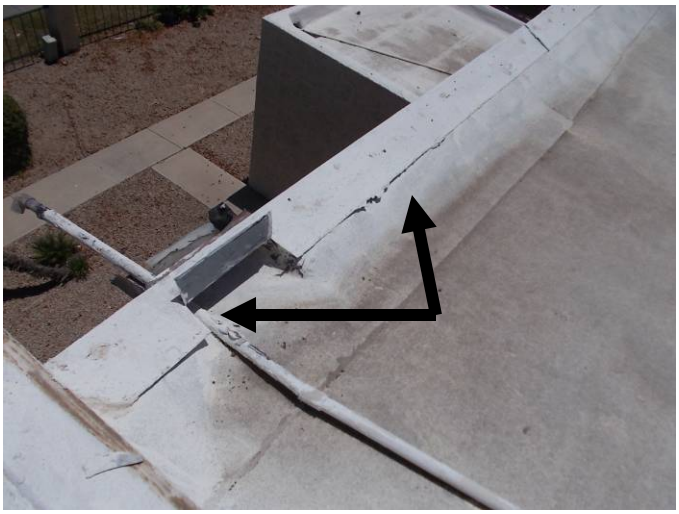
The tile on the tile mansard is missing and slipping. The scupper seen here coming from out the tile mansard has been roofed over inside the wall.

8323 N. 59th Drive in Bldg #1

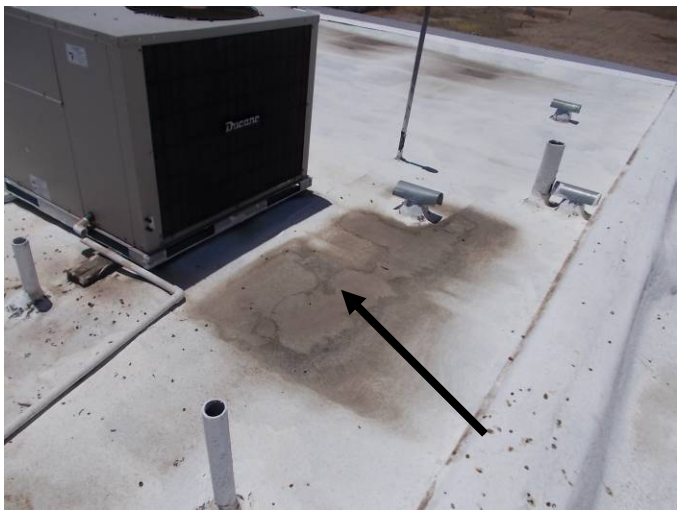
This is the view of the front of the residence at 8323 N. 59th Drive. Glendale, Arizona 85302. Two story unit with tile mansard.

The seal around the scupper at the BUR system and the tile mansard are not watertight.

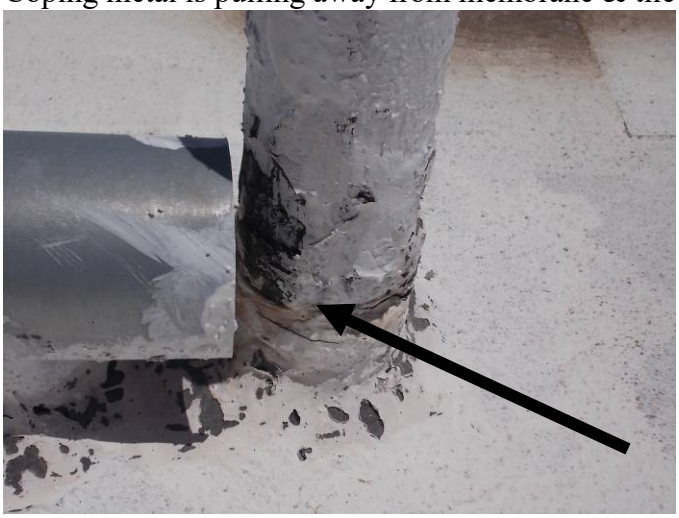
This is an overview of the BUR system which is in fair to poor condition on 8323 N. 59th Dr.



