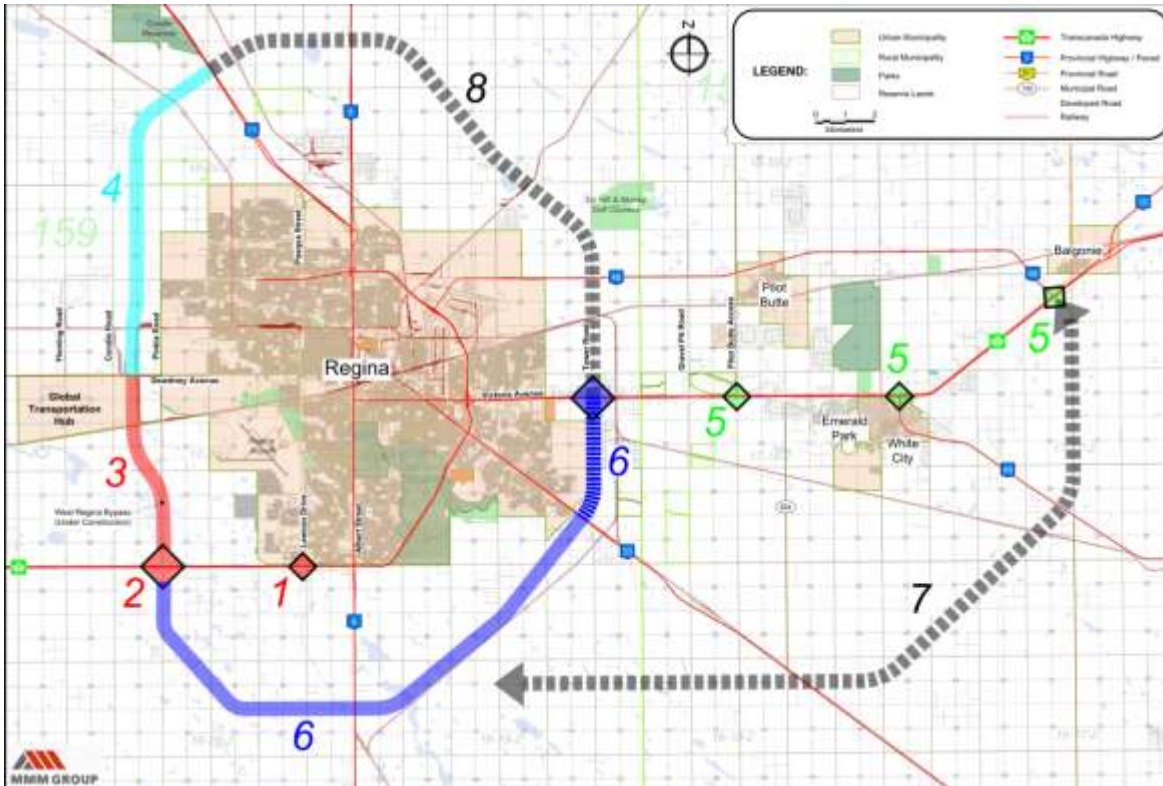

VA Success: Supporting Decision Making and Involving Stakeholder Input on the Saskatchewan Bypass Project

