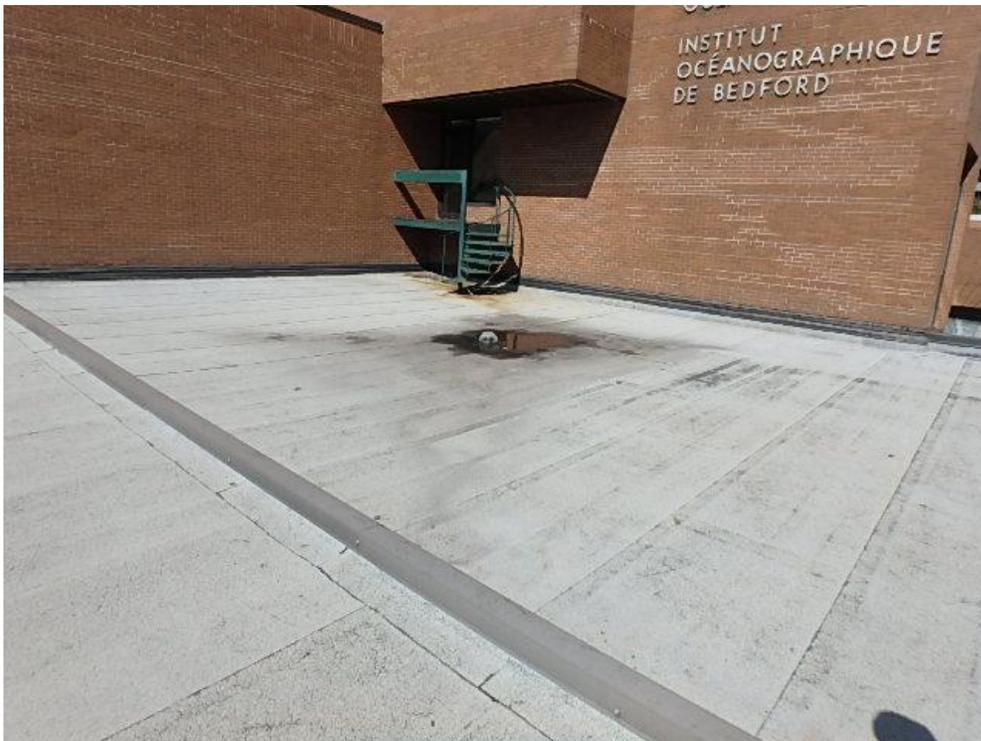




**Photograph 1:** Overall view of Murray building Roof Area 1.1 looking south towards Halifax. This is a 2 ply modified bitumen roof that is approximately 15 years old



**Photograph 2:** Roof Area 1.1 – Overall view of portion of roof area 1.1 showing ponding, expansion joint, and metal stairway and landing to adjacent building.