The PVC line should not be run through the scupper as it impedes the proper flow of water off the roof. Coping metal is pulling away from membrane & tile



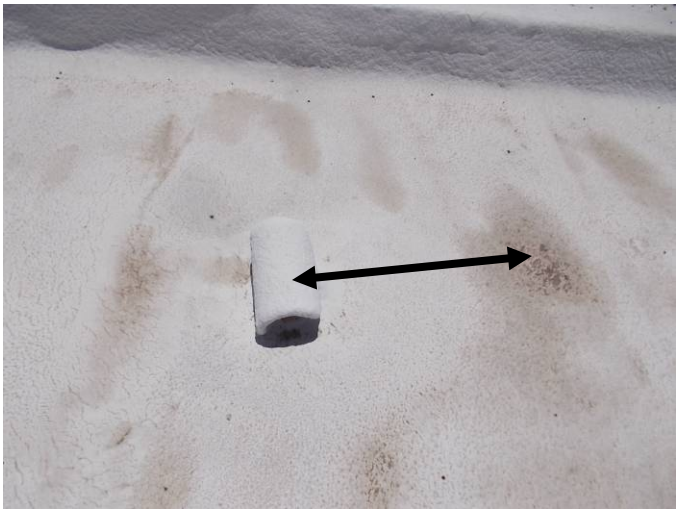
The coating is deteriorated and peeled away in this area due to water ponding.



The seal around the pipe roof penetration is not watertight.

8327 N. 59th Drive in Bldg #1

This is the view of the front of the residence at 8327 N. 59th Drive. Glendale, Arizona 85302. Two story unit with tile mansard.



The t-top does not extend 8" above the roof deck as it should. Some ponding and coating deterioration taking place.

This is an overview of the foam roof system on 8327 N. 59th Dr. which is in fair condition.

The east side of the roof deck ponds a considerable amount of water. Dead bird plugging scupper.

This is an overview of the tile mansard on the east side of the residence. The tile is stained from the water coming from the scupper above.

The rust from the malfunctioning HVAC condensate line is compromising the integrity of the roof coating. Ponding taking place.

8331 N. 59th Drive in Bldg #1

This is the view of the front of the residence at 8331 N. 59th Drive. Glendale, Arizona 85302.

The top of the wall flashings are cracking and pulling apart. Cracking in deck coating.

This is an overview of the foam roof system on 8331 N. 59th Dr. which is in very poor condition. The coating is cracking, peeling, & splitting. The coating is severely deteriorated.

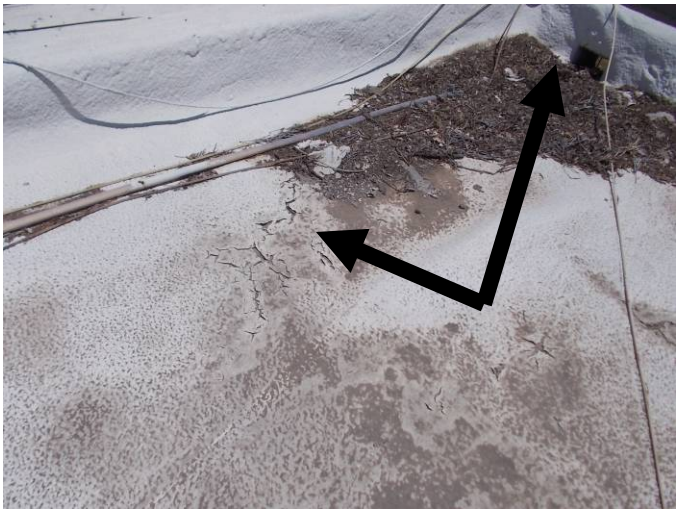
There are numerous areas which pond water on this deck. The TV dish mounting platform does not have a protective slip sheet under it posing a puncture risk to the roof system.

