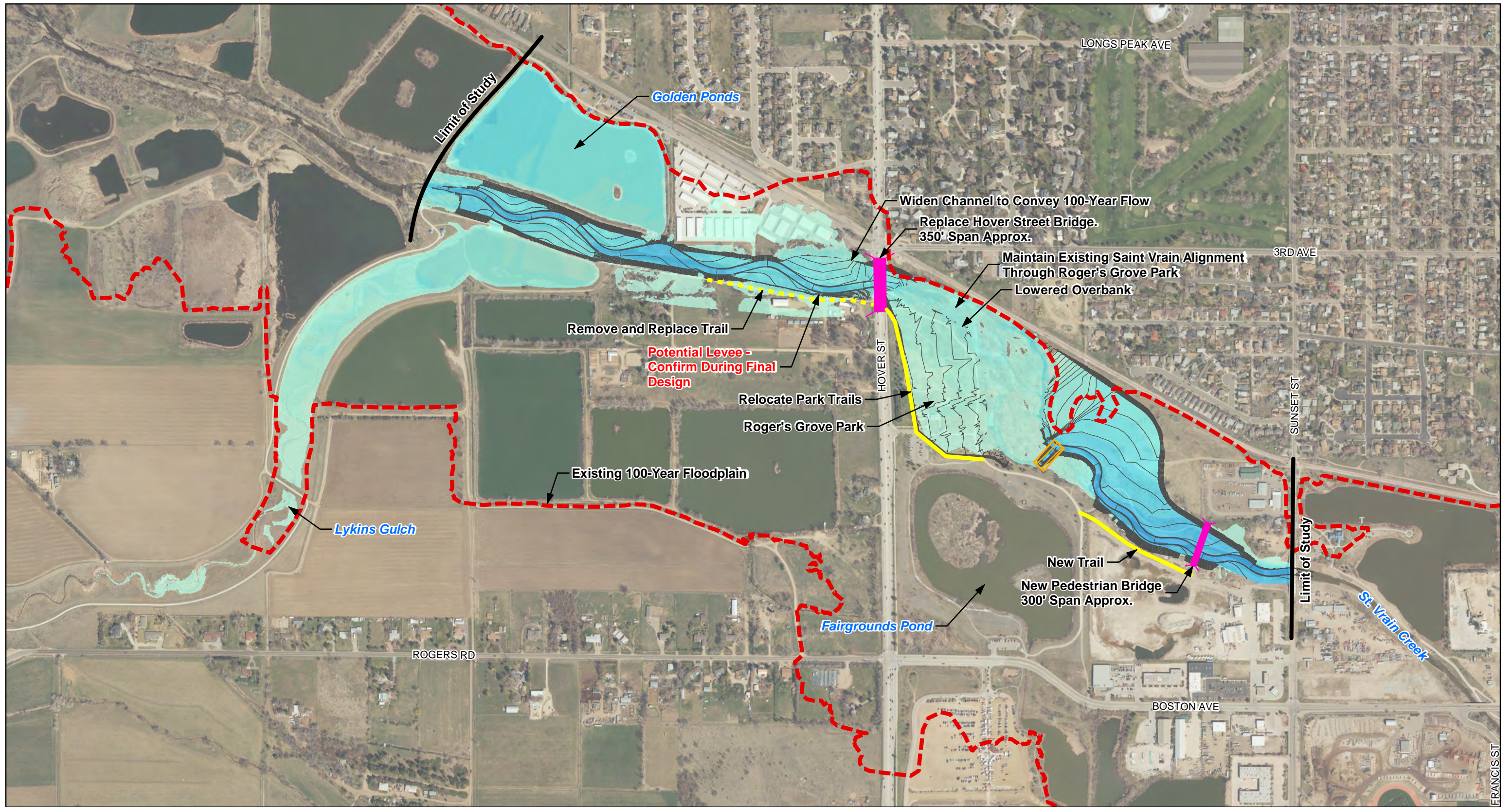


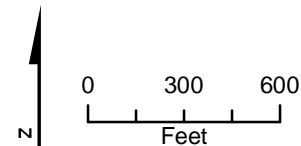
Attachment B
Conceptual Design Options Figures



- Legend**
- Existing 100-Year Floodplain**
- 1D Champ Floodplain
- Proposed Infrastructure**
- Proposed Grading
 - Bridge/Culvert
 - Drop Structure
 - New Trail
 - Remove and Replace Trail

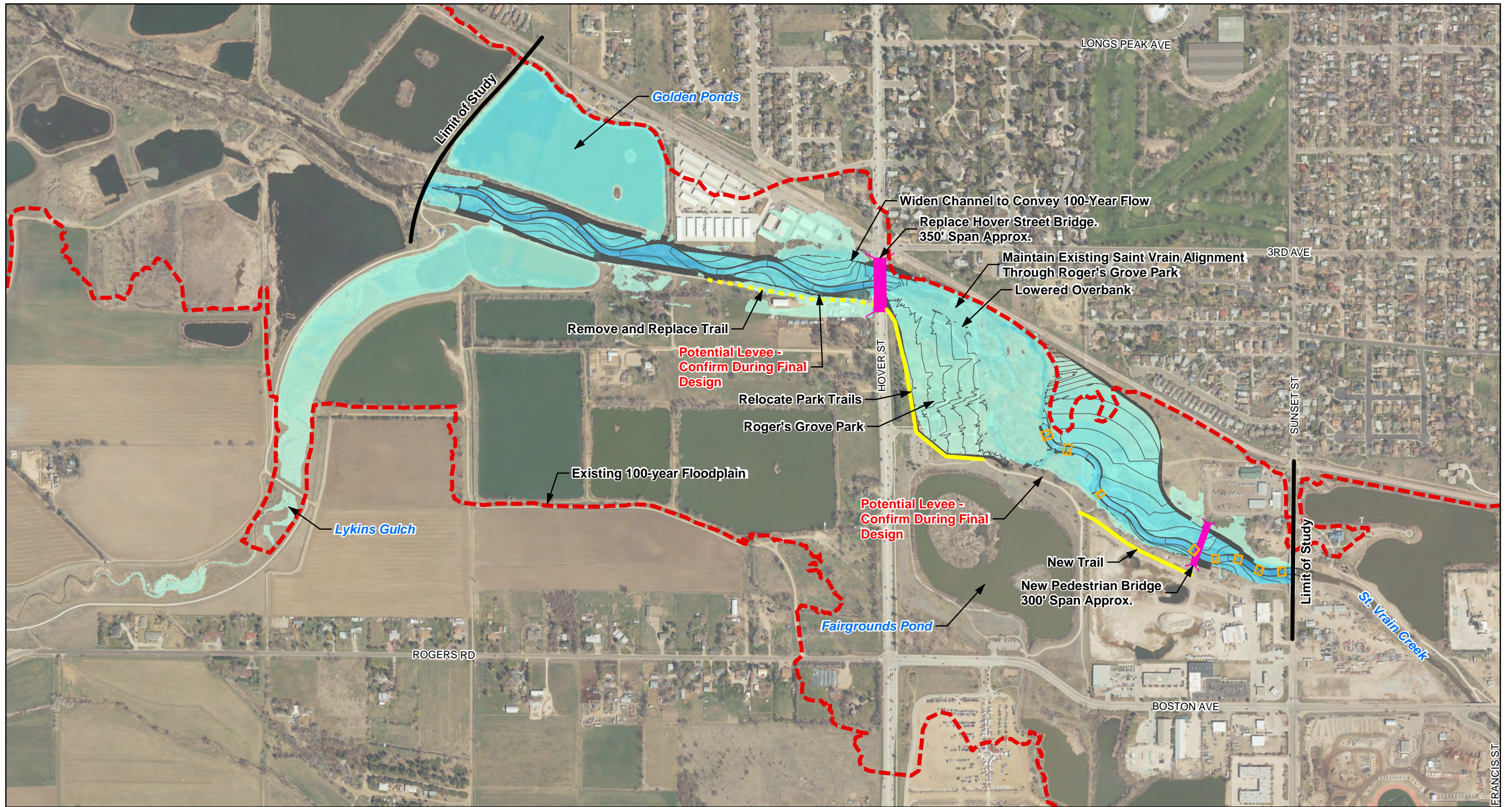
Approximate Future 100-Year Floodplain Depth (feet)*