**Photograph 3:** Roof area 1.1 View of typical parapet along roof edge.



**Photograph 4:** Roof Area 1.1 – Roof drain with debris and severe blistering.



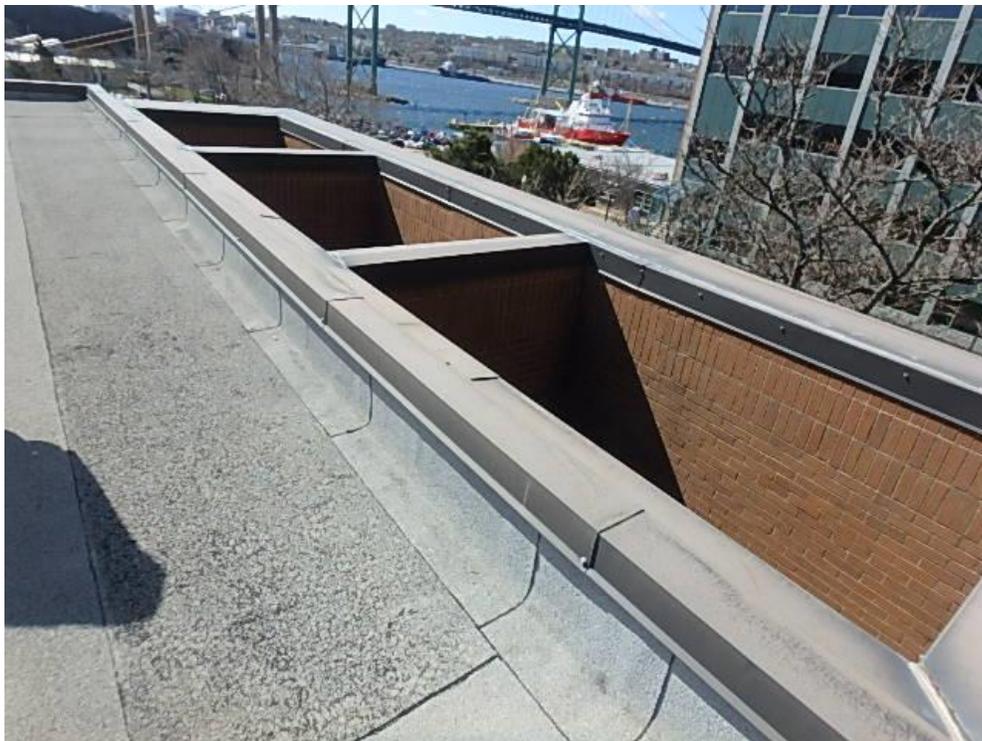
**Photograph 5:** Roof Area 1.1 –.Ridging of membrane at seam.



**Photograph 6:** Roof Area 1.1 – debris and vegetation growth at corner and showing poorly sealed reglet detail along wall transition



**Photograph 7:** Roof Area 1.1 – delamination of membrane cap sheet flashing that occurs in multiple locations along parapet.



**Photograph 8:** Roof Area 1.1 – Typical parapet around open skylight.



**Photograph 9:** Roof Area 1.1 – delamination of membrane cap sheet flashing that occurs in multiple locations along south east parapet.



**Photograph 10:** Roof Area 1.1 – HVAC units on pavers with insulation membrane protection and conduits running to adjacent doghouse penetration.



**Photograph 11:** Roof Area 1.1 – Doghouse penetration detail and HVAC units on sleepers that do not have membrane protection underneath.



**Photograph 12:** Roof Area 1.1 – unused pavers sitting directly on membrane



**Photograph 13:** Roof Area 1.1 – Typical cracking on cap sheet membrane along parapet.



**Photograph 14:** Roof Area 1.1 – Ridging and blistering of roof membrane.



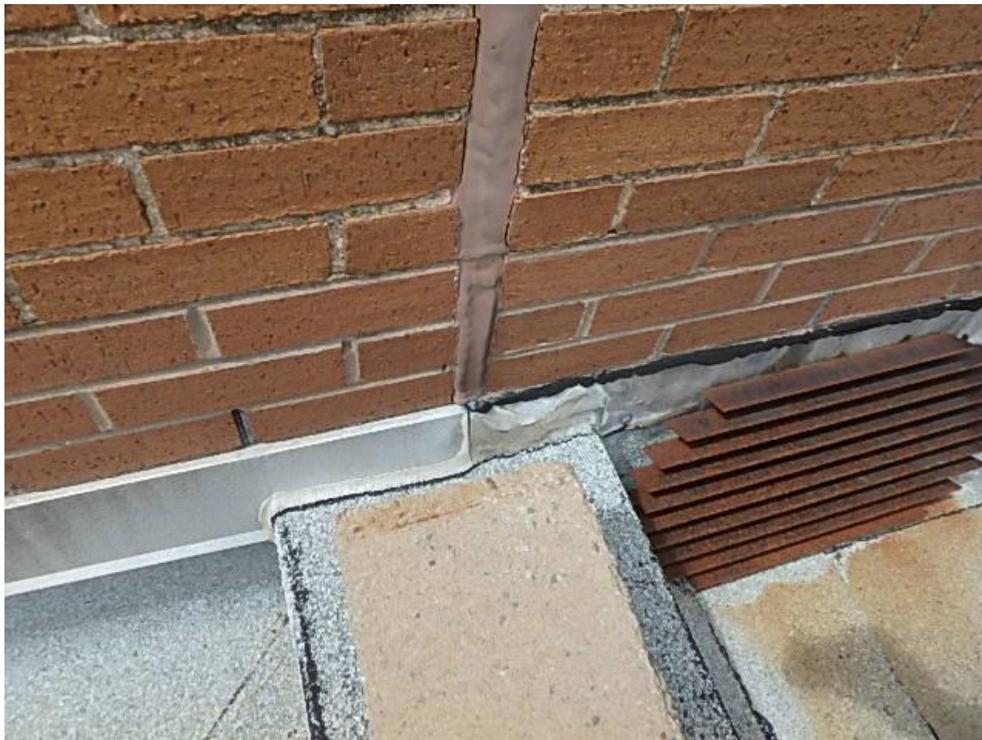
**Photograph 15:** Roof Area 1.1. Metal stairs and landing with rust staining of unprotected membrane below.



