



CASE STUDY

UPPSALA, Sweden

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PROJECT: Uppsala Curling Hall

BUILT: 2008

SHEETS: 4

TYPE OF BUILDING: Steel framework, metal sheet wall and roof

FOUNDATION AND ICE FLOOR: Concrete

CHILLER: 5 scroll-compressors in a rack built in an outside container. Full heat recovery from 2 scroll-compressors in the same rack.

DEHUMIDIFIER: Absorption type

ICE SHED HEATING SYSTEM: recovered heat from chiller

RUNNING COSTS: Electricity consumption is approximately 1250 kWh per day during the curling season. Another €11,250 (\$12,500 USD) per year is required to cover additional costs.

NOTES: All costs shown do not include VAT or local taxes.

Approximately 6000 volunteer hours were included in this project.

CONTACT: Björn Lundman at bjorn.lundman@bellkom.se

WEBSITE: www.curlingcompaniet.se

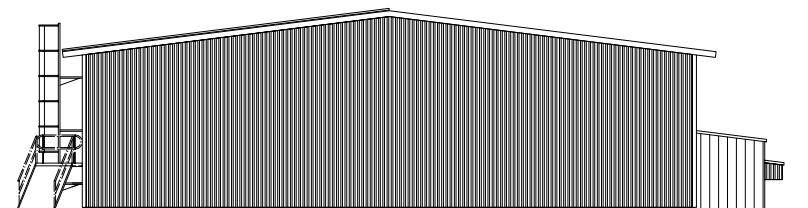
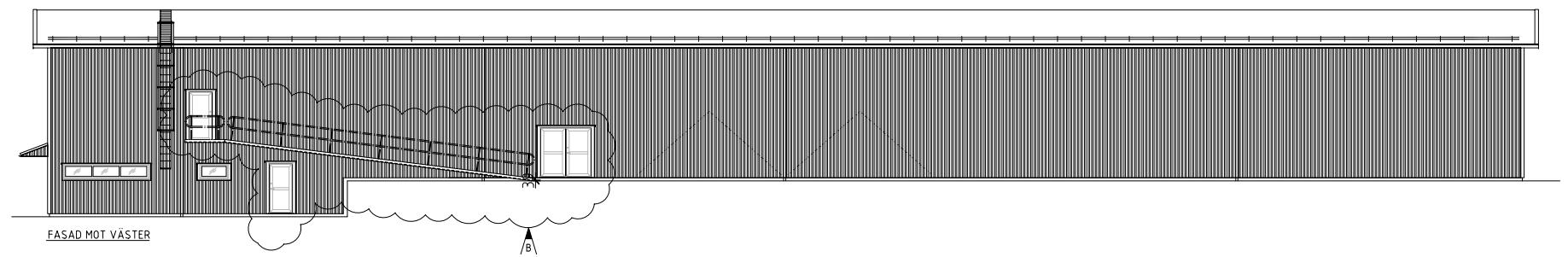
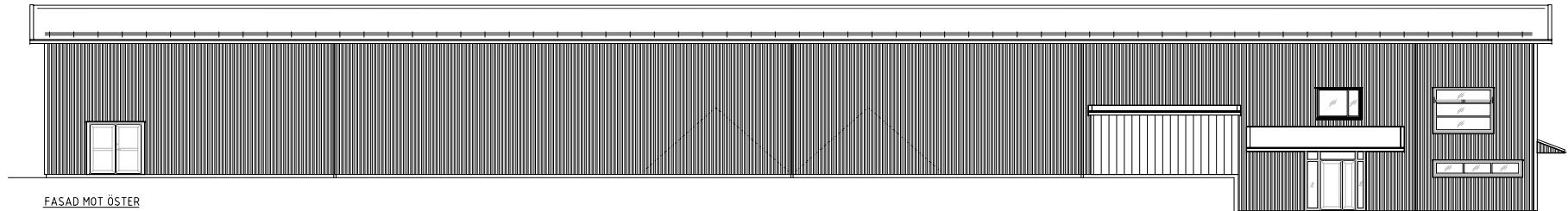
