Promaneer SM

PROPERTY CONDITION REPORT

Shopping Center

1234 Main Street
Anyplace, USA 00000

SDAT Tax Map 0000 Parcel XXXX “Parcel X” Account XXXXX

Prepared for:

Our Client
4321 Any Street
Anyplace, USA 00000

Inspected on:

Month 03, 2015

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EXECUTIVE SUMMARY

The Shopping Center is a single-story retail strip center of approximately XX,XXX RSF situated on a parcel of XX,XXX SF of land in Anyplace, USA addressed as 1234 Main Street. The building was completed in [YEAR] constructed of masonry bearing walls supporting a steel-truss roof assembly with a combination of brick veneer and EIFS exterior wall finishes, and a ballasted rubber roof sloped front to back to through-the-wall scuppers surrounded by a perimeter parapet wall with three (3) architectural towers along the front facade. Surface parking on asphalt pavement includes a total of XX car spaces of which XX are located in front of the building; the balance to the east of the building.

The property was examined on Month 03, 2015 and the roof on Month 11, 2015. Overall the property is in fair condition given the age of the roof membrane; the improper installations of roof top equipment; the faulty installation of EIFS; the repairs necessary to concrete and asphalt pavements; and, the negative slope conditions at certain locations adjacent to the building.

The objectives of this report are to provide VHG Associates, LP (the "Client") with the following:

- Brief descriptions of the existing conditions observed including photo-documentation
- References to certain standards, manufacturers' installation requirements, and proper installation details as applicable
- Estimated Replacement Costs for use in preparation of a Capital Reserve Analysis (future)

Appendix-A contains numbered photographs depicting observed conditions on Month 03, 2015.

Appendix-B includes certain details and references to particular manufacturers' installation requirements.

The following report and appendices are intended to be reviewed together as one assembled document. ASTM E2018 does not apply as the Client has directed us otherwise; and, therefore, no portion of this report shall be construed to follow, adhere to, or fail to satisfy the standard.

DESCRIPTIONS of OBSERVED CONDITIONS

I. EPDM ROOFING

Typical synthetic rubber roof membranes have an expected useful life of 20 years on well-drained roof surfaces if properly maintained. On the date of examination the roof appeared original to the building and is 16 years old. Rubber flashings are showing loss of bond as depicted in **Photo-#01** due to age and exposure.

The observed conditions, however, shorten the typical expected life because of unusual wear and likely deterioration of the membrane due to improper post-construction work, deficient maintenance, and poor drainage.

Wood blocks intended to be pipe pillow blocks (***SEE Photo-#02***) are not installed on slip sheets as required by the membrane manufacturer. As depicted in **Photo-#02** one of the blocks is on edge into the roof membrane which could fatigue the material causing a tear or slicing effect. Additionally, **Photo-#04** depicts concrete masonry blocks supporting a pipe, but moss and debris accumulated at the base of the blocks indicate poor drainage and continual moisture at this location.

Another area of poor drainage with evidence of continual moisture is shown in **Photo-#03** on the upslope side of the RTU curb where the condensate drain has evidently been discharging water that has remained for extended periods of time on the roof as indicated by the area of discoloration. This condition could have easily been avoided by elbowing the condensate drain around to the side of the RTU to discharge with the slope of the roof.

Poor drainage as evidenced by ponding water, mosses or algae growth, staining, and/or debris accumulation are cited as causes of premature failure. The National Roofing Contractors Association Roofing Manual uses 48-hours as the maximum period after a rain event for ponded water to drain. According to weather records for the Anyplace area from weather station – AAAA (Anyplace Airpark)., only 0.03 inches of precipitation accumulated on Month 29, 2015, just 0.04 inches during the morning of Month 01, 2015. No precipitation was recorded for Month 30, 31, and Month 02.

Presumably, tenants have had roof top equipment installed after [YEAR], which have been improperly mounted on wooden pallets, wooden dunnage/sleepers, or other material not compliant with typical manufacturer's installation details for equipment rails and curbs (***SEE Photos #05 - #11***). Further, tenants have penetrated the roof with various conduits leading to and from tenant-installed equipment, which have not been properly sealed via pitch-pockets, weathertight pipe boots, or uncured laminate tape as applicable (***SEE Photos #05, #10, & #12***).

The roofing membrane on the rear of face of the front parapet wall has been compromised by tenant building signage anchored through the wall as depicted in **Photos-#13 and #14**.

Given the observed conditions which have arisen and been demonstrably neglected over a period of years, the roof has neither been routinely inspected annually as recommended nor been properly maintained. As such no remaining useful life (X years) is justifiable, and the roof should be replaced.

II. CANOPY STANDING SEAM METAL ROOF

Side-wall flashing is missing at the intersection of the standing seam roof and the brick veneer as evidenced by the discoloration and saturated masonry shown in **Photos-#15 and #16**. Refer to Section 1.1 of Appendix-B for the proper flashing detail.

Additionally, no gutter for the tower roof above allows rainwater which collects on that roof surface to spill onto the roof below as well as cascade down the wall finishes. Neither weeps nor was evidence of base-course flashing observed in the brick veneer that wraps the column shown in **Photo-#16**. Moisture is likely penetrating the veneer as clearly indicated by the discoloration of the saturated masonry at the intersection with roof, and is likely accumulating within the column structure with no means of outflow except by vapor emission.

This column and others with the same condition at the standing seam roof should be regularly and closely monitored for signs of internal moisture damage until sidewall flashing is properly installed.

III. EIFS – Exterior Insulation and Finishing System

The construction drawings provided by the property owner's agent specify Dryvit as the EIFS manufacturer. Much of the as-built conditions of the EIFS fail to comply with the manufacturer's installation details. Refer to Section 2.0 of Appendix-B for applicable installation details by Dryvit.

Photos-#17 - #19 depict areas at the rear and side of the building where EIFS terminates horizontally at brick veneer. Per Dryvit detail OS 0.0.24 continuous flashing is required at the intersection between the EIFS and masonry veneer, none of which was observed to be installed per the detail. If any flashing was installed but not visible beyond the caulked joint, it has been improperly formed such that the length of the hemmed horizontal leg below the EIFS is insufficient to extend beyond the caulking. Properly installed flashing is intended to channel away any condensation or water that accumulates behind the EIFS lamina and drains down to the base flashing, then out and away from the top of masonry. The as-built condition does not match this design.

