

TO Laurie Landy  
Willis Canada Inc.  
1500 - 1095 West Pender Street  
Vancouver, BC, V6E 2M6

PROJECT **1788.188**  
**Viridian Green**  
DATE **June 29, 2011**

FAX: (604) 683-5746

REGARDING **1788.188 - Viridian Green, 3507 - 3533 West 4th at Collingwood, Vancouver, BC**  
**Post Construction Review for Warranty**

Dear Ms. Landy:

At your request, we are writing to provide you with a summary of our post-construction review of the above noted project.

The following comments and information are provided within the same context as our initial risk review for the project.

We have also attached an appendix to this report that contains copies of photographs that we took during our visit of the project. Except where specifically referenced in the report, the photos are simply documentation of the areas reviewed.

Please note that a claims file is open on this project and a number of substantive issues have been identified by VVV Engineering Ltd. in their report to Strata Plan BCS 3187, dated August 30, 2010. Although meetings have been attended, and the issues in the VVV report discussed, the strata reports that no work has been performed at the property to address the issues.

#### 1.0 Post Construction Information

Project Address:	3507 - 3533 West 4th at Collingwood, Vancouver, BC		
Date of Visit:	6/27/2011		
<b>Attendance for Post Construction Review</b>			
Company	Contact	Phone	Fax
RDH Building Engineering	Harvey Goodman, P.Eng. BEP	(250) 703-4753	(250) 703-4754
Strata Plan BCS3187	Mark Harrison		
Strata Plan BCS3187	Racheal Wong		
Strataco Management Ltd.	Carey Grandy	(604) 294-4141	(604) 294-8956
Consultant:	Morrison Hershfield #610 - 3585 Graveley Street Vancouver, BC, V5K 5J5	Contact: Jamie A. McKay Phone: (604) 454-0402 Fax: (604) 454-0403 E-Mail: jmckay@morrisonhershfield.co	
Consultant:	W T Leung Architects Ltd. 300, 973 West Broadway Vancouver, BC, V5Z 1K3	Contact: Konning Tam Phone: (604) 736-9711 Fax: (604) 736-7991 E-Mail:	

General Contractor:	Cape Construction (2001) Ltd. 633 - 9560 No. 6 Road Richmond, BC, V6V 1Z1	Contact: Kirk Yuen Phone: (604) 278-0912 Fax: (604) 278-4628 E-Mail: yuen@cape-construction.com
Developer:	Larc Developments (Collingwood) Ltd. 4401 Woodpark Road West Vancouver, BC,	Contact: David Mooney Phone: (604) 730-0191 Fax: (604) 730-0189 E-Mail: mooneyjdoo7@gmail.com
Owner:	Strataco Management Ltd. 101 - 4126 Norland Ave. Burnaby, BC, V5G 3S8	Contact: Carey Grandy Phone: (604) 294-4141 Fax: (604) 294-8956 E-Mail: managers@stratacomgmt.com
Owner:	Strata Plan BCS3187 4th & Collingwood Vancouver, BC,	Contact: Racheal Wong Phone: Fax: E-Mail: corpadmin@hylouie.com
Owner:	Strata Plan BCS3187 4th & Collingwood Vancouver, BC,	Contact: Mark Harrison Phone: Fax: E-Mail:

## 2.0 Confirmation of Warranty Information

Willis Warranty Duration
2 Year Labour and Material
10 Year Water Penetration
10 Year Structural

## 3.0 Basic Description of Areas Covered, Specifically Excluded and Deductibles

New construction of a multi-unit, residential, low-rise building with commercial space at the ground floor over a below-grade parking garage. We assume that the following assemblies are excluded from mandatory warranty coverage:

- All commercial and retail areas of the ground floor and parking garage areas of level P1.

## 4.0 Post Construction Review Content

The post construction review included a discussion with the attending owner representatives prior to a brief visual review of the building in order to identify any on going concerns related to the building envelope assemblies.

In addition, our scope was to include a review of the tasks identified within the maintenance and renewal plan (MRP). Further we were to discuss the overall strategies of the MRP with the owner representatives and note whether the owners are utilizing the schedules and checklists with respect to both routine maintenance and renewals activities.

Finally, a visual assessment of the envelope components was conducted in order to determine if there was any evidence of moisture related problems. The following table summarizes our observations:

Reviewed tasks identified during the Risk Review
- Discussed the outstanding issues identified in the August 30, 2010 VVV Report. None have been addressed.
Owners have an understanding of the strategies of the plan
- An MRP has not been developed for this property.
- An explanation was given to the owner representatives of the inclusions in a typical MRP.

