



VanDusen Visitors Centre

Living Building Challenge
Certification

PARK BOARD COMMITTEE MEETING
July 11, 2016



Presented by
Facilities Planning + Development



Living Building Challenge

CERTIFIED

PETAL

2016

VANDUSEN VISITOR CENTRE

LEED Platinum certified

Site

Indoor
Quality

Materials

Beauty
+
Inspiration



EDUCATION

- Teach/educate botanical and ecological excellence
- Offer formal/informal and active/passive learning experiences
- Offer continuing education that appeals to all ages/experiences



DEMONSTRATION

- Implement best practices around conservation and sustainability
- Move toward urban self-sufficiency for food



PERFORMANCE

- Reach a natural balance whereby VanDusen is self-sufficient
- Explore the relationships between buildings and ecological systems

IDENTITY

- Make VanDusen one of the foremost visitor sites in Vancouver
- Create an image/sense of VanDusen as being part of public realm
- Increase number of visitors annually
- Visits increased 50% - exceeded expectations





FLOWER AS METAPHOR

- Rooted in place and yet...
- harvests all its own energy + water
- is adapted to climate + site
- operates pollution free
- promotes health + well-being
- comprised of integrated systems
- is beautiful

Site

Water

Indoor Quality

Materials

Energy

Beauty + Inspiration

SITE - Natural Systems Integrated with the Building Systems

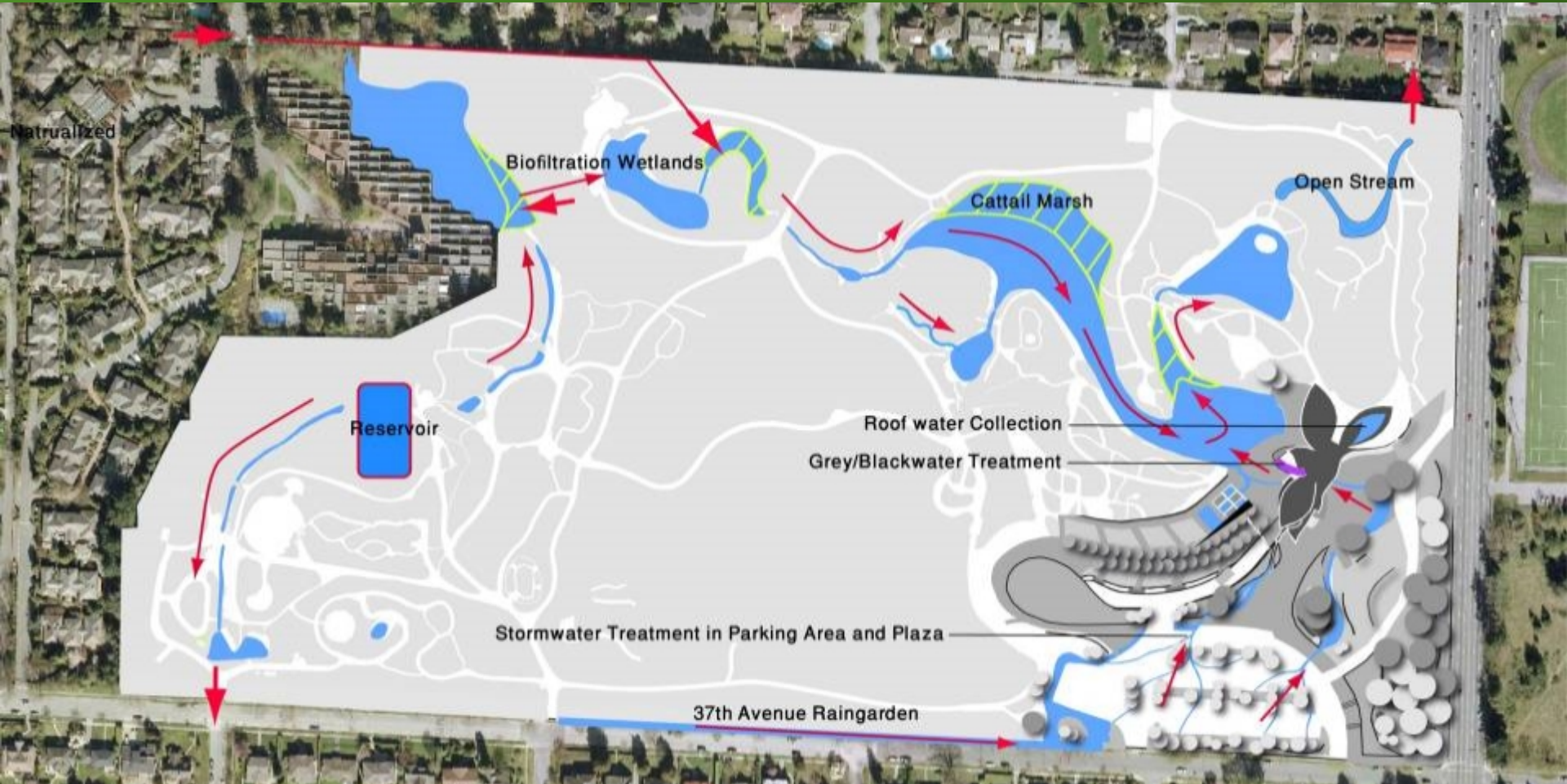


Forest

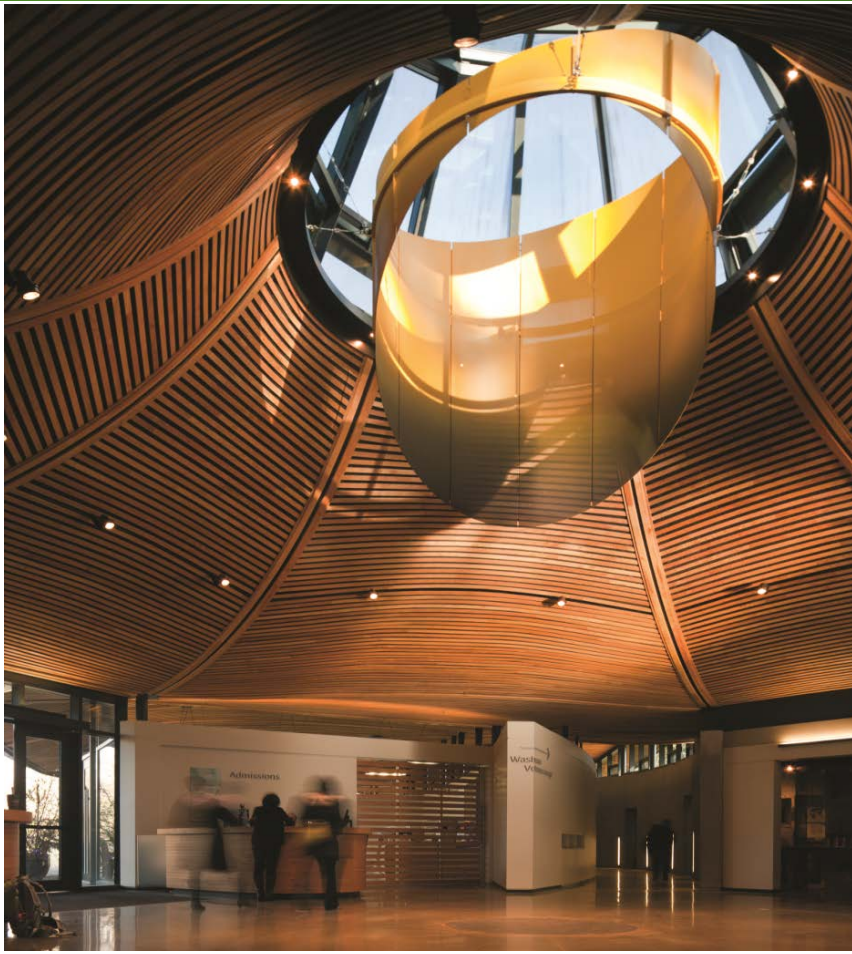
Ponds and Wetlands

Meadows

WATER – Interconnected Water Systems within the Site



INDOOR QUALITY – Air, Light, Comfort, Healthy Building



MATERIALS – no “red list” materials, 96% waste recycled



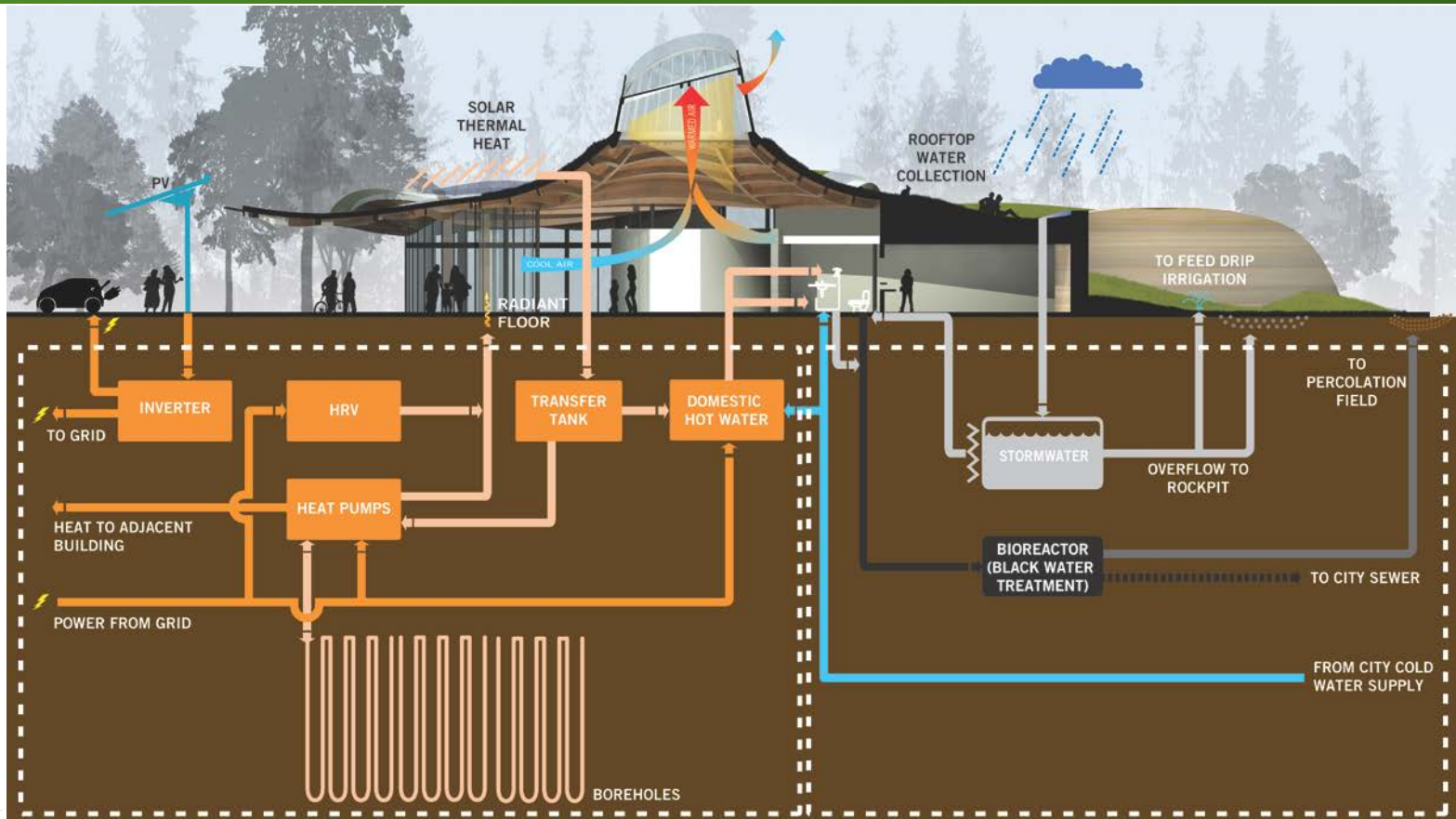
Table 1

Occupational Disease Data by Type of Disease, by Five-year Period; 1987-2011

Type of disease	Number of claims 1987-1991	Number of claims 1992-1996	Number of claims 1997-2001	Number of claims 2002-2006	Number of claims 2007-2011	Number of claims 1987-2011	Days lost 1987-2011	Cost of claims 1987-2011 (\$000)	Days lost per claim 1987-2011	Thousands of \$ per claim 1987-2011