The foam below the coating is exposed to the UV rays which will decrease the life of the roof.

Debris built up by the skylights. The area behind the chimney on the mansard is missing tile.

8335 N. 59th Drive in Bldg #1

This is the view of the front of the residence at 8335 N. 59th Drive. Glendale, Arizona 85302.



The PVC line is run through the scupper and is promoting debris build up and impeding water flow off the roof. Coating is cracked and peeling.

This is an overview of the foam roof system on 8335 N. 59th Dr. which is in poor condition. Considerable ponding occurring and debris build up

Underneath the HVAC unit at the duct work is not coated and not sealed in a watertight manner.

The coating has peeled up and is deteriorated which is accelerating the deterioration of the roof system.

The area around the outside of the scupper on the tile mansard is not watertight. Decking is exposed.

8339 N. 59th Drive in Bldg #1

This is the view of the front of the residence at 8339 N. 59th Drive. Glendale, Arizona 85302.

The PVC condensate line should not be run through the scupper as it impedes water flow off the roof.

This is an overview of the BUR system on 8339 N. 59th Dr. which is in poor condition. Considerable ponding and debris build up.

The seal around the pipe penetration has cracked apart and is not watertight.

This area ponds water and it has deteriorated the coating which is flaking and peeling up. Ridging occurring in the wall flashings.

Severe ridging and buckling occurring in the field membrane as well as the wall flashings.

8343 N. 59th Drive. Bldg #1

This is the view of the front of the residence at 8343 N. 59th Drive. Glendale, Arizona 85302.

Numerous cracking and splitting of the coating and the roofing membranes which is susceptible to water penetration.

This is an overview of the BUR system on 8343 N. 59th Dr. which is in poor condition.

Excessive debris on this deck. Dormant scupper seen on tile mansard none on BUR deck.

This area which ponds water has deteriorated coating which is no longer protecting the roofing membrane below it.

The debris has completely covered a t-top and water is not draining properly off the roof. Coating deterioration is accelerated.

BUILDING TWO - 8328 N. 59th Drive in Bldg #2

This is the front of the residence located at 8328 N. 59th Drive, Glendale, Arizona 85302

The coating is deteriorated due to ponding water near the parapet wall and scupper. The PVC through the scupper is impeding water flow.

This is an overview of the BUR system on 8328 N. 59th Drive. It is in fair to poor condition.

The coating at the top of the wall flashings have deteriorated and the seal along the wall is splitting.

Water is ponding on this roof system which has deteriorated the elastomeric coating.

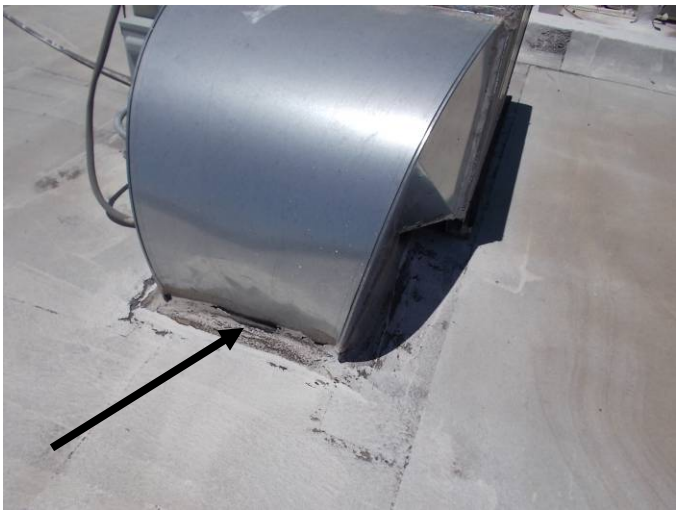
It is unacceptable to have the street light electrical conduit encapsulated by the roofing material.