0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	



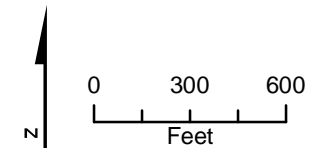
* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Option 1A -Single Thread Channel
 with Large Drop



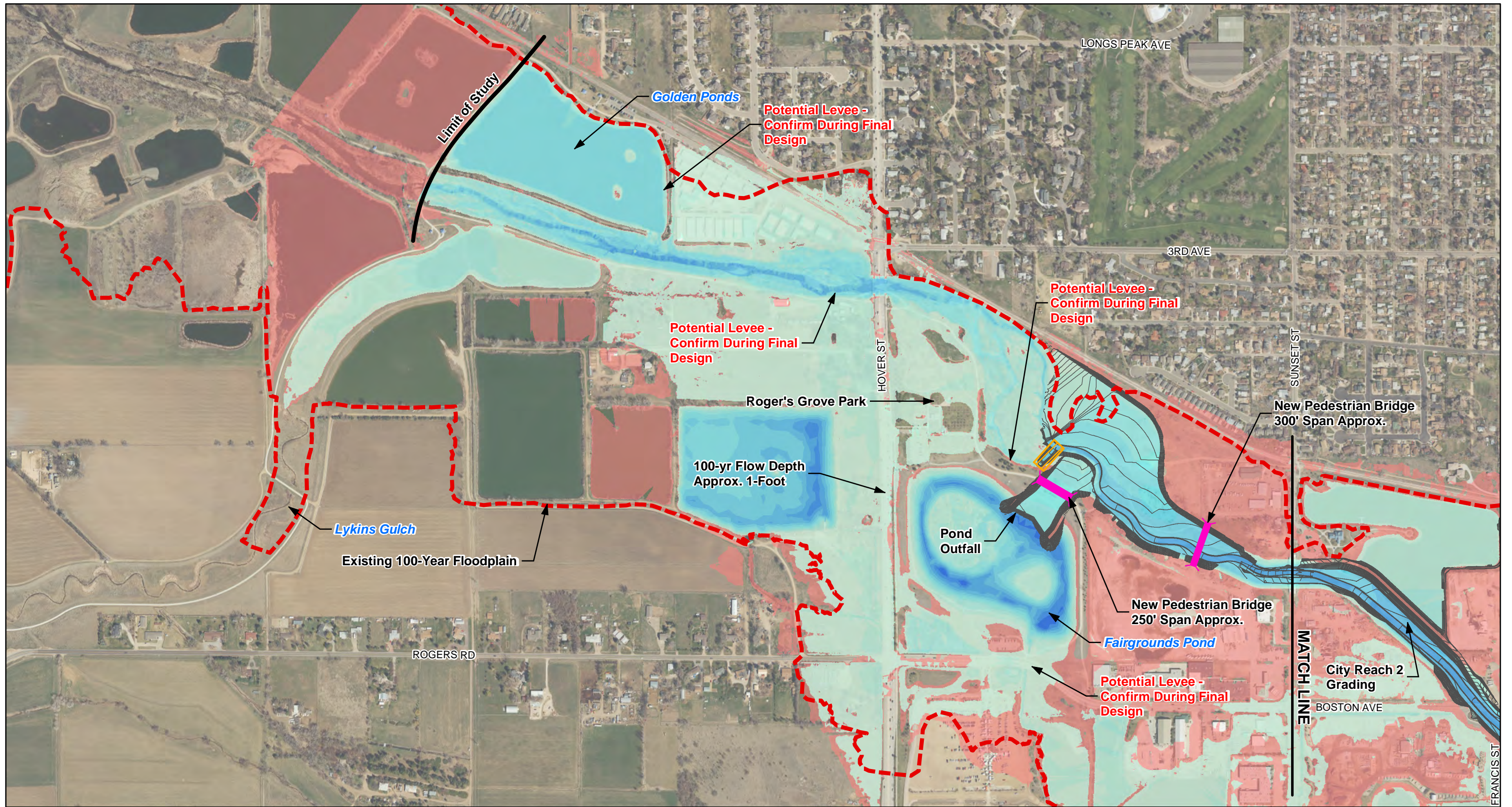
Legend

Existing 100-Year Floodplain	Proposed Infrastructure	Approximate Future 100-Year Floodplain Depth (feet)*			
1D Champ Floodplain	Proposed Grading	0 - 2	6 - 8	12 - 14	> 18
	Bridge/Culvert	2 - 4	8 - 10	14 - 16	
	Drop Structure	4 - 6	10 - 12	16 - 18	
	New Trail				
	Remove and Replace Trail				



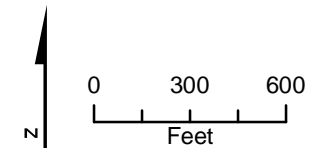
* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Option 1B - Single Thread Channel with Riffle Drops



Legend

Existing 100-Year Floodplain	Proposed Infrastructure	Approximate Future 100-Year Floodplain Depth (feet)*			
1D Champ Floodplain	Proposed Grading	0 - 2	6 - 8	12 - 14	> 18
2D Floodplain	Bridge/Culvert	2 - 4	8 - 10	14 - 16	
	Drop Structure	4 - 6	10 - 12	16 - 18	

