CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

August 24, 2023

Åsa Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: Phil Chacon Park - Renovation
Grading Plans & Drainage Report
Engineer's Stamp Date: 08/02/23
Hydrology File: L19D077

Dear Ms. Nilsson-Weber:

Based upon the information provided in your submittal received 08/02/2023, the Grading Plans & Drainage Report are approved for Building Permit and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

NO FEE, CITY PROJECT

Project Title: Phil Chacon Park Renovation **Building Permit #**_____ **Hydrology File #** L-19

DRB#_____ **EPC#**_____

Legal Description: An Unplatted Tract of Land City Address OR Parcel 7600 Southern Ave. SW within the S/2 SE/4 NW/4 of Section 30, T.10.N., R.4 E., N.M.P.M.

~~**Applicant**~~**/Agent:** Isaacson & Arfman, Inc. **Contact:** Bryan J. Bobrick

Address: 128 Monroe Street NE **Phone:** (505) 268-8828

Email: bryanb@iacivil.com

~~**Applicant**~~**/Owner:** City of Albuquerque **Contact:** Jesse Scott

Address: Parks & Recreation Department **Phone:** (505) 768-5364

Email: jessescott@cabq.gov

TYPE OF DEVELOPMENT: ___PLAT (#of lots) __RESIDENCE __DRB SITE ___ ADMIN SITE: _X_

RE-SUBMITTAL: _____YES __X__ NO

DEPARTMENT: _____TRANSPORTATION __X__ HYDROLOGY/DRAINAGE

Check all that apply:

TYPE OF SUBMITTAL:

___ENGINEER/ARCHITECT CERTIFICATION
___PAD CERTIFICATION
___CONCEPTUAL G&D PLAN
_X_ GRADING PLAN
___DRAINAGE REPORT
___DRAINAGE MASTER PLAN
___FLOOD PLAN DEVELOPMENT PERMIT APP.
___ELEVATION CERTIFICATE
___CLOMR/LOMR
___TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
___TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
___TRAFFIC IMPACT STUDY (TIS)
___STREET LIGHT LAYOUT
___OTHER (SPECIFY)
___PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_X_ BUILDING PERMIT APPROVAL
___CERTIFICATE OF OCCUPANCY
___CONCEPTUAL TCL DRB APPROVAL
___PRELIMINARY PLAT APPROVAL
___SITE PLAN FOR SUB'D APPROVAL
___SITE PLAN FOR BLDG PERMIT APPROVAL
___FINAL PLAT APPROVAL
___SIA/RELEASE OF FINANCIAL GUARANTEE
___FOUNDATION PERMIT APPROVAL
_X_ GRADING PERMIT APPROVAL
___SO-19 APPROVAL
___PAVING PERMIT APPROVAL
___GRADING PAD CERTIFICATION
___WORK ORDER APPROVAL
___CLOMR/LOMR
___FLOOD PLAN DEVELOPMENT PERMIT
___OTHER (SPECIFY)_____

DATE SUBMITTED: ___August 2, 2023_____

AUGUST 2, 2023

SUPPLEMENTAL CALCULATIONS

FOR

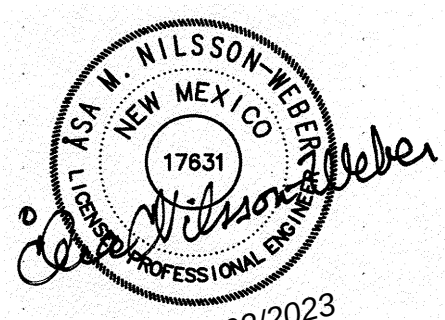
PHIL CHACON PARK RENOVATIONS

ALBUQUERQUE, NEW MEXICO

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renée C. Brissette
HydroTrans # L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

PREPARED BY



08/02/2023

Isaacson & Arfman, Inc.
EST 1980
Civil Engineering Consultants

128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

I&A Project No. 2573

TABLE OF CONTENTS

PROJECT SUMMARY

Phil Chacon Park shall be redeveloped with playgrounds, recreation fields and walks. The existing parking lot at the north end of the project shall be resurfaced.

The proposed grading of the site shall follow the existing drainage patterns with the northerly portion of the site draining to Southern Ave. and the remainder of the site draining to the southwest area of the park.

The developed discharge to Southern Ave. will be the same as the historical rate. Since basins 2 and 3 (playground areas with 12-inch thick bark) will retain the storm water, the developed discharge from the remainder of the site discharging to the southwest corner of the park will be reduced—38.4 cfs developed; 40.1 cfs historical.

