

Canadian Society of Value Analysis  
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## **Developing Decision Criteria for Public Sector Institutional Projects**

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## **The Challenge**

- Design option selection decisions that are based solely on cost ignore potential functional and aesthetic impacts.
- Designers and users are often skeptical of the VM process.

***Is it really value management,  
or just 'slash and burn'?***

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## Developing Decision Criteria

- Identify and list project stakeholders
- Identify stakeholder success requirements
- Group success requirements and eliminate duplicates
- Restate success requirements as decision criteria
- Develop weighting factors for 'decision criteria'
- Develop scoring strategy for 'decision criteria'
- Prepare evaluation matrix

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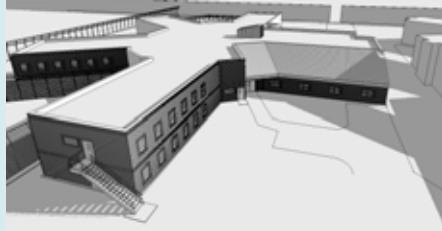
## Stakeholders

- Stakeholders are anyone who will be affected by the design, construction and/or operation of the facility in question
- Stakeholders often include owners, designers, builders, users, neighbours, authorities, etc.

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# Case Study:

## Saskatchewan Penitentiary Maximum Security Living Unit



- 3,600 m2 GFA, approximately \$13,000,000 (2004 \$)
- Houses 24 inmates in each of 4 independent two level pods complete with separate dining, recreation and administrative support facilities

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### Value Management Proposal Evaluation

Evaluation Criteria
Capital Cost
Operating and Maintenance Cost
Staff Safety and Security
Inmate Safety
Reliability
Logistics/Daily Operations
Aesthetics
Integration/Transition

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**Value Management Proposal Evaluation**

Code Compliance  Yes  No

Meets Requirements

Evaluation Criteria
Capital Cost
Operating and Maintenance Cost
Staff Safety and Security
Inmate Safety
Reliability
Logistics/Daily Operations
Aesthetics
Integration/Transition

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**Value Management Proposal Evaluation**

Code Compliance  Yes  No

Meets Requirements

Evaluation Criteria	Option Score	Weighting Factor	Weighted Rating
Capital Cost			
Operating and Maintenance Cost			
Staff Safety and Security			
Inmate Safety			
Reliability			
Logistics/Daily Operations			
Aesthetics			
Integration/Transition			
			TOTAL

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# Weighting Factors

- 1 no importance
- 2 not very important
- 3 important
- 4 very important
- 5 extremely important

Each team member rates each decision criteria and all scores are added together to yield weighting factor

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## Value Management Proposal Evaluation

Meets Requirements  
Code Compliance  Yes  No

Evaluation Criteria	Option Score	Weighting Factor	Weighted Rating
Capital Cost		X 30	=
Operating and Maintenance Cost		X 25	=
Staff Safety and Security		X 30	=
Inmate Safety		X 25	=
Reliability		X 26	=
Logistics/Daily Operations		X 30	=
Aesthetics		X 21	=
Integration/Transition		X 13	=
<b>TOTAL</b>			

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# Scoring Strategy

- 1 very much worse than baseline
- 2 much worse than baseline
- 3 moderately worse than baseline
- 4 slightly worse than baseline
- 5 *equal to baseline***
- 6 slightly better than baseline
- 7 moderately better than baseline
- 8 much better than baseline
- 9 very much better than baseline

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## Value Management Proposal Evaluation

Meets Requirements  
Code Compliance  Yes  No

Evaluation Criteria	Option Score (1-10)	Weighting Factor	Weighted Rating
Capital Cost	5	X 30 =	150
Operating and Maintenance Cost	5	X 25 =	125
Staff Safety and Security	5	X 30 =	150
Inmate Safety	5	X 25 =	125
Reliability	5	X 26 =	130
Logistics/Daily Operations	5	X 30 =	150
Aesthetics	5	X 21 =	105
Integration/Transition	5	X 13 =	65
<b>TOTAL</b>			<b>1,000</b>

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**VALUE MANAGEMENT PROPOSAL SUMMARY & ACTION PLAN**

**Project:** New 96 Bed Maximum Living Unit

**Date:** November 2004

**Location:** Saskatchewan Penitentiary

No.	Description:	Baseline Cost	Capital Savings	Operating Savings	Rating	Comments
<b>Architectural Items:</b>						
12	A provide pitched roof in lieu of interstitial space, provide taller mechanical space	-	-		1049	rejected
16	A provide fibreglass inmate cell furniture	273,600	19,200	*	1443	estimate validation required
18	A clarify design requirements for exterior windows and consider smaller windows	-	-			CSC direction required
28	A consider exterior cladding alternatives:					
28.1	A - stucco	823,830	220,000		916	
28.2	A - vinyl siding	823,830	270,000			rejected
28.3	A - shingles	823,830	-			rejected
28.4	A - concrete block	823,830	200,000	*	1069	
28.5	A - precast concrete	823,830	144,000		1085	
28.6	A - paint	823,830	-			rejected
28.7	A - metal siding	823,830	160,000			rejected
45	A move boiler room to basement, create crawl space for duct distribution					further study required
55	A consider hardened concrete floor finish	76,170	18,135		891	
58	A consider gunport alternatives	108,000	36,000	*	1060	
65	A consider retaining construction sally-port	10,000	10,000	*	971	
71	A provide carport for escort vehicles	-	(20,000)	*	1025	
<b>Total - Architectural Items:</b>			<b>245,200</b>			

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Questions?

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