

5/9/2019 M:\MSD\17-600-045-01\2\_Disciplines\ SHEETS2\_Sheets - civil\17604501-GD.dwg

Drainage Narrative

Introduction

The project site is located in southwest Albuquerque at 1100 Second Street SW. The site is bounded by the railroad tracks and facilities yard to the east and north, First Street and Second Street to the west, and Rail yard property to the south. The site is not located within a designated FEMA flood plain map, see firm map 35001C0334G.

Existing Conditions

The existing site topography generally slopes from east to west. A Grading and Drainage plan was completed by Isaacson & Arfman, P.A. for the site in May of 2013. From this plan the northeastern portion of the site (basin 101) is approximately 0.6 acres and drains to the south to a retention pond in the center of the site. The pond has a design storage of 2625 CF and has a peak flow rate of 4.6 cfs. Basin 102 is also from the previous grading & Drainage Plan, and drains to the south west through Basin 104. The site is still currently grading as it was intended in this report. This report did not analyze the portion of property to the west of the parking lot and south of Basin 102. This area has been calculated and follows a similar grading scheme as the previous basins draining from northeast to southwest. Basin 103 discharges to 1<sup>st</sup> street. Basin 102 drains through 104 and discharges to Second Street.

Interim Conditions

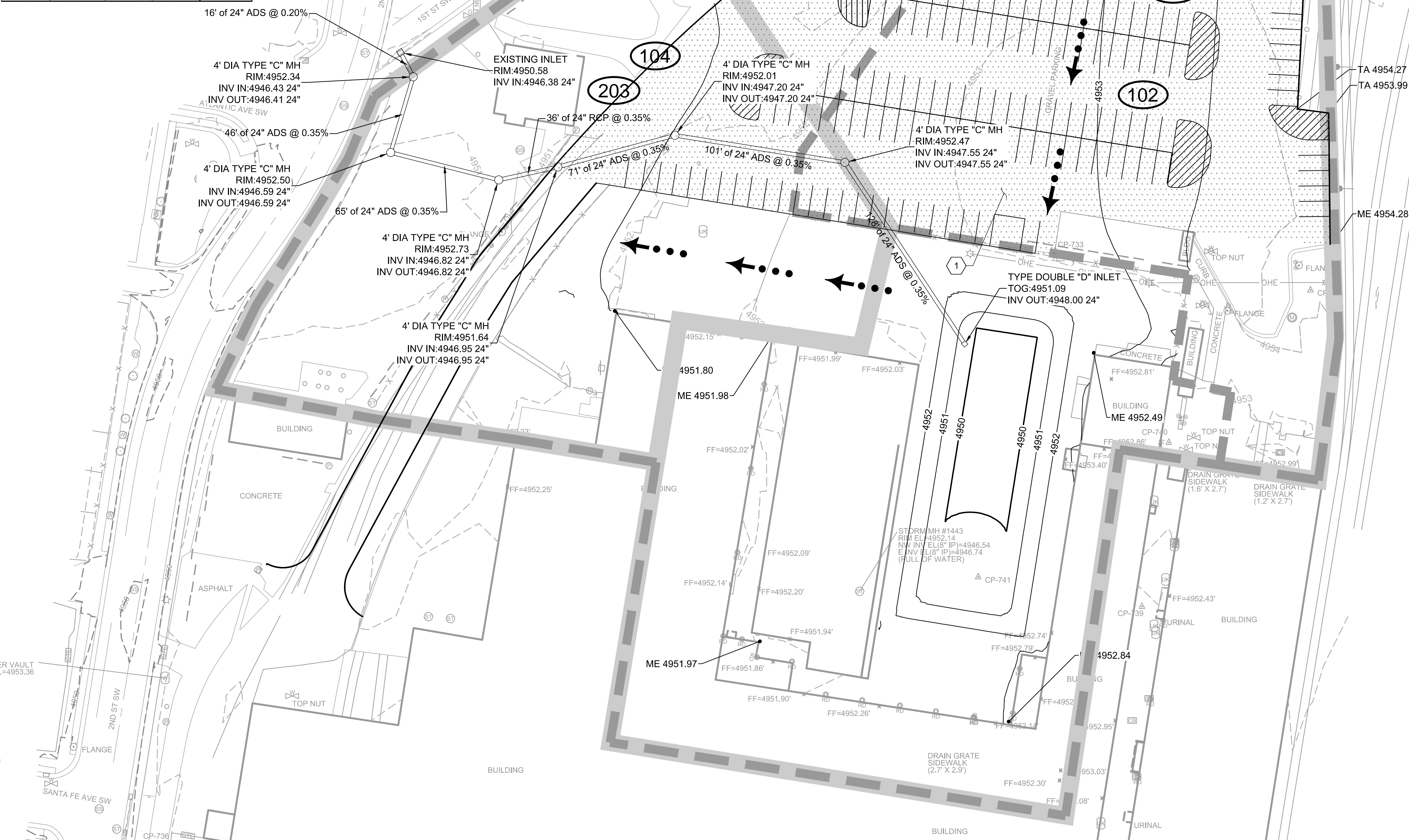
The proposed site will maintain the general flow from northeast to southwest. The existing retention pond will be moved from basin 101 and relocated to proposed basin 202 and will be a detention pond. The existing pond will be filled in so that area can be utilized as extra parking. The proposed pond will retain runoff from Basin 201 and will have a retaining volume equal to the existing pond. This retention area exceeds the first flush requirements for MS4 permitting. An inlet will be installed in the pond and will discharge the runoff that's excess of the existing retention volume. The outlet pipe will discharge to the inlet located at the southern end of First Street. The Proposed runoff will not exceed the existing runoff reaching Second Street. Basins 203 will continue to drain from northeast to southwest and will discharge to Second Street where it is currently discharging. Basin 203 will continue to drain from east to west and will discharge to First Street where it is currently discharging.

