

Appendix 5. Drainage Analysis



Future 42 Proposed Drainage

The Future 42 project did a high-level look at the proposed drainage needed for the future corridor. Below are the tables from those calculations and the following pages are maps used for those calculations. The proposed ponds are not finalized but are just placed to show the best locations. Potential ponds could be completed in many different ways that do not require as much land area.

Table 1: Proposed Basin Summary

Basin ID	Drainageway	Major Basin	Impervious Area (ac.)	Increase in Impervious from Existing (ac.)
1	Coal Creek Drainageway B	Coal Creek	2.77	1.41
2	Coal Creek Drainageway A	Coal Creek	11.13	3.51
3	Goodhue Ditch/Davidson Ditch	Bullhead Gulch	1.53	0.15
4	Bullhead Gulch	Bullhead Gulch	8.00	2.18
5	South Boulder Canyon Ditch	Bullhead Gulch	6.09	1.93
6	Indian Peaks Tributary	Bullhead Gulch	3.72	1.22
7	Unnamed Tributary (N of Arapahoe)	Bullhead Gulch	1.53	0.27
SUB-TOTAL		Coal Creek	13.89	4.92
SUB-TOTAL		Bullhead Gulch	20.87	5.76
TOTAL			34.77	10.68

Table 2: Volume Required by Major Drainage Basin

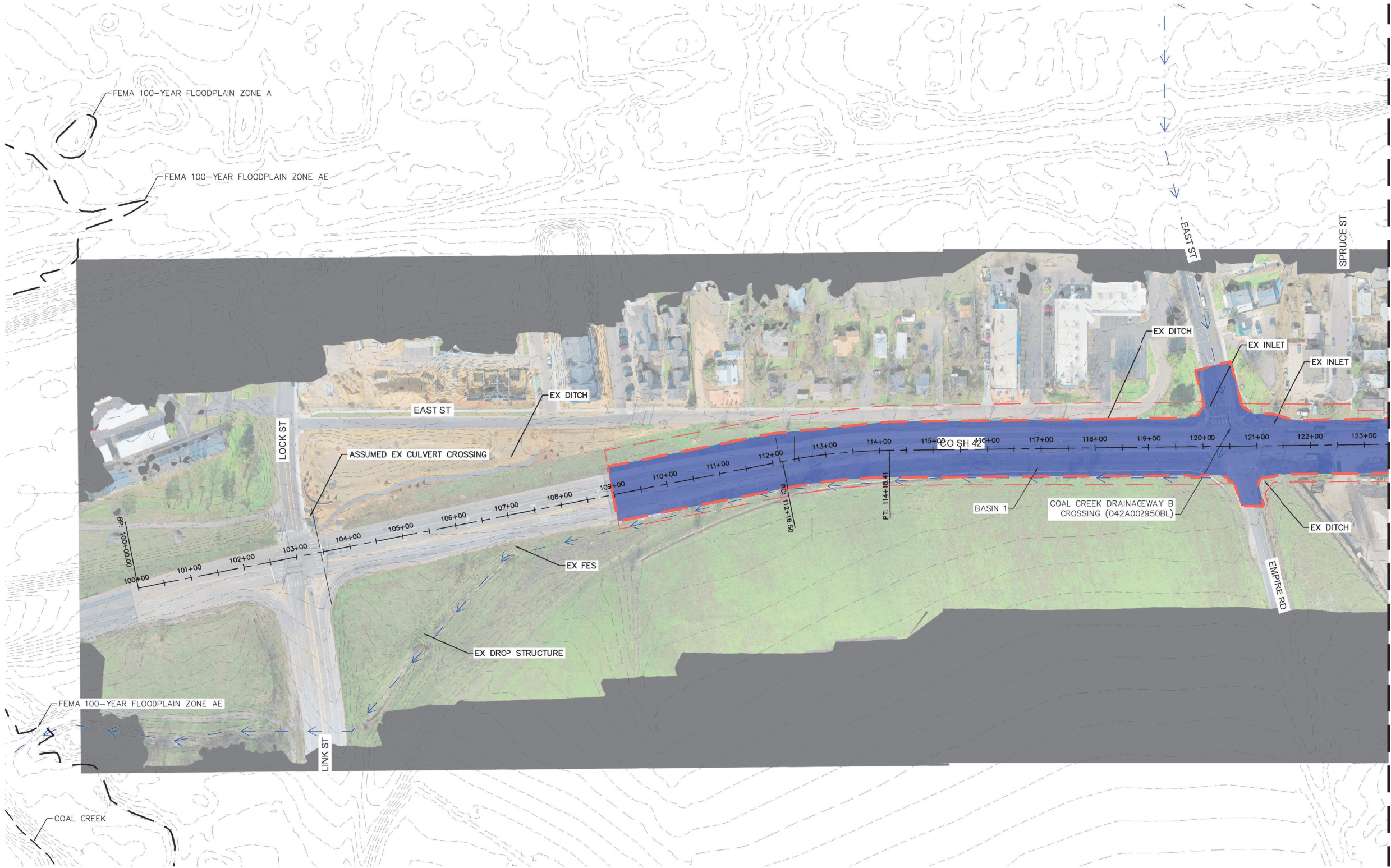
Basin ID	Major Basin	Approx. Rd Sta.	WQCV (ac-ft)	EURV (ac-ft)	100-Yr Detention (ac-ft)
1-2	Coal Creek	118+00 – 165+00	0.89	2.44	7.58
3-7	Bullhead Gulch	165+00 – 254+00	1.51	4.11	11.08