**Photograph 16:** Roof Area 1.1 – Poorly sealed reglet/expansion joint detail along with cracking of cap sheet flashing.



**Photograph 17:** Roof Area 1.1 – Cracked cap sheet flashing and damaged metal flashing.



**Photograph 18:** Roof Area 2.1 – Unprotected roof divider, debris, and poorly sealed reglet detail.



**Photograph 19:** Roof Area 2.1 – Roof drain with surrounding blisters and improper cap sheet detail around drain.



**Photograph 20:** Roof Area 2.1 –damaged metal flashing at doorway and worn membrane due to lack of membrane protection in front of door.



**Photograph 21:** Roof Area 2.1 – Membrane tenting at reglet detail along wall.



**Photograph 22:** Roof Area 2.1 – Ridging and blistering of roofing membrane and plumbing stacking penetration



**Photograph 23:** Roof Area 2.1 – Typical unprotected parapet with worn edges.



**Photograph 24:** Roof Area 2.1 – Damaged and poorly sealed flashing along wall at reglet and parapet intersection.



**Photograph 25:** Roof Area 2.1 – Overall view of roof area 2.1 facing north east.



**Photograph 26:** Roof Area 2.1 – Overall view facing south west showing debris along wall, poorly sealed reglet detail, and ridging and blistering on roofing membrane.



**Photograph 27:** Roof Area 2.1 – drain and plumbing stack detail with improper cap sheet membrane detail around drain, poorly sealed plumbing stack, cracking in membrane and vegetation growth.



**Photograph 28:** Roof Area 2.1 – Debris and vegetation growth in corner along with stack penetration.



**Photograph 29:** Roof Area 2.2– Rust staining of unprotected membrane under ladder, HVAC on sleepers without membrane protection, and conduit gooseneck penetration.



**Photograph 30:** Roof Area 2.2 – Typical roof drain installation with improper cap sheet detail.



**Photograph 31:** Roof Area 2.2– Typical membrane delamination around HVAC sleeper.



**Photograph 32:** Roof Area 2.2 – Membrane blistering, HVAC units on sleepers, roof drain with improper cap sheet detail and vegetation growth, and piping from HVAC unit through wall.



**Photograph 33:** Roof Area 2.2–HVAC units on sleepers with no membrane protection and AC units on paver/concrete blocks also without membrane protection.