Reaction to HIV treatment	0	33	724	300	283	1,339	21,350	2,953	16	2.2
Needlestick injury - see note	74	108	112	98	93	486	6,576	543	14	1.1
Allergic reaction	55	230	95	66	66	512	7,131	2,981	14	5.8
Cancer: asbestos	72	102	143	182	225	724	169,341	123,918	234	178.1
Cancer: other	20	21	33	37	47	158	25,032	37,991	158	240.5
Chemical burns	2,714	2,379	1,921	1,605	1,380	9,998	83,491	13,156	8	1.8
Conjunctivitis	69	50	175	98	79	472	3,220	328	7	0.7
Dermatitis	1,158	1,060	1,040	711	475	4,444	115,046	21,198	26	4.8
Hearing loss	4,186	3,433	2,760	1,982	1,924	14,285	24,533	81,598	2	5.7
Infected blister	41	27	59	32	30	189	2,881	258	15	1.4
Hepatitis	19	13	12	12	8	64	15,022	4,792	235	75.1
Norwalk	0	1	5	709	1,642	2,357	7,974	880	3	0.4
Sars - including quarantine	0	0	0	2	0	2	1,870	700	935	349.9
Other infectious disease	347	353	316	214	168	1,397	32,470	7,240	23	5.2
Tendinitis: repetitive motion	1,667	2,527	3,082	2,193	1,489	10,957	945,744	135,524	86	12.5