8332 N. 59th Drive in Bldg #2

This is the front of the residence located at 8332 N. 59th Drive. Glendale, Arizona 85302

The top of the wall flashing is coming apart and susceptible to water penetration.

The seal around the scupper is not watertight. The wall flashing is splitting apart.



The seal around the base of the HVAC duct work is wide open and allowing water penetration.

The PVC line is impeding the flow of water off the roof and contributing to debris build up and deterioration of the coating.

The seal at the duct work/HVAC unit joint is not sealed in a watertight manner.

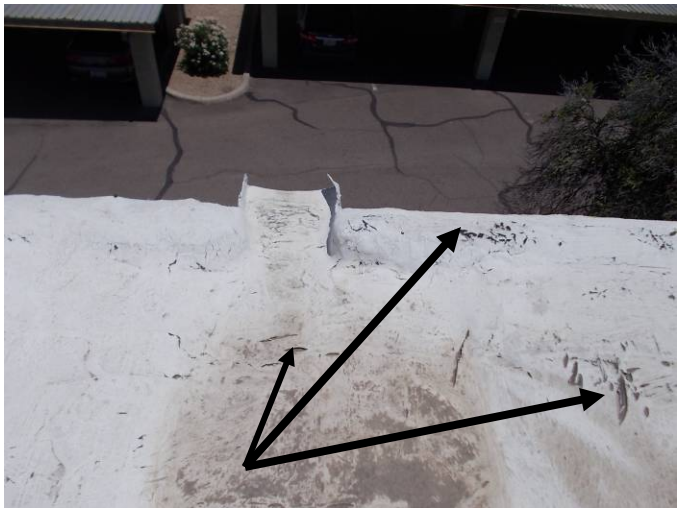
8336 N. 59th Drive in Bldg #2

This is the front of the residence located at 8336 N. 59th Drive Glendale, Arizona 85302

Ponding water in front of the scupper partially caused by PVC line in scupper. Coating deteriorated.

This is an overview of the Modified Bitumen roof system on 8336 N. 59th Dr and it is in very poor condition.

The roofing membrane is separating from the edge metal and is susceptible to water penetration.



Multiple splits and cracks in the coating and the roofing membrane and is susceptible to leaks.

Substantial splitting and cracking of coating and roofing membrane occurring.

8340 N. 59th Drive in Bldg #2

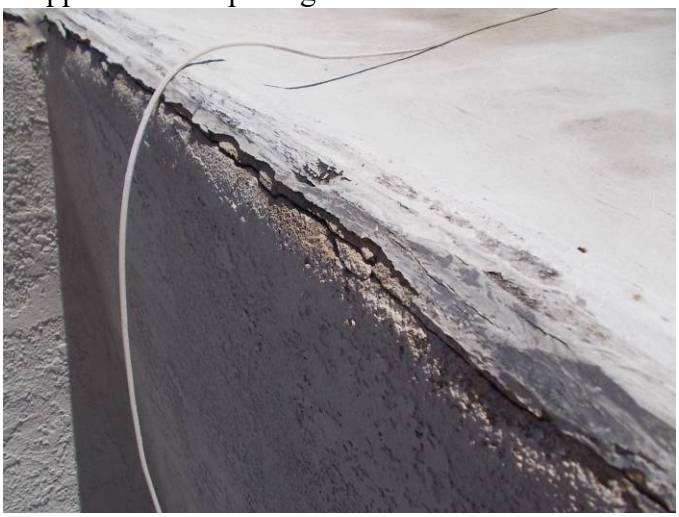
This is a exterior view of the residence located at 8340 N. 59th Dr. Glendale, Arizona 85302

There are splits in the coating and roof system in front of the scupper.

This is an overview of the BUR system on 8340 N. 59th Dr. The roof is in poor condition.

The coating has peeled away and deteriorated due to ponding water. The PVC line is run through the scupper and is impeding water flow.

Ponding and coating deterioration occurring along this section of parapet wall. Cracking in top of wall.