A rock-lined rundown will be installed south of the basketball field to convey 14.1 cfs to the west

The storm drain is designed to carry the 10-year flows. In larger storms, the additional flows will overtop the depressed areas at the inlets and surface drain to the historical discharge locations at the southwest area of the park.

Storm Water Quality (SWQ):

Two SWQ ponds will be installed east and north of the basketball courts at the southwest corner of the park to retain the volume of 0.26 inches falling on the impervious areas.

SWQ volume required = 2,523 cf
SWQ volume provided = 2,488 cf

See Appendices for hydrology, SWQ pond volume, storm drain and rundown calculations.

APPENDIX A

Hydrology Calculations for 100-yr, 6-hr Storm
Hydrology Calculations for 10-yr, 6-hr Storm
SWQ Pond Volume Calculations

Job Name:	**Phil Chacon Park**
Client:	**PLAND**
Date Prepared:	**2/23/2023**
Date Modified:	**4/11/2023**
Precipitation Zone:	**3**

CALCULATIONS: Phil Chacon Park : 43565

Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE: 711460 SF = 16.33 ACRE

100-year, 6-hour

HISTORIC FLOWS:

		Treatment SF	%
Area A	=	0	0%
Area B	=	615199	86.47%
Area C	=	0	0%
Area D	=	96261	13.53%
Total Area	=	711460	100%

DEVELOPED FLOWS:

		Treatment SF	%
Area A	=	0	0%
Area B	=	594738	83.59%
Area C	=	0	0%
Area D	=	116722	16.41%
Total Area	=	711460	100%

EXCESS PRECIP:

Precip. Zone 3

E_A = 0.67

E_B = 0.86

E_C = 1.09

E_D = 2.58

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

$$\text{Weighted E} = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$$

Historic E	=	1.09	in.	Developed E	=	1.14	in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V_{360}	=	64785	CF	Developed V_{360}	=	67718	CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43{,}560$

For Precipitation Zone 3

Q_{pA}	=	1.84	Q_{pC}	=	3.17
Q_{pB}	=	2.49	Q_{pD}	=	4.49

Historic Q_p	=	45.1	CFS	Developed Q_p	=	46.0	CFS

BASIN NO. 1	DESCRIPTION	To Southern Ave.

Area of basin flows = 61484 SF = 1.41 Ac.

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.75 in.

Sub-basin Volume of Runoff:
V_{360} = 8989 CF

Sub-basin Peak Discharge Rate:
Q_P = 5.0 cfs

LAND TREATMENT
A = 0%
B = 48%
C = 0%
D = 52%

Stormwater Quality Volume
693 CF

BASIN NO. 2	DESCRIPTION	Self Ponding

Area of basin flows = 12954 SF = 0.3 Ac.

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.

Sub-basin Volume of Runoff:
V_{360} = 1170 CF

Sub-basin Peak Discharge Rate:
Q_P = 0.8 cfs

LAND TREATMENT
A = 0%
B = 87%
C = 0%
D = 13%

Stormwater Quality Volume
36 CF

BASIN NO. 3	DESCRIPTION	Self Ponding

Area of basin flows = 28717 SF = 0.7 Ac.

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.

Sub-basin Volume of Runoff:
V_{360} = 2593 CF

Sub-basin Peak Discharge Rate:
Q_P = 1.8 cfs

LAND TREATMENT
A = 0%
B = 87%
C = 0%
D = 13%

Stormwater Quality Volume
81 CF

BASIN NO. 4	DESCRIPTION	

Area of basin flows = 157805 SF = 3.6 Ac.

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.

Sub-basin Volume of Runoff:
V_{360} = 14250 CF

Sub-basin Peak Discharge Rate:
Q_P = 10.0 cfs

LAND TREATMENT
A = 0%
B = 87%
C = 0%
D = 13%

Stormwater Quality Volume
444 CF

BASIN NO. 5	DESCRIPTION	

Area of basin flows = 24304 SF = 0.6 Ac.

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.