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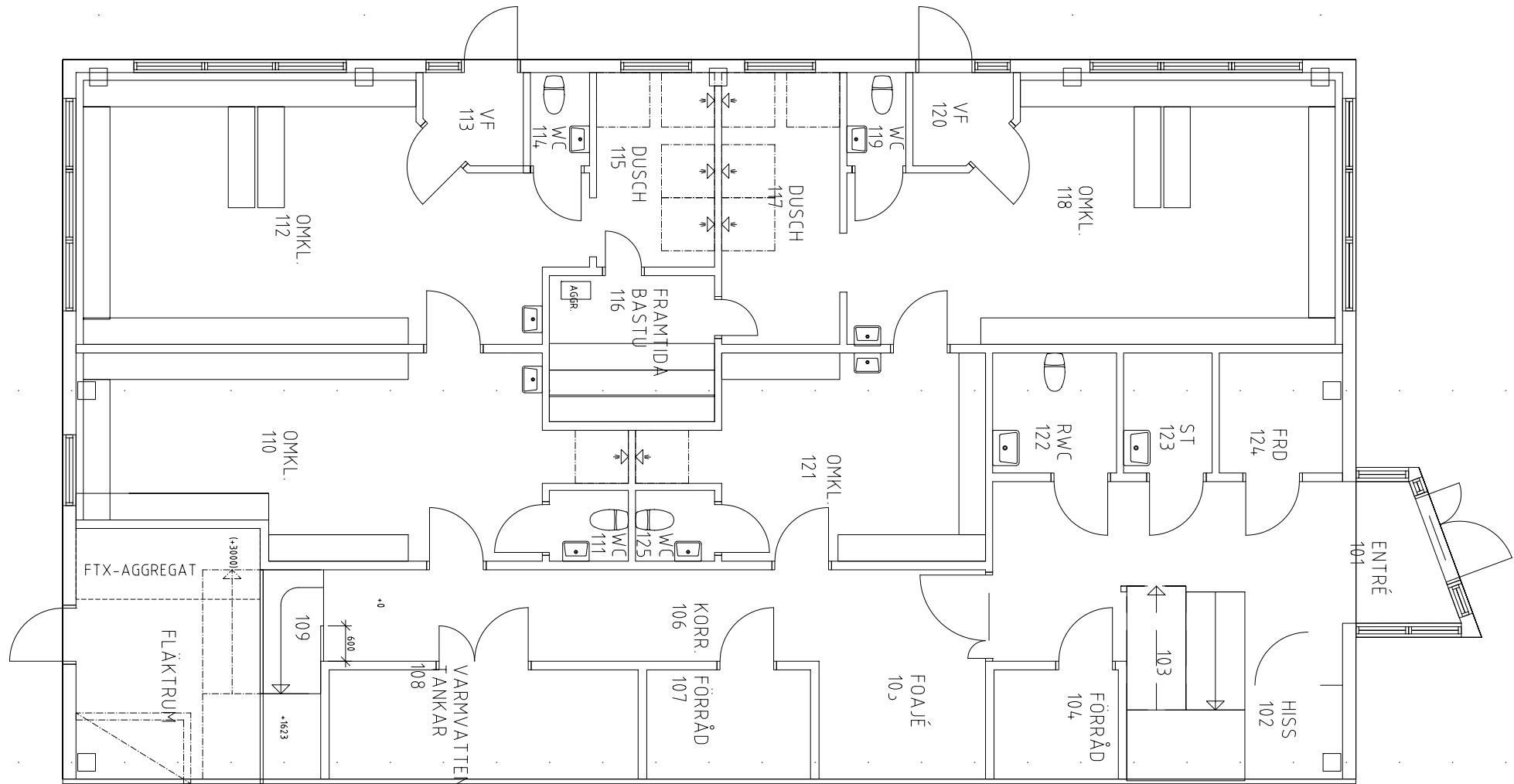
NOTE: All costs shown do not include VAT or local taxes.
Costs reflected are as of 15 March 2009 including rates of exchange.

		Cost SEK	Cost €EUR	Cost \$USD
Design	486,179	43,602	56,371	
Project Management	78,550	7,045	9,108	
Municipal Fees including Connections	252,300	22,627	29,254	
Excavation and Foundation	2,648,862	237,560	307,129	
Prefabricated Steel Building	2,469,877	221,508	286,376	
Building Materials	1,111,047	99,643	128,823	
Piping for Ice Floor, Heating, Ventilation, and Dehumidification	830,000	74,437	96,236	
HVAC	215,977	19,370	25,042	
Ventilation	208,632	18,711	24,190	
Electrical	286,887	25,729	33,264	
Elevator	141,095	12,654	16,360	
Locks and Alarms	60,000	5,381	6,957	
Contractors	692,684	62,122	80,315	
Miscellaneous	744,339	66,755	86,304	
Subtotal	10,226,429	917,144	1,185,728	
Chiller	1,664,000	149,234	192,936	
TOTAL	11,890,429	1,066,377	1,378,664	
Cost per Sheet	2,972,607	266,594	344,666	