**Photograph 34:** Roof Area 2.2 – Membrane blistering and ridging, and unprotected membrane over roof divider.



**Photograph 35:** Roof Area 2.2 – Membrane delamination along seam.



**Photograph 36:** Roof Area 2.2 – Typical parapet detail around roof edge.



**Photograph 37:** Roof Area 2.3 – Overall view of roof area 2.3 facing south.



**Photograph 38:** Roof Area 2.3 – Showing typical, unprotected parapet membrane and ponding.



**Photograph 39:** Roof Area 2.3 – Roof drain blocked by vegetation growth.



**Photograph 40:** Roof Area 2.3 – Parapet with membrane tenting and vegetation growth.



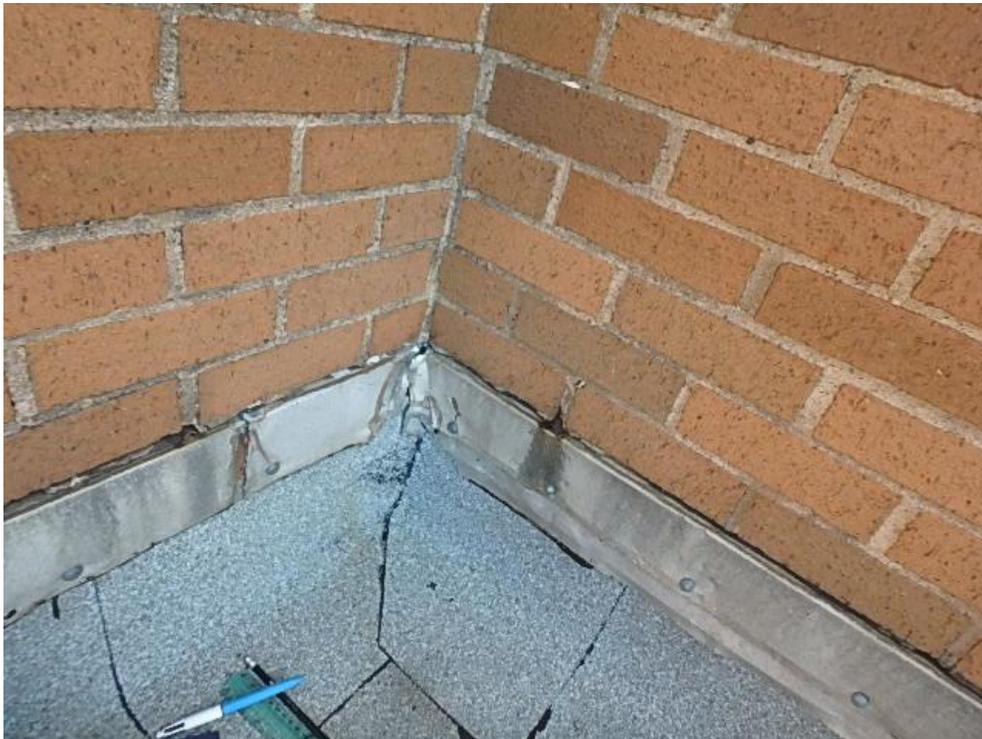
**Photograph 41:** Roof Area 2.3 – Parapet intersection at wall and reglet detail. Improperly sealed reglet over parapet.



**Photograph 42:** Roof Area 2.3 – sealant missing at reglet and improperly sealed between flashing and membrane.



**Photograph 43** - Roof Area 2.3 – Staining of membrane and flashing under sill of access door.



**Photograph 44:** Roof Area 2.3 – Improper sealant/flashing along reglet.



**Photograph 45:** Roof Area 2.4 – Roof area above entrance with no access from building or by ladder. There is evidence of ponding and membrane cracking in multiple locations.



**Photograph 46:** Roof Area 3.1 – Overall view of roof area facing north west. The modified bitumen roof is approximately 12 years old.



**Photograph 47:** Roof Area 3.1 – Typical gravel stop along roof edge.



**Photograph 48:** Roof Area 3.1 – Typical roof anchor to be removed due to load testing failure. Poor flashing around anchor base is also typical.



**Photograph 49:** Roof Area 3.1 – Typical roof drain installation with improper cap flashing detail.



**Photograph 50:** Roof Area 3.1 – Exhaust fan and conduit gooseneck penetrations.



**Photograph 51:** Roof Area 3.1 – Skylight in good condition.



**Photograph 52:** Roof Area 3.1 – roof divider detail between roof area 3.1 & 3.2



**Photograph 53:** Roof Area 3.1 – Top of ladder at roof edge without membrane protection.



**Photograph 54:** Roof Area 3.1 – Typical flashing problem at plumbing stack.



**Photograph 55:** Roof Area 3.1 – Damaged skylight.



**Photograph 56:** Roof Area 3.1 – Blistering and ridging in membrane and flashing problems around unused roof anchor. Unused curbs also shown.



