



Evaluate proximity of lane add after Coburn Rd signal installation  
(Long term - needed when traffic signal is installed)

Evaluate proximity of lane drop after Coburn Rd signal installation  
(Long term - needed when traffic signal is installed)

**KEY**

- Geometric Elements
- Safety
- Capacity
- Traffic Control
- Bicycles and Pedestrians
- Street and Highway Lighting

Critical Deficiency (requires I-90 bridge structure widening or interchange reconfiguration)



**KEY**

Geometric Elements


Safety

Capacity

Traffic Control

Bicycles and Pedestrians

Street and Highway Lighting

 Critical Deficiency (requires I-90 bridge structure widening or interchange reconfiguration)



Less advance I-90 guide signage on Johnson Ln than other interchanges (Existing)

Lack of sidewalks and crosswalks along Johnson Rd (Existing)

Crossroad lighting does not meet CIL standards (Short term - interchange meets MDT CIL volume guidelines in Short term 2008)

I-90 mainline highway lighting does not meet CIL standards (Short term - interchange meets MDT CIL volume guidelines in Short term 2008)

Monitor need for new traffic signal (Long term)

Inadequate capacity for stop controlled approach (WB N Frontage Rd) (Long Term)

Truck turn movements (Existing)

Lack of left turn lane control signs (Existing)

New traffic signal (Long term)

Inadequate capacity for stop controlled approach (WB I-90 off ramp) (Existing)

Only one intersection streetlight (Existing - currently meets MDT volume guidelines for PIL)

Intersection sight distance (Existing)

Potential platoon deficiency due to new traffic signal (Long term)

Lack of left turn lane control signs (Existing)

Potential platoon due to signalized double left turn (Long term)

Potential inadequate left turn storage length (Long term - after traffic signal is installed)

N Frontage Rd.

WB On-Ramp

No posted speed limit before limited sight distance intersection (Existing)

Taper length (Existing)

Lack of end of guardrail object marker (Existing)