Evidence that owners are utilizing the plans checklists and schedules			
- Visual observation of the property reveals that basic maintenance is generally being performed, however, it is not being guided by a project specific MRP.			
Discussed Maintenance and Renewals plan with owner representative(s)			
- The importance of performing, and documenting, maintenance and renewals work was stressed. That work needs to be guided by an MRP prepared by the project's builder and consultants on behalf of the developer.			
Visual Observations Components	Condition Observed	Evidence of Potential Problem	Comment
<b>Walls</b>			
Fibre Cement Board and Brick Clad Walls	Yes	Yes	The owner representatives reported deterioration problems with fibre cement board cladding. Portions of the fibre cement board cladding are a James Hardie product. A James Hardie representative reviewed the installation. No remedial work has been performed to date.  A dryer vent hood was observed to be plugged, Photo 8. The strata representatives were advised that the frequency of dryer vent cleaning should be increased.  Items on the VVW Engineering report need to be addressed.
Exposed concrete	Yes	Yes	We had identified exposed concrete as a risk in our initial risk review and had been advised that there was no exposed concrete except at property-line walls. In fact, there are considerable areas of exposed concrete, not appropriately protected according to the Willis protocol. In some areas there are cracks in the exposed concrete including at sloped copings at window sills, Photo 8. The cracks should be addressed.
<b>Windows</b>			
	Yes	Yes	Items on the VVW Engineering report need to be addressed.  A cracked window wall panel needs to be replaced. The cause of the problem should be investigated.
<b>Doors</b>			
	Yes	Yes	Some exterior residential doors at the complex are difficult to latch. Unlatched doors can result in air leakage and water ingress.
<b>Balconies</b>			
	Yes	Yes	The strata representatives reported that the planter at Unit 217 leaked into the unit's interior, Photo 17 is of a similar planter. It is uncertain whether the problem was unique to that location, or is systemic. A report on this issue is required.
<b>Decks</b>			

	Yes	Yes	<p>Many of the deck paver joints are quite tight and easily clogged with debris, Photo 21. It is uncertain whether the deck assembly complies with the design drawings and Risk Review recommendations. Decks that are not appropriately maintainable may facilitate water ingress problems.</p> <p>Past leakage has been associated with planter and / or podium waterproofing. Leakage into the retail space has been remediated by the retail space strata lot owner. To assist in identifying whether the problems were unique to each location, or are systemic, the retail space strata lot owner should forward information on what they found and how the problems were remediated.</p> <p>Current leakage is observable in the parkade, Photo 22 and at two locations adjacent to the north-east exterior exit stair, Photos 23 and 24.</p> <p>Current leakage is also apparent at a number of suspended slab to upstand walls joints, Photos 25, 26, and 27.</p>
<b>Roofs</b>			
	Yes	Yes	Items on the VVW Engineering report need to be addressed.
<b>Parkade Membranes</b>			
	Yes	Yes	<p>Leakage, or signs of leakage, was observed in the electrical room (Photo 29) and the above the car access ramp to IGA parking (Photo 30).</p> <p>Items on the VVW Engineering report need to be addressed.</p>

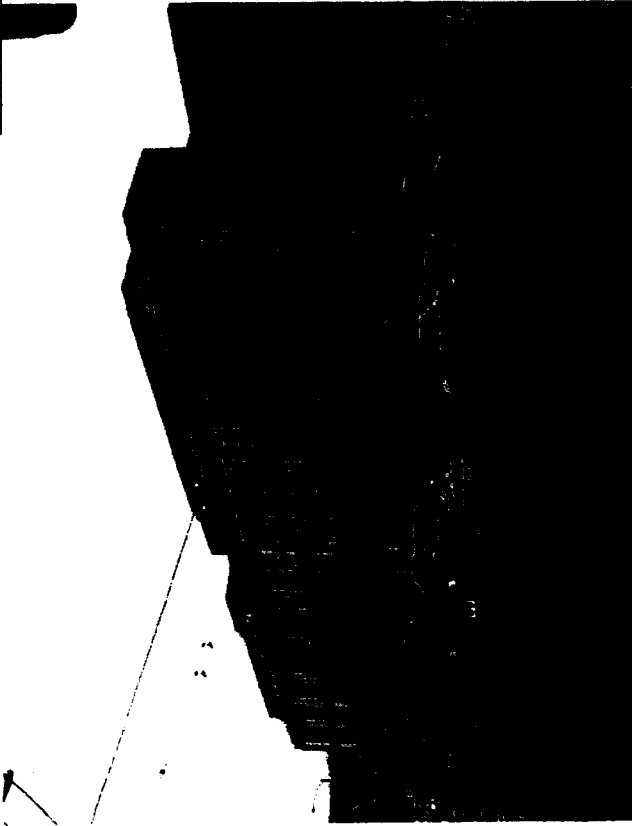
#### 5.0 Key Factors in Post Construction review

Key issues possibly affecting the effective performance of the building envelope within warranty period identified during the post construction review include:

- Preparation and utilization of a maintenance and renewals plan.
- Routing and sealing of cracks in exposed concrete.
- Appropriately addressing the substantive issues in the VVW report.
- Fully investigating past and current leakage, including identification of systemic problems.
- Remediation of current leakage problems.