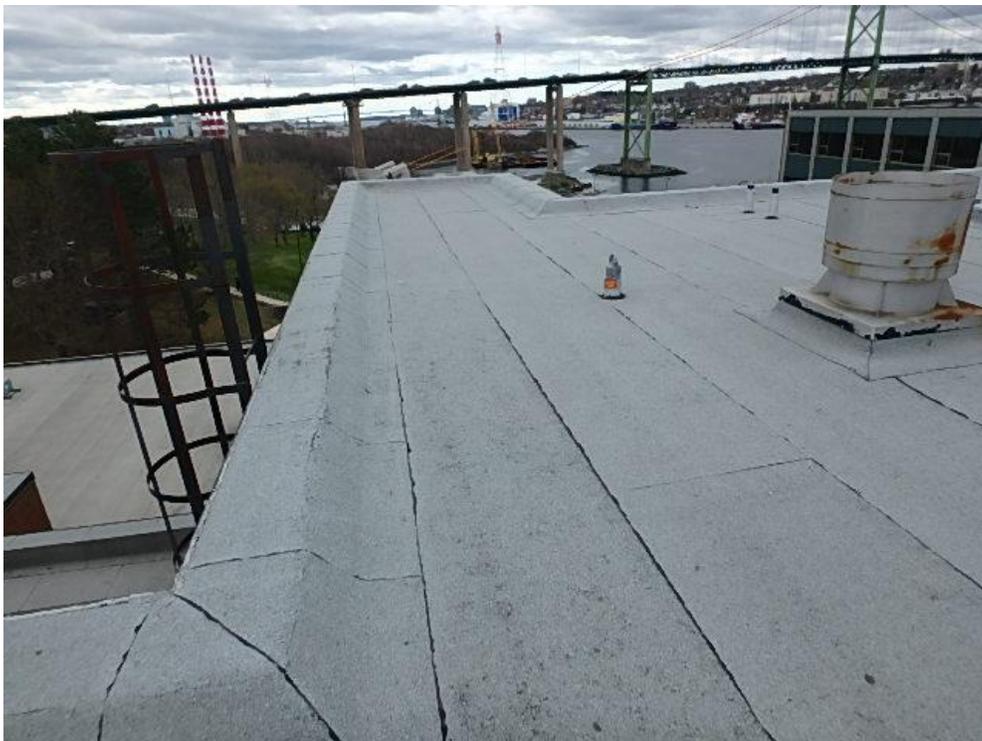
**Photograph 57:** Roof Area 3.2 – Evidence of ponding around exhaust fan curb. Membrane flashing problems also evident around curb.



**Photograph 58:** Roof Area 3.2 – Blistering on membrane around roof edge and improper corner flashing detail.



**Photograph 59:** Roof Area 3.3 – Overall view of roof area 3.3 with evidence of ponding along with ridging and blistering of membrane.



**Photograph 60:** Roof Area 3.3 – Membrane protection missing at top of ladder.



**Photograph 61:** Roof Area 3.3 – Flashing problem around plumbing stacks.



**Photograph 62:** Roof Area 3.3 –Debris and lack of membrane protection under metal supports and concrete blocks. Improper column support used.



**Photograph 63:** Roof Area 3.3 – Blistering on membrane along with minor debris.



**Photograph 64:** Roof Area 3.3 – Evidence of ponding, ridging and blistering, and flashing problems around penetrations.



**Photograph 65:** Roof Area 3.3 – Separation of membrane flashing from wall. Poor flashing detail at intersection of reglet at parapet.