The top of the parapet wall on the north side is cracked wide open and allowing water penetration.

BUILDING THREE –
8401 N. 59th Drive in Bldg #3

This is the front view of the residence located at 8401 N. 59th Drive Glendale, Arizona 85302

The roofing membrane has split open and is allowing water penetration.

This is an overview of the BUR system on 8401 N. 59th Drive which is in poor condition. Large amounts of debris on roof. 3 roof systems exist.

A make shift scupper extension has been installed on the west end. The exterior stucco pop-out is cracked open and susceptible to water penetration.

This is a view of the tile mansard which has no scuppers coming through it.

There is an excessive amount of TV dishes on this deck and there is no protective slip sheets used.

8405 N. 59th Drive in Bldg #3

This is the front view of the residence located at 8405 N. 59th Drive, Glendale, Arizona 85302

There is a whole in the side of the pipe penetration and is allowing water to leak. Roofing membrane coating is alligatoring.

This is an overview of a single BUR system on 8405 N. 59th Drive. It is in poor condition.

Water is ponding in area of scupper and debris is built up as well. Top of wall flashings failing.

The wall flashing laps are cracked apart. The aluminum coating has completely deteriorated.

The joint between the duct and the HVAC unit is not sealed in a watertight condition and is allowing water to penetrate.

8409 N. 59th Drive in Bldg #3

This is a view of the front of the residence located at 8409 N. 59th Drive Glendale, Arizona 85302

There is some ponding occurring at the base of the cricket. Some debris on the roof.

This is an overview of the foam roof system on 8409 N. 59th Dr. Roof is second layer and in fair condition.

No blocks under PVC. Blocks under other pipes but no protective slip sheet under blocks. Blocks keep the pipes off the roof for free flow of water.

This is an overview of the tile mansard in the front of the residence and a shed shingle roof in the front yard area. Mansard has no scupper coming through.

The stucco pop-out around the scupper is cracked and not watertight, thus allowing water penetration.

8413 N. 59th Drive in Bldg #3

This is the front view of the residence located at 8413 N. 59th Drive, Glendale, Arizona 85302

The joint between the duct and the HVAC unit is not sealed in a watertight condition and is allowing water to penetrate.

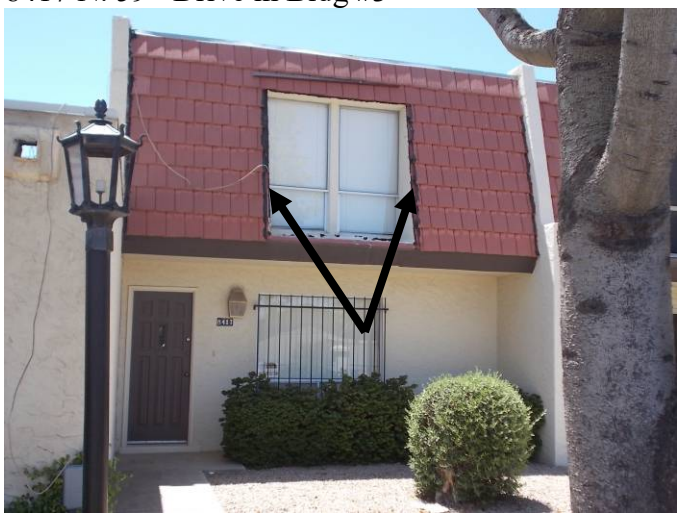
This is an overview of the tile mansard roof and the BUR system on the low-slope deck which is in fair to poor condition.

The TV dish mounting stand does not have a protective slip sheet under it which poses a puncture risk to the system.