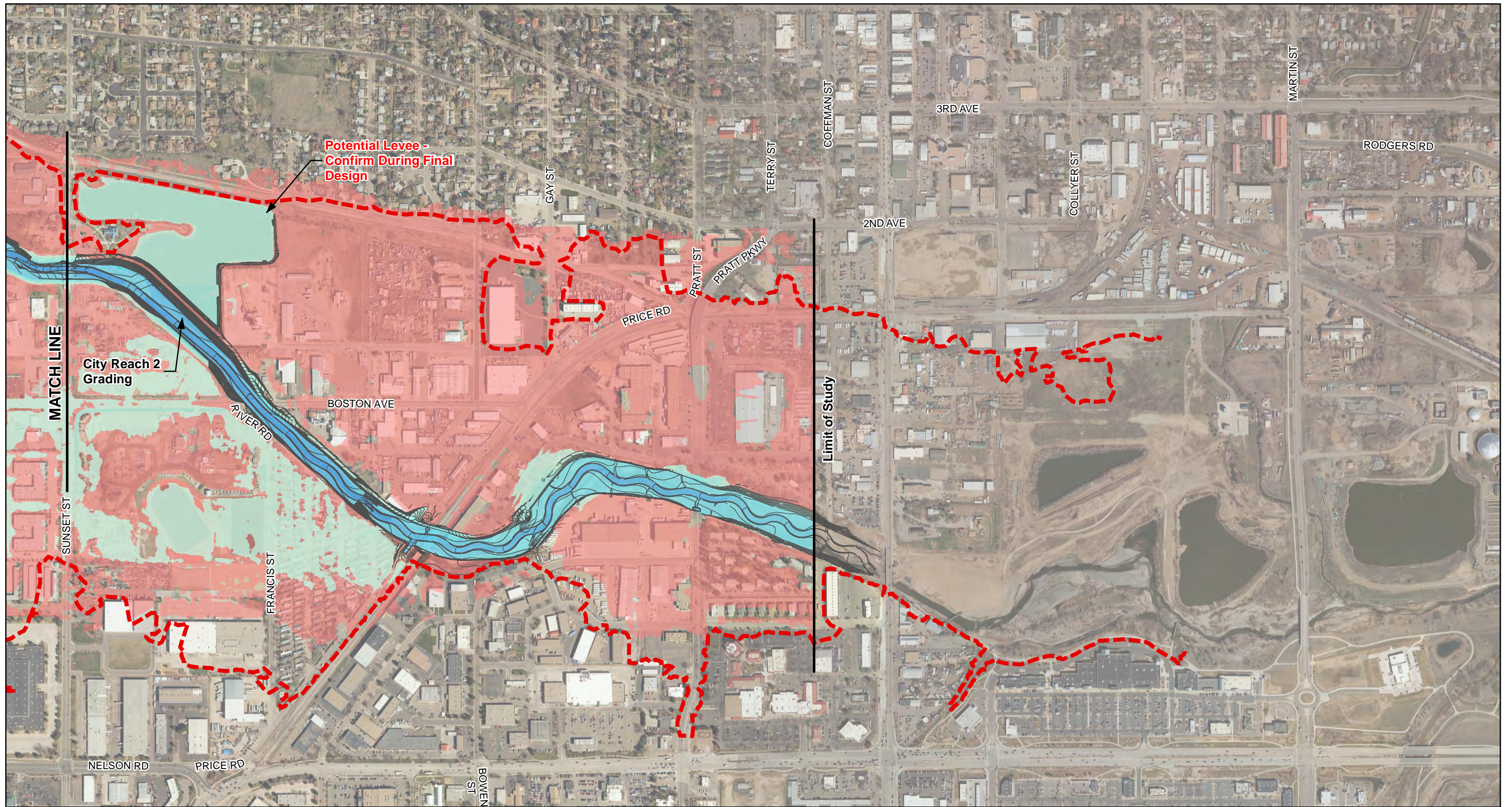


* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Option 2A - Fairgrounds Pond
 Outfall with Large Drop

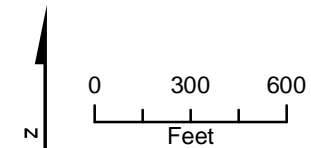


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Legend

Existing 100-Year Floodplain	Proposed Infrastructure	Approximate Future 100-Year Floodplain Depth (feet)*			
1D Champ Floodplain	Proposed Grading	0 - 2	6 - 8	12 - 14	> 18
2D Floodplain	Bridge/Culvert	2 - 4	8 - 10	14 - 16	
	Drop Structure	4 - 6	10 - 12	16 - 18	