Table 3: Proposed Pond Locations/Details

Pond No.	Major Basin	Basin ID Served	Approx. Rd Sta Served	Approx. Location of Pond	Total Storage Req'd (ac-ft)	Assumed Depth (ft)	Req'd Area (ac.)
1	Coal Creek	1-2	118+00 – 165+00	130+00	7.58	5	1.52
2	Bullhead Gulch	3-4	165+00 – 206+00	192+00	5.10	5	1.02
3	Bullhead Gulch	5-6	206+00 – 235+00	234+00	3.61	5	0.72
4	Bullhead Gulch	6-7	235+00 – 254+00	237+00	2.36	5	0.47

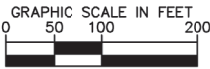
*Note Basin 6 is accounted for within both Pond 3 and 4.

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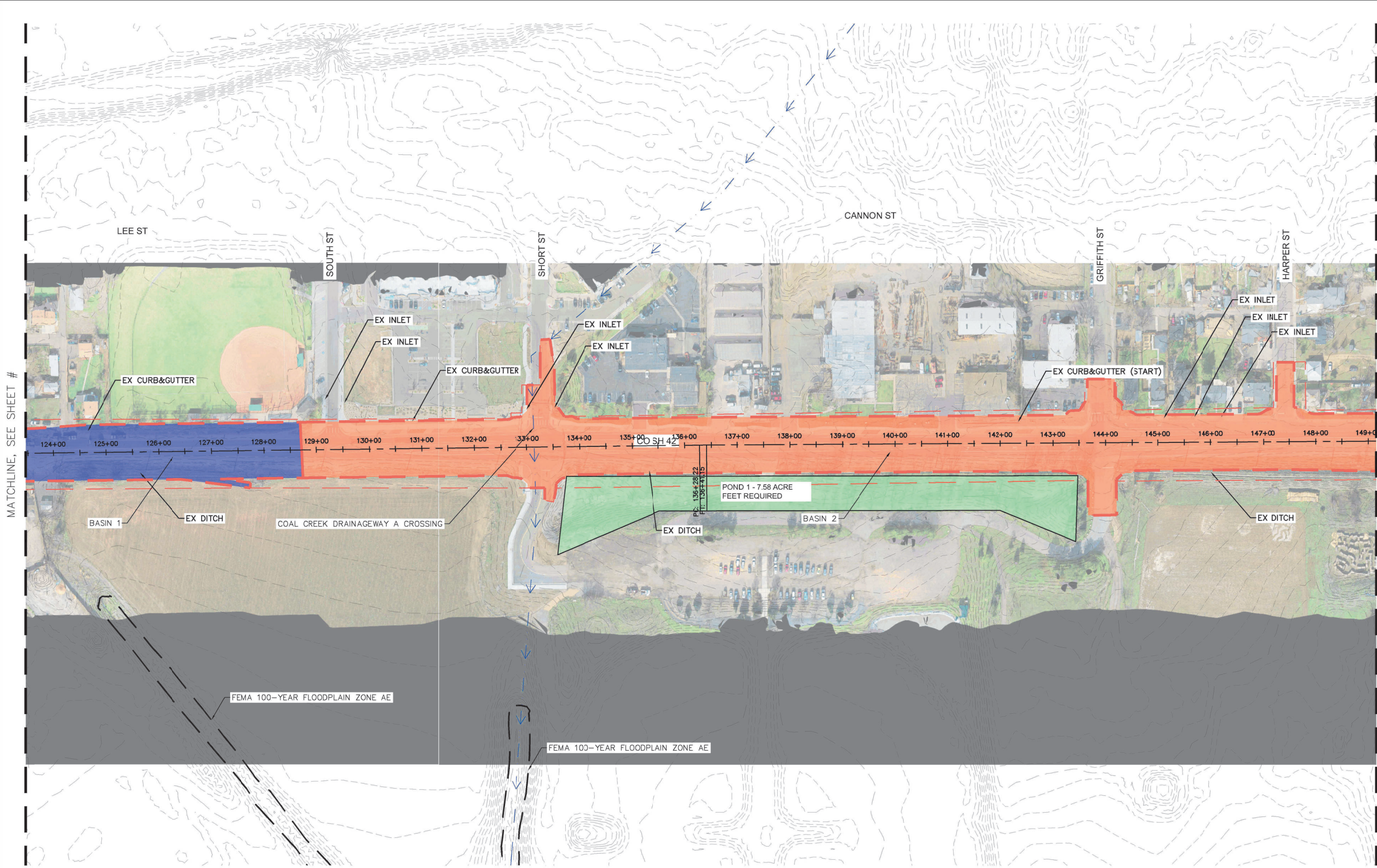
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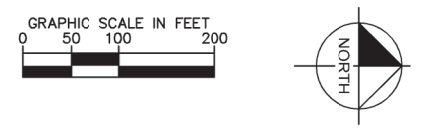
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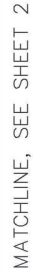
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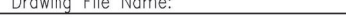