Photos-#20 and #22 also depict two (2) areas on the front façade where EIFS terminates horizontally at brick veneer. Again, no continuous flashing was observed in these areas as required per the manufacturer's installation detail.

Photo-#21 depicts a horizontal termination of EIFS at the top of the standing seam roof. EIFS is also installed below the standing same roof. Thus, where the roof horizontally connects to the building is comparable to Dryvit detail OS 0.0.33 such that EIFS is above and below the ledger of the steel roof rafters the same as a deck ledger board shown in the detail. However, the as-built condition does not have flashing details installed per the detail. The detail is designed to shed water draining down behind the upper section of EIFS onto the intersecting surface (i.e., deck or roof), as well as to prevent any water collecting on the intersecting surface from entering behind the EIFS. For any wall cladding such as clapboard siding, vinyl siding, and EIFS which intersects with a roof, the flashing detail is the same: continuous flashing must extend vertically behind the cladding above the roof and "kick out" onto the top of the roof.

The as-built condition should be more closely examined from a lift to determine whether the flashing detail is properly installed for proper drainage.

Photo-#23 shows the condition at the rear corner of the building nearest to Russell Avenue where EIFS terminates below grade. This does not comply with Dryvit detail OS 0.0.03 in which the EIFS should terminate above grade. Soil and organic material should not be in contact with the EIFS the same as with any wall cladding, but rather should terminate a minimum of 8"above finish grade per the referenced detail.

Photos-#24 - #26 depict the horizontal terminations of EIFS at the storefronts. The EIFS lamina is blistering and spalling as shown in the photographs and is very likely due to improper terminations at the heads. No evidence of flashing was observed at the storefront heads as is required by Dryvit detail OS 0.0.10.

Head flashing is also required at the horizontal termination of EIFS above the door shown in **Photo-#27**. No flashing was observed. Further, the EIFS soffit detail above the door is not properly installed in accordance with Dryvit soffit details.

Photos-#28 - #31 as well as the lower right boxed area of **Photo-#32** depict improper terminations of EIFS at the roof parapets. Refer to Dryvit details OS 0.0.16 for the correct installation and flashings.

Gutters at the tower roofs should have been installed to prevent water from spilling off of the standing seam panels and cascading onto the EIFS cornice and wall finishes. **Photos-#32 and #33** show the lack of gutters and the resultant staining of the EIFS cornice. The faces of the Dryvit finishes on the towers were wet to the touch at the time of the property inspection despite very little precipitation over the five (5) days prior according to weather records for the Gaithersburg area from weather station – KGAI (Montgomery County Airpark).

Photos-#34 - #39 depict various penetrations through the EIFS of which rectangular openings should be properly flashed and round penetrations properly caulked in accordance with applicable Dryvit details. None of the rectangular openings shown in these photographs were observed to be flashed properly; and, the stand-off bolts anchoring the gas service line in Photo-#39 did not appear to be sealed in accordance with manufacturer's installation requirements and details.

The conductor head (also referred to as scupper head) depicted in **Photo-#40** has been improperly fastened to the EIFS finish. This same condition was observed at all of the conductor heads.

The tenant building signage for all tenants has been improperly anchored to the EIFS (***SEE Photos-#41 - #45***). Refer to Dryvit detail OS 0.0.28 for the correct anchoring detail. A minimum ½" clearance is required by the manufacturer between the signage and the face of the EIFS. This is achieved by appropriately sleeving the anchor bolts and installing bearing washers or nuts against the backside of the signage components.

IV. CONCRETE PAVEMENTS and SIDEWALKS

Fractures and cracking in various concrete pavements around the building are depicted in **Photos-#46 - #50**. In each case the concrete has failed due to improper expansion joints or to a lack of expansion joints. Most commentaries on concrete pavement cracking attribute the loading forces to freeze-thaw cycles; however, concrete thermally expands and contracts similar to asphalt pavements without necessarily freezing temperatures. When the forces generated by thermal expansion exceed the compressive strength of the concrete, the result is uneven warping and buckling of the pavement ultimately manifested in visible cracks.

Inadequate tolerances for expansion joints as well as lack of maintenance to keep joints free of incompressible debris lead to most failures in concrete sidewalk pavements. Photo-#49 is a good example of the pavement without expansion joints expanding between two resistive structures, which resulted in the fracture depicted in the photograph. Saw-cut control joints are inadequate for the compressive stresses that lead to cracking because such saw-cut joints are intended to minimize shrinkage cracks.

The same failure likely occurred with the concrete apron in Photo-#46 and #47 to cause the cracking if not due to heavy axle-weight overloading the pavement.

Photo-#51 depicts plant life growing in an expansion joint which reveals not only a lack of routine maintenance to keep the joint clean, but also an improper sealant applied in the joint. Debris accumulating in an expansion joint commonly reduces the free movement of the pavement as thermal expansion occurs leading to uneven compressive forces on the concrete that buckle it causing fatigue and eventual failure.

Photos-#50 and #52 depict sections of the front sidewalk at storefronts. Either the concrete pavement has unevenly settled or was placed without adhering to the specified or acceptable level tolerance.

V. SLOPE of GRADE and DRAINAGE

Photos-#53 - #56 depict areas at the rear (south) and side (west) of the building where the slope of the grade is directing surface flow toward the building and sidewalks. Very likely storm water and heavy precipitation produce accumulated water at these locations which can undermine the pavements, dam against the building foundation, and the longer neglected lead to water infiltration and damage.

At the rear of the building these slope drainage issues are compounded by storm water surface-discharged by downspouts. The “yard drain” inlet located at the rear of the building is above the low point of the grade and situated too far eastward to effectively collect surface flow.

All of these areas should be corrected to redirect surface flow away from the building for proper drainage and control of storm water.

VI. ASPHALT PAVEMENT and PARKING LOT

The pavement is negatively sloped at the rear of the building where tire storage racks are located. **Photos-#58 and #59** show the accumulated silt in the wet areas against the rear building wall evidencing improper slope and poor drainage, which is compounded by the storm water surface-discharged by downspouts. The asphalt pavement should be milled in this area and resurfaced to achieve positive drainage.