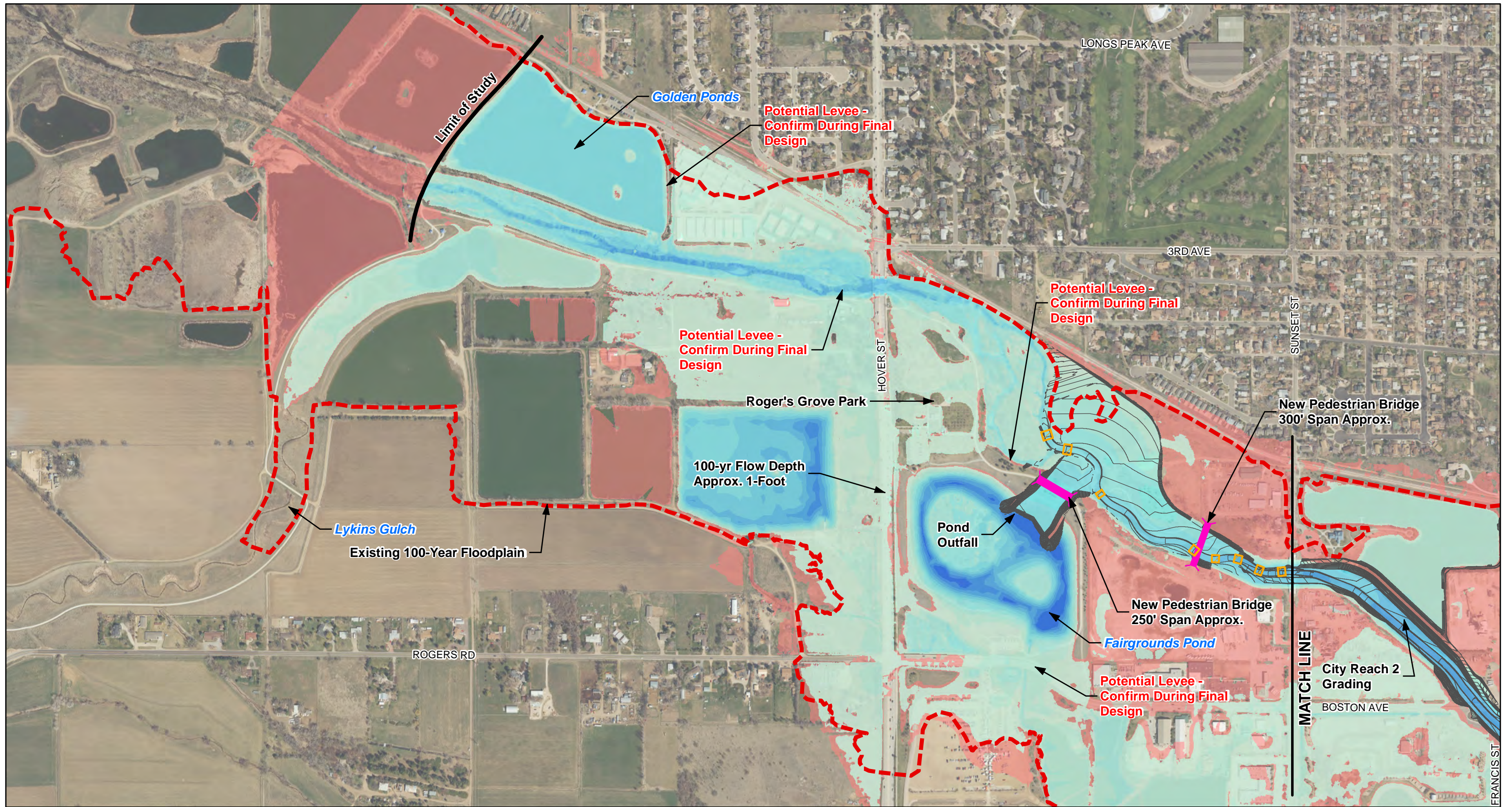


* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
City Reach 3
Option 2A - Fairgrounds Pond
Outfall with Large Drop

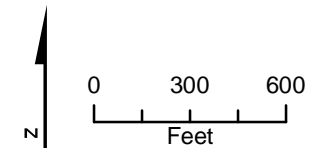


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Legend

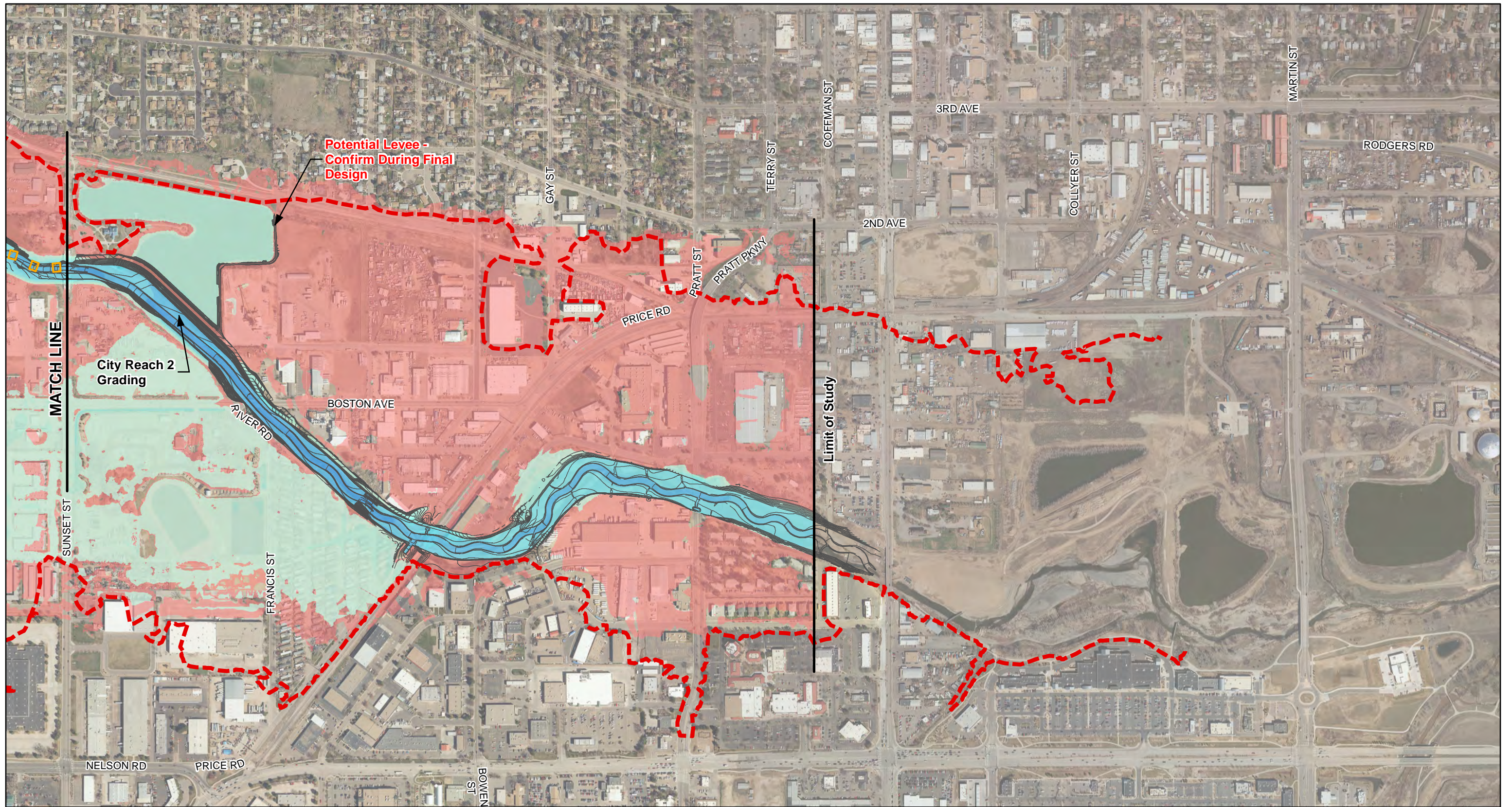
Existing 100-Year Floodplain	Proposed Infrastructure	Approximate Future 100-Year Floodplain Depth (feet)*					
1D Champ Floodplain	Proposed Grading	0 - 2	6 - 8	12 - 14	> 18		
2D Floodplain	Bridge/Culvert	2 - 4	8 - 10	14 - 16			
	Drop Structure	4 - 6	10 - 12	16 - 18			



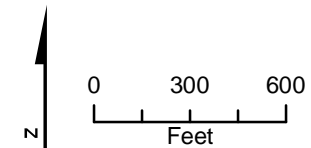
* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Option 2B - Fairgrounds Pond
 Outfall with Riffle Drops





Legend		Approximate Future 100-Year Floodplain Depth (feet)*							
	1D Champ Floodplain		0 - 2		6 - 8		12 - 14		> 18
	2D Floodplain		2 - 4		8 - 10		14 - 16		16 - 18
	Proposed Grading		4 - 6		10 - 12		16 - 18		
	Bridge/Culvert								
	Drop Structure								