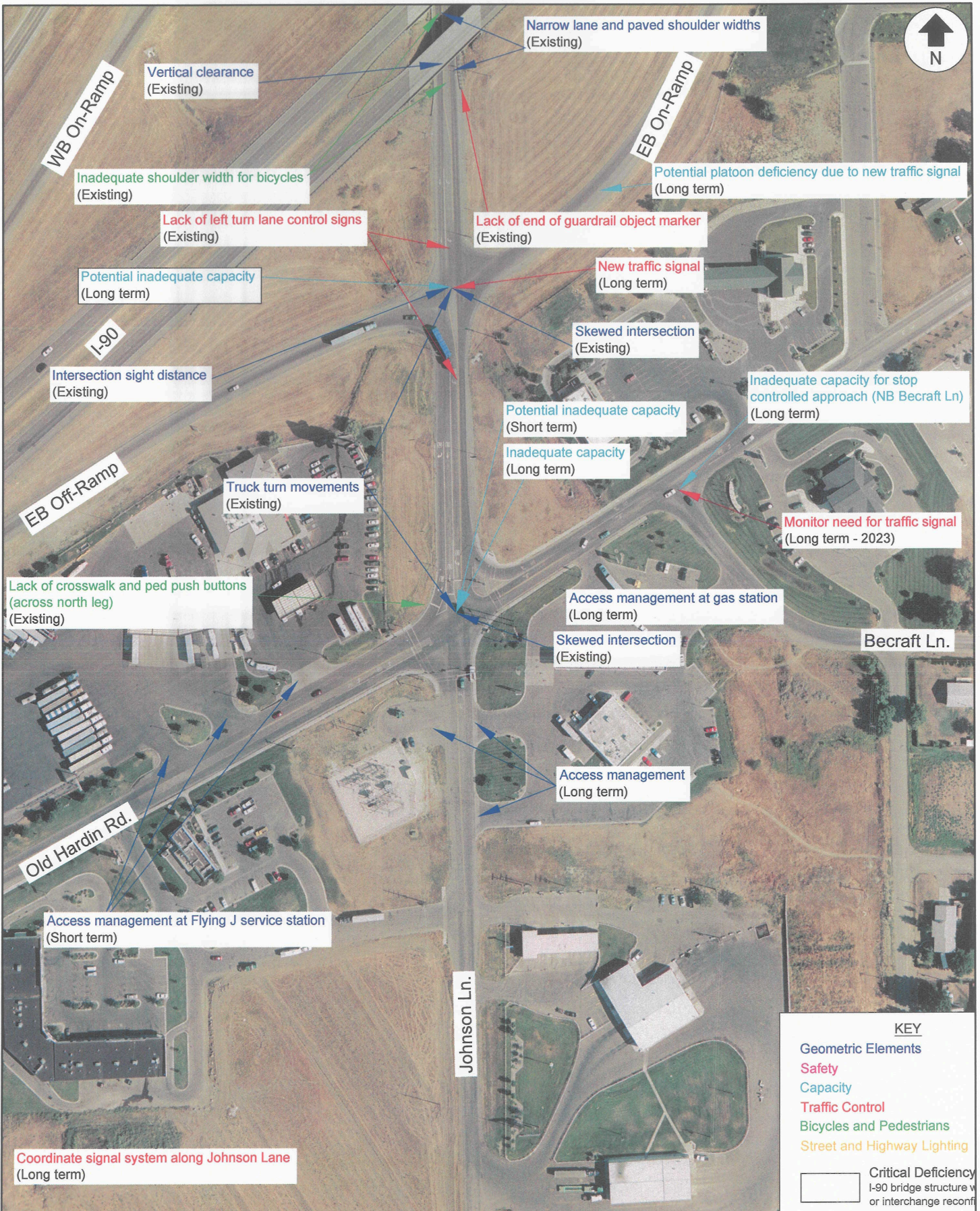
Vertical clearance (Existing)

EB On-Ramp



BILLINGS I-90 INTERCHANGE STUDY						
DEFICIENCIES - JOHNSON LANE INTERCHANGE - EXIT 455						
Scale	1"=200'	Date	March 2006	Drawn by	RAC	Figure 7B