Photo-#57 depicts the negatively sloped concrete pavement located on the southeasterly corner. Staining reveals ponding water and poor drainage. The concrete pavement should be replaced to achieve positive drainage and the adjacent asphalt pavement milled and resurfaced accordingly.

Photo-#60 shows the stress cracking in the east side of the accessible ramp. The ramp material appears to be concrete, painted blue on both flanged sides and at the base of the ramp. Seemingly, the concrete ramp was constructed after original placement of the asphalt pavement as evidenced by the saw-cuts in the asphalt along the perimeter of the ramp.

The edges of the concrete at the intersections with the asphalt pavement are spalled and deteriorated allowing water infiltration which exacerbates the material decay.

Generally, accessible sidewalk ramps are constructed within the concrete sidewalk. In this case, the existing conditions of the as-built sidewalk would apparently not allow for the necessary length of run required for modifying it to achieve the ramp slope. Instead, extending a ramp from the curb out into the parking area was the implemented retrofit solution; however, the construction of the ramp and quality of concrete mix led to the current condition.

Replacing the ramp using a better design such as either a depressed concrete curb around the ramp perimeter with a concrete ramp or a HMA ramp to reconstruct it will provide more durability.

Photo-#61 shows cracking in the asphalt surface in a direction across the parking space parallel and between the two axles of an automobile, which indicates possibly a weak subgrade in this area; improper placement; and/or due to heavy-axle loading (i.e., concrete mixer truck positioned across the parking space during the concrete ramp pour). Test-pitting this area is suggested to identify the cause before milling and resurfacing.

Photos-#62 and #63 depict settlement/fatigue cracking and depression very likely due to inadequate fill and weak or uneven subgrade compaction around the inlet structures. Milling and resurfacing may not prevent future pavement distress if the subgrade or the fill around these structures cannot uniformly support the loading. Presumably, settlement over time has naturally resulted in some increased density of material, but unlikely consistent. For maximizing the longevity of the pavement life investigating the subgrade in these areas is recommended.

ESTIMATED CAPITAL REPLACEMENT COSTS

Shopping Center
Anyplace, USA

		QTY	Unit	Cost/Unit	Est. Cost	TOTALS
ROOFING						
EPDM Replacement		13,706.00	SF	$9.00	123,354	
Standing Seam Metal - Sidewall Flashings	ALLOWANCE	1.00	LS	$5,000.00	5,000	
						$128,354
EIFS						
Clean		5,780.00	SF	$0.40	2,312	
Corrective work, cutting, flashings, restoration		639.00	SF	$25.00	15,975	
Recoat		5,780.00	SF	$0.85	4,913	
						$23,200
CONCRETE PAVEMENTS and SIDEWALKS						
Sawcut, remove, replace	ALLOWANCE	400.00	SF	$11.00	4,400	
Recaulking at storefronts		120.00	LF	$4.50	540	
						$4,940
SLOPE of GRADE and DRAINAGE						
Regrade, import topsoil, seed	ALLOWANCE	1.00	LS	$2,500.00	2,500	
						$2,500
ASPHALT PAVEMENT and PARKING LOT						
Milling		4,629.40	SY	$6.00	27,776	
Overlay - HMA		527.27	tons	$110.00	57,999	
Striping		1,800.00	LF	$0.45	810	
						$86,586
HVAC - RTU Replacements						
Packaged A/C Rooftop - 5.0 cooling tons		4	each	$10,000.00	40,000	
						$40,000
Total Estimated Replacement Costs*						**$285,580**

APPENDIX-A

to

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SDAT Tax Map 0000 Parcel XXXX “Parcel X” Account XXXXX

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4321 Any Street
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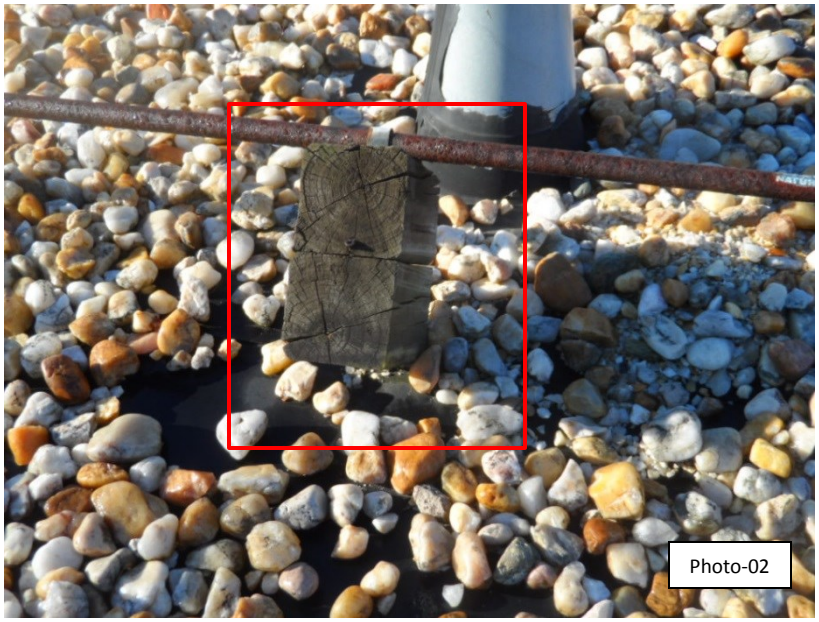
Photo-01



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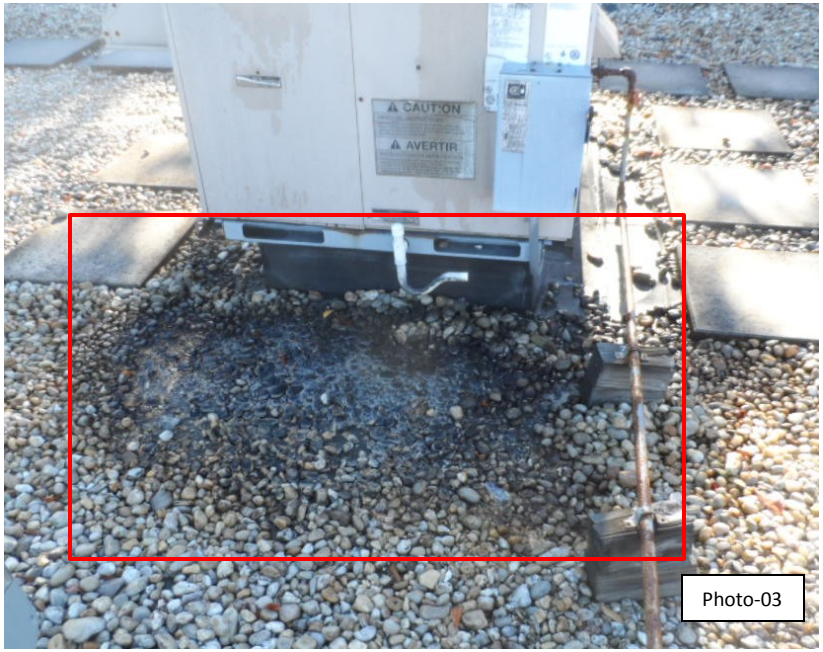