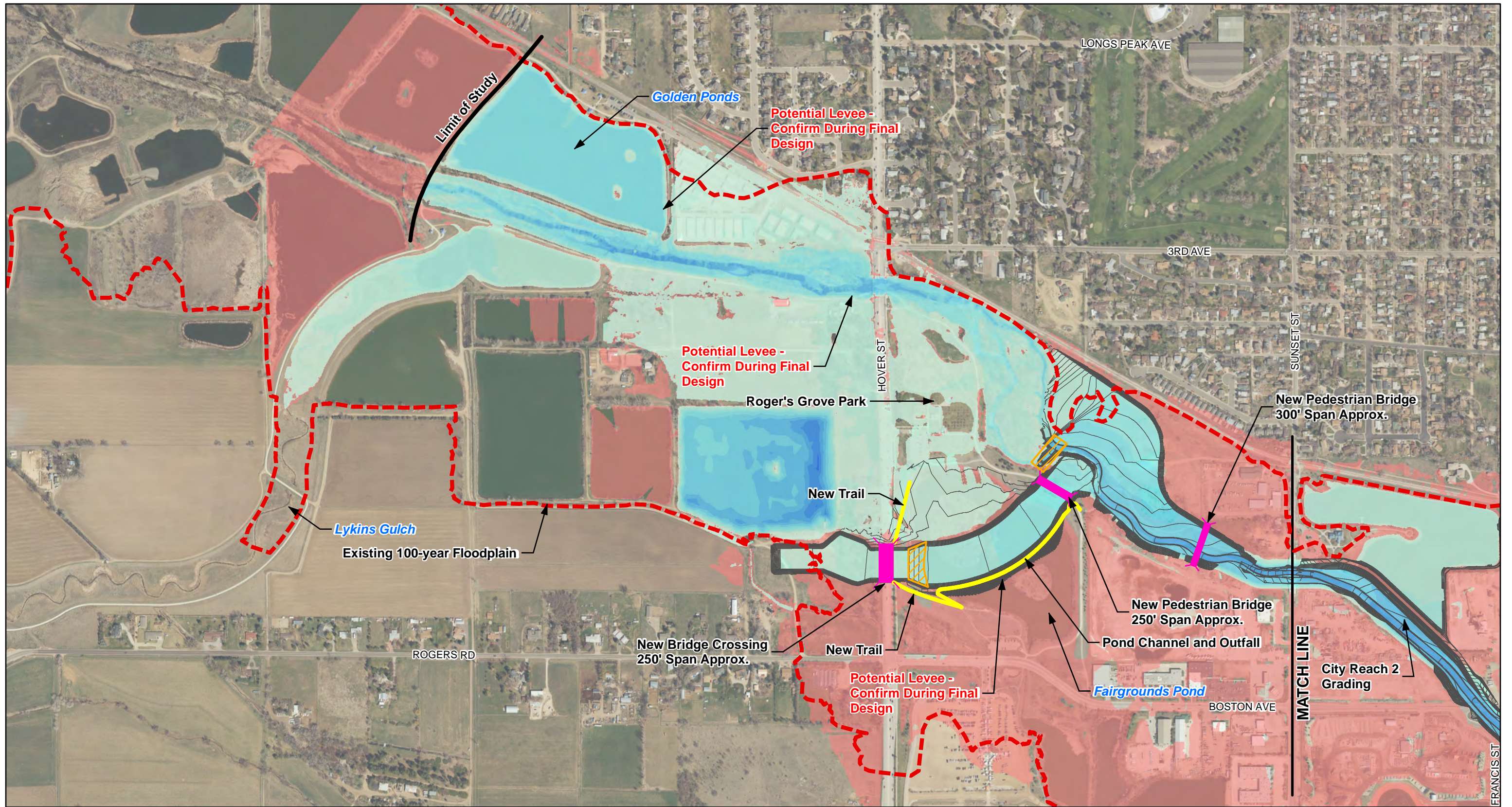


* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Option 2B - Fairgrounds Pond
 Outfall with Riffle Drops



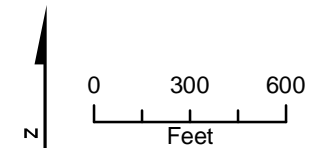
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- Legend**
- | | |
|-------------------------------------|--------------------------------|
| Existing 100-Year Floodplain | Proposed Infrastructure |
| 1D Champ Floodplain | Proposed Grading |
| 2D Floodplain | Bridge/Culvert |
| | Drop Structure |
| | New Trail |