**Photograph 66:** Roof Area 3.3 – Debonding of membrane flashing is evident in multiple locations.



**Photograph 67:** Murray Building roof area 1.1 Core cut



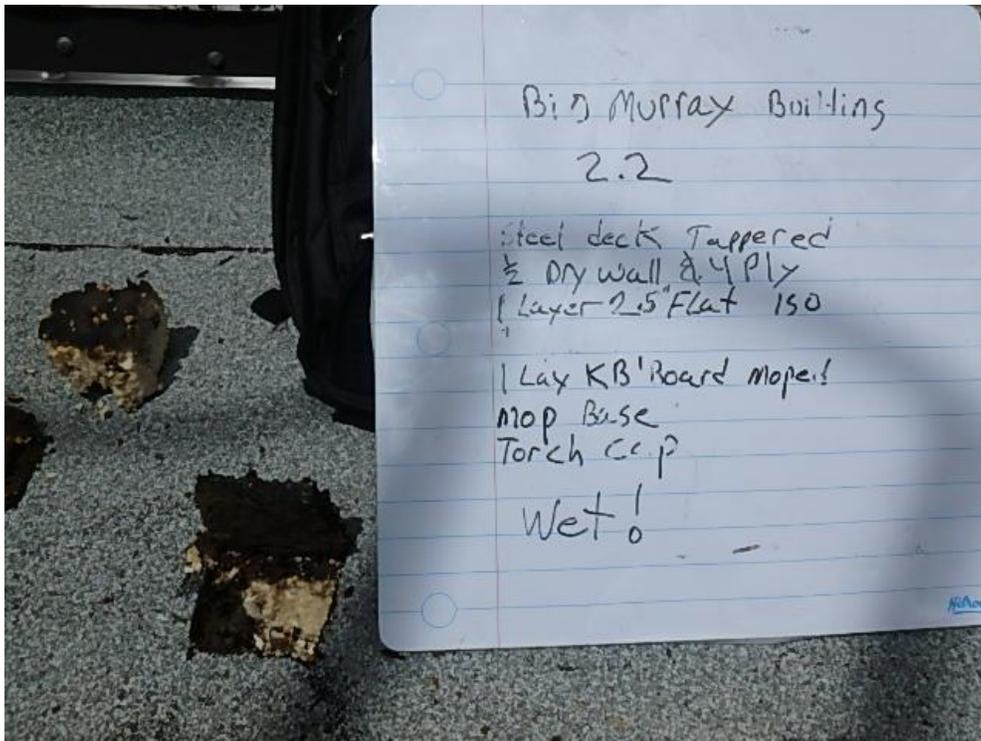
**Photograph 68:** Roof Area 1.1 – Roof insulation moisture test showing low levels of moisture.



**Photograph 69:** Murray Building roof area 2.1 Core cut



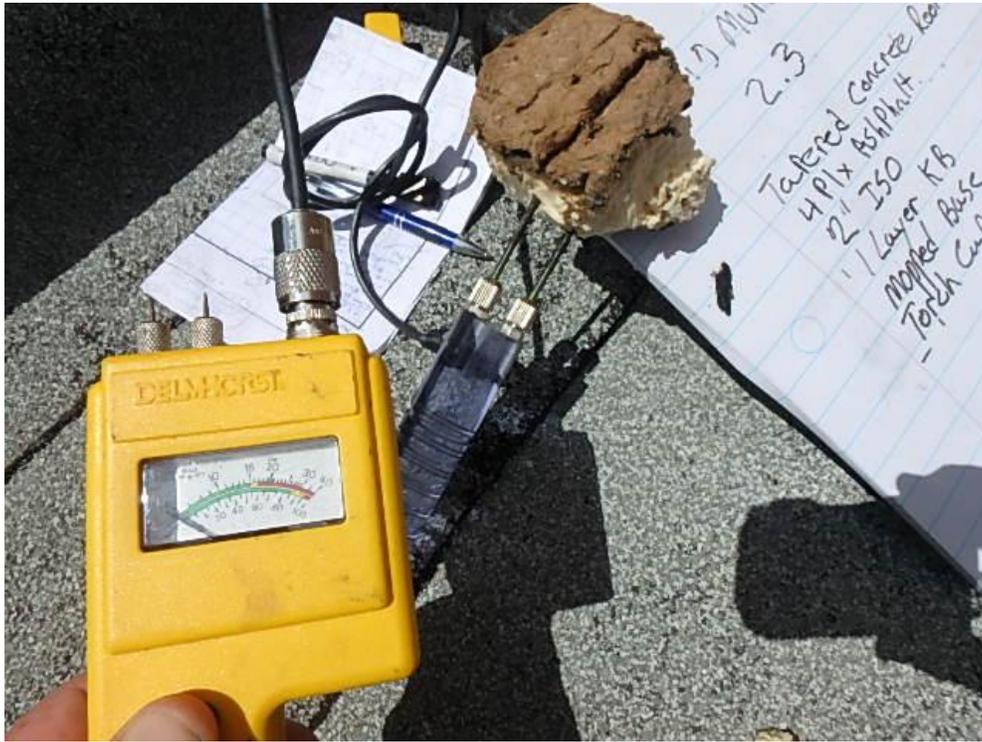
**Photograph 70:** Roof Area 2.1 – Roof insulation moisture test showing high levels of moisture.