Sub-basin Volume of Runoff:
V_{360} = 2195 CF

Sub-basin Peak Discharge Rate:
Q_P = 1.5 cfs

LAND TREATMENT
A = 0%
B = 87%
C = 0%
D = 13%

Stormwater Quality Volume
68 CF

BASIN NO. 6		DESCRIPTION			
Area of basin flows =	38718	SF	=	0.9	Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.
Sub-basin Volume of Runoff:
V_{360} = 3496 CF
Sub-basin Peak Discharge Rate:
Q_P = 2.5 cfs

Stormwater Quality Volume
109 CF

BASIN NO. 7		DESCRIPTION			
Area of basin flows =	84544	SF	=	1.9	Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.
Sub-basin Volume of Runoff:
V_{360} = 7634 CF
Sub-basin Peak Discharge Rate:
Q_P = 5.3 cfs

Stormwater Quality Volume
238 CF

BASIN NO. 8		DESCRIPTION			
Area of basin flows =	22515	SF	=	0.5	Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.
Sub-basin Volume of Runoff:
V_{360} = 2033 CF
Sub-basin Peak Discharge Rate:
Q_P = 1.4 cfs

Stormwater Quality Volume
63 CF

BASIN NO. 9		DESCRIPTION			
Area of basin flows =	153154	SF	=	3.5	Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.
Sub-basin Volume of Runoff:
V_{360} = 13830 CF
Sub-basin Peak Discharge Rate:
Q_P = 9.7 cfs

Stormwater Quality Volume
431 CF

BASIN NO. 10		DESCRIPTION			
Area of basin flows =	127173	SF	=	2.9	Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.08 in.
Sub-basin Volume of Runoff:
V_{360} = 11484 CF
Sub-basin Peak Discharge Rate:
Q_P = 8.0 cfs

Stormwater Quality Volume
358 CF

BASIN NO. 1	DESCRIPTION	To Southern Ave.

Area of basin flows = 61484 SF = 1.41 Ac.

LAND TREATMENT	
A =	0%
B =	48%
C =	0%
D =	52%

Sub-basin Weighted Excess Precipitation:
Weighted E = 1.02 in.
Sub-basin Volume of Runoff:
V_{360} = 5206 CF
Sub-basin Peak Discharge Rate:
Q_P = 2.8 cfs

BASIN NO. 2	DESCRIPTION	Self Ponding

Area of basin flows = 12954 SF = 0.3 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 549 CF
Sub-basin Peak Discharge Rate:
Q_P = 0.4 cfs

BASIN NO. 3	DESCRIPTION	Self Ponding

Area of basin flows = 28717 SF = 0.7 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 1218 CF
Sub-basin Peak Discharge Rate:
Q_P = 0.9 cfs

BASIN NO. 4	DESCRIPTION	

Area of basin flows = 157805 SF = 3.6 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 6694 CF
Sub-basin Peak Discharge Rate:
Q_P = 4.7 cfs

BASIN NO. 5	DESCRIPTION	

Area of basin flows = 24304 SF = 0.6 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 1031 CF
Sub-basin Peak Discharge Rate:
Q_P = 0.7 cfs

BASIN NO. 6	DESCRIPTION

Area of basin flows = 38718 SF = 0.9 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 1642 CF
Sub-basin Peak Discharge Rate:
Q_P = 1.2 cfs

BASIN NO. 7	DESCRIPTION

Area of basin flows = 84544 SF = 1.9 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 3586 CF
Sub-basin Peak Discharge Rate:
Q_P = 2.5 cfs

BASIN NO. 8	DESCRIPTION

Area of basin flows = 22515 SF = 0.5 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 955 CF
Sub-basin Peak Discharge Rate:
Q_P = 0.7 cfs

Stormwater Quality Volume	
	0 CF

BASIN NO. 9	DESCRIPTION

Area of basin flows = 153154 SF = 3.5 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 6496 CF
Sub-basin Peak Discharge Rate:
Q_P = 4.6 cfs

BASIN NO. 10	DESCRIPTION

Area of basin flows = 127173 SF = 2.9 Ac.

LAND TREATMENT	
A =	0%
B =	87%
C =	0%
D =	13%

Sub-basin Weighted Excess Precipitation:
Weighted E = 0.51 in.
Sub-basin Volume of Runoff:
V_{360} = 5394 CF
Sub-basin Peak Discharge Rate:
Q_P = 3.8 cfs