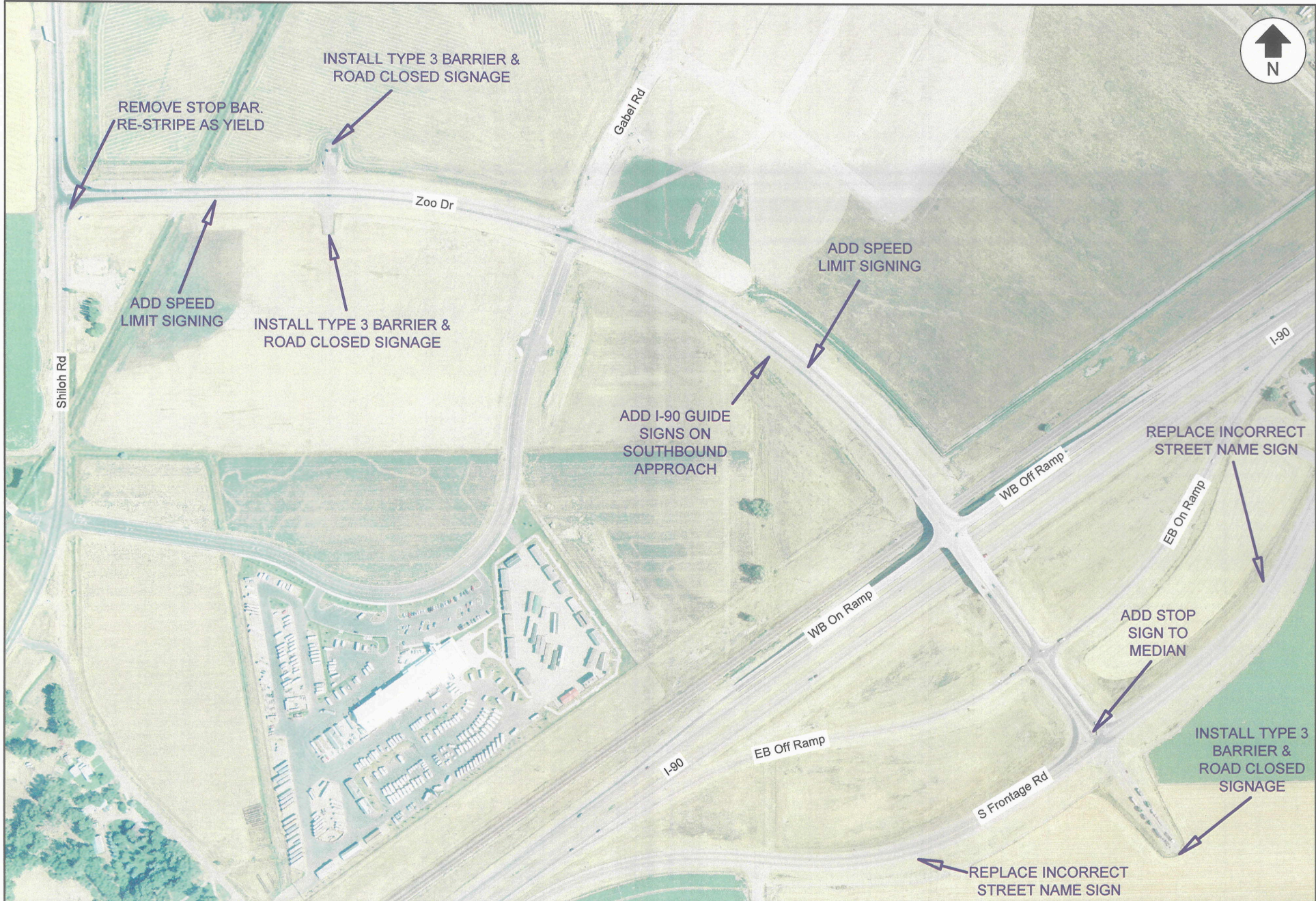




**KEY**

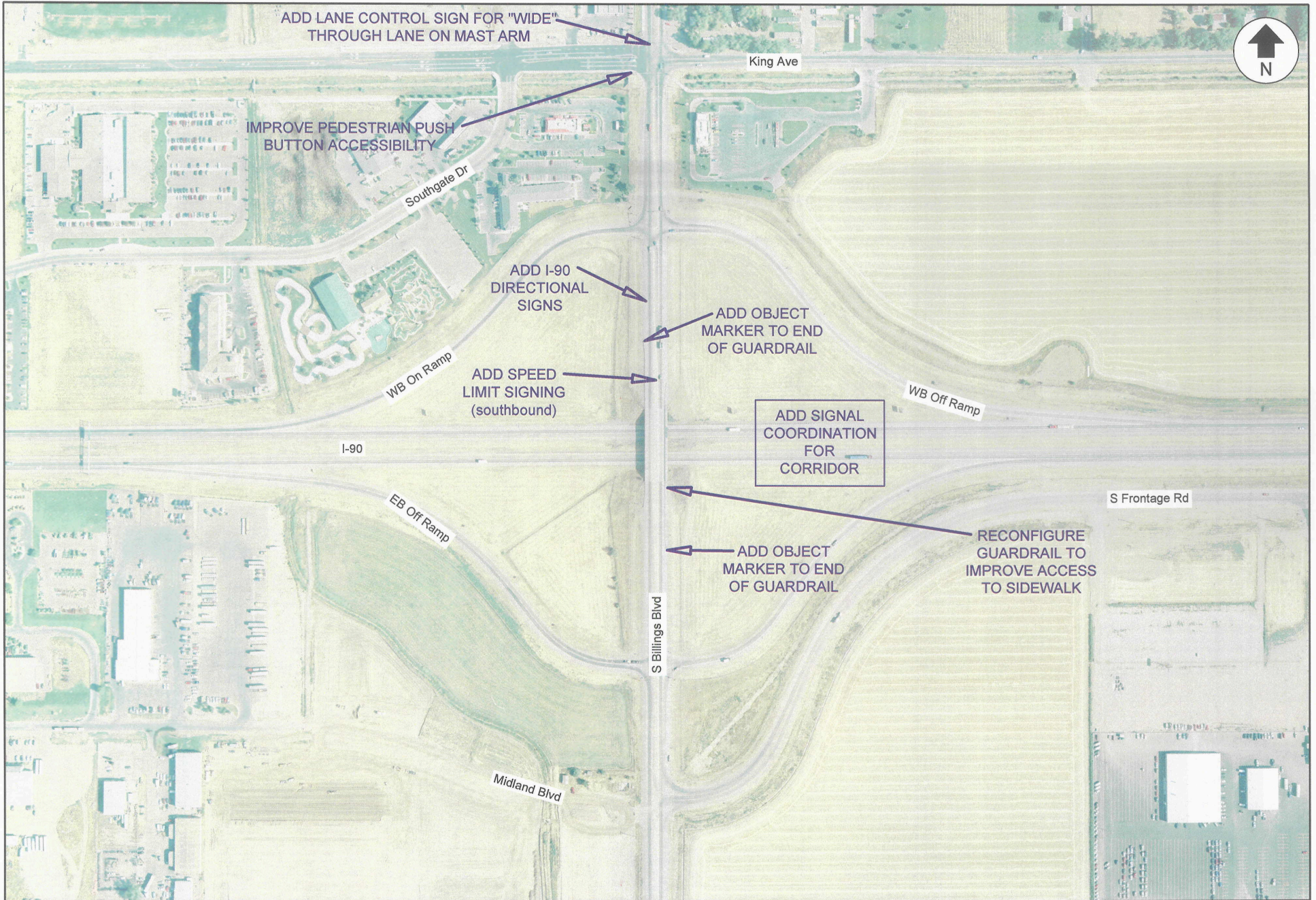
- Geometric Elements
- Safety
- Capacity
- Traffic Control
- Bicycles and Pedestrians
- Street and Highway Lighting

Critical Deficiency  
 I-90 bridge structure w  
 or interchange reconf



BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED O & M IMPROVEMENTS - SHILOH INTERCHANGE

Scale	1"=500'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	8
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BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED O & M IMPROVEMENTS - SOUTH BILLINGS INTERCHANGE