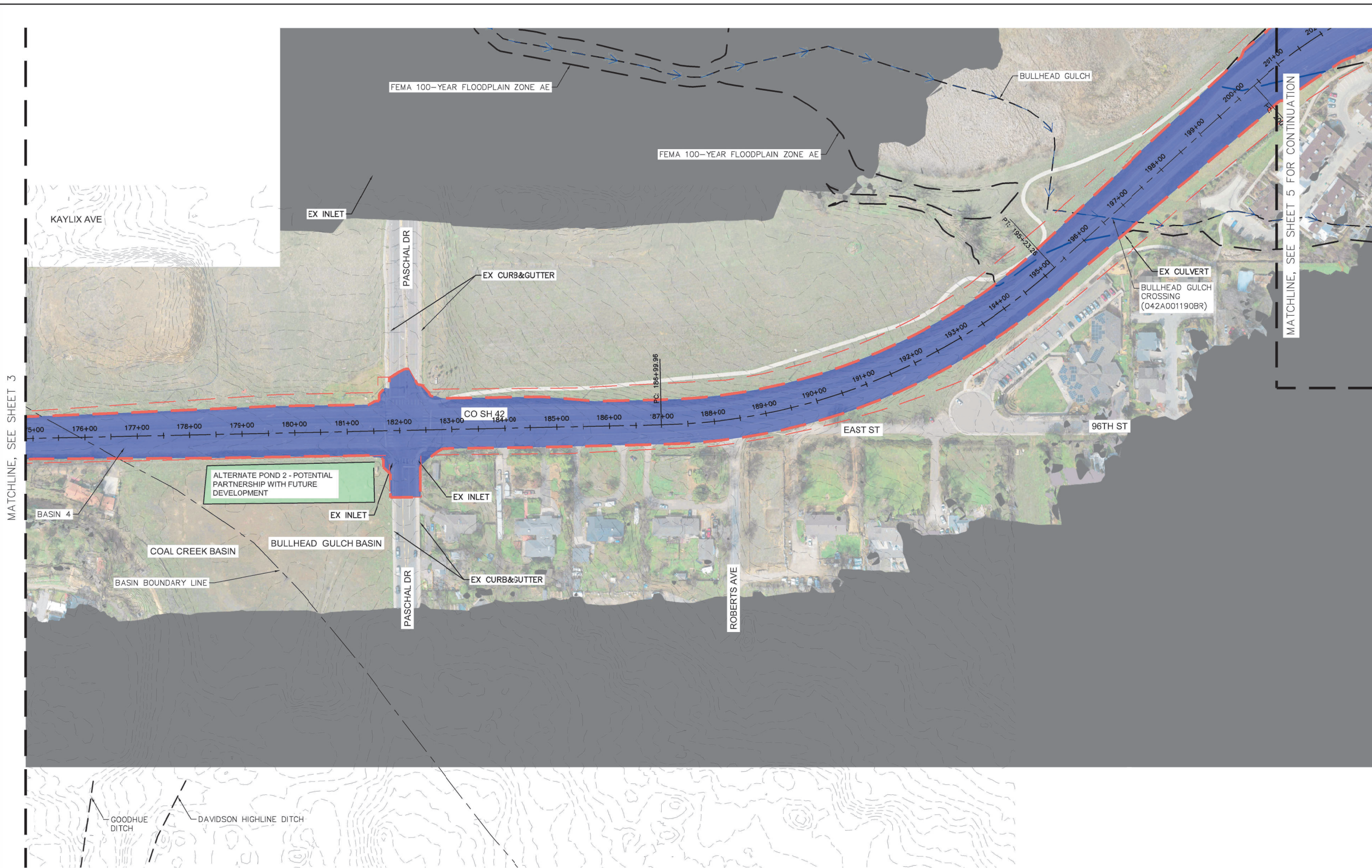
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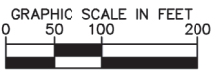
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