Approximate Future 100-Year Floodplain Depth (feet)*

0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	

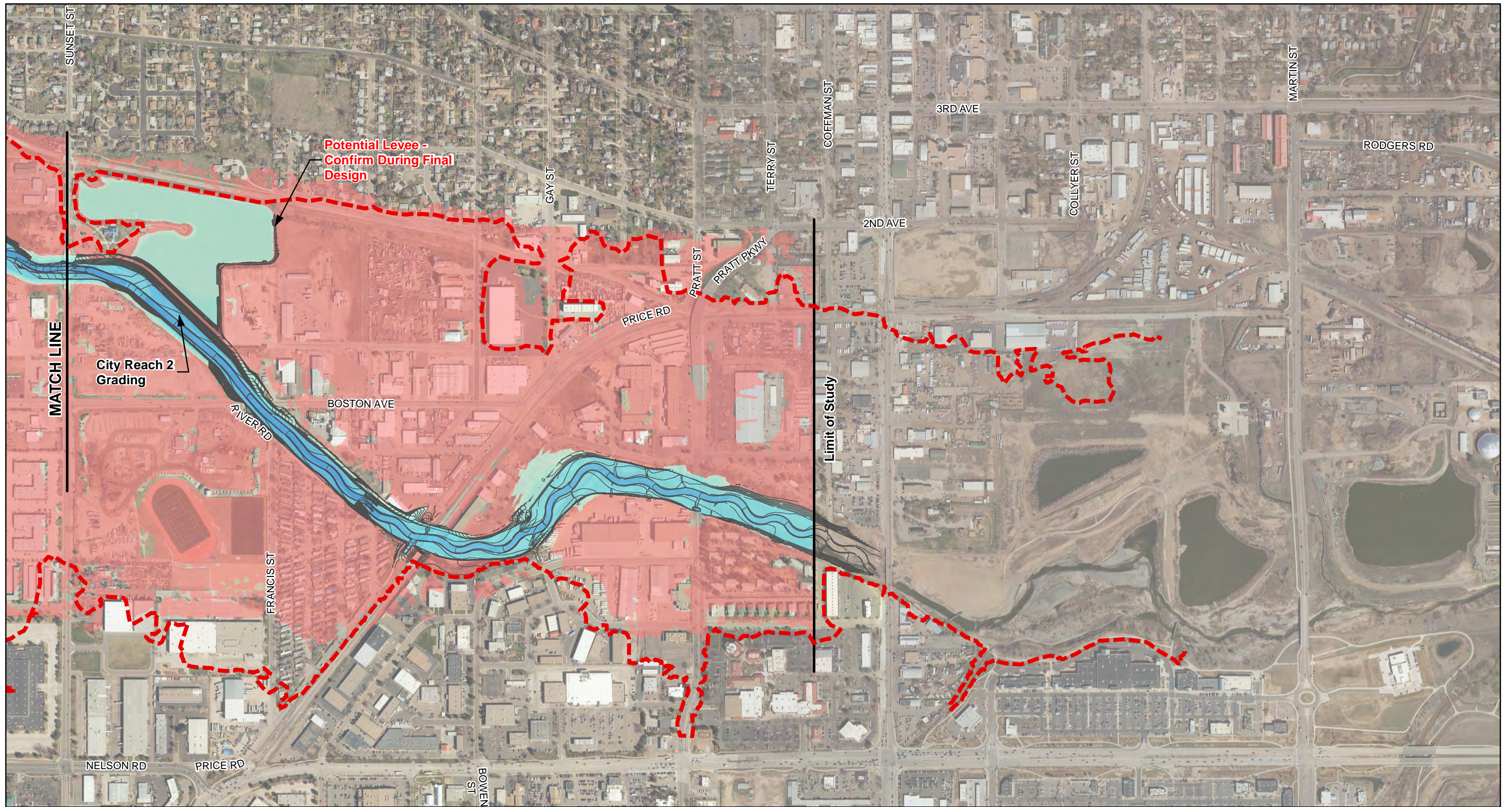


* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 3A and 2A -
 New Hover Crossing to
 Fairgrounds Pond Outfall
 with Large Drop



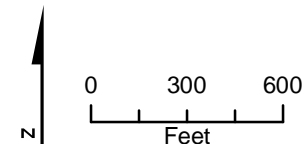
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- Legend**
- | | |
|-------------------------------------|--------------------------------|
| Existing 100-Year Floodplain | Proposed Infrastructure |
| 1D Champ Floodplain | Proposed Grading |
| 2D Floodplain | Bridge/Culvert |
| | Drop Structure |

Approximate Future 100-Year Floodplain Depth (feet)*

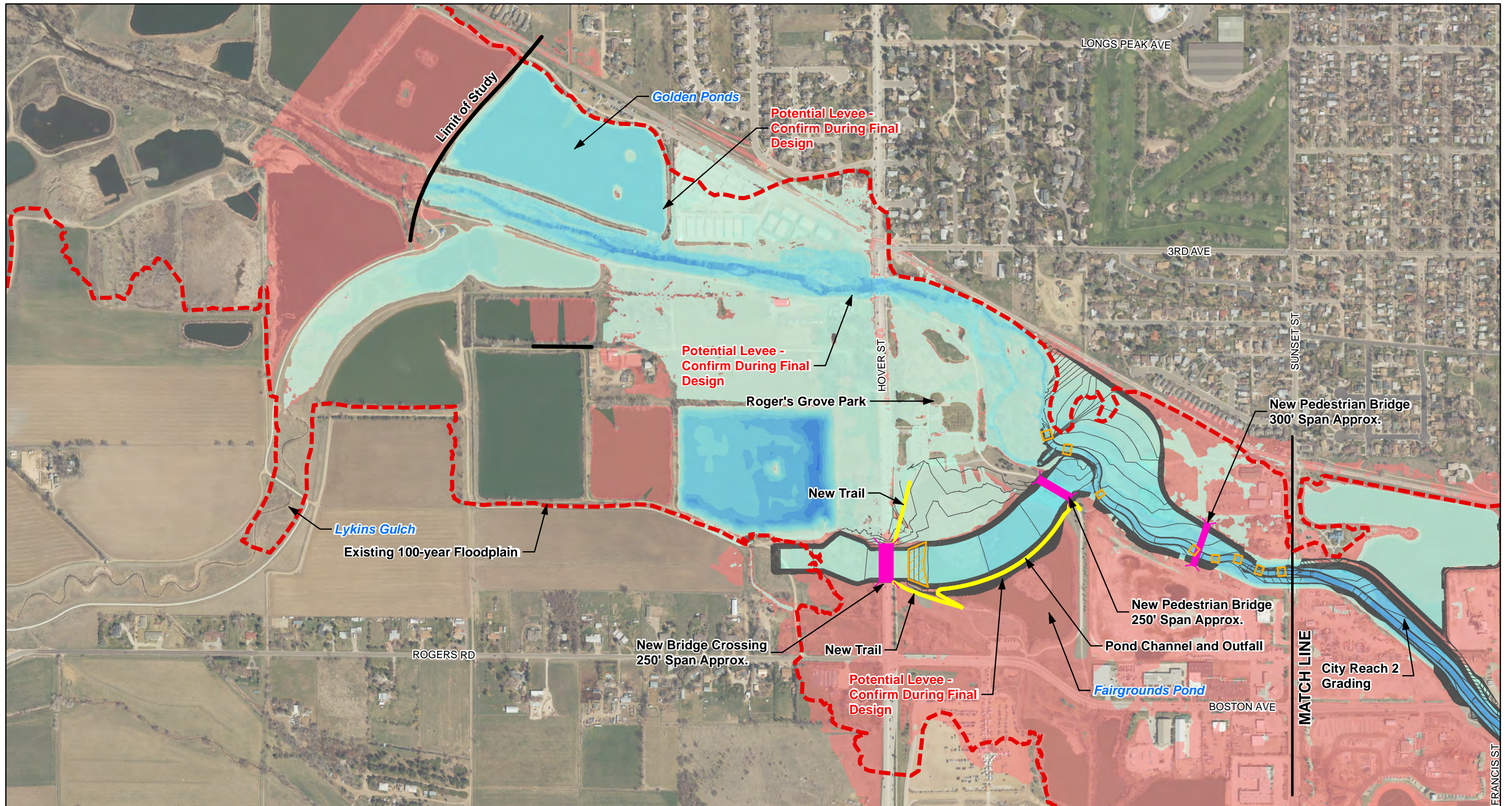
0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	



* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 3A and 2A -
 New Hover Crossing to
 Fairgrounds Pond Outfall
 with Large Drop



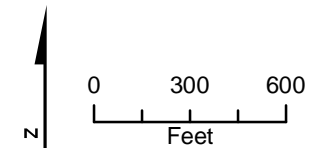


Legend

Existing 100-Year Floodplain	Proposed Infrastructure
1D Champ Floodplain	Proposed Grading
2D Floodplain	Bridge/Culvert
	Drop Structure
	New Trail