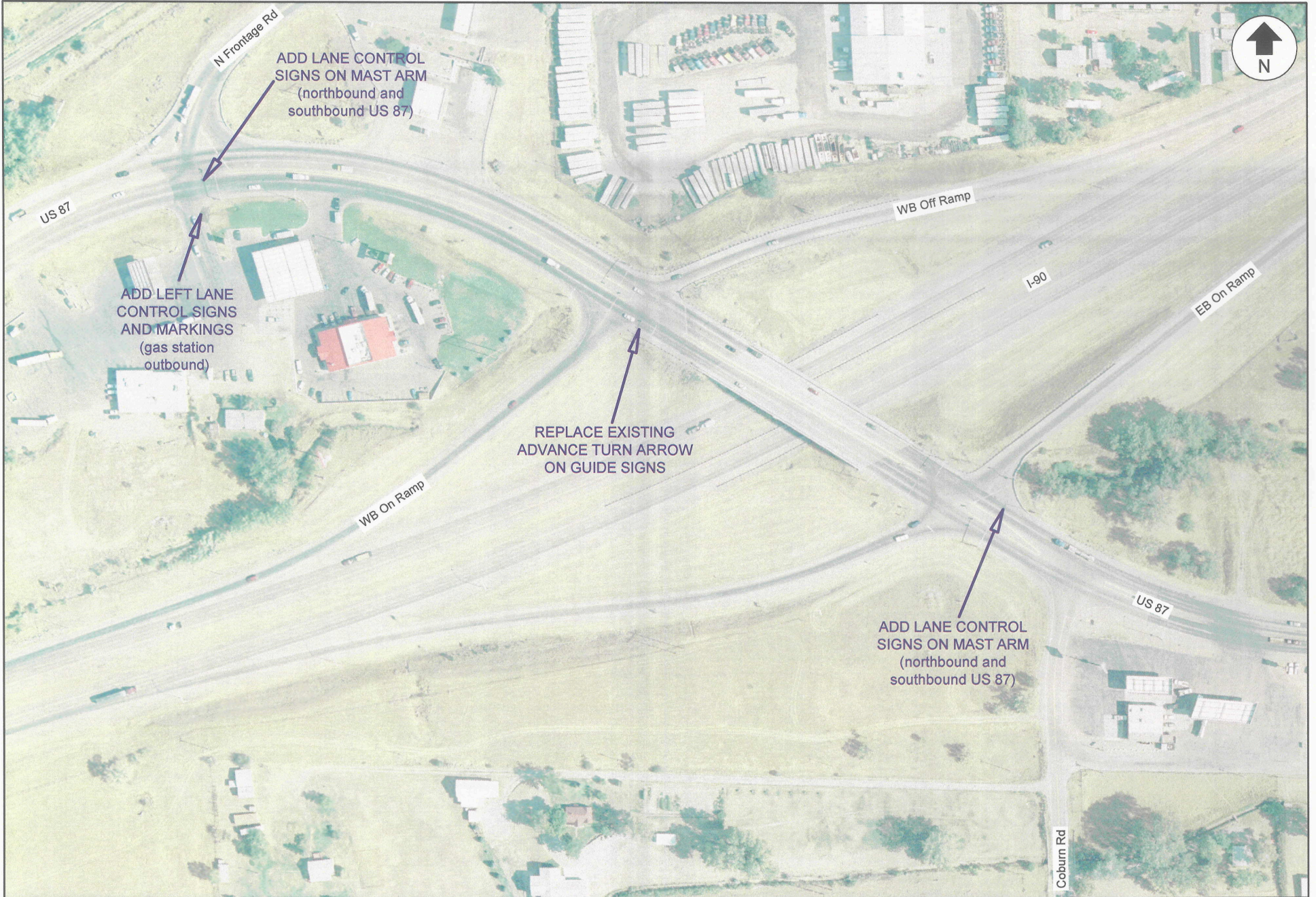
Scale	1"=400'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	9
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BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED O & M IMPROVEMENTS - 27TH STREET INTERCHANGE