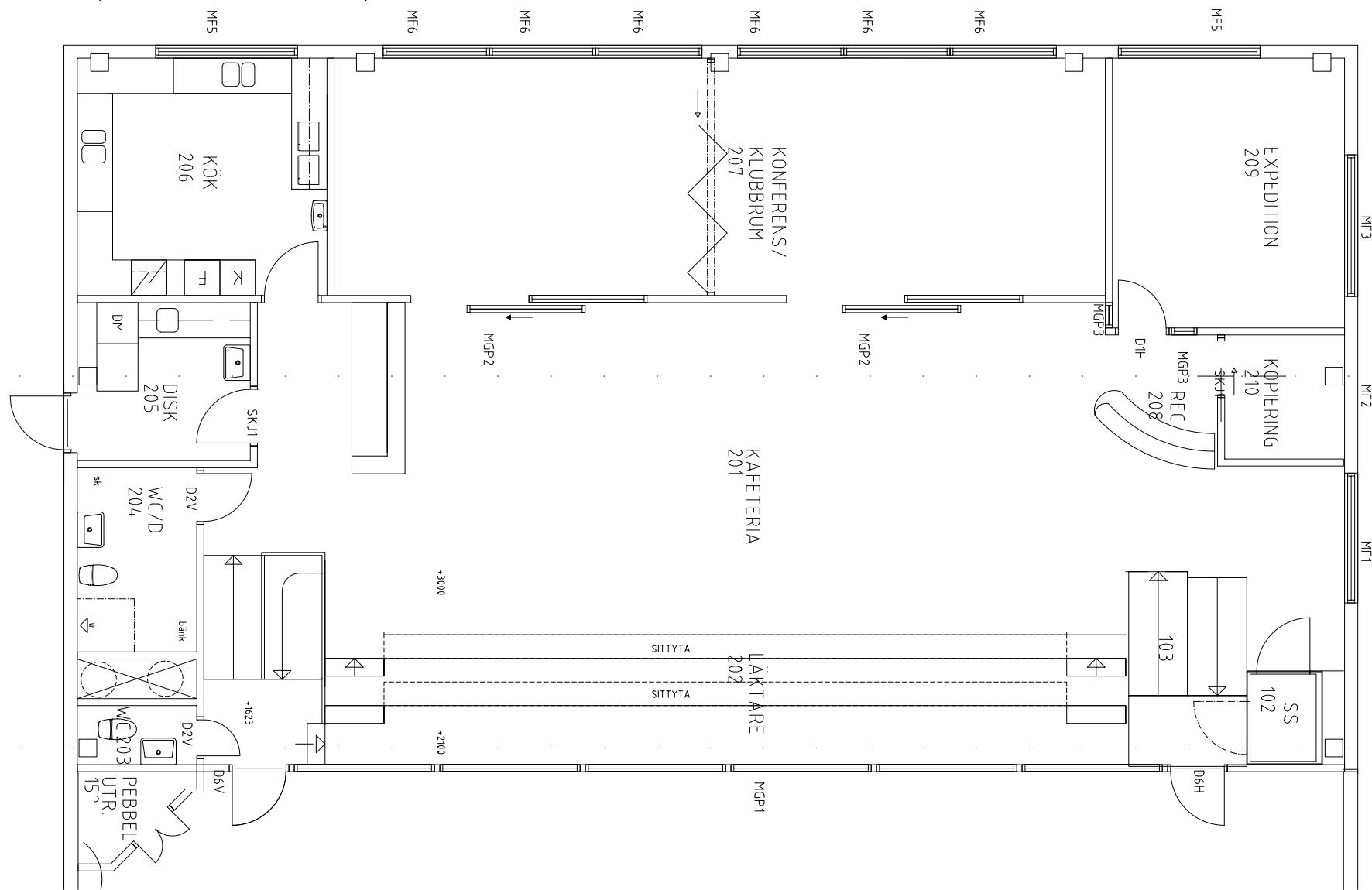
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