Photograph 71: Murray Building roof area 2.2 Core cut



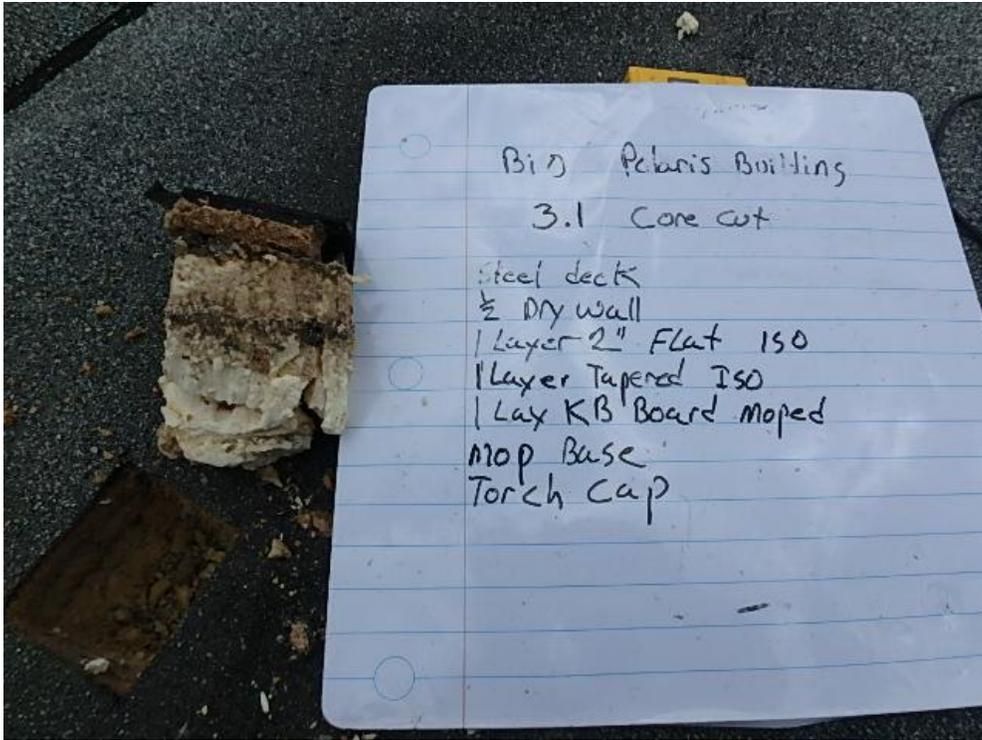
Photograph 72: Roof Area 2.2 –.Roof insulation moisture test showing a completely saturated roofing system.



**Photograph 73:** Murray Building roof area 2.3 Core cut & moisture test showing dry insulation



**Photograph 74:** Roof Area 2.3 – Roof insulation moisture test showing low levels of moisture..



Photograph 75: Murray Building roof area 3.1 Core cut



Photograph 76: Roof Area 3.1 –Roof insulation moisture test showing low levels of moisture.



**Photograph 77:** Murray Building roof area 3.3 Core cut



**Photograph 78:** Roof Area 3.3 –.Roof insulation moisture test showing low levels of moisture.