BASIN SUMMARY

Basin No.	Description	Q 100 (CFS)	Q10 (CFS)	SWQV (CF)
1	To Southern Ave.	**5.0**	2.8	693
2	Self Ponding	**0.8**	0.4	36
3	Self Ponding	**1.8**	0.9	81
4	To SW Offsite Pond	**10.0**	4.7	444
5	To SW Offsite Pond	**1.5**	0.7	68
6	To Rundown	**2.5**	1.2	109
7	To Storm Drain	5.3	**2.5**	238
8	To Storm Drain	1.4	**0.7**	63
9	To Storm Drain	9.7	**4.6**	431
10	To Storm Drain	8.0	**3.8**	358
TOTAL		46.0	22.3	2,523

Total to Storm Drain	24.4	**11.6** cfs (12.8 cfs bypass)
Total Q to Rundown		**14.1** cfs (=11.6+2.5)

SWQ POND EAST OF BASKETBALL COURT		
Contour	Area	Volume
50.5	842	
52.0	1400	1682 CF
POND VOLUME =		**1682** CF

SWQ POND NORTH OF BASKETBALL COURT		
Contour	Area	Volume
50.0	558	
50.6	2130	806 CF
POND VOLUME =		**806** CF

APPENDIX B

Rundown Calculations

Storm Drain Calculations

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Apr 12 2023

RUNDOWN SOUTH OF BASKETBALL COURT

Trapezoidal

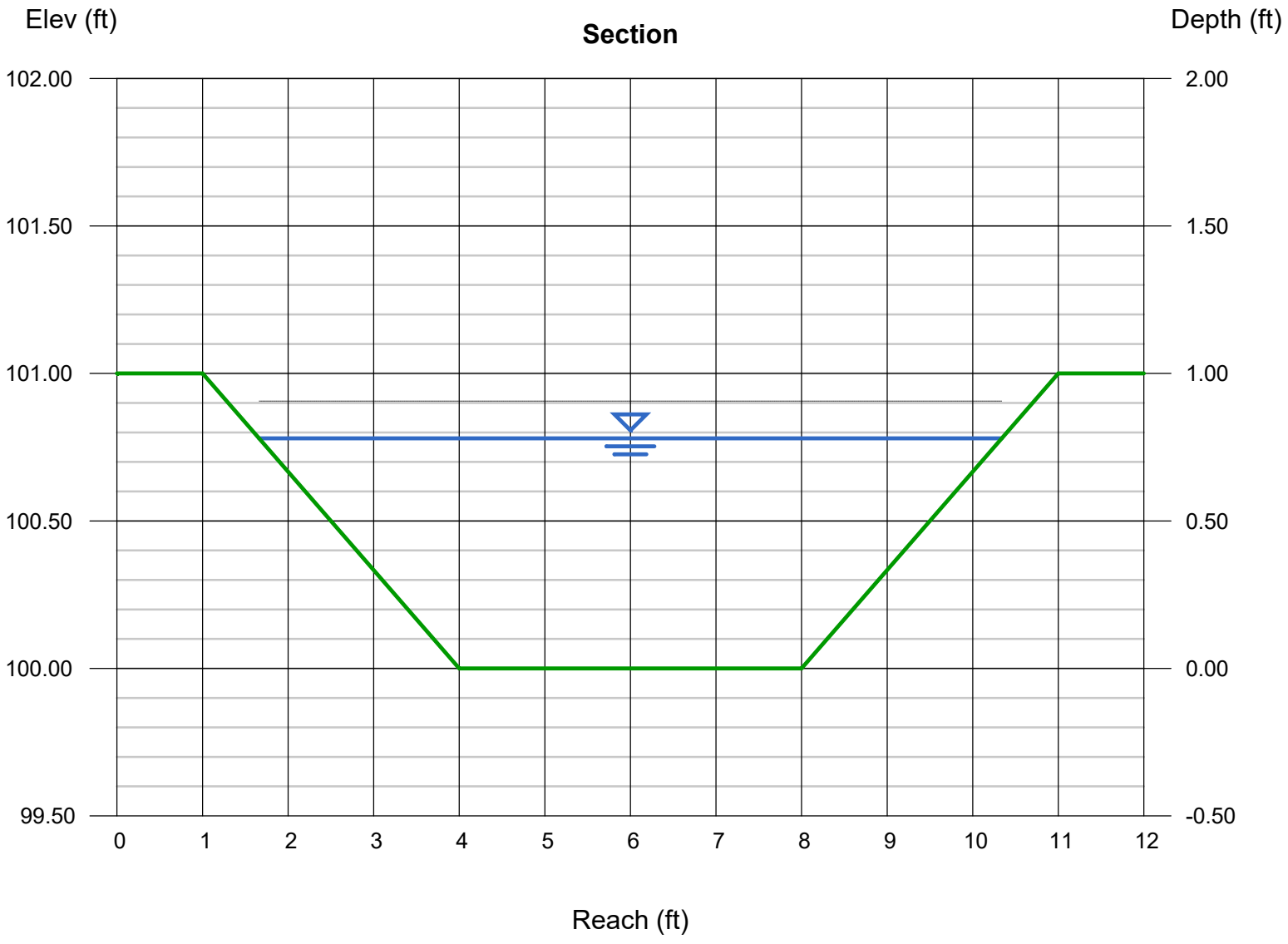
Bottom Width (ft)	= 4.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 1.00
Invert Elev (ft)	= 100.00
Slope (%)	= 1.00
N-Value	= 0.035