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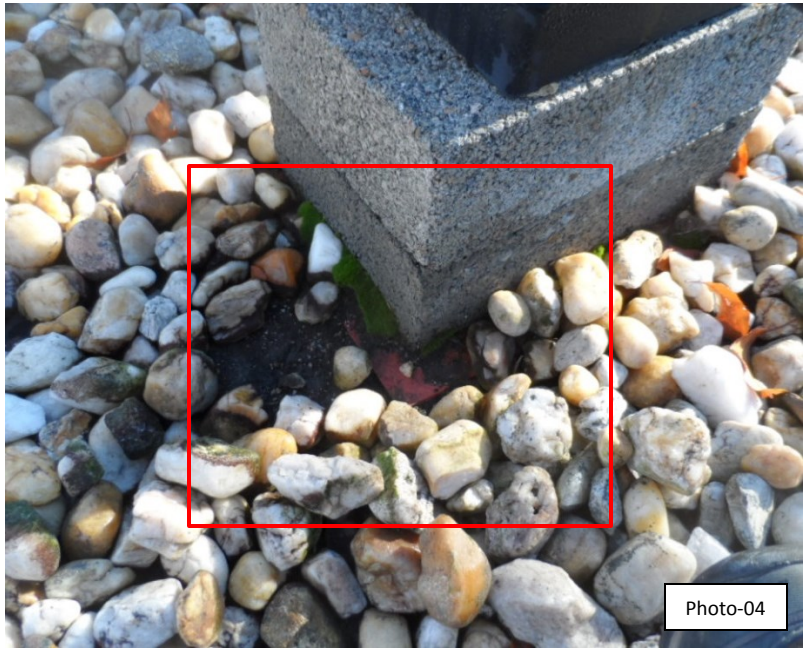

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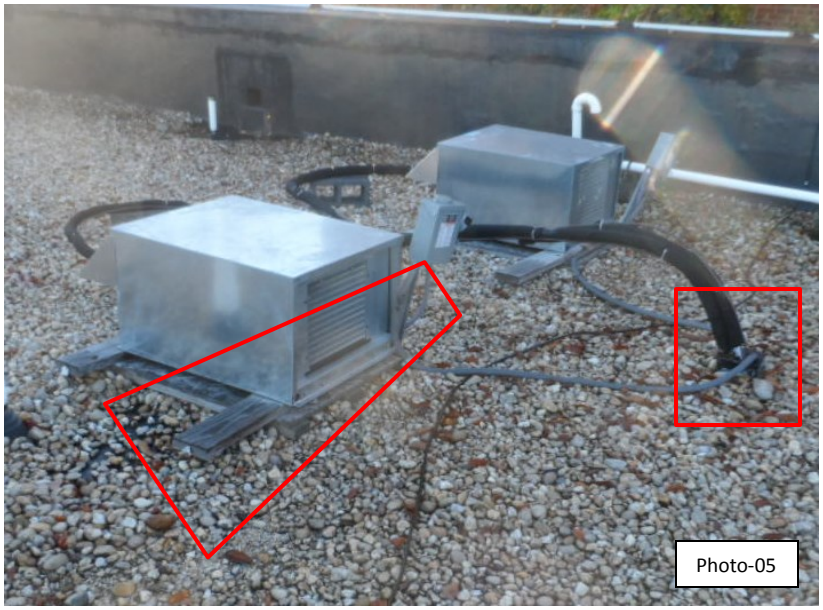

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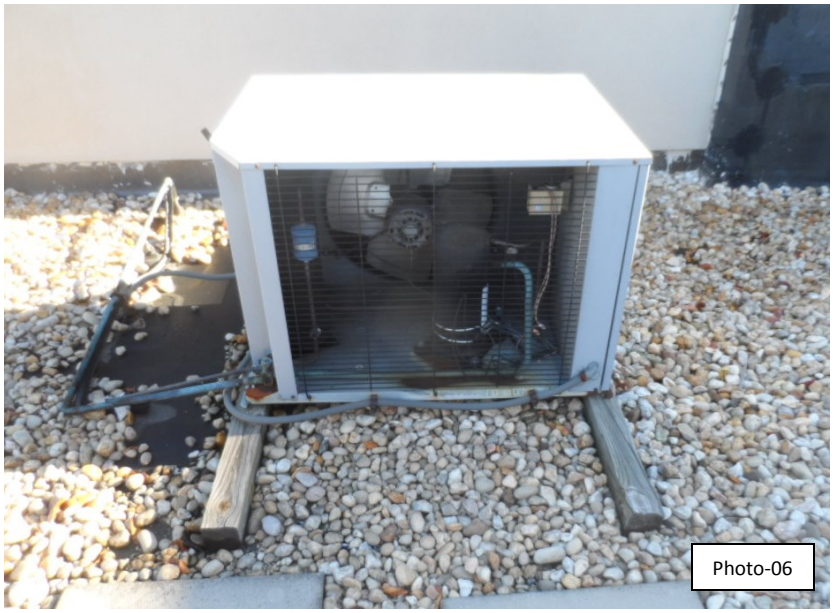