Yours Truly,

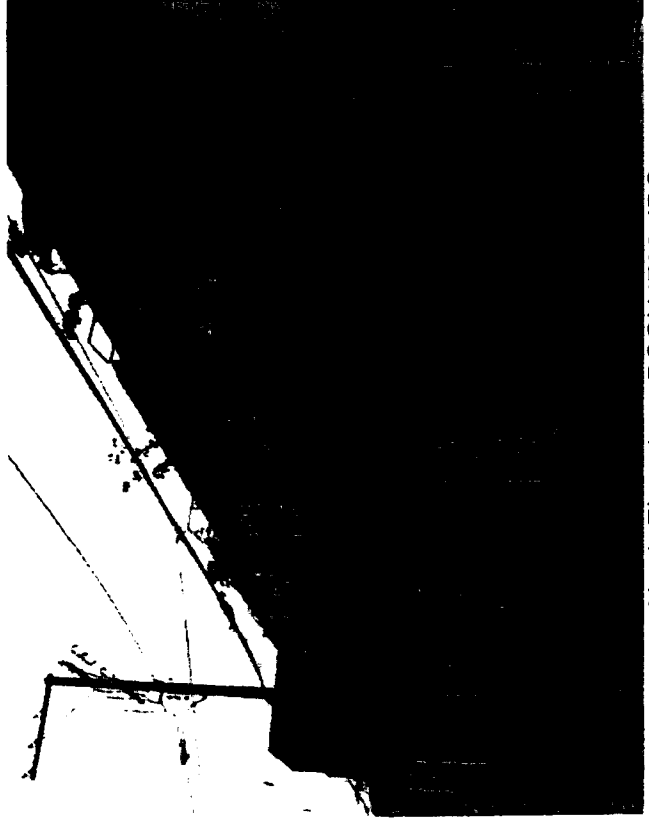
Harvey Goodman, P.Eng. BEP  
Building Science Specialist