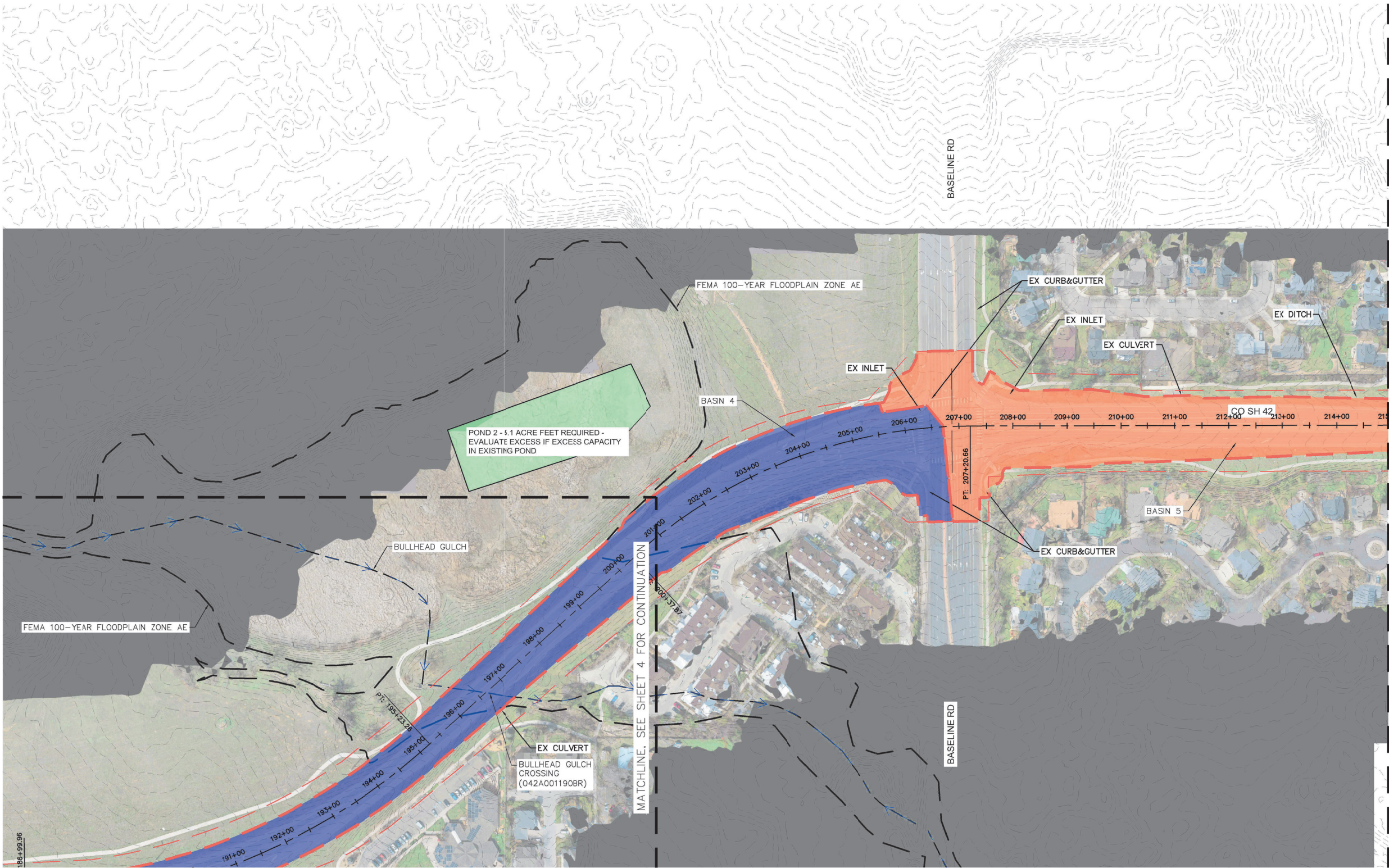
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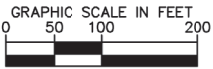
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