



A Review of the Quality of Reinstatement in Queensland Survey Plans and Identification Plans

Glenn Campbell

Overview



- Objective
- Reinstatement Standards
- Method
- Results
- Implications

Is the standard of reinstatement on identification plans different to that of registered survey plans?

Cadastral Reinstatement Standards

- *A cadastral surveyor ... must take account of the rights and obligations of each party affected by the boundary.*

SMIR s11 (1)

- Reliable
- Sufficient Extent
- Depth Proven

Cadastral Reinstatement Standards

- *...cadastral boundaries are reinstated in accordance with the hierarchy of reinstatement evidence*

SMIR s11 (2)

- A set of rules recognised in the surveying profession—
 - for giving weight to evidence of cadastral boundaries;
 - used in the reinstatement of cadastral boundaries.

Cadastral Reinstatement Standards

- *find out and record the position of any permanent improvements*

SMIR s10 & 18

- Occupation

Cadastral Reinstatement Standards

- *A cadastral surveyor must place sufficient reference marks on a cadastral survey to facilitate future reinstatement of a cadastral survey.*

CSR s3.22.2 (1)

- Reference Marks

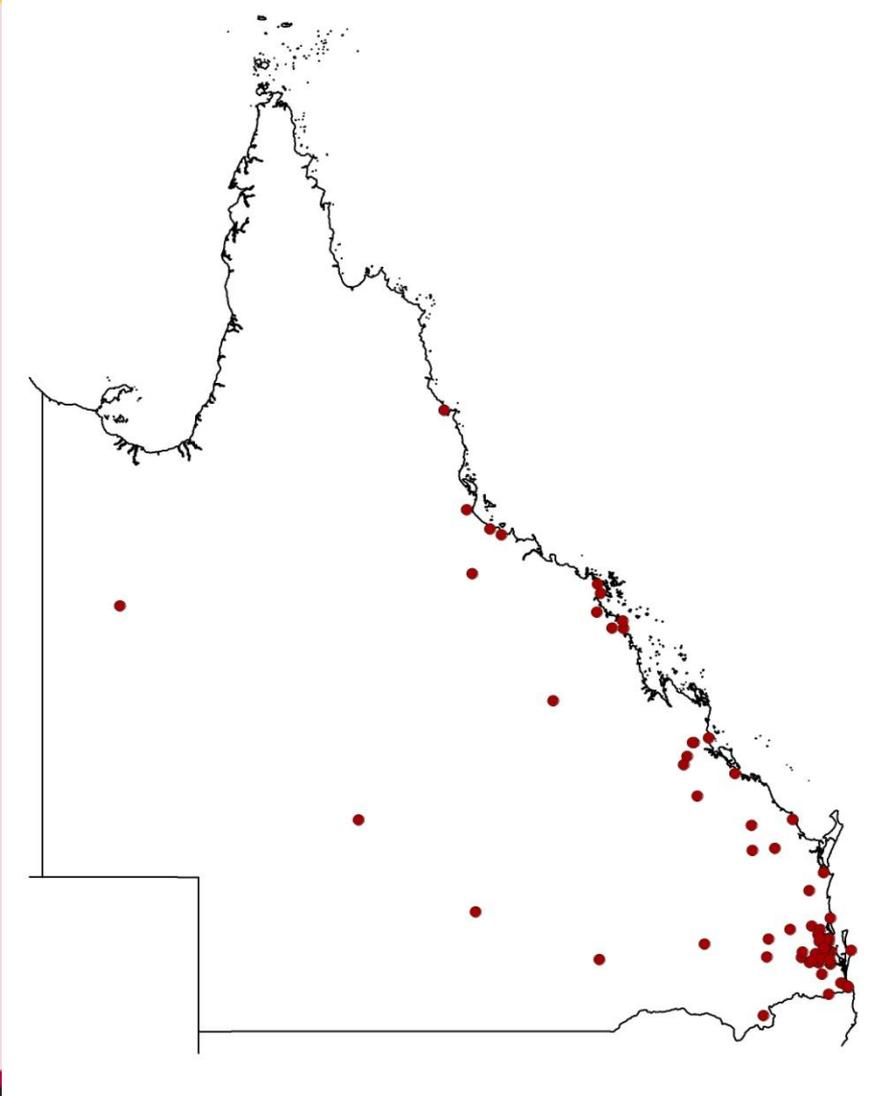
Assessment Criteria

Standard	Aspect	Abbreviation
<i>SMIR 2004 s11 (1)</i>	Reinstatement Reliability	R eliability
	Reinstatement Extent	E xtent
	Depth Proven	D epth
<i>SMIR 2004 s11 (2)</i>	Hierarchy of Evidence	H ierarchy
<i>SMIR 2004 s10 (2)& s18(2)(a) & (g)</i>	Description of Permanent Structures	O ccupation
<i>Cadastral Requirements s3.22.2</i>	Presence of Reference marks	Ref M arks