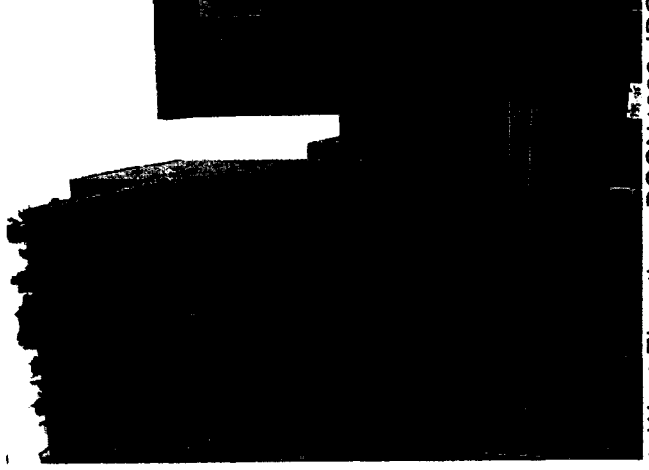
1 South Elevation - DSCN4724.JPG



2 East Elevation - DSCN4725.JPG



3 North Elevation - DSCN4700.JPG



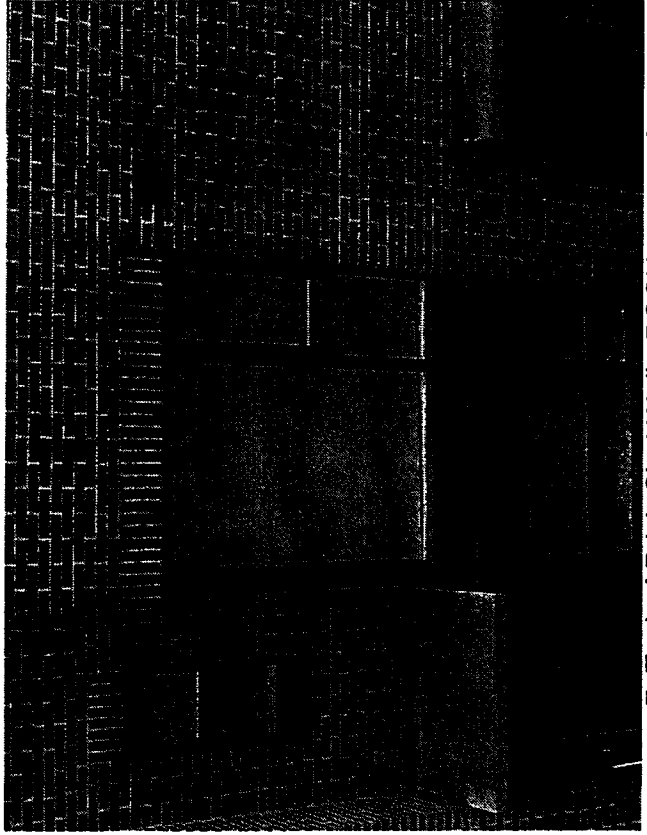
4 West Elevation - DSCN4699.JPG



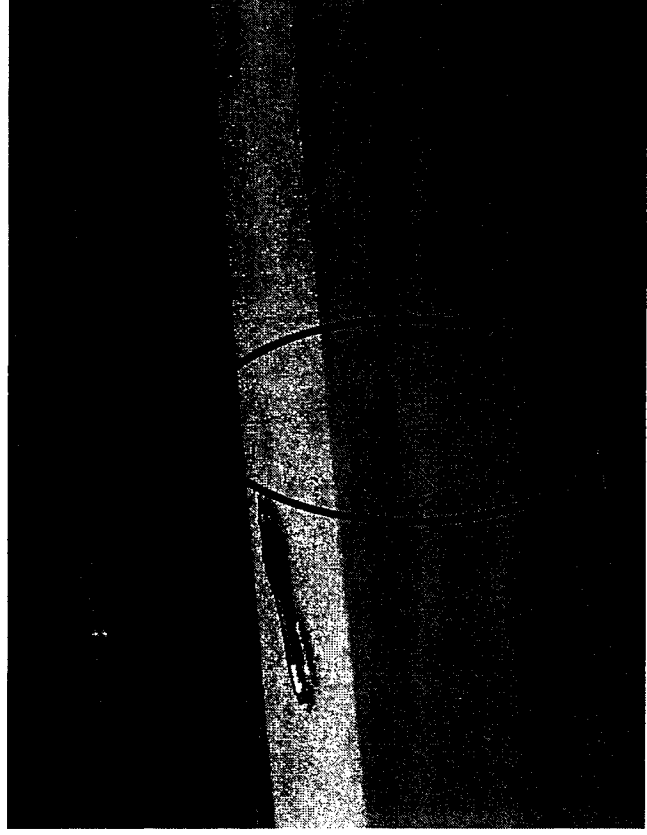
5 Courtyard Looking West - DSCN4723.JPG



6 Typical Fibre Cement Board Clad Wall - DSCN4666.JPG



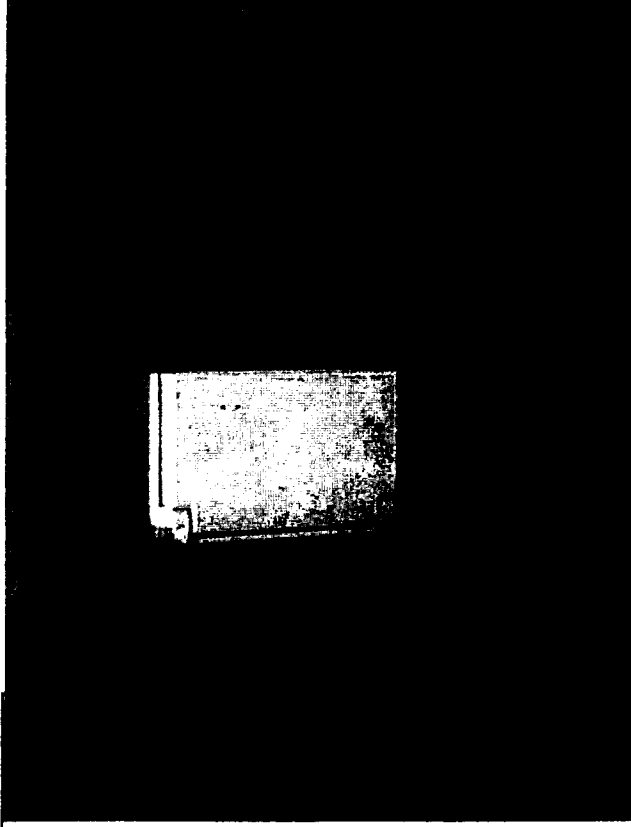
7 Typical Brick Clad Wall - DSCN4677.JPG



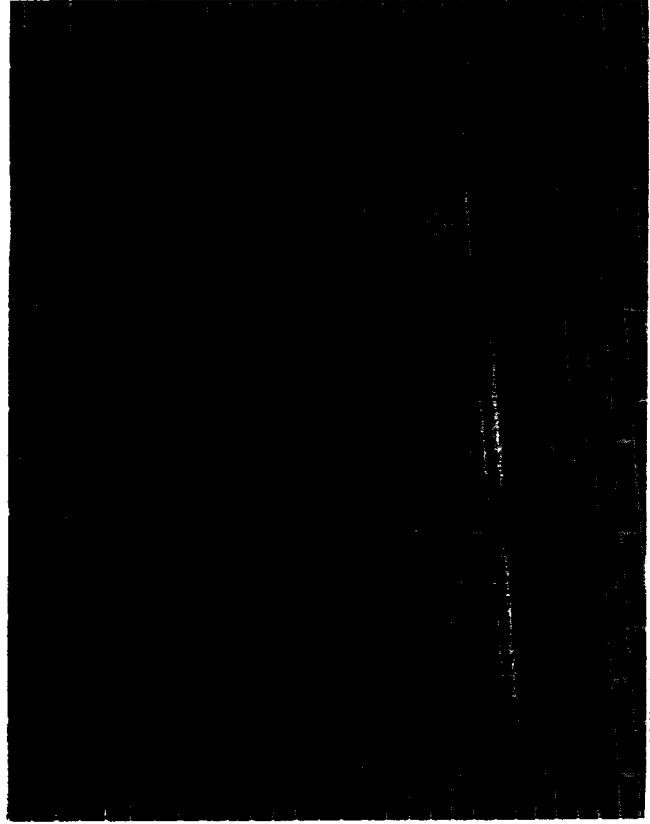
8 Exposed Concrete At Window Sill - DSCN4685.JPG