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Photo-07

Photo-08

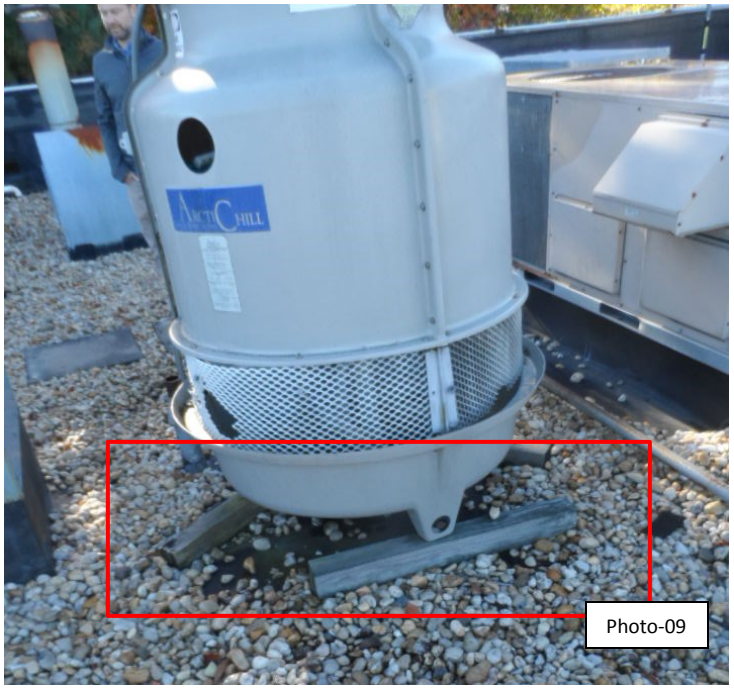

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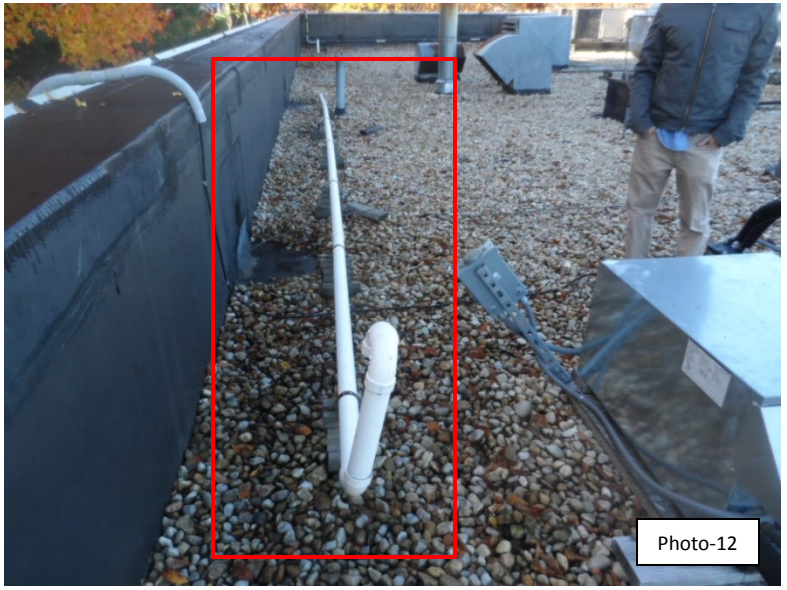
Photo-10

Photo-11



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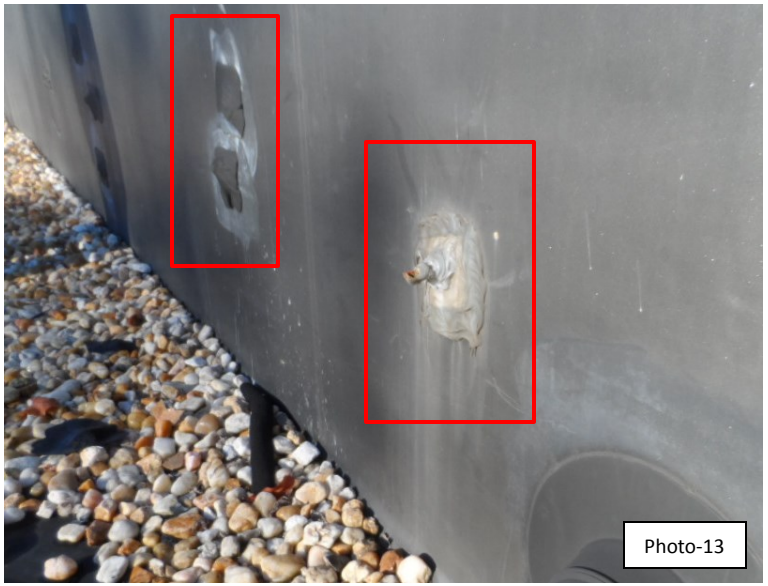

Photo-13

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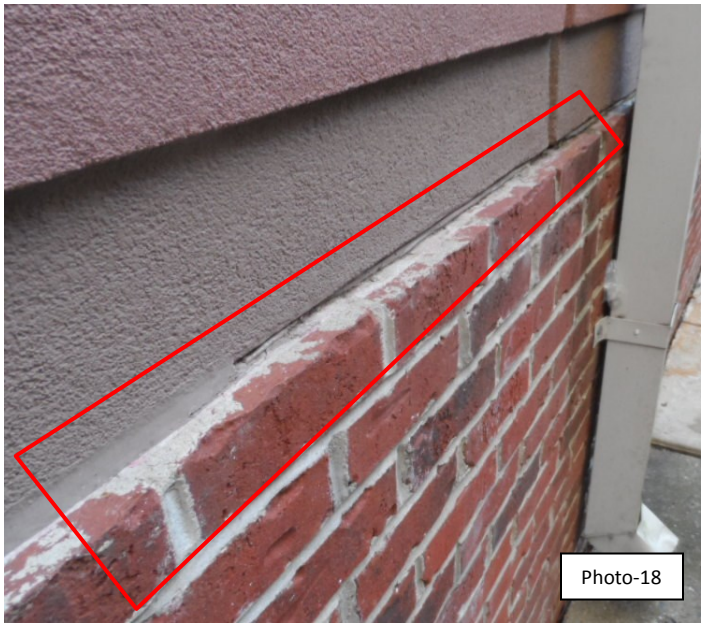
Photo-15

