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SPECIALTY REPORT

Completed July 12, 2023

INSPECTION PROPERTY ADDRESS

850 East 820 North
Provo, UT

Dear C/O Matthew Flinders:

At the request of Matthew Flinders, I was called upon to visit your apartments and evaluate the exterior grading on the east side and the exterior of the structure at 850 East 820 North, Provo on May 26, 2023.

WHY ME? - I have been inspecting homes and commercial buildings in Northern Utah for the last 28 years and have that skill set to help me in my assessments. I have developed the keen eye and skills to be able to identify issues and then recommend a good course of action to remedy the issues identified. In this case, the owner lives out of state and needs somebody to be his eyes to help identify issues. I also am good at documenting my findings.

SITE VISIT - I visited the property alone in a light sprinkle rain and took 108 photos related to the grading and the exterior. I am providing those is a separate zip folder, and I will be including several of the images here in this specialty report.

GRADING

PROPERTY LINE - The east side of the building looks to be on or near the property line. The east neighbor looks to take care of the grass, yet there is the south end jog in the concrete where you see the bicycles at the lower left of the photo.

GRADING - **POOR** - Corrective action is needed. Currently, the east neighbor is NOT controlling the water on their lot and it flows down the slope directly into your foundation.
RECOMMENDATION - The 6-in-10 rule is the ideal. This means that you step 10 feet back from the foundation and the

grade should be 6" higher than where you are standing. This promotes surface water flow away from the structure. In this case, it is NOT easily possible to do this. The other portion of this rule is that you must stay at least six inches away from your exterior cladding. In your case, it is brick. At the southern end it would be easier, but unattainable at the northern end. So what are your options?

OPTIONS - Looking at this situation, the most straightforward option would be to install a French drain type system. This would include digging a trench along the foundation full length down below the floor slab of the lower units. You could then use black mastic goop to adhere plastic sheeting to the foundation and line the bottom full length. In the trench you would install a perforated black pipe that would run downhill from north to south to get water in the trench to enter the flow downhill safely to the discharge at the lower south end.
NOTE: I would also run a solid black pipe in the same trench and route it to the same south discharge point and run all of my roof downspouts into this solid pipe.
The trench would then be filled and all you would see when you were done is the downspout discharge pipe connectors and the south discharge point.

PROPERTY LINE - I refer back to this because I cannot tell where your property starts and stops. What I can tell is that the east neighbor has landscaped all the way up to your foundation. They designed their walkway and then chose a convenient slope down the hill into your building. I see no obvious preventive steps to prevent water collection into your building. Or have they already installed a French drain for you? The only way to tell would be for me to dig, and I did NOT do this during my visit.

WATER CONTROL - I want to stress that property owners are responsible to control the water on their property. They are not allowed to get the water off their property in a way that damages a neighbor's property. Has your property been damaged? Only an interior inspection of your units can confirm or deny if their has been water entry and damage inside your units. It is possible that you have had no water entry at all, but it is also probable that you have had moisture seepage along the east side of your units. Further evaluation is recommended.

WATER ENTRY? - Has there been any water entry along the east walls of your lower level units? I would investigate further to see if this negative grade water flow condition is causing issues inside your building. If so, then you will have mold and rot issues in your carpet, padding, and lower wall drywall framing.
RECOMMENDATION - Lift carpet edges and look closely at the east wall of every lower level unit for water entry signs. It will be very evident in the carpet tack strips along the lower east walls if there has been water entry or not. If so, then you have a major project ahead of you to control the future exterior water flow, waterproofing the foundation, and then addressing any of the interior water entry mold/rot damages. **Due to the owner's choice of lot grading onto your building, even if there has been no water entry, then the French drain system and foundation waterproofing are still recommended.**

DOWNSPOUTS - The east side roof has several downspouts that discharge directly onto the ground at the foundation. The black elbow looks to be from earlier in the wall roof drain lines. You can see the surface mounted downspout and the way is discharges onto the foundation.

Now look at the others that have black extension pipes added. These really do nothing more than move the water down a few more feet along the foundation. Unless these are joined and routed all the way to the south, then what have you really accomplished?

REMOVED - Just above the gas meters is a downspout that is currently removed at the roof and stored behind the meters. Obviously this downspout needs to be restored.

FAILED CAULKING JOINTS - This building was built at a time when you used small overlapping horizontal flashings and lots of caulk to seal up joints and transitions. Many improvements have been implemented over the years that help prolong the life of buildings. You currently have water entering in behind the brick from the siding transitions above. The horizontal brick to wood siding joints and window joints need repair to keep the water out.