Scale	1"=200'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	10
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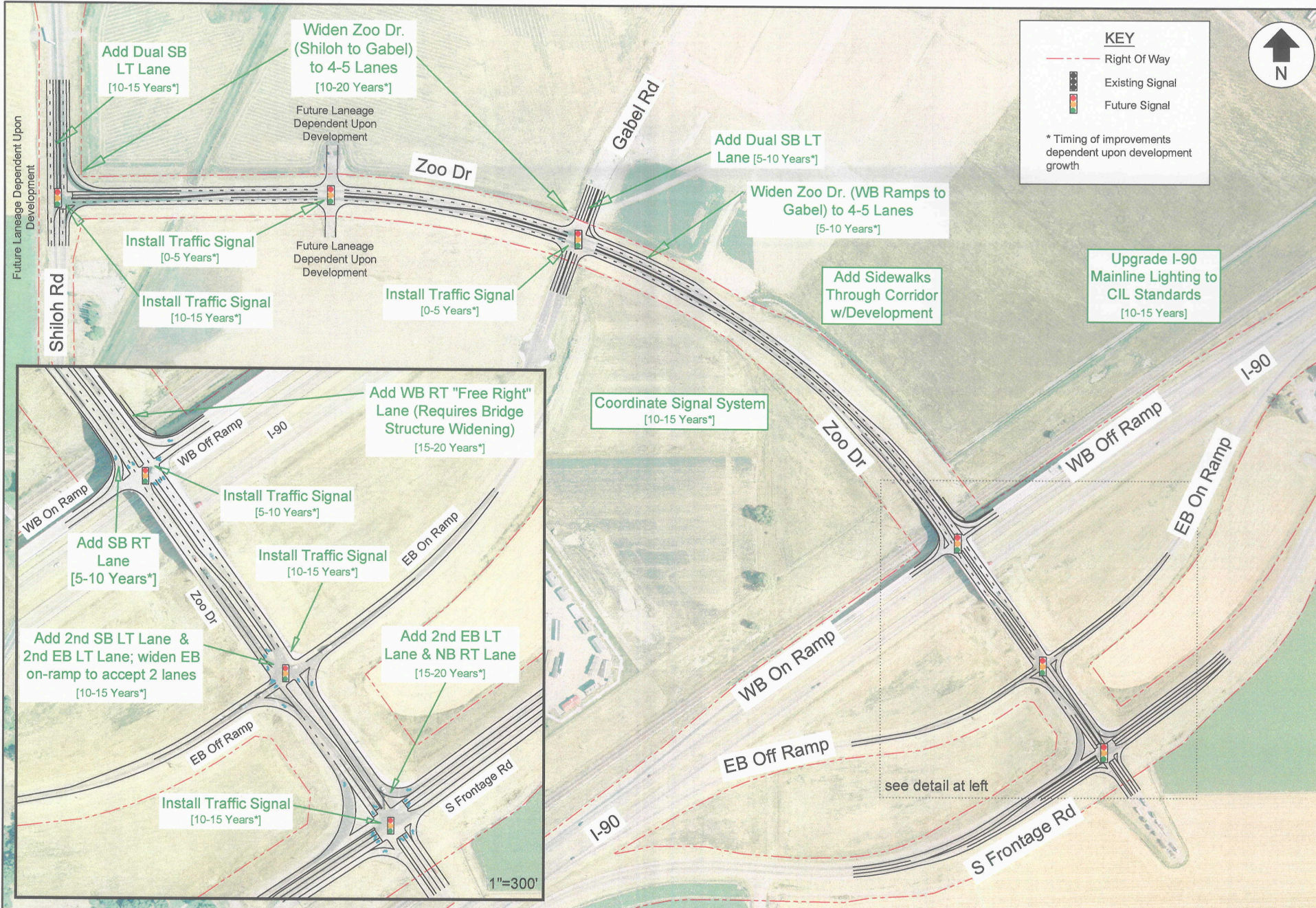
BILLINGS I-90 INTERCHANGE STUDY  
**RECOMMENDED O & M IMPROVEMENTS - US87/LOCKWOOD INTERCHANGE**

Scale	1"=200'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	11
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BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED O & M IMPROVEMENTS - JOHNSON LANE INTERCHANGE

Scale	1"=300'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	12
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BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED PROJECT/STIP IMPROVEMENTS - SHILOH INTERCHANGE