Chris Gauer

Canadian Society of Value Analysis Conference

November 17-18, 2014

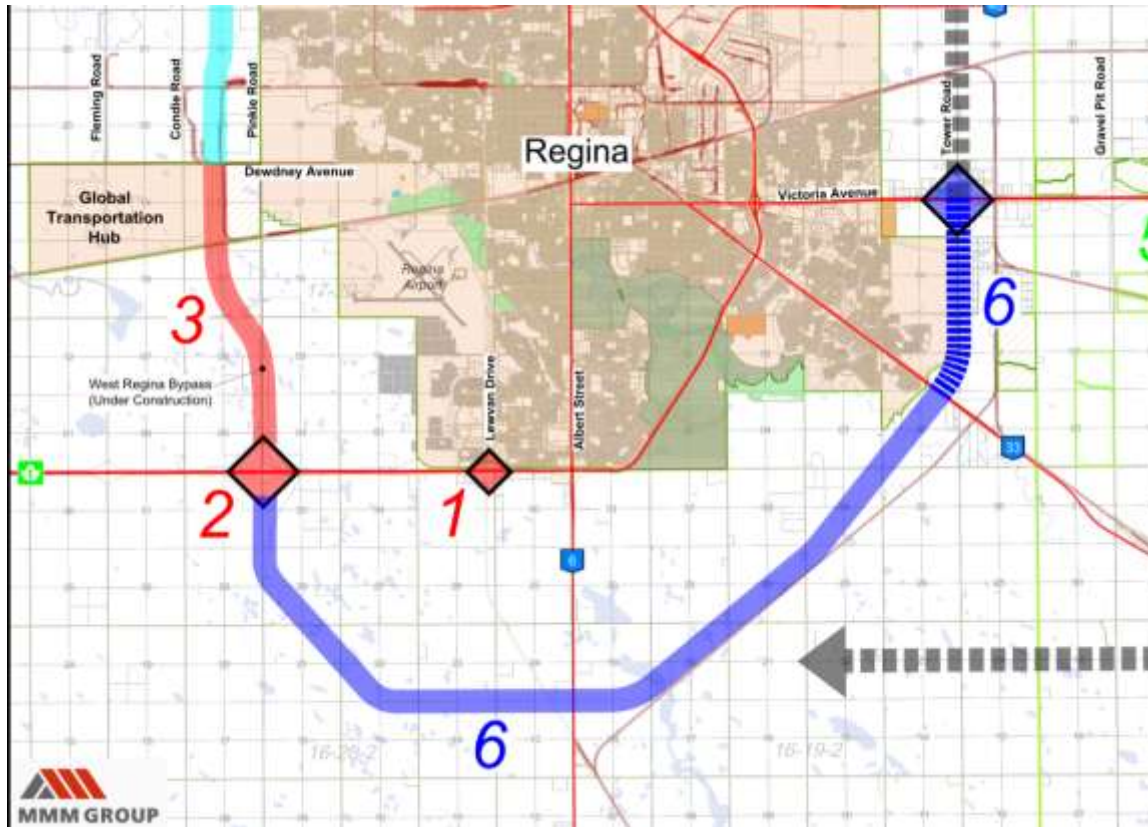
The Project



Regina Bypass P3

- Section 6 (blue) is primary bypass
- Section 3 and 4 service west side of city plus CPR intermodal facility
- Alignments 7 and 8 are long term improvements

The Project Area



Regina Bypass P3

- Blue diamond - Tower Road Interchange
- North-south Alignment - Defines annexation limits