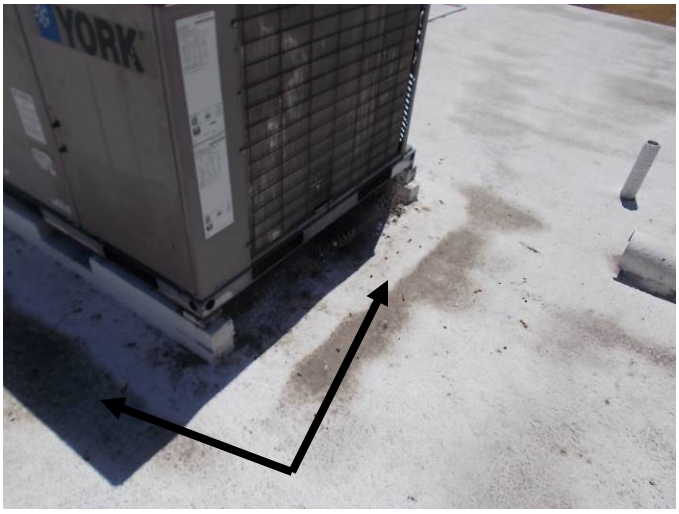
Large amount of debris on the roof deck. PVC line running through scupper which is promoting debris build up and is impeding water flow off roof.

The pitch pan is not in a watertight condition and is susceptible to water penetration.

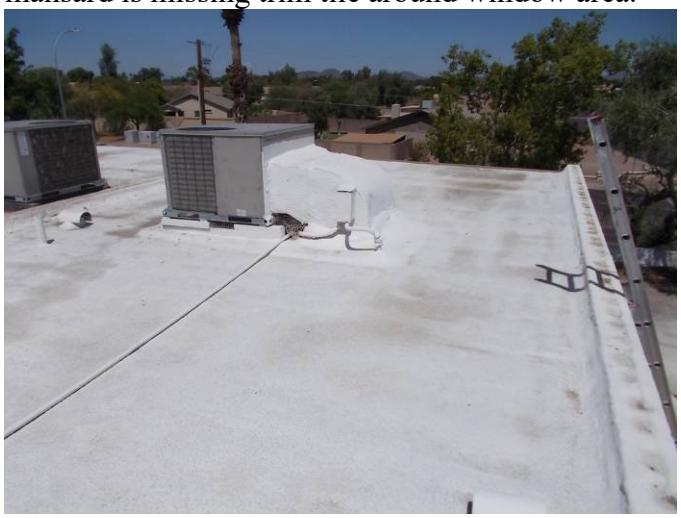
8417 N. 59th Drive in Bldg #3



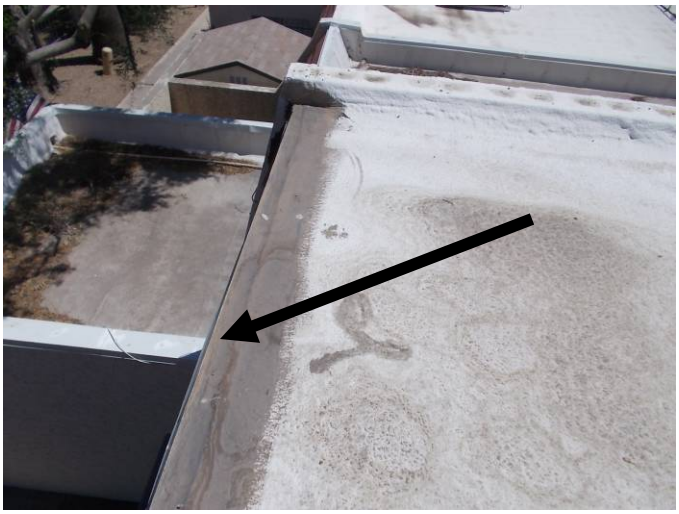
This is the view of the front of the residence at 8417 N. 59th Drive, Glendale, Arizona 85302. Tile mansard is missing trim tile around window area.



The coating in the area of the HVAC unit is deteriorating.



This is an overview of the single layer foam roof system on 8417 N. 59th Dr. which is in fair to poor condition.