- Randomly select 200 plans
 - 60% Survey Plans
 - 40% Identification Plans
- Sub-select 100 'non simple' plans
- Five cadastral surveyors
 - 12 SPs, 8 IDs
 - Full Search
- Evaluated on 1-10 scale

- 100 plans
 - 1 surveyor self assessing
 - 1 repeated plan
- 98 sample size
- 88 sample size for depth
 - Some secondary interests

Geographic Distribution



Assessment Criteria

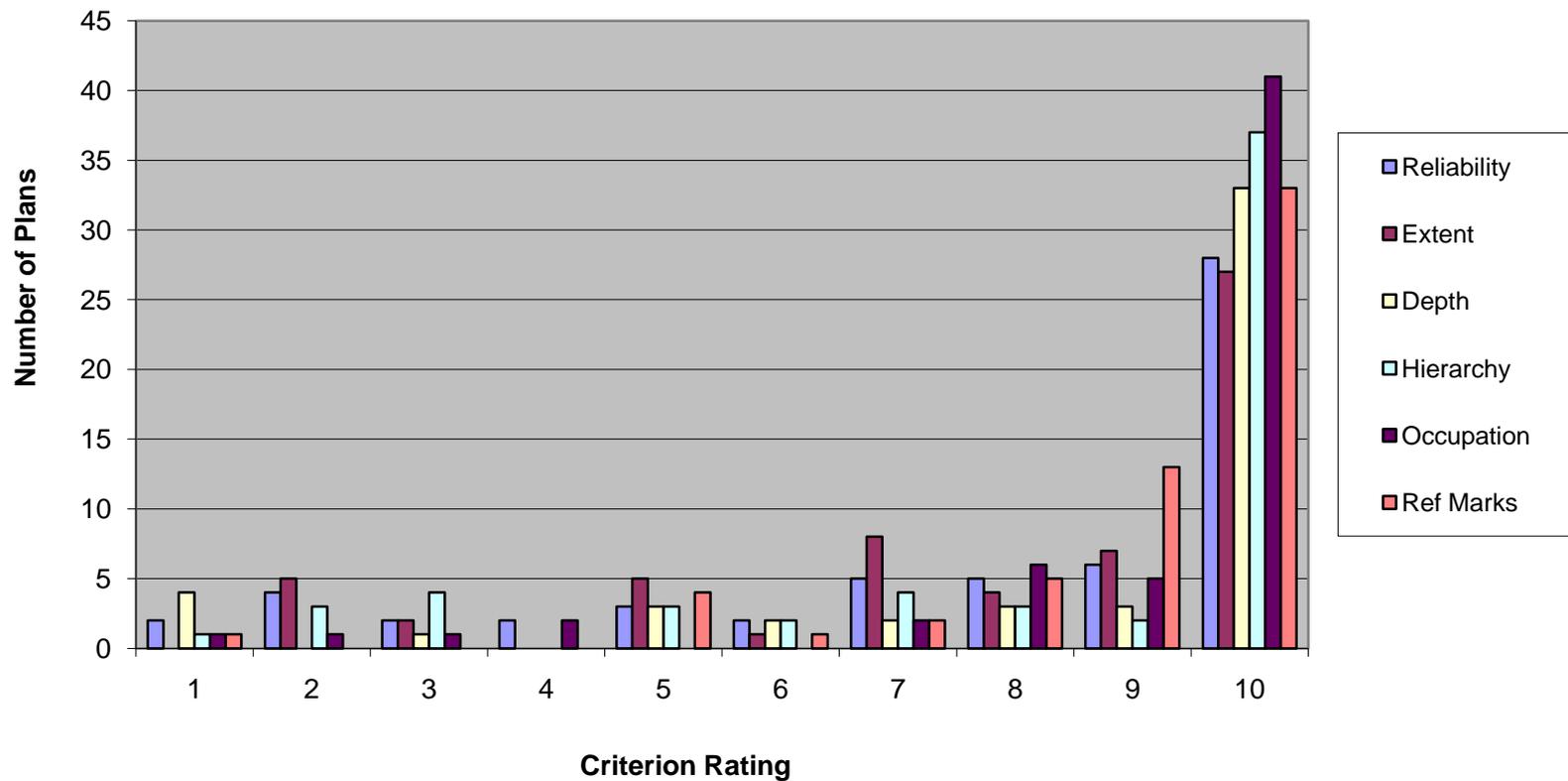
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Inter-assessor Evaluation

	Surveyor 1						Surveyor 2						Surveyor 3						Surveyor 4					
	R	E	D	H	O	M	R	E	D	H	O	M	R	E	D	H	O	M	R	E	D	H	O	M
Surveyor 2			*	*	*	*																		
Surveyor 3	*		*								*	*												
Surveyor 4	*	*	*	*						*						*								
Surveyor 5	*	*	*	*	*		*	*	*	*		*				*	*							