The Challenge

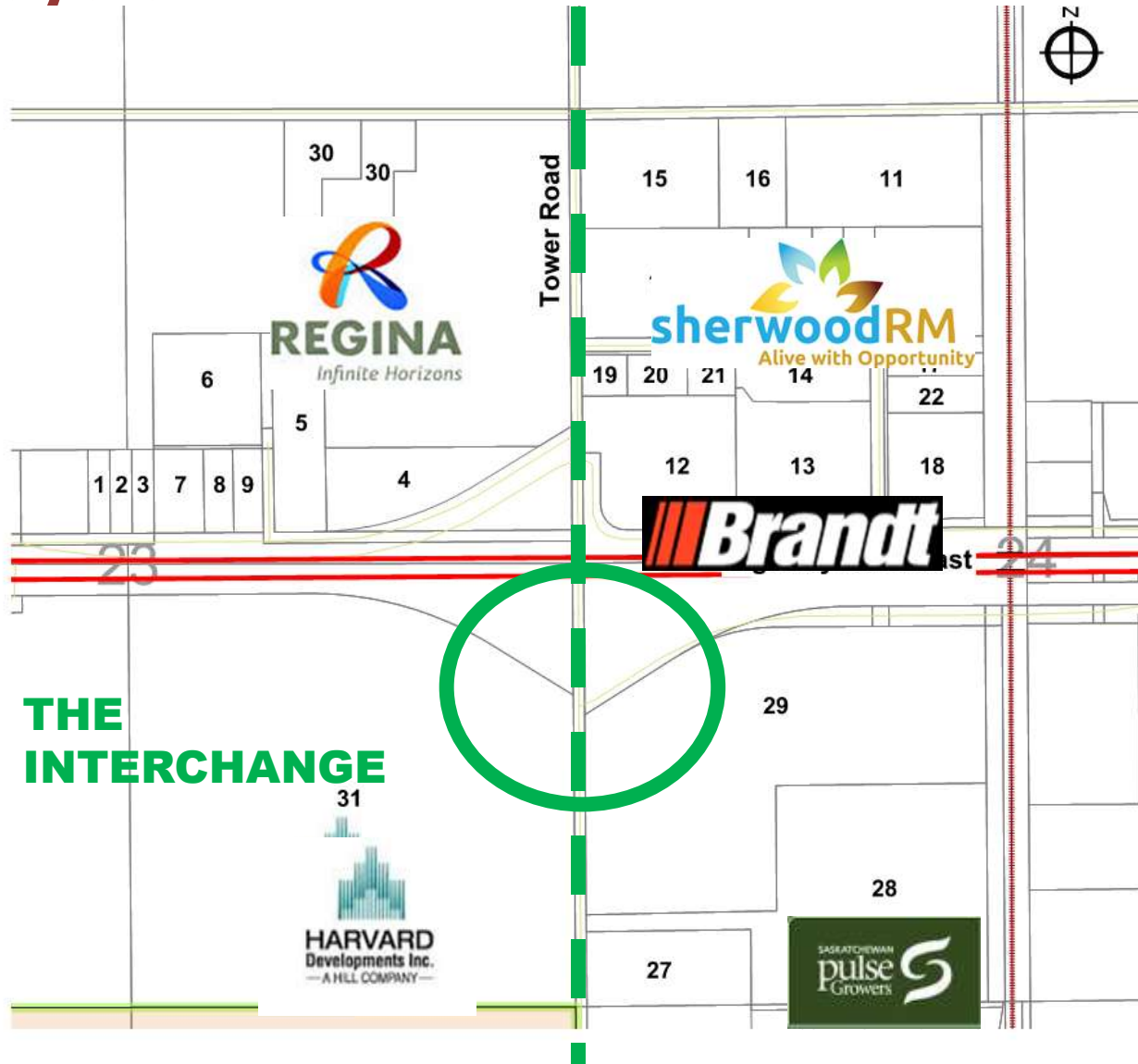
Saskatchewan is proceeding with a P3 for the Regina Bypass but:

- Current functional design does not meet freeway standards;
- There are political issues concerning Regina's annexation limits;
- Influential property owners are not onside with the plans;
- Major businesses are not satisfied with future bypass highway access.

The Players

The City of Regina	
Adjacent rural municipality	
Major businesses	
Developers	
Private landowners	

The Players



The Situation

- Two of the TOP 10 businesses in the Province objected to plan;
- Significant “political” clout at Premier's level;
- SHI was unsure on how to proceed;
- Regina and Developers also did not support the plan;
- P3 initiative is planned for 2014;and
- Significant pressure to find a solution to proceed.