Bursitis: repetitive motion	5,845	7,679	7,772	5,606	3,218	30,121	1,919,562	253,618	64	8.6
Carpal tunnel syndrome	1,516	2,565	2,344	1,755	900	9,081	1,032,293	149,784	114	16.5
Asbestosis	66	107	107	115	73	468	16,313	73,732	35	170.4
Silicosis	45	40	16	4	5	110	5,210	23,623	47	269.5
Other pneumoconiosis	2	3	3	3	1	12	580	3,806	48	317.2
Scleroderma	0	0	7	2	2	11	2,036	5,587	185	598.9
Poisoning	696	500	686	522	613	3,018	37,841	17,952	13	5.9
Arc flash and related	1,806	1,301	1,116	613	414	5,250	14,513	3,135	3	0.6
Other radiation effect	35	28	9	1	6	79	527	1,130	7	14.3
Raynaud's phenomenon	40	59	51	63	20	233	11,022	31,738	47	136.2



ENERGY – Goal is Net Zero Energy and Self Sustainment



ENERGY SYSTEMS

WATER SYSTEMS



13 Orchidaceae



VISION + LEADERSHIP + COMMITMENT



PROJECT TEAM:
Perkins + Will Architects
Cornelia Hahn Oberlander
Sharp & Diamond Landscape Architects
Fast + Epp - Structural
Integral - Mechanical and Electrical
Ledcor Construction
Vancouver Park Board / City of Vancouver