Pond 1

Stage	Area	Storage	Cum. Storage	Cum. Storage
(MSL)	ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>3</sup>	Ac.ft
4950	4157	0.000	7001	
4951	9844	7000.500	7001	
4952	14866	12355.000	19356	0.6051

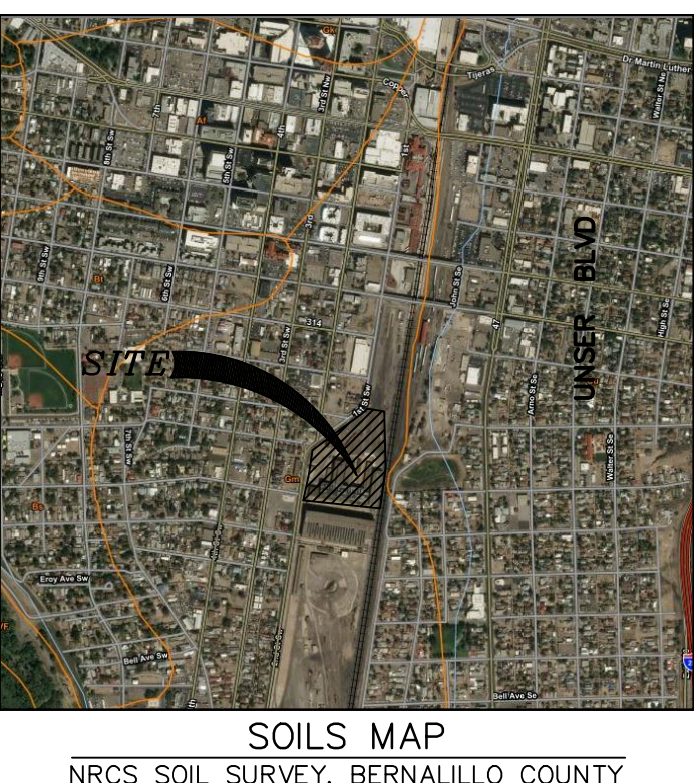
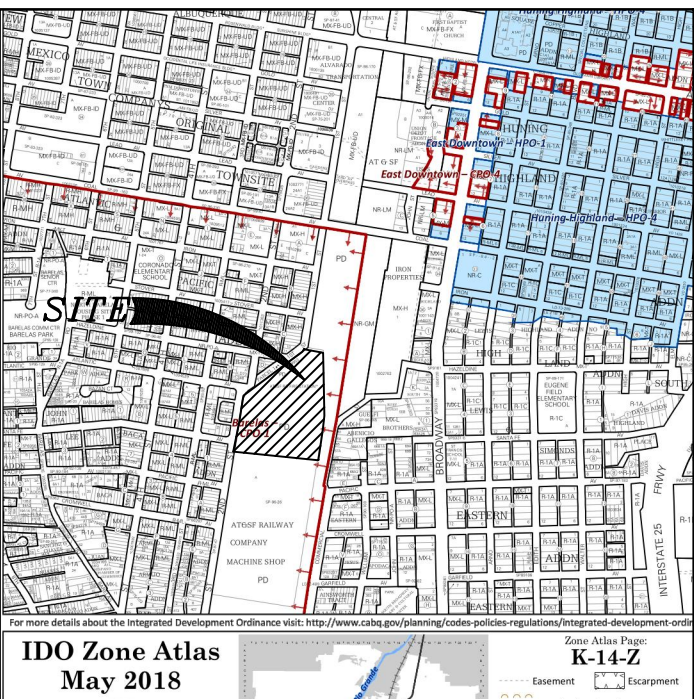
Existing Conditions													
Basin	Total Area (sq ft)	Total Area (Ac)	% Ac	% Ac	% Ac	% Ac	% Ac	Peak Discharge, G	Excess Precip. (Weighted)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)
101	23501.54	0.541	0.0	0.0	0.95	0.95	5.0	1.9	1.18	0.0971	0.0582	0.0695	
102	62869.63	1.444	0.0	0.0	0.95	1.37	5.0	0.07	4.6	1.18	0.1419	0.1447	0.1508
103	13633.46	0.320	0.0	0.0	0.95	0.30	5.0	0.02	1.0	1.18	0.0314	0.0321	0.0334
104	18197.12	0.418	0.0	0.0	0.95	2.72	35	1.45	15.4	1.48	0.5140	0.5701	0.6381

Proposed Conditions													
Basin	Total Area (sq ft)	Total Area (Ac)	% Ac	% Ac	% Ac	% Ac	% Ac	Peak Discharge, G	Excess Precip. (Weighted)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)	Volume (ft <sup>3</sup> , acre-ft)
101	190469.95	4.373	0.0	0.0	0.00	72%	3.28	25%	1.09	1.38	0.5019	0.5438	0.6326
102	13633.46	0.320	0.0	0.0	0.00	92%	0.30	2%	0.02	1.18	0.0314	0.0321	0.0334
103	79583.9	1.827	0.0	0.0	0.00	78%	1.43	22%	0.40	1.35	0.2062	0.2206	0.2544



KEYNOTES

1. INSTALL ASPHALT MILLINGS PER DETAIL SHEET ----



LEGEND

- RECYCLED MILLINGS
- CONCRETE
- EXISTING BASIN
- PROPOSED BASIN
- WROUGHT IRON FENCE
- CHAIN LINK FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SWALE ARROW
- EXISTING BASIN I.D.
- PROPOSED BASIN I.D.

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CONSULTANTS



SEAL

PROJECT NAME

BY	DESCRIPTION	DATE	REV.

PROJECT NO: 17-600-045-01  
DESIGNED BY: JEL  
DRAWN BY: SDO  
CHECKED BY: XXX

DATE:  
SHEET TITLE

GRADING AND DRAINAGE PLAN

SHEET NO:  
**C-103**