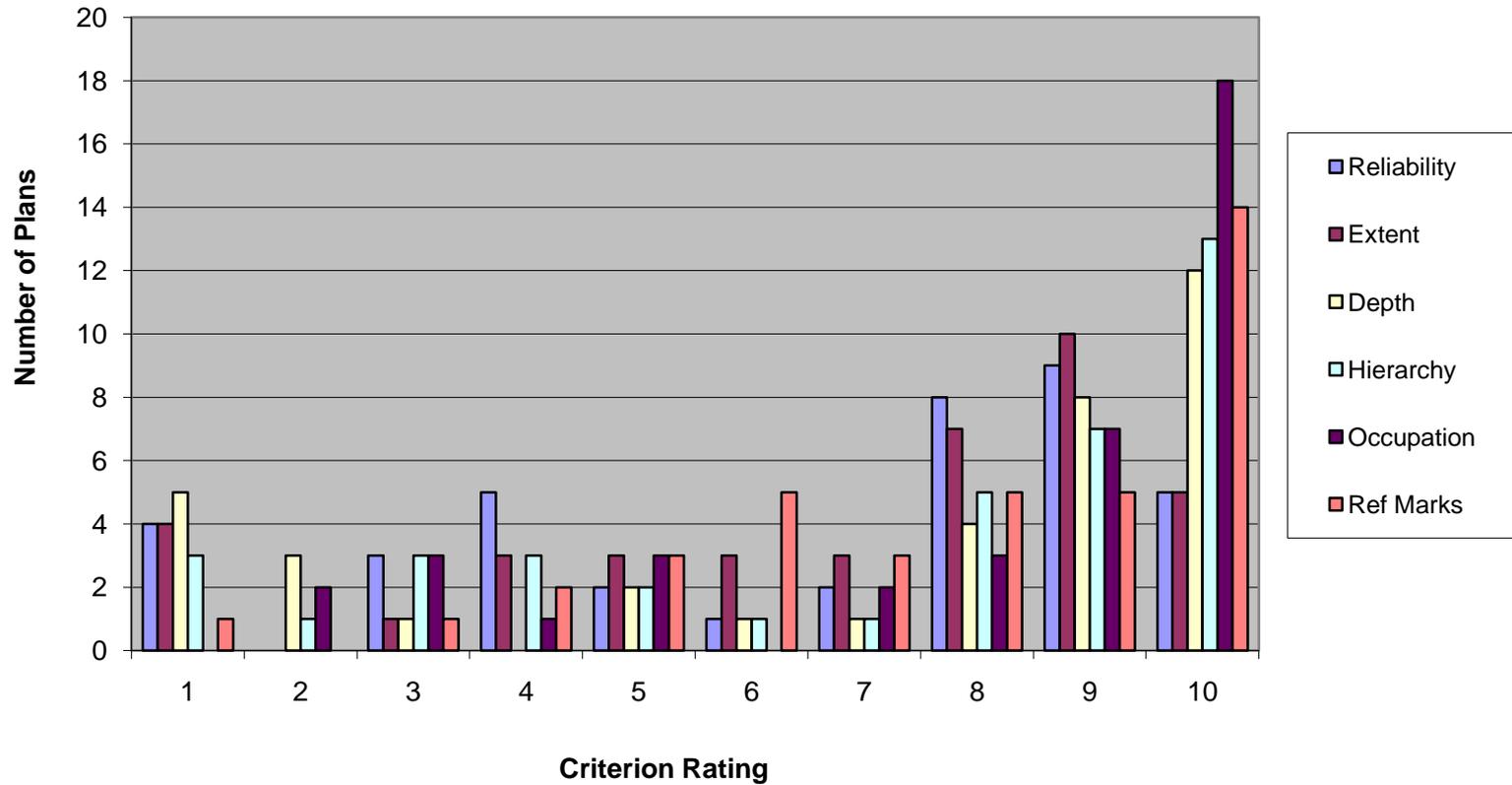
Survey Plans

Survey Plan Ratings



Identification Survey Plans

Identification Plan Ratings



Intercomparison

Criterion	Survey Plan		Identification Plan	
	Mean	Std Dev	Mean	St Dev
Reinstatement Reliability	7.93*	2.63	6.62*	2.94
Reinstatement Extent	7.80	2.88	6.90	2.78
Depth Proven	8.24	2.76	7.23	3.10
Hierarchy of Evidence	8.41	2.77	7.05	3.43
Description of Permanent Structures	9.00	2.09	8.03	2.67
Presence of Reference Marks	8.95*	1.78	7.77*	2.38

- Differences not significant in most criteria
- Inter-assessor variation was greater
- Both groups have plans of inadequate quality
- Education vs Enforcement

Who needs help?

*...as we know, there are known knowns -
there are things we know we know.*

*We also know there are known
unknowns.*

*That is to say, we know there are some
things we do not know,*

*But there are also unknown unknowns,
the ones we don't know we don't know.*

Donald Rumsfeld, Feb. 12, 2002

Some Options?



- Corrective Training
 - Identification Problem
- Stop Digging
 - Graduate training
- Task Clarity
 - Reinstatement Standard?

Acknowledgements



- Surveyors Board of Queensland

Questions?



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