There has been a repair performed along the edge metal with materials that are not compatible with foam. The repairs is starting to fail and damage roof

Another view of the foam roof showing some ponding areas and the top of the firewall exposed.

This is another area that was repaired with materials incompatible with foam.

8421 N. 59th Drive in Bldg #3

This is the front view of the residence located at 8421 N. 59th Drive, Glendale, Arizona 85302

The foam is exposed and cracked along the metal edge and susceptible to water penetration.

This is an overview of the single layer foam system on 8421 N. 59th Dr. which is in poor condition.

The roof has deteriorated along the metal edge and is allowing water penetration.

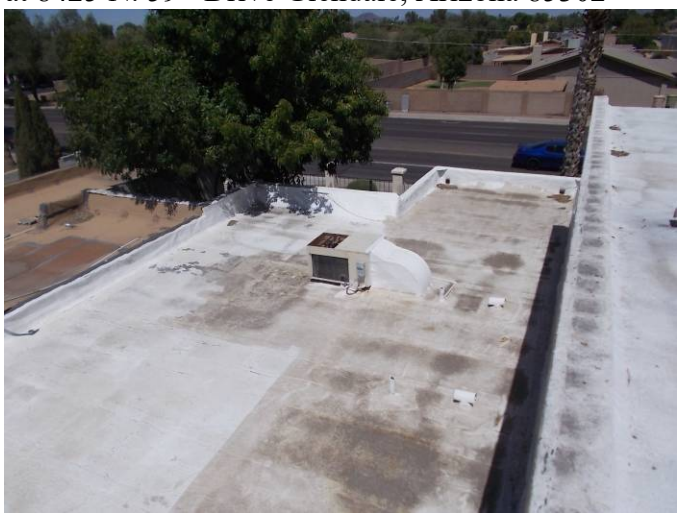
The coating is deteriorated to the point where the foam is exposed to UV rays which will accelerate the deterioration of the roof system.

The joint between the duct and the HVAC unit is not sealed in a watertight condition and is allowing water to penetrate.

8425 N. 59th Drive in Bldg #3

This is the view of the front of the residence located at 8425 N. 59th Drive Glendale, Arizona 85302

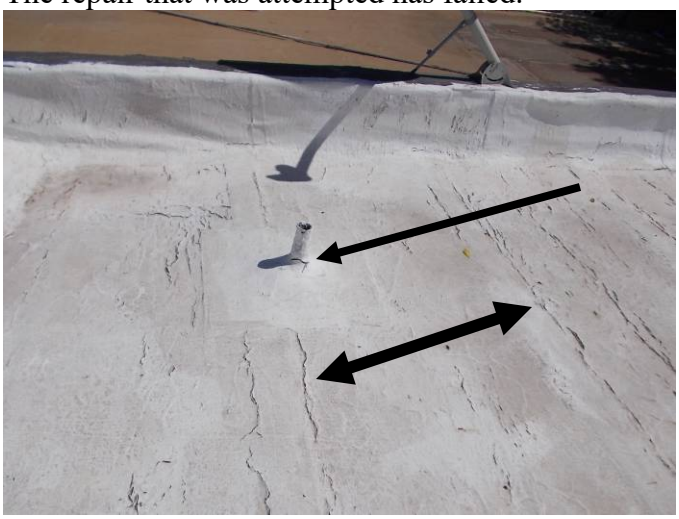
The wall flashing is separating and the foam is exposed to UV rays.



This is an overview of the multi-layer BUR system on 8425 N. 59th Dr. which is in very poor condition.

The wall flashings have split apart and separated. The repair that was attempted has failed.