The Site

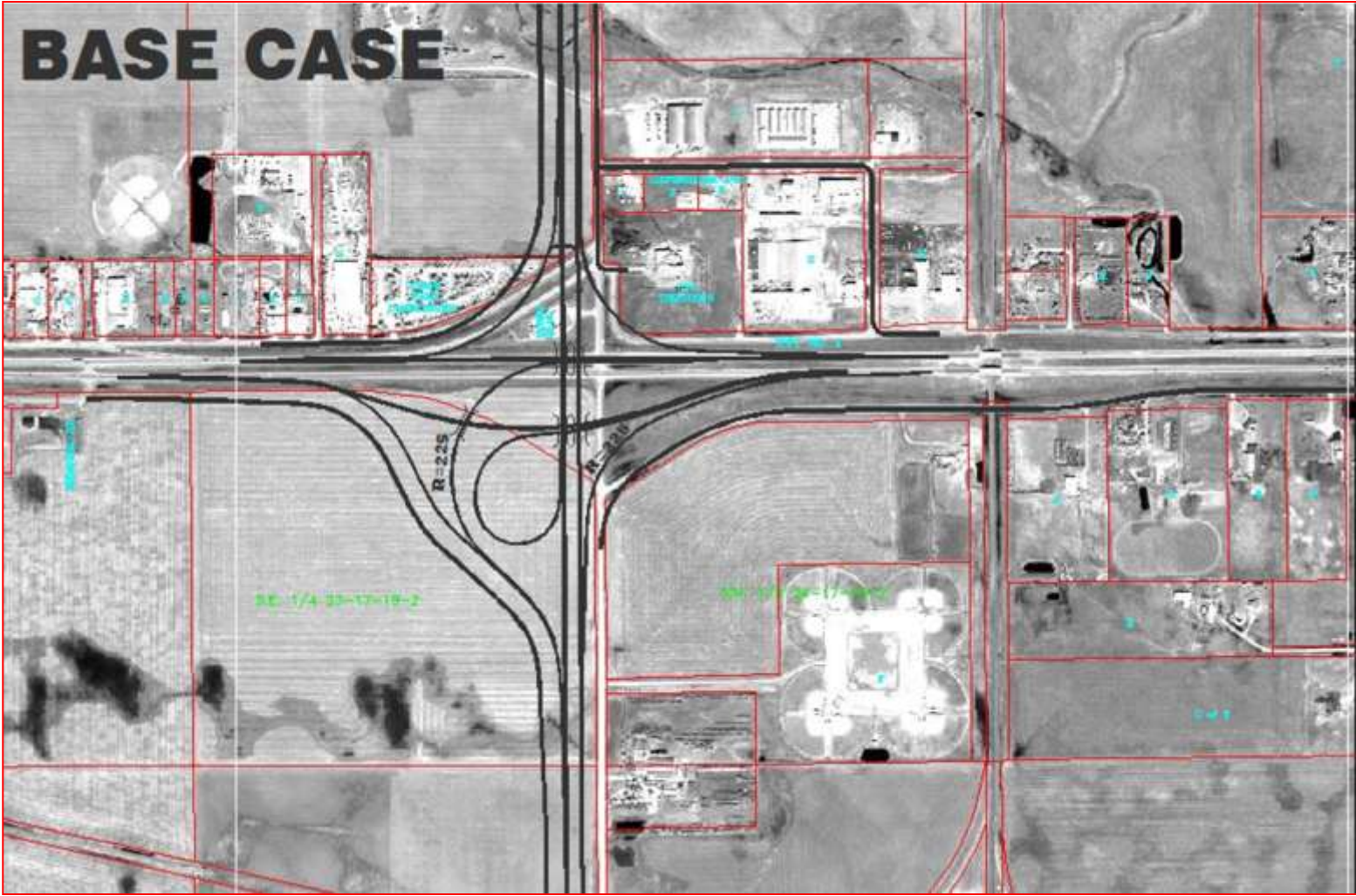


The Concerns

The planning process was in jeopardy due to many issues and concerns

- No defined service roads defined and access to lands restricted;
- TransCanada Highway directed into Regina, not a bypass design;
- Highway freeway movement 80 km/h design speed, below standard;
- Development lands were affected by proposal;
- No flexibility to use bypass alignment as annexation boundary;
- Adjacent land use not considered in planning;
- City of Regina not on board with the current proposal;
- Many landowners were opposed to the planned configuration; and
- Brandt Industries objected to proposal.

The Functional Plan



The Approach

A Value Analysis Workshop

- Take a chance by:
 - Engaging the Stakeholders;
 - Understanding the issues and concerns;
 - Educating participants regarding Highway Safety and Provincial needs;
 - Understanding the landholdings and impact on the lands;
 - Providing a forum for open discussion and negotiation;
 - Bringing forward recent events, plans and considerations; and
 - Convening the workshop to address all above.

The previous work was undertaken in 2006 and circumstances had changed

The VE Workshop

Workshop Planning and Participation:

- 4 day workshop in Regina
- 7 participants from MMM
- 7 participants from SHI
- 2 from City of Regina
- 1 from RM of Sherwood
- 2 major developers
- 1 major business owner
- 1 major property owner
- Brandt Industries boycotted the workshop

The Base Case: \$128 Million



Tower Road Interchange

- Alignment focused to and from Regina
- Bypass alignment 225M radius
- Restricted local and service roads access
- Development lands significantly affected

The VE Workshop

Performance Criteria:

- Freeway Operations;
- Access;
- Safety;
- Property needs;
- Phasing;
- Constructability;
- Municipal operations (City of Regina);
- Environmental impact.