9 Plugged Dryer Vent Hood - DSCN4649.JPG



10 Typical Wall Penetration - DSCN4664.JPG



11 Windows Adjacent To Brick Cladding - DSCN4678.JPG



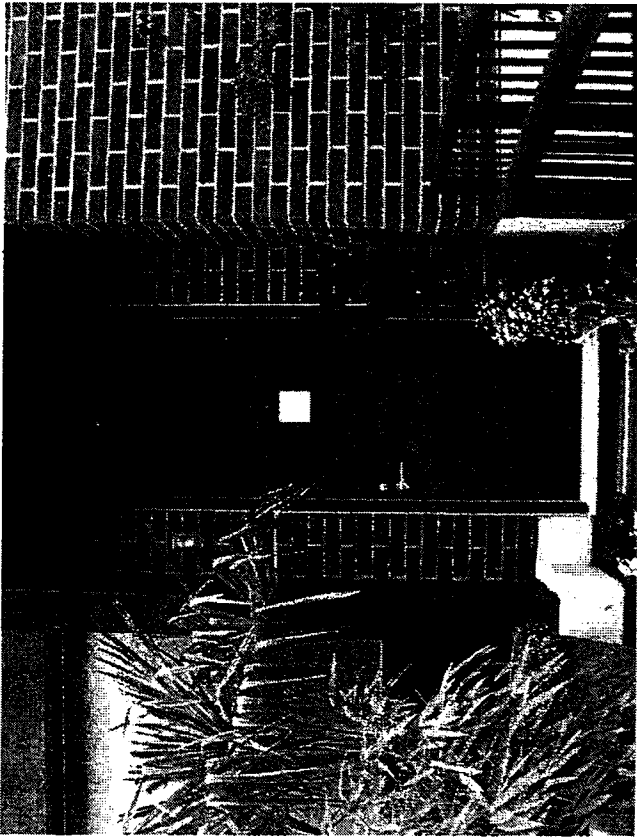
12 Windows Adjacent To FCB Cladding - DSCN4668.JPG