Approximate Future 100-Year Floodplain Depth (feet)*

0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	

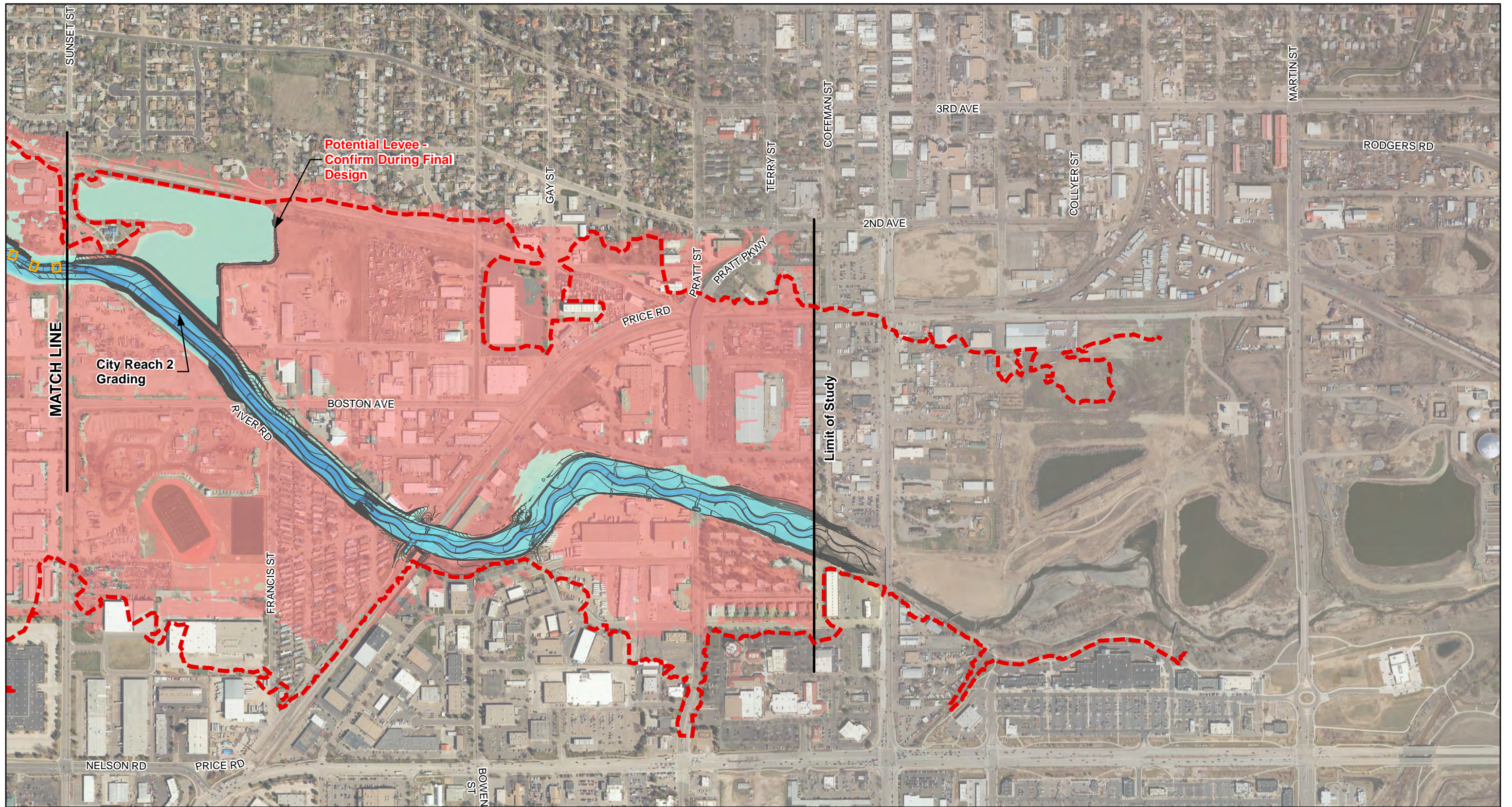


* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 3B and 2B -
 New Hover Crossing to
 Fairgrounds Pond Outfall
 with Riffle Drops

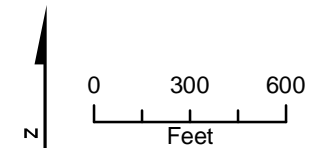


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Legend

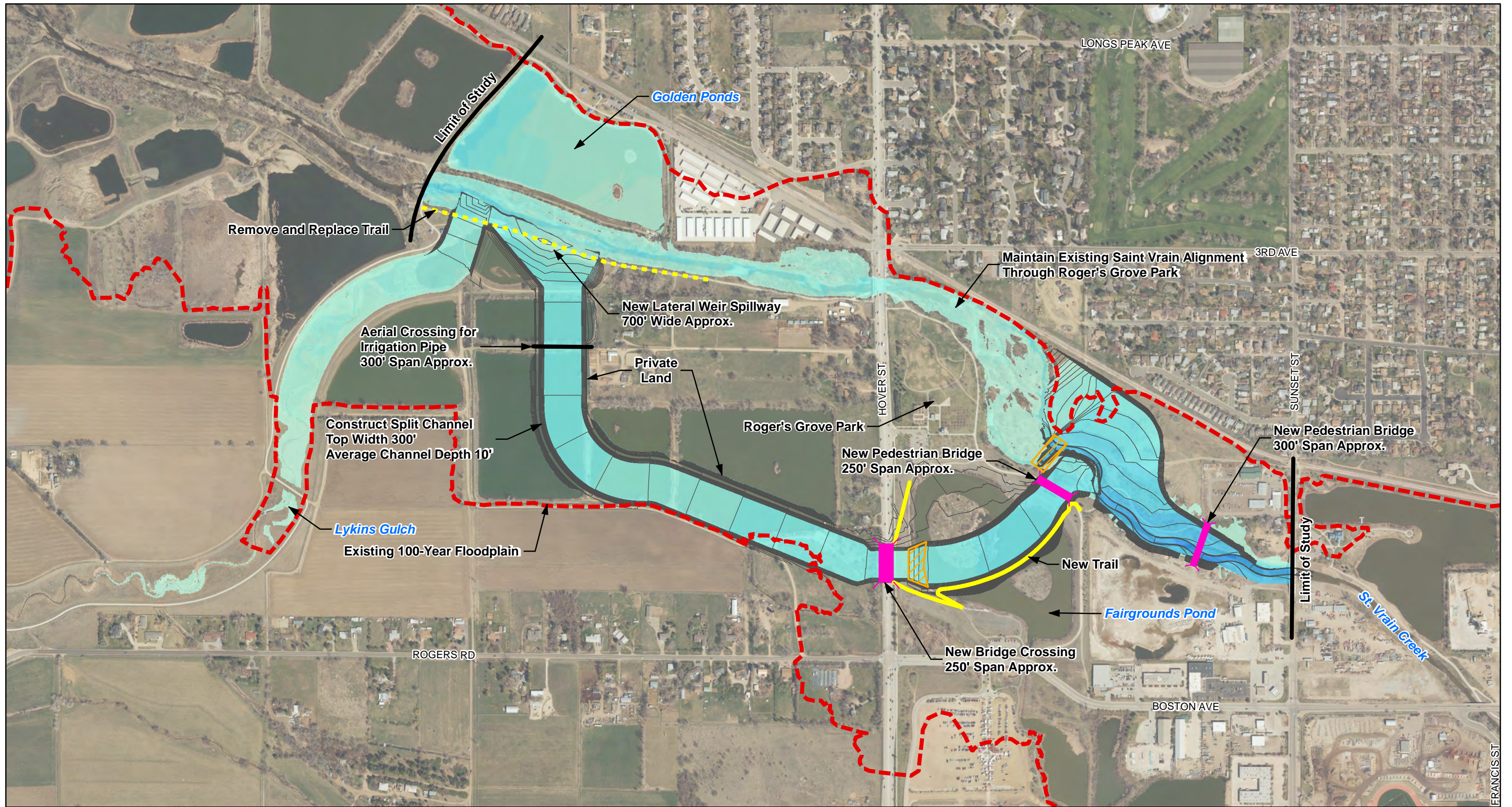
- | | | | | | |
|-------------------------------------|--------------------------------|---|---------|---------|------|
| Existing 100-Year Floodplain | Proposed Infrastructure | Approximate Future 100-Year Floodplain Depth (feet)* | | | |
| 1D Champ Floodplain | Proposed Grading | 0 - 2 | 6 - 8 | 12 - 14 | > 18 |
| 2D Floodplain | Bridge/Culvert | 2 - 4 | 8 - 10 | 14 - 16 | |
| | Drop Structure | 4 - 6 | 10 - 12 | 16 - 18 | |



* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 3B and 2B -
 New Hover Crossing to
 Fairgrounds Pond Outfall
 with Riffle Drops



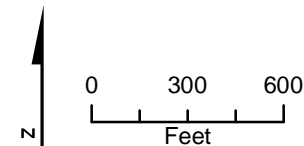


Legend

Existing 100-Year Floodplain	Proposed Infrastructure
1D Champ Floodplain	Proposed Grading
	Bridge/Culvert
	Drop Structure
	New Trail
	Remove and Replace Trail
	Pipe

Approximate Future 100-Year Floodplain Depth (feet)*

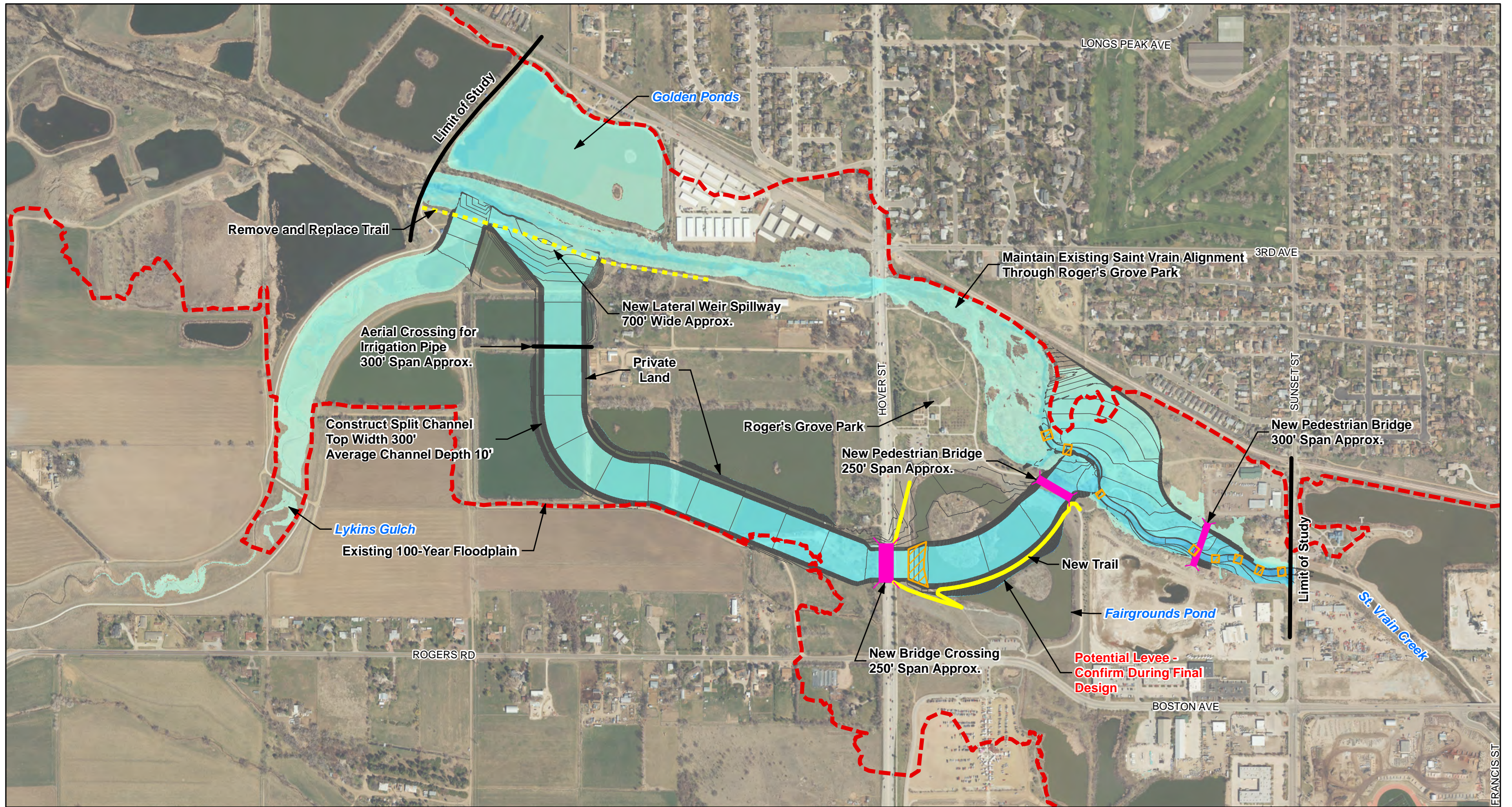
0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	



* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 4A, 3A, and 2A -
 Complete Split Flow Channel
 with Large Drop



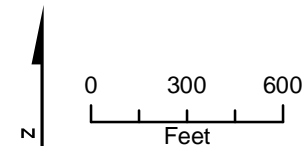


Legend

Existing 100-Year Floodplain	Proposed Infrastructure
1D Champ Floodplain	Proposed Grading
	Bridge/Culvert
	Drop Structure
	New Trail
	Remove and Replace Trail
	Pipe

Approximate Future 100-Year Floodplain Depth (feet)*

0 - 2	6 - 8	12 - 14	> 18
2 - 4	8 - 10	14 - 16	
4 - 6	10 - 12	16 - 18	



* The 100-Year Floodplain shown is the raw output from the 2D model. Floodplain refinement shall occur during future design and modeling.

Resilient St. Vrain Project
 City Reach 3
 Options 4B, 3B, and 2B -
 Complete Split Flow Channel
 with Riffle Drops