It became clear that the performance criteria considered the concerns of All Participants.

The VE Workshop

Value Target Areas

- Alignment (A)
- Interchange Layout (IC)
- Service Roads (S)

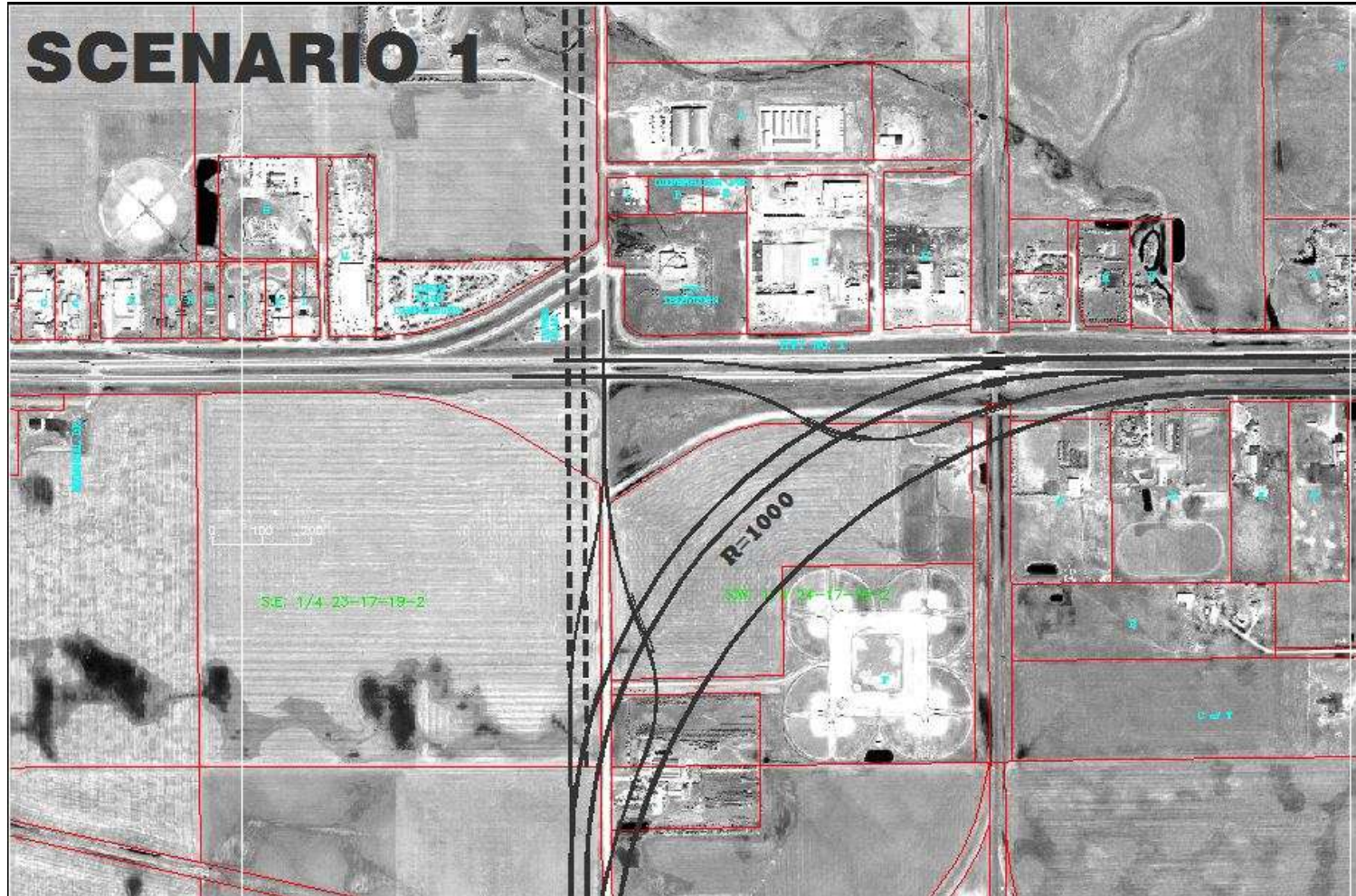
Value Target Area	No. Of Ideas Generated	No. of VE Proposals	No. of Design Suggestions	No. of Ideas Combined w/Others	No. of Ideas Dismissed
Alignments	22	6	1	4	11
Interchange Layout	32	6	0	0	26
Service Roads	31	10	12	1	8
Hwy 33 & South Link	8	4	4	0	0
Total	93	26	17	5	45