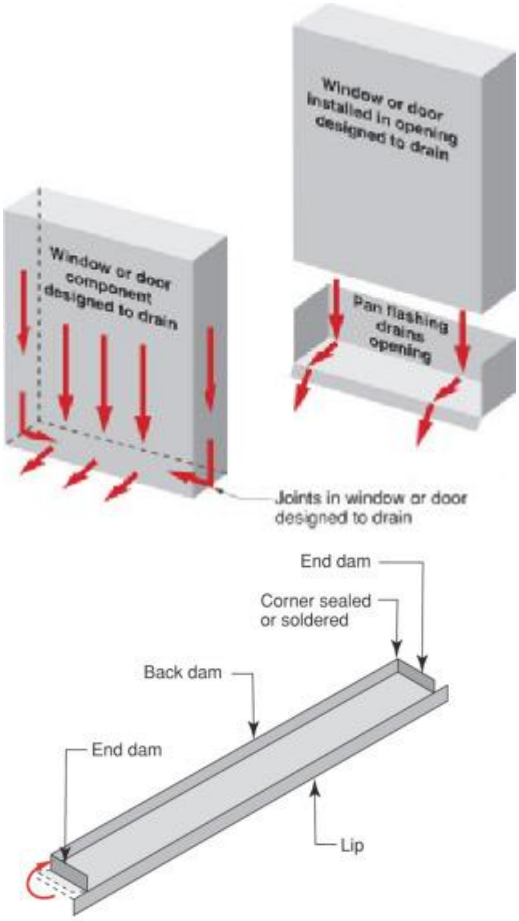
FLASHING -Look closely at the photo above and you can see that the through the wall flashing comes out about and inch and barely covers the brick.
RECOMMENDATION - This may sound drastic, but my recommendation is that you do a siding upgrade directly over the current plywood siding. This would include a fresh new drainage plane. This would include much larger through the wall flashings, house wrap or felt paper, and then the new cladding. This would prevent the need for caulk to protect from water entry in behind the brick. It would also allow for a fresh modern look to the building.

WINDOWS - The current windows have a poor seal along the top edge of the horizontal brick joint. You have both the original aluminum framed windows and a unit with vinyl framed windows. The joints of both styles have failed caulking joints.

RECOMMENDATION - It would have been better if the windows did not terminate immediately on top of the brick so that an overlapping through the wall flashing could be used. But since it was done this way, then this caulking joint is critical. Obviously, the current joints have long been deferred. These must be touched up at least annually.

WINDOW UPGRADE - You should consider upgrading the upper level west windows to new dual paned vinyl framed units. Talk with the window supplier/installer about their recommendation for flashing upgrades to deal with this brick joint. I can envision a window unit with no flange being set into place. The waterproofing details would be installed prior to the window by use of perimeter opening flashing and lower edge pan flashing that safely gets any water to flow out and over the sloped brick window sill. If your installer has no idea what I am referring to and just wants to rely on caulk, then you have the wrong installer for the job. Caulk on the sheltered lower level windows may work just fine, but these upper row units are directly exposed to wind driven rain and snow, and require extra precautions to prevent water entry. I will share a couple of details to

help you better understand.



Obviously, the lower lip on the pan flashing would be angled out and over your angled brick and not vertical like the drawing above.
EXPLANATION: https://buildingscience.com/documents/information-sheets/pan-flashing-for-exterior-wall-openings

DOORS - The door to brick joints suffer from the same caulking failures that allow water into the walls.

RECOMMENDATION - The door frame to brick and siding joints need to be recaulked.

HOSE BIB - The hose bib set into the stone is not secured and twists.

RECOMMENDATION - Secure the mounting flanges of the hose bib to prevent twisting.

FOLIAGE - The foliage is overgrown.

RECOMMENDATION - Trim the foliage back from the structure.

BRICK EFFLORESCENCE - The white staining on the brick shows that it is being excessively sprayed with water.

RECOMMENDATION - Check the sprinkler spray from the neighbor first. I suspect you have stray sprinkler spray directly onto your building. Scrub the white powder off and then monitor to see if it returns. This may have been from decades ago. If it returns, then it is an ongoing issue.

REAR SIDING - The siding has been poorly maintained and there is ongoing damage.

RECOMMENDATION - Consider residing the building. At the very least you need to prep, paint, and caulk to attempt to stretch more life out of the siding.

DRYER VENT - The louver vent is protruding and not secure.

RECOMMENDATION - Consider residing the building. At the very least you need to prep, paint, and caulk to attempt to stretch more life out of the siding

HARD WATER SPOTS - The windows are damaged and covered with hard water spots.

RECOMMENDATION - Replace the window. As for the source, it is probably the neighbor's sprinklers spraying the building.

It is my hope that this information will help you plan for future upgrades in a way that will best protect the building and require the least amount of ongoing regular maintenance.
Respectfully,

Michael D. Leavitt

Michael Leavitt - Inspector