Photo-16

Photo-17



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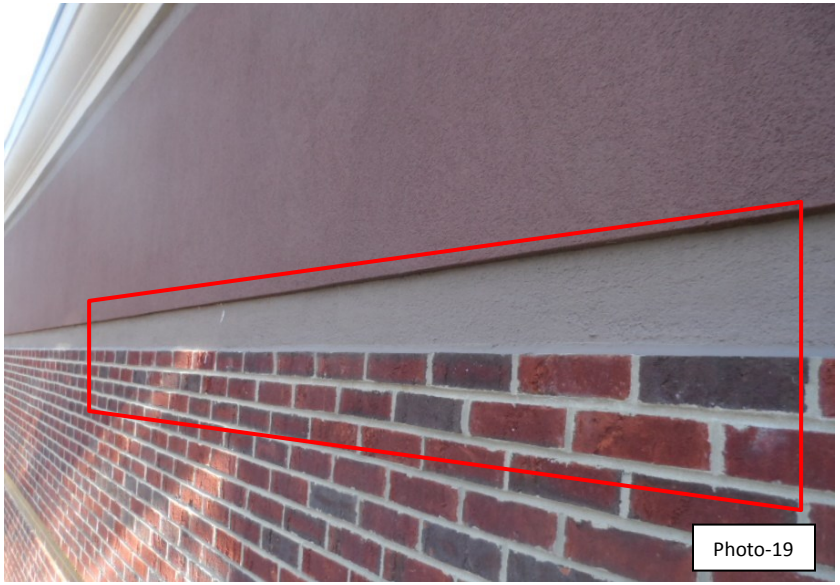
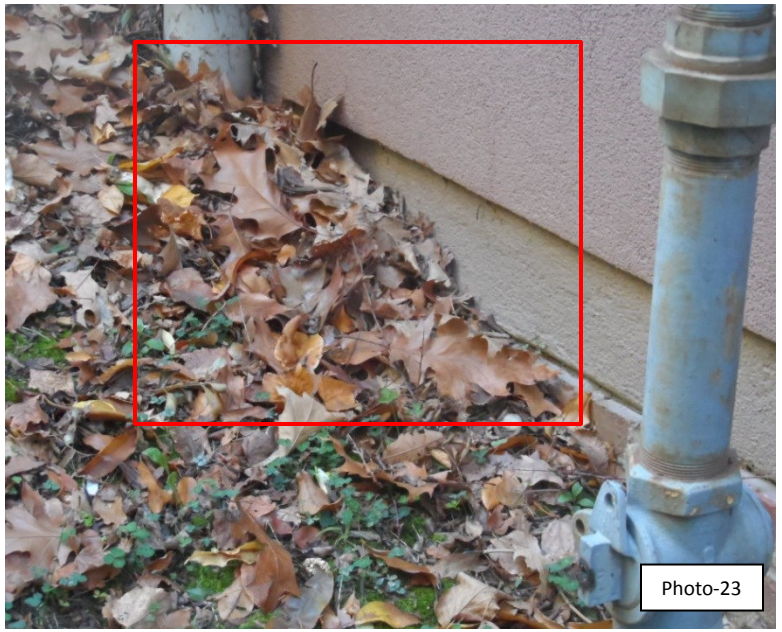


Photo-19

Photo-20

Photo-21

Photo-22



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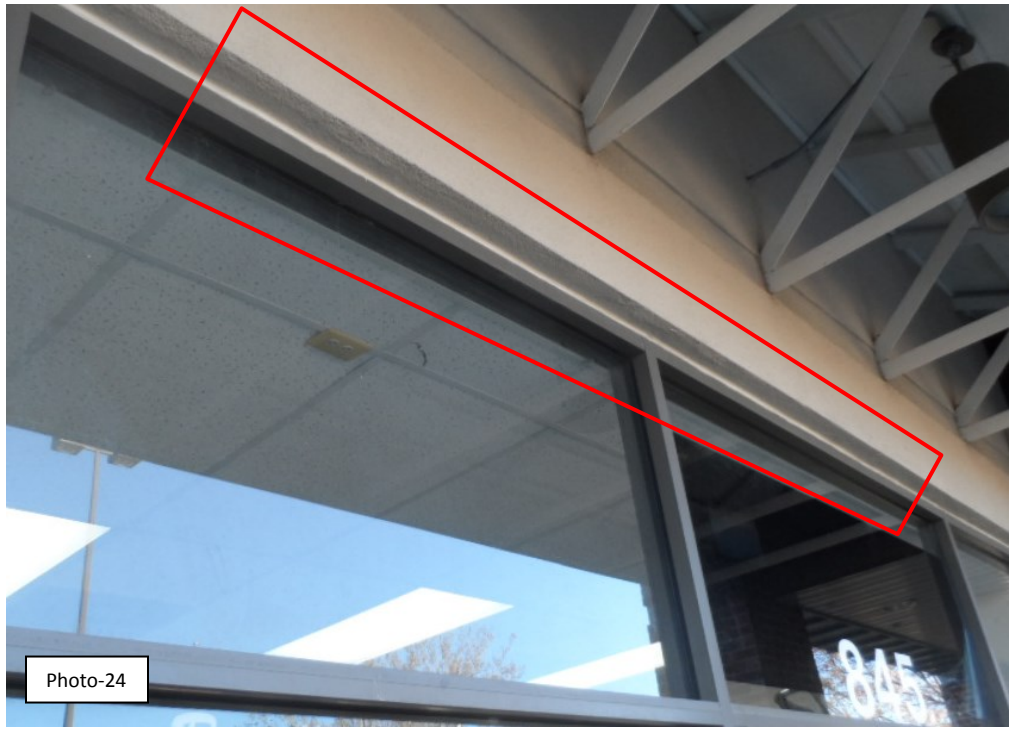

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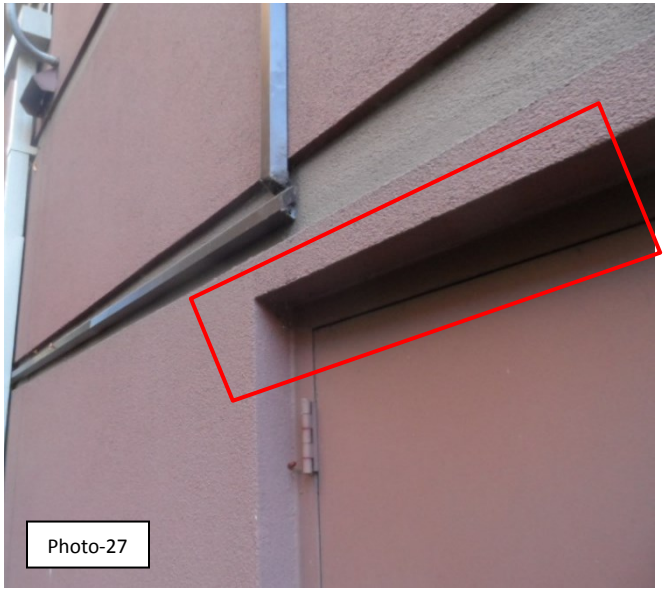
Photo-25