The VE Workshop

Four Scenarios Developed:

1. Directional ramps at Tower Road
2. Directional ramps moved to east
3. Directional ramps at Tower Road and interchange
4. Directional ramps moved to east and interchange

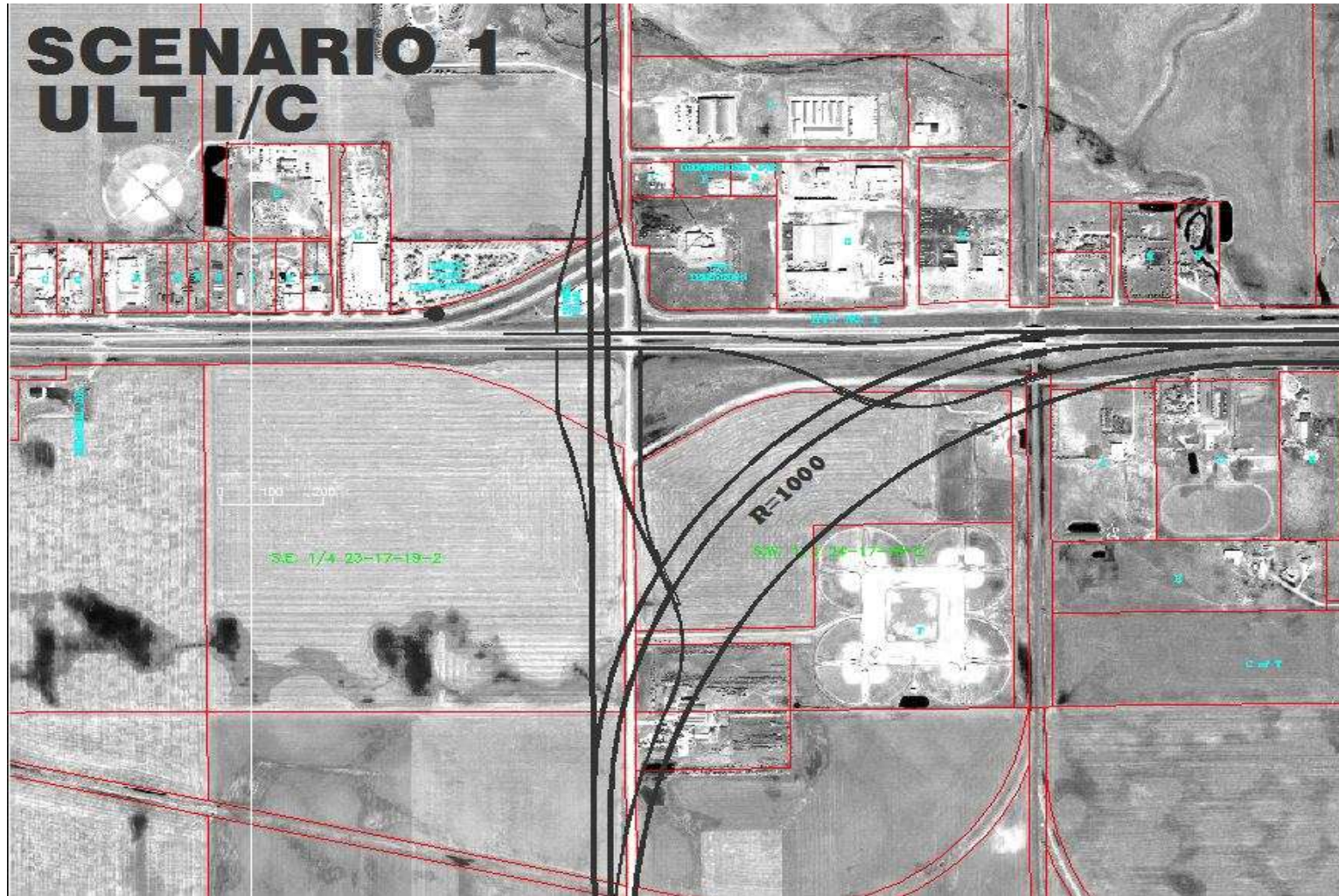
Scenario 1: \$121 Million



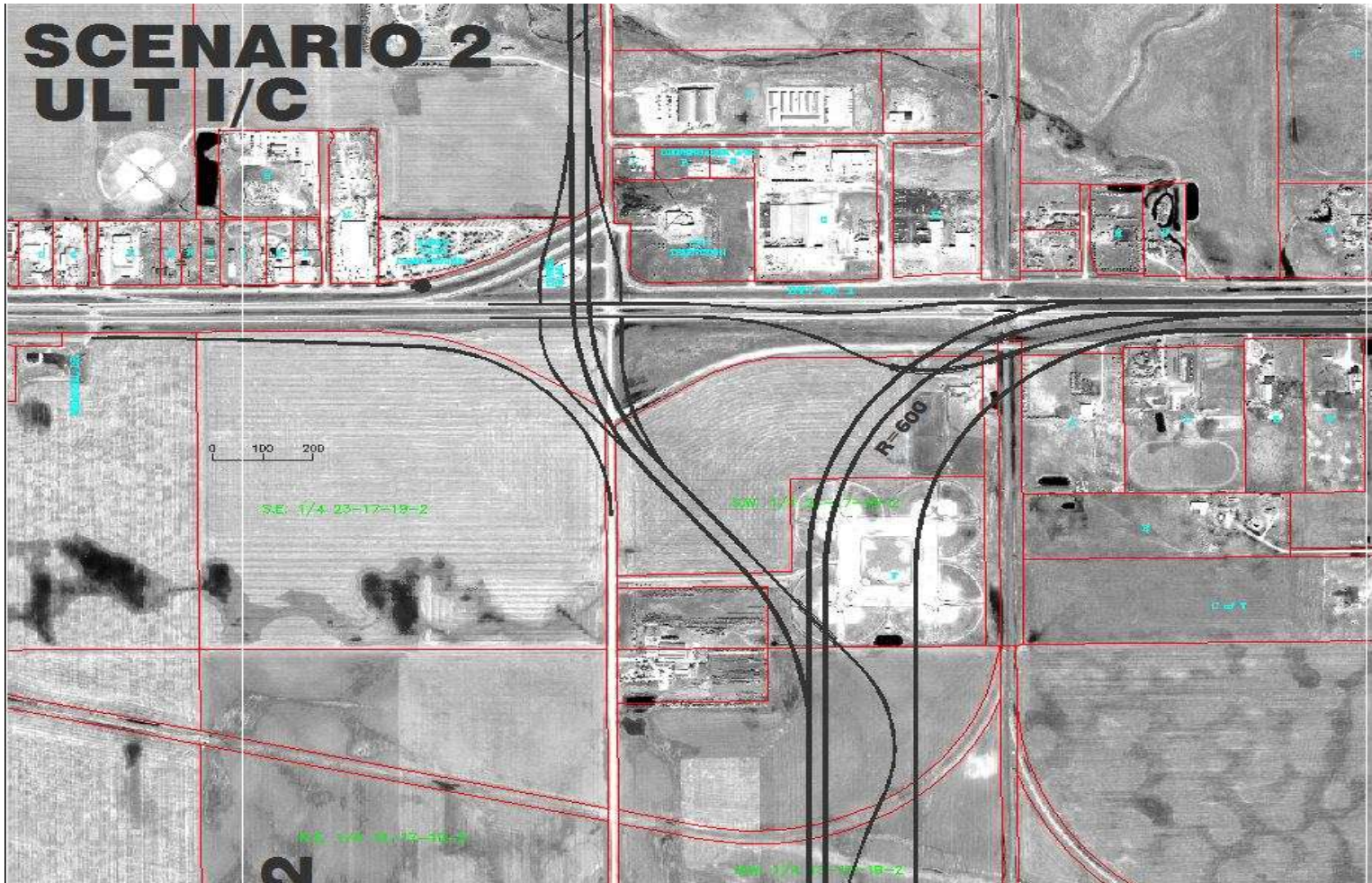
Scenario 2: \$127 Million



Scenario 3: \$150 Million



Scenario 4: \$156 Million



Scenario 2 Preferred Concept

Similar cost to Base Case and Higher V/C

SCENARIO EVALUATION MATRIX												
1. HOW WELL DOES THE SCENARIO SATISFY THE PERFORMANCE CRITERIA (ENTER RATING FROM 1-10, 10=BEST) 2. ENTER ASSIGNED WEIGHT TIMES RATING IN SUB TOTAL 3. SUM ACROSS AND RANK	Performance Criteria	Freeway Operation	Access	Safety	Property	Phasing	Constructability	Municipal Operations	Environment	Total Performance (P)	Total Capital Cost - \$ M (C)	P/C
	- Performance Measure											
SCENARIOS	Weight	29	13	14	9	14	2	17	2			
BASE CASE	Rating 1-10	3.00	5.00	5.00	5.00	4.00	5.00	5.00	5.00			
	Sub Total	87.00	65.00	70.00	45.00	56.00	10.00	85.00	10.00	428	128.0	3.3
SCENARIO 1: Tower Road Alignment and Directional Interchange, Existing Hwy 33 Interchange Location	Rating 1-10	9.00	8.00	5.00	4.00	9.00	8.00	5.00	6.00			