Scale	1"=500'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	13
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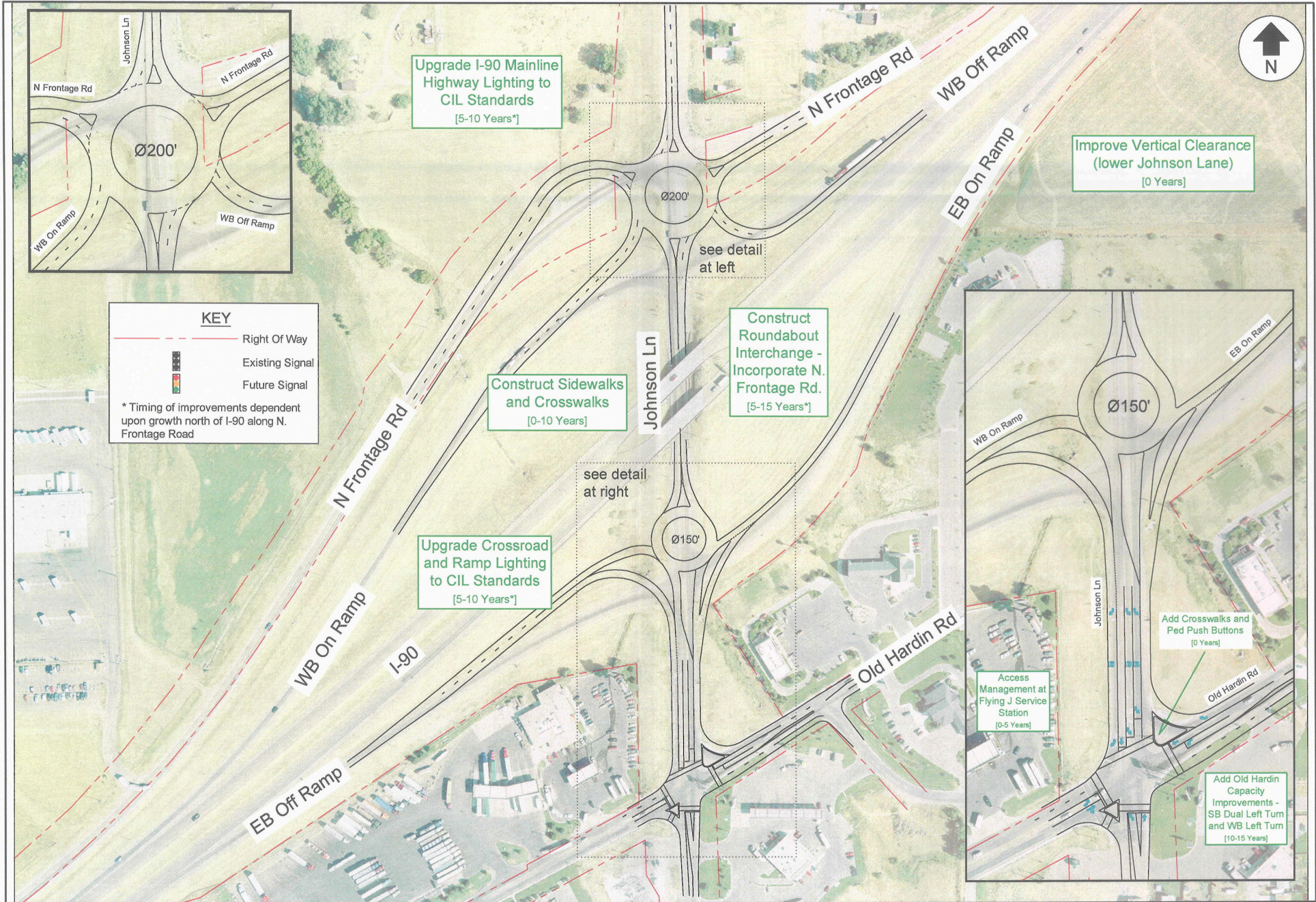




BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED PROJECT/STIP IMPROVEMENTS - 27TH ST. INTERCHANGE

Scale	1"=200'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	15
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BILLINGS I-90 INTERCHANGE STUDY  
 RECOMMENDED PROJECT/STIP IMPROVEMENTS - JOHNSON LN. INTERCHANGE

Scale	1"=300'	Date	March 2006	Drawn by	RAC	Job #	AMTDOT0306	Figure	17
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