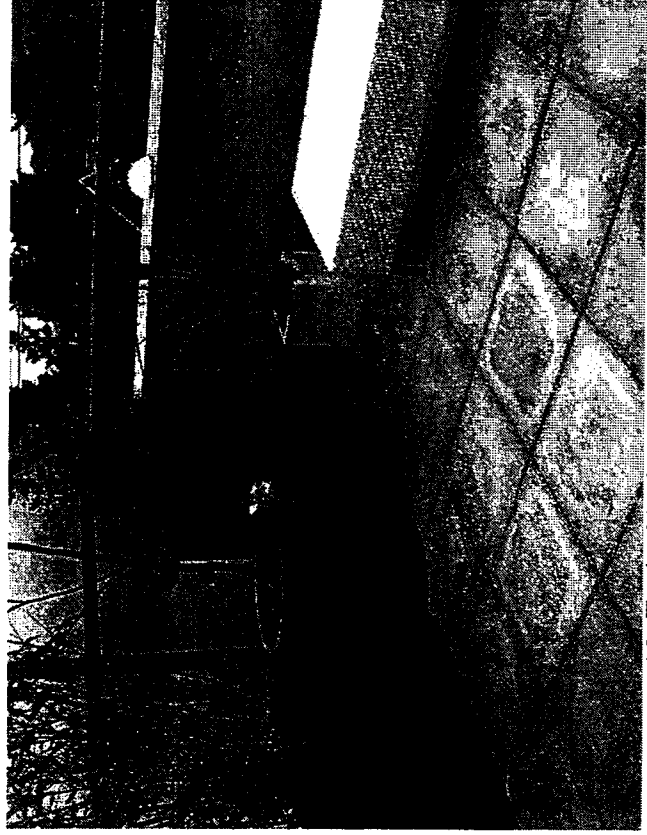
13 Window Wall - DSCN4714.JPG



14 Typical Glazed Residential Door - DSCN4654.JPG



15 Typical Wood Residential Door - DSCN4683.JPG

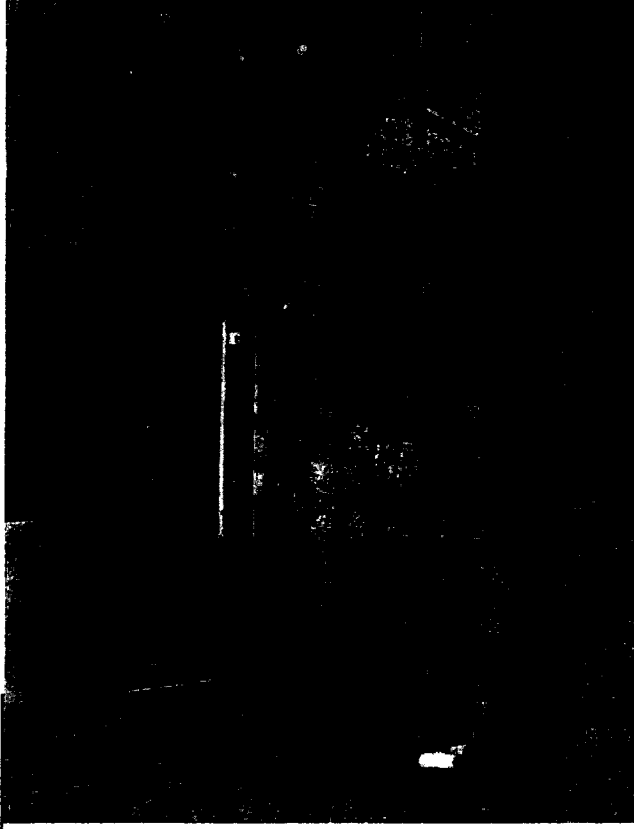


16 Typical Balcony - DSCN4669.JPG





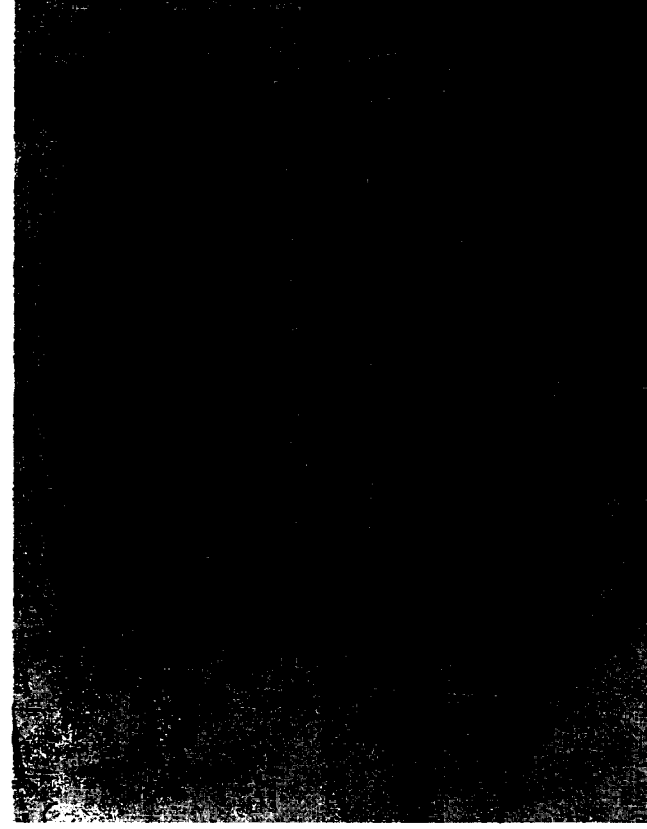
17 Typical Balcony Planter - DSCN4663.JPG



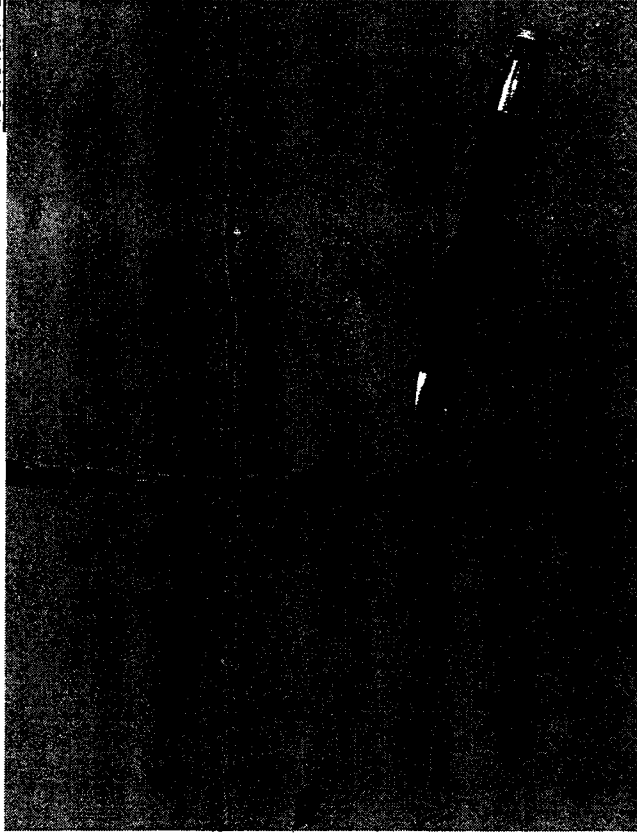
18 Typical Courtyard Deck - DSCN4676.JPG