	Sub Total	261.00	104.00	70.00	36.00	126.00	16.00	85.00	12.00	710	121.0	5.9
SCENARIO 2: 400 m East Realignment and Directional Interchange, east of Hwy 33 interchange location	Rating 1-10	7.00	8.00	5.00	3.00	9.00	8.00	5.00	7.00			
	Sub Total	203.00	104.00	70.00	27.00	126.00	16.00	85.00	14.00	645	127.0	5.1
SCENARIO 3: Scenario 1 with Diamond Interchange at Tower Rd	Rating 1-10	9.00	6.00	8.00	4.00	6.00	6.00	7.00	6.00			
	Sub Total	261.00	78.00	112.00	36.00	84.00	12.00	119.00	12.00	714	150.0	4.8
SCENARIO 4: Scenario 2 with Diamond Interchange at Tower Rd	Rating 1-10	7.00	6.00	7.00	3.00	6.00	6.00	7.00	7.00			
	Sub Total	203.00	78.00	98.00	27.00	84.00	12.00	119.00	14.00	635	156.0	4.1
SEEK THE BEST - NOT PERFECTION												

Preferred Concept - East Leg



Preferred Concept - South Leg



The Preferred Concept

Preferred Concept:

- Same cost to Owner (SHI) - \$127 million vs Base Case (\$1m saving);
- Improved highway function with bypass 1000m radius (DS 130 km/hr);
- Local access maintained with minimal travel time impact;
- Minimal change to Regina access (direct to Tower Road intersection);
- Improved access for development lands via local roads;
- Flexibility in location of municipal boundary (Regina/Sherwood)