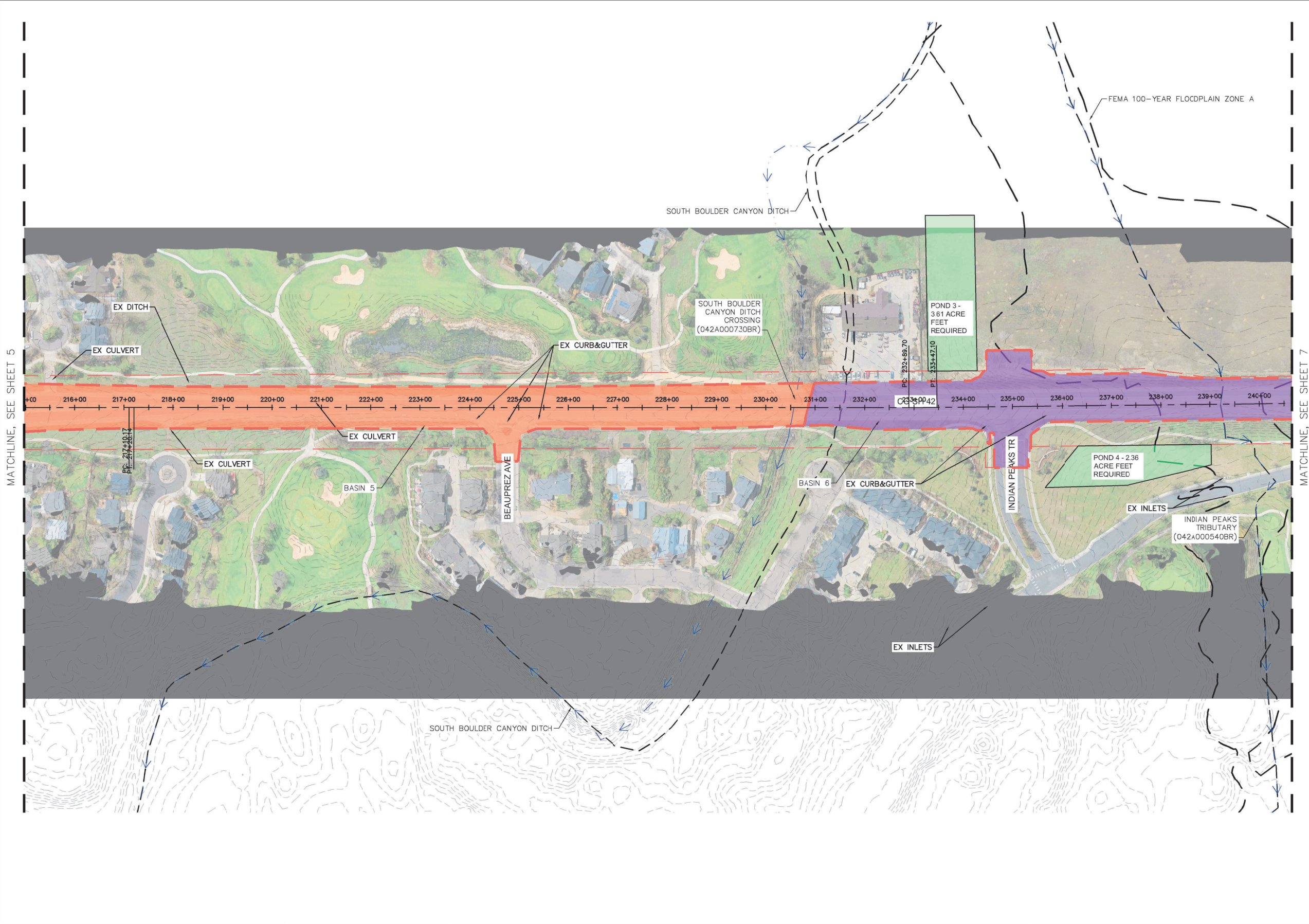
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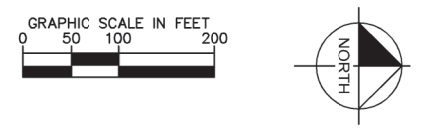
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