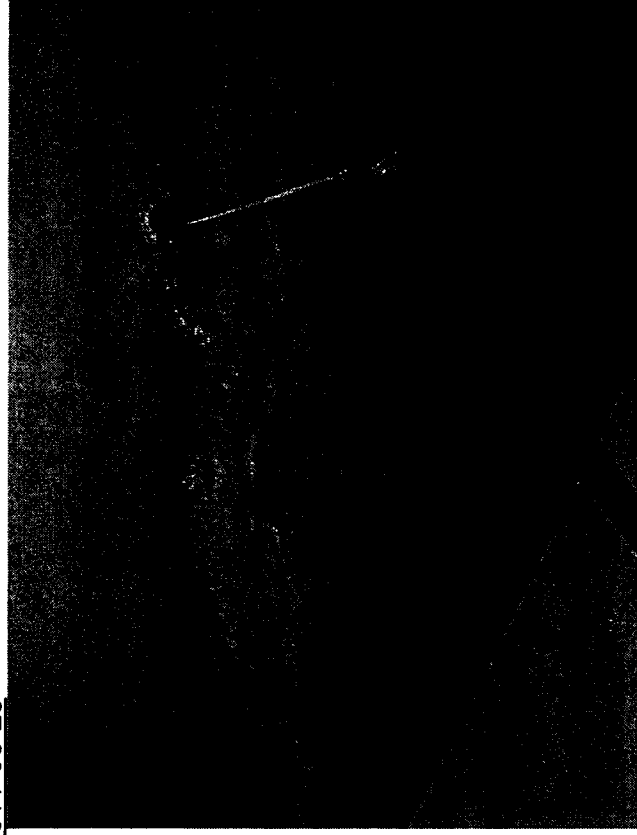
19 Typical Rear Deck - DSCN4656.JPG



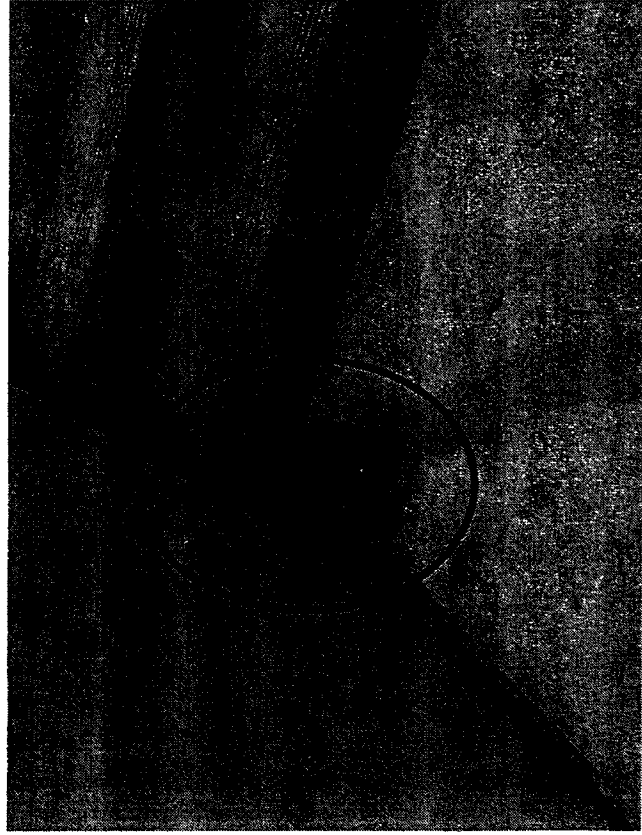
20 Building Cross Section - DSCN4720.JPG



21 Deck Paver Joints - DSCN4691.JPG



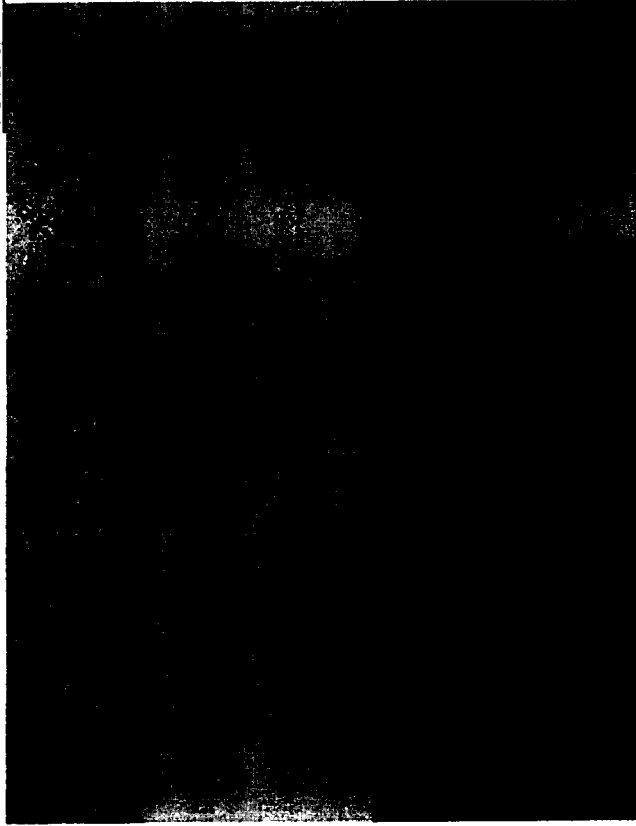
22 Parkade Leakage - DSCN4692.JPG



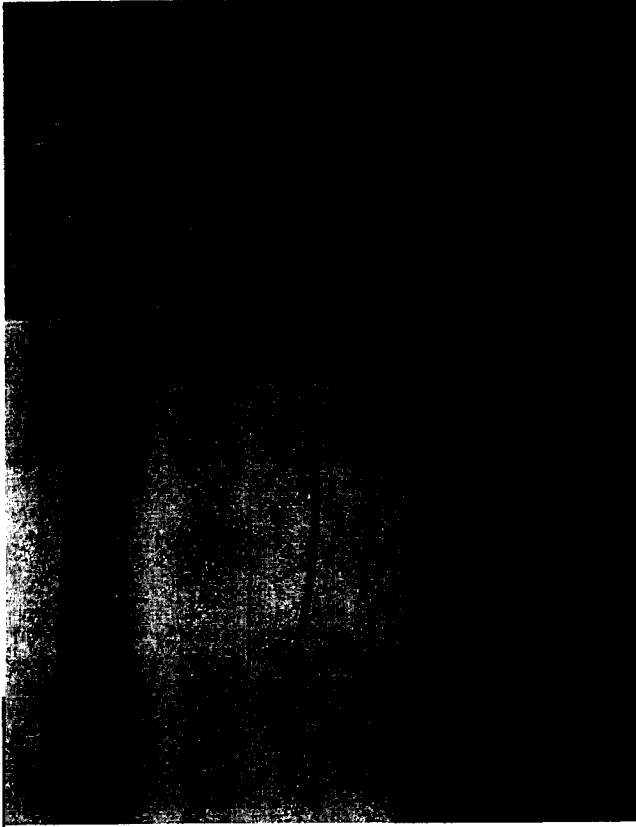
23 Base Of North-East Exterior Exit Stair - DSCN4706.JPG