- Fewer properties affected (but one to a much greater extent);
- Local businesses (Brandt and Saskatchewan Pulse) brought onsite;
- Minimum impact of construction staging and traffic management; and
- The new highway separates likely residential and industrial land uses.

ALL IDENTIFIED CONCERNS WERE ADDRESSED BY VE STUDY

Successful Result

The VE addressed all identified concerns

- Service Roads were defined and access to lands maintained;
- TransCanada Highway bypass design significantly improved;
- Highway freeway movement R1000 to desirable standard;
- Major development lands unaffected by proposal;
- Flexibility to use bypass alignment as annexation boundary;
- Adjacent land use considered and highway separates land use areas;
- City of Regina staff brought on board with VE proposal;
- Most landowners preferred the VE configuration; and
- Brandt Industries came on side after the VE session.

Highlights

PLANNING SOLVED FOR THE 2014 P3 PROJECT

ALL STUDY STAKEHOLDERS ACCEPTED THE VE DECISION MAKING
PROCESS

THE WORKSHOP TEAM RECEIVED A STANDING OVATION AT THE END OF
THE PRESENTATION

“YOU MAKE MY LIFE EASY” - A QUOTE FROM THE DEPUTY MINISTER AT
THE CONCLUSION OF THE VE SESSION

QUESTIONS??