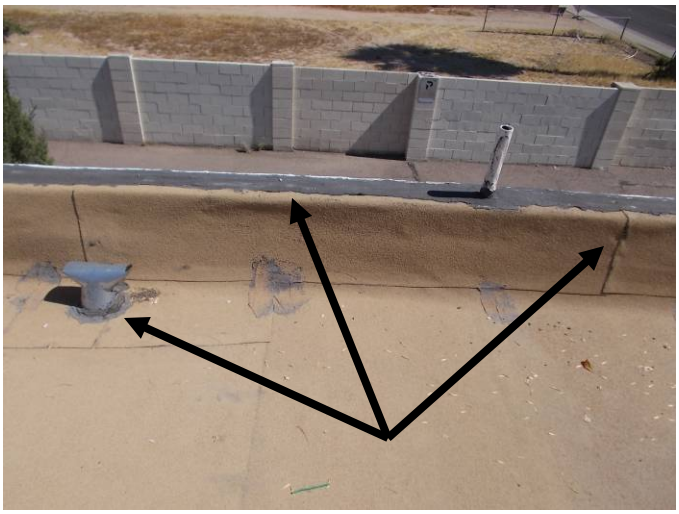
Both the coating and the roofing membrane is cracking and splitting apart and is susceptible to water penetration. Wall flashing is separating.



The seal around the pipe penetration is not watertight. The roofing membrane is splitting apart.

8429 N. 59th Drive in Bldg #3

This is a view of the front of the residence located at 8429 N. 59th Drive Glendale, Arizona 85302



The laps on the wall flashings are not tight and the top of the wall flashing is starting to separate. The seal around the t-top is not watertight.

This is an overview of the second layer of BUR system on 8429 N. 59th Dr. and it is in fair to poor condition.

The seals around the roof penetrations are not watertight. The wall flashing has been repaired around the scupper and abandon TV dish debris is blocking water flow to the scupper.

The tile mansard has some tile missing and does not have a scupper running through it.

A large area on this roof deck has been repaired and the repair is showing signs of failing.

LAS CASAS CONTENTAS INPROVEMENT ASSOCIATION
2019 ROOF EVALUATION

UNIT ADDRESS	*ROOF TYPE*	*LAYERS*	*THICKNESS*	*MILS*	**CONDITION**	**Size of Unit in Squares.**
Building #1						
8315 N. 59th Dr.	BUR w/2 boards/bur	3	2"	5	Very Very Poor	17
8319 N. 59th Dr.	BUR w/2 boards/bur	3	2"	10	Fair	17
8323 N. 59th Dr	BUR cap	1	.375"	10	Fair to Poor	9
8327 N. 59th Dr	Foam	1	1.25"	18	Fair	9
8331 N. 59th Dr.	Foam over BUR over board BUR	3	3"	15	Very Very Poor	17
8335 N. 59th Dr	Foam over BUR over board BUR	3	3"	10	Poor	17
8339 N. 59th Dr	BUR over BUR over board BUR	3	2.75"	5	Poor	18
8343 N. 59th Dr	BUR over BUR over board BUR	3	2.75"	5	Very Poor	18
BUILDING #2						
8328 N. 59th Dr	3Ply BUR over board/BUR	2	1.25"	5	Fair to Poor	8
8332 N. 59th Dr	BUR cap over board/BUR	2	2"	5	Poor	8
8336 N. 59th Dr	APP Modified / BRD/ BUR	2	2"	5	Very Poor	8
8340 N. 59th Dr	BUR over board/BUR	2	1.5"	5	Poor	8
BUILDING #3						
8401 N. 59th Dr	BUR over board over foam	3	3"	4	Fair to Poor	18
8405 N. 59th Dr	4 ply BUR	1	.25"	5	Poor	18
8409 N. 59th Dr	Foam over foam	2	6.5"	20	Fair	17
8413 N. 59th Dr	BUR over BUR	2	1.125"	5	Fair to Poor	17
8417 N. 59th Dr	Foam	1	.875"	23	Fair to Poor	9
8421 N. 59th Dr	Foam	1	.75"	15	Poor	9
8425 N. 59th Dr.	BUR over 2 boards and BUR	2+	3"	5	Very Poor	17
8429 N. 59th Dr.	CAP BUR over BUR	2	.75"	N/A	Fair to Poor	17