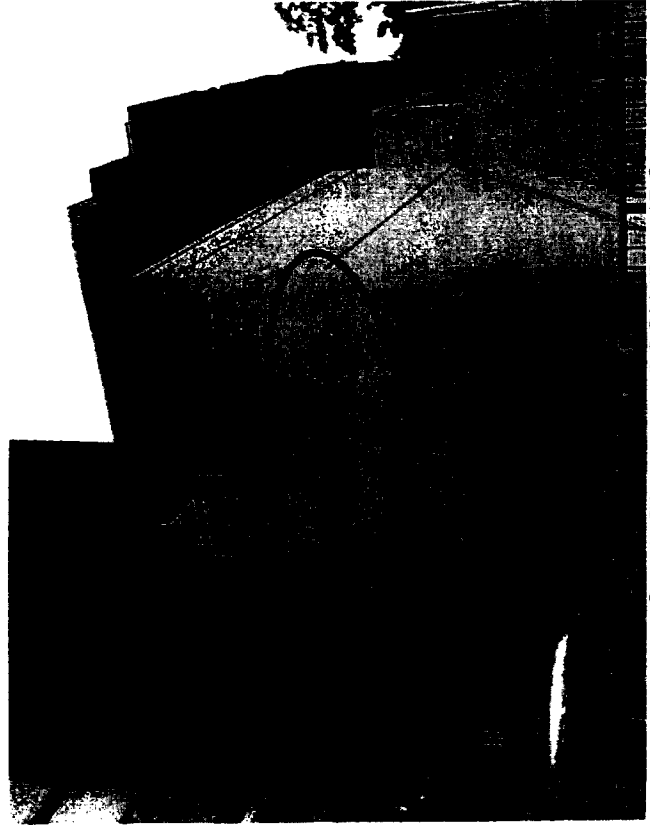
24 Mid-Height Landing Of North-East Exit Stair - DSCN4705.JPG



25 North Elevation - DSCN4701.JPG



26 East Elevation - DSCN4711.JPG

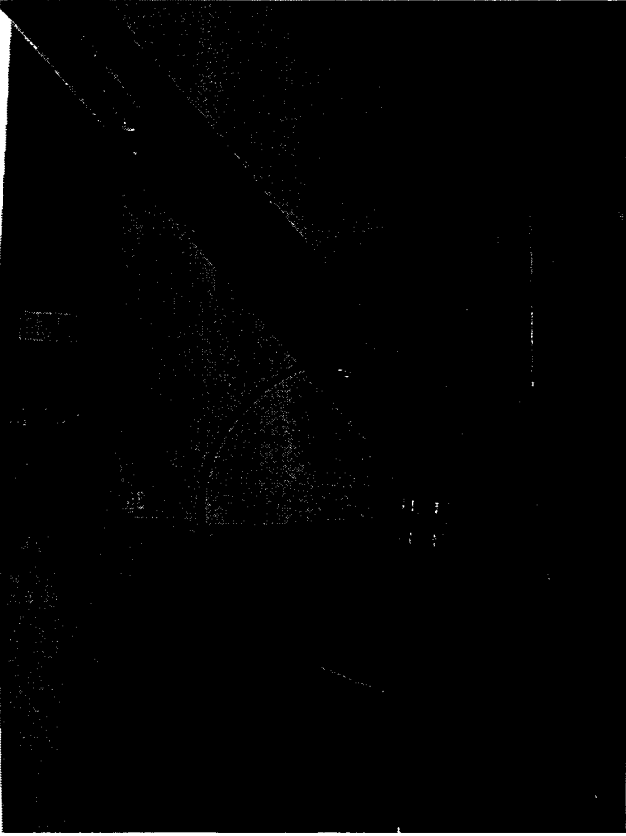


27 South Elevation - DSCN4712.JPG

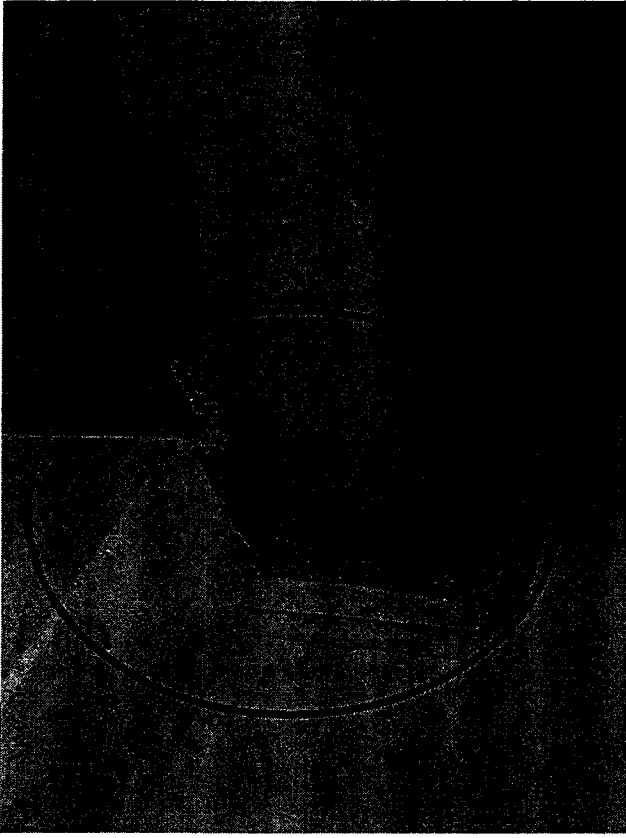


28 Roof Of North Building Looking West - DSCN4672.JPG

Veridian Green - 2011-06-28



29 Electrical Room - DSCN4696.JPG



30 Car Access Ramp To IGA Parking - DSCN4697.JPG