Photo-26



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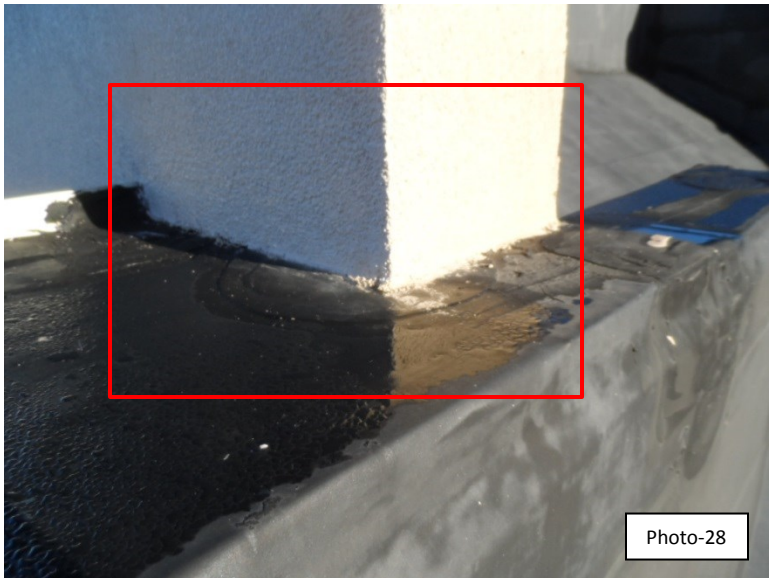

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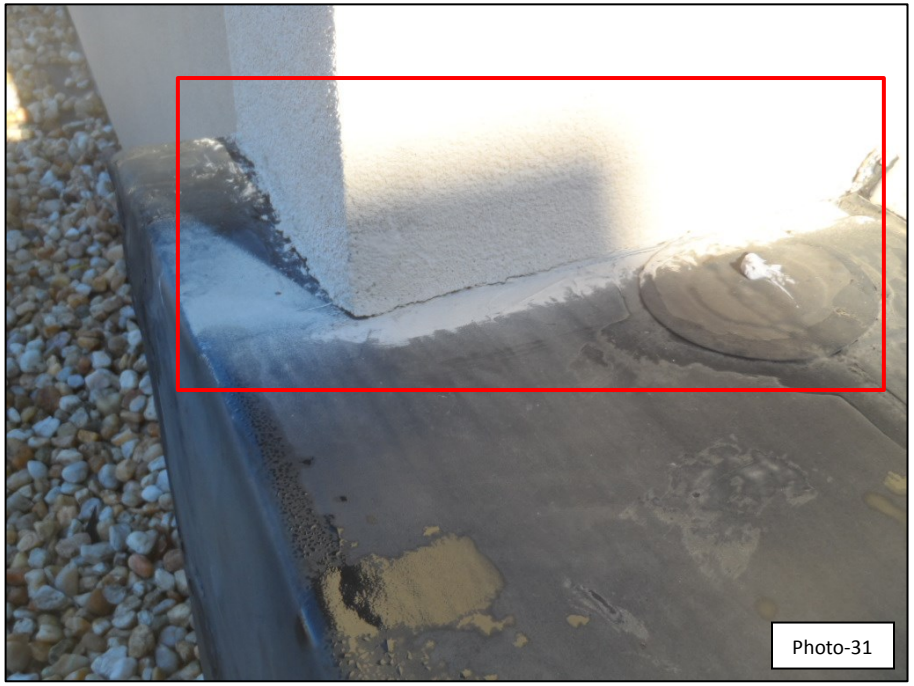

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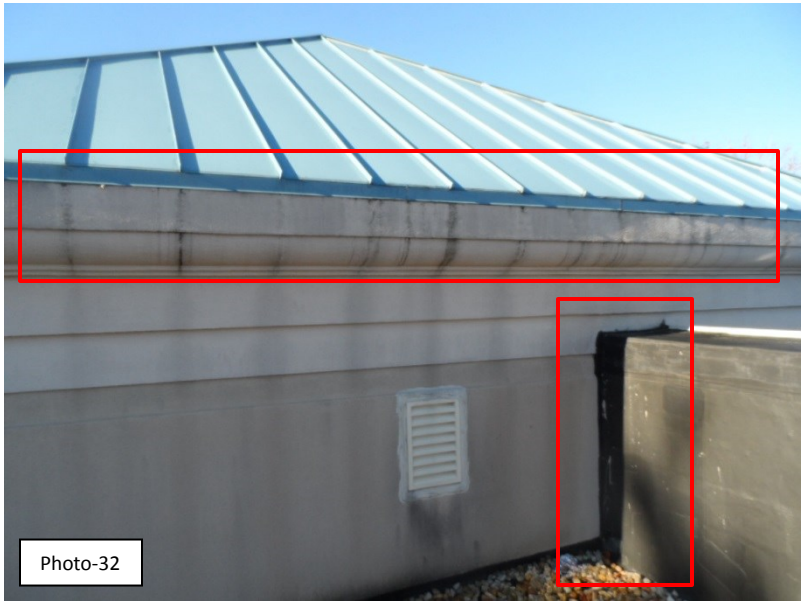