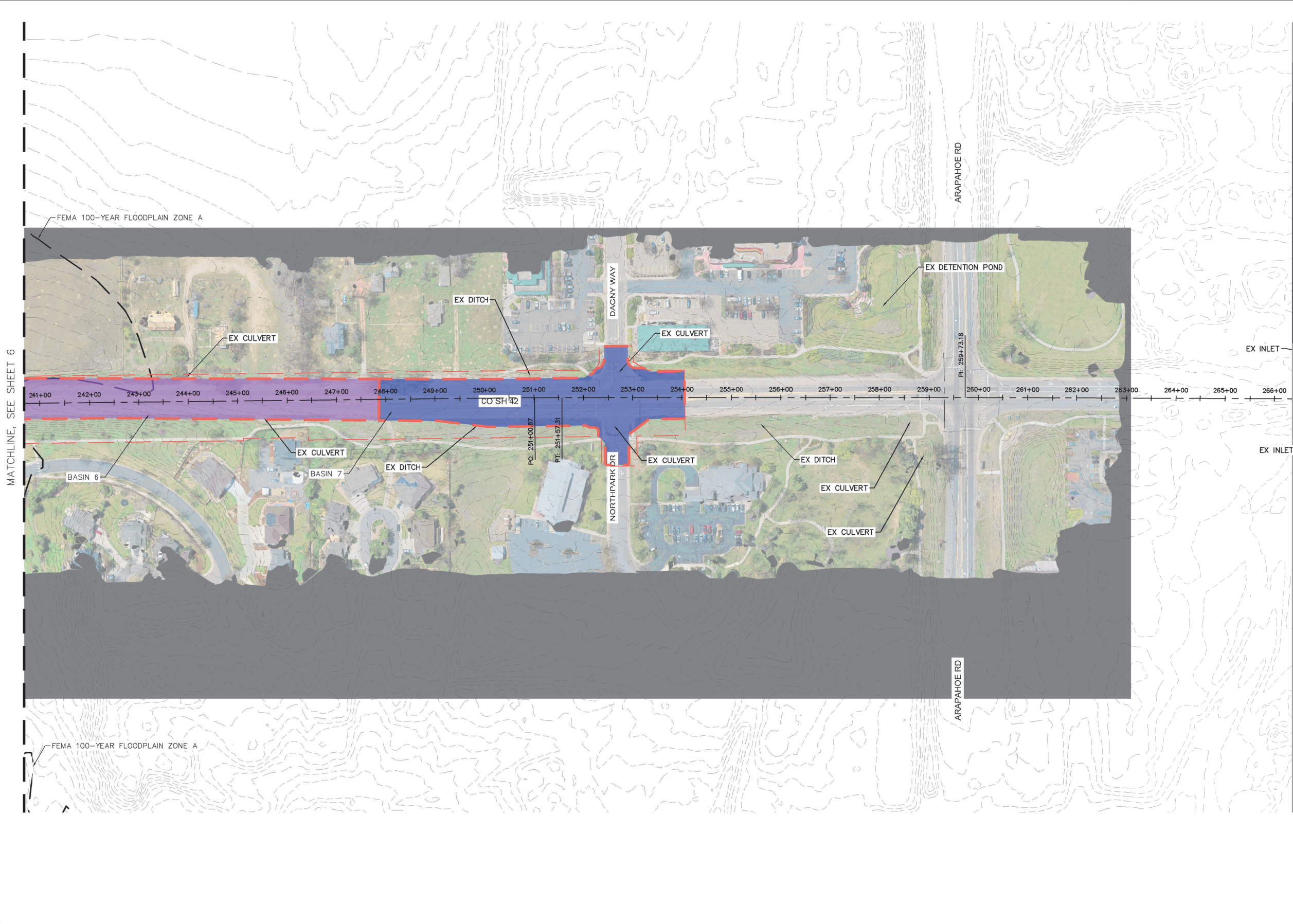
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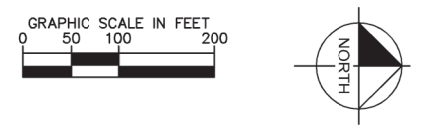
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