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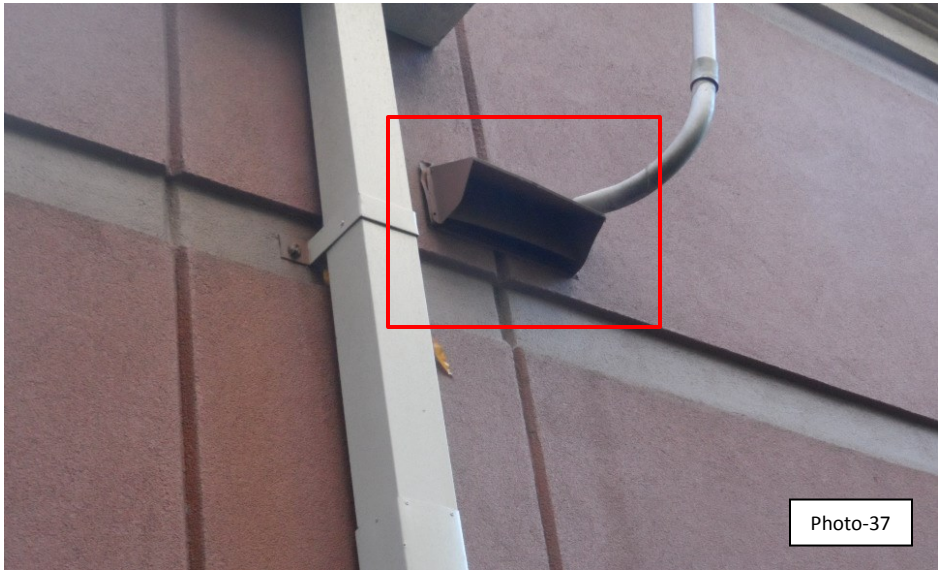

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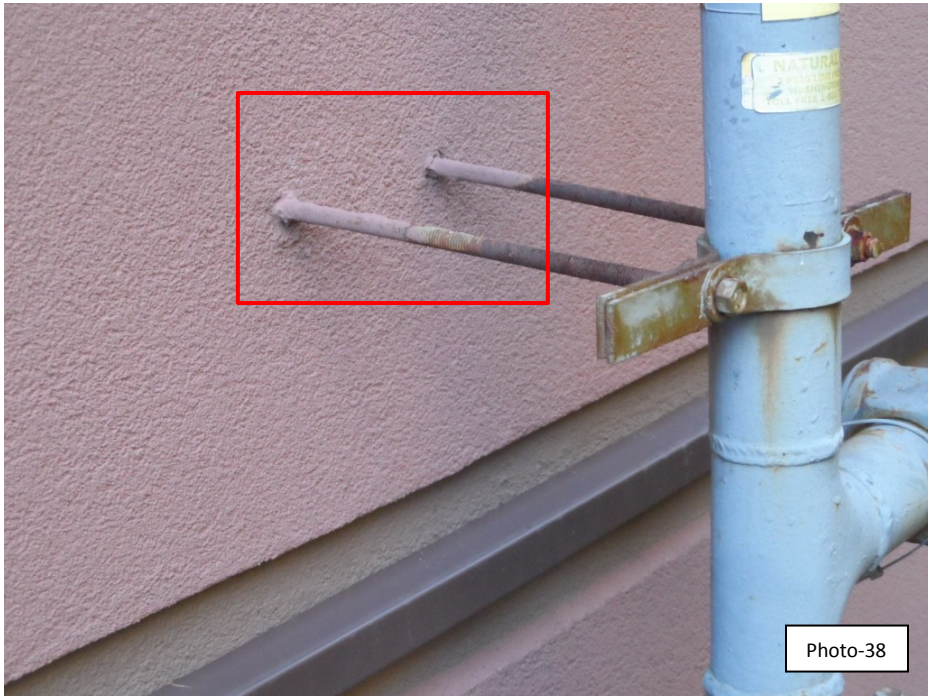

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Photo-40

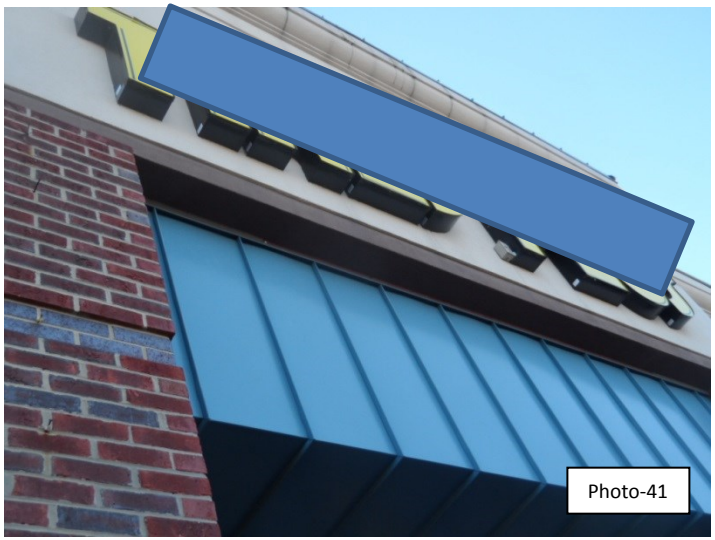

Photo-41

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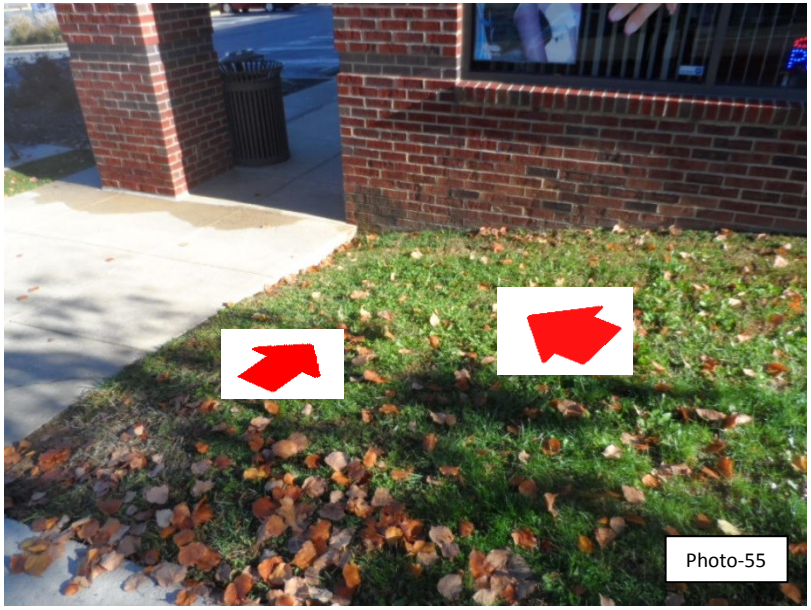

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