Calculations

Compute by:	Known Q
Known Q (cfs)	= 14.10

Highlighted

Depth (ft)	= 0.78
Q (cfs)	= 14.10
Area (sqft)	= 4.95
Velocity (ft/s)	= 2.85
Wetted Perim (ft)	= 8.93
Crit Depth, Yc (ft)	= 0.62
Top Width (ft)	= 8.68
EGL (ft)	= 0.91

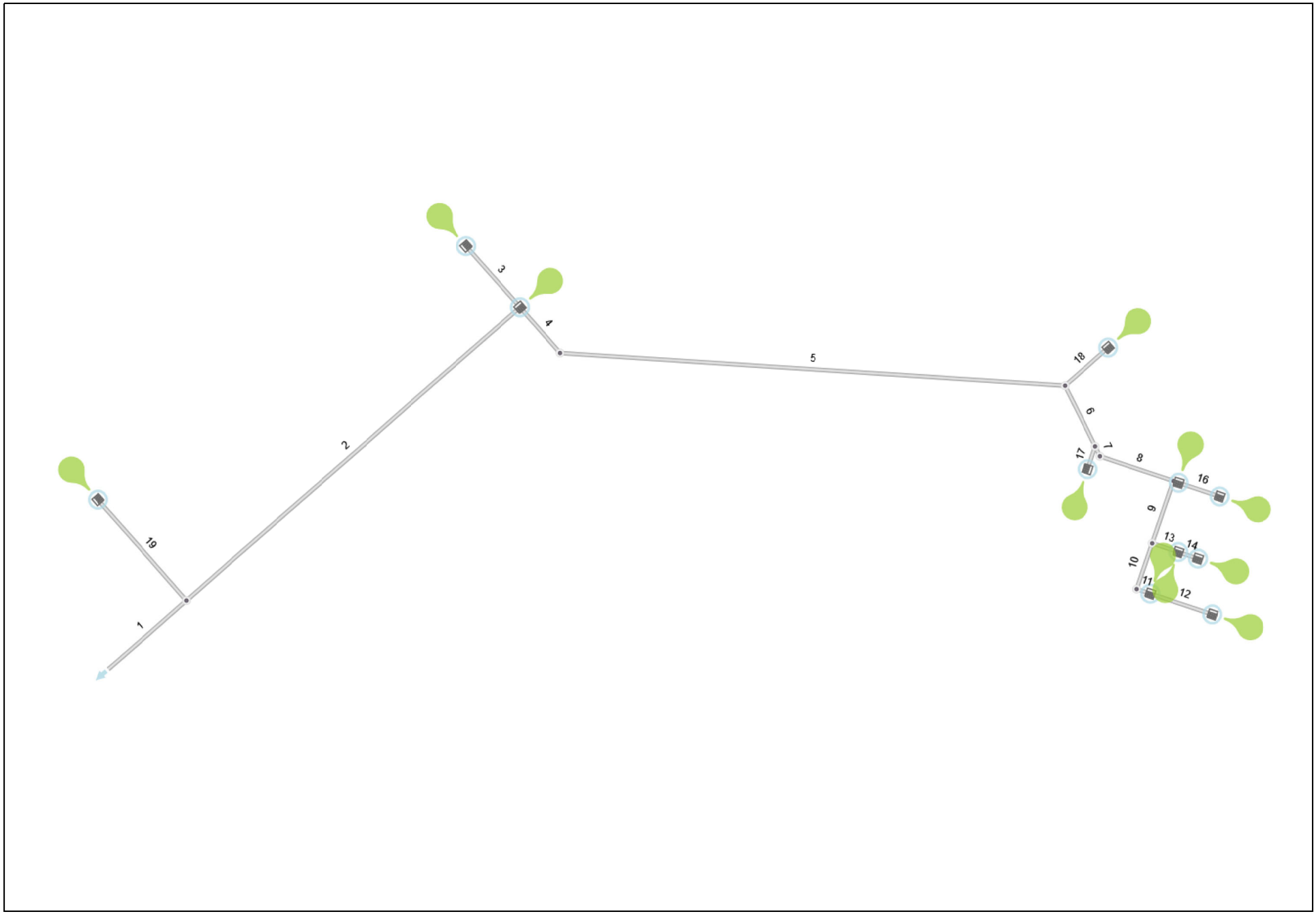


Plan View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023



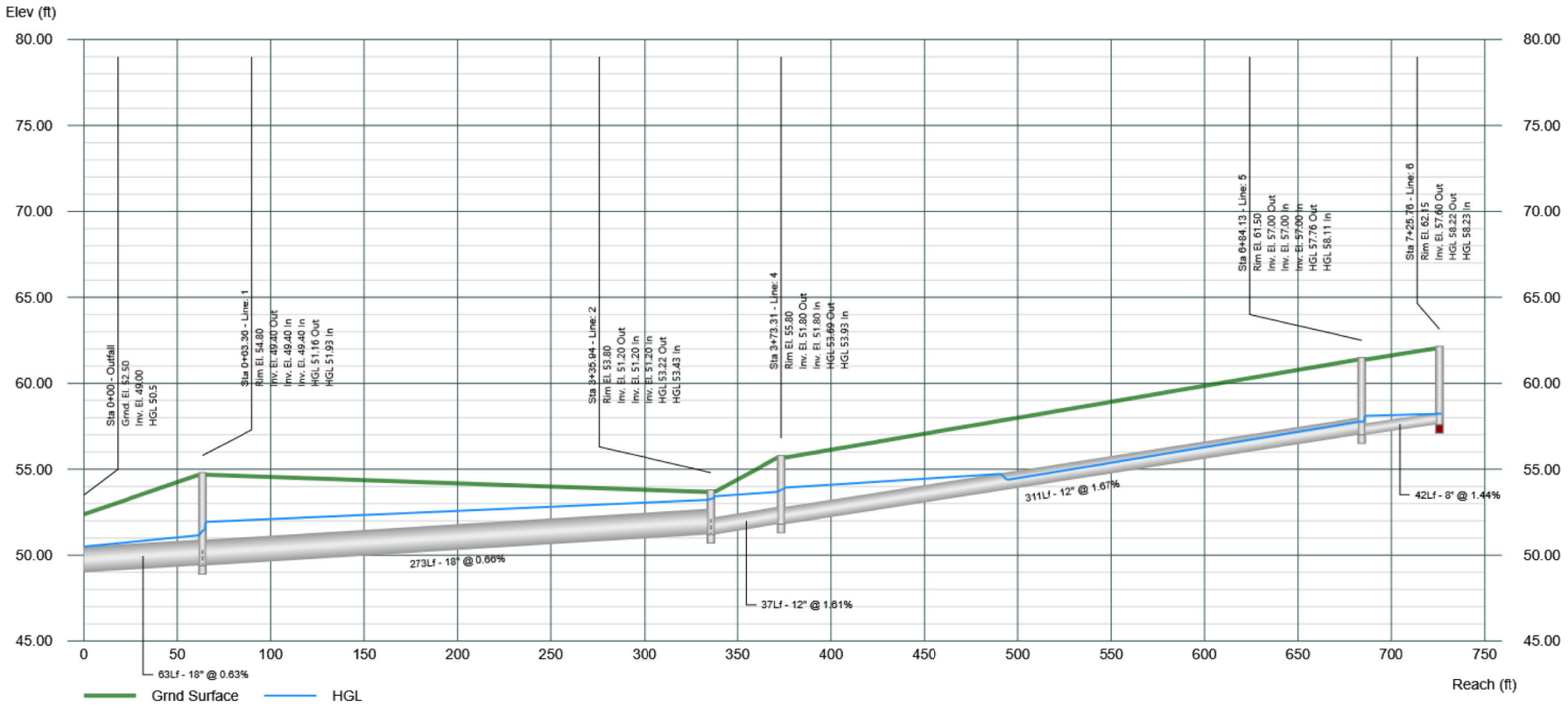
Project File: 2573 SD-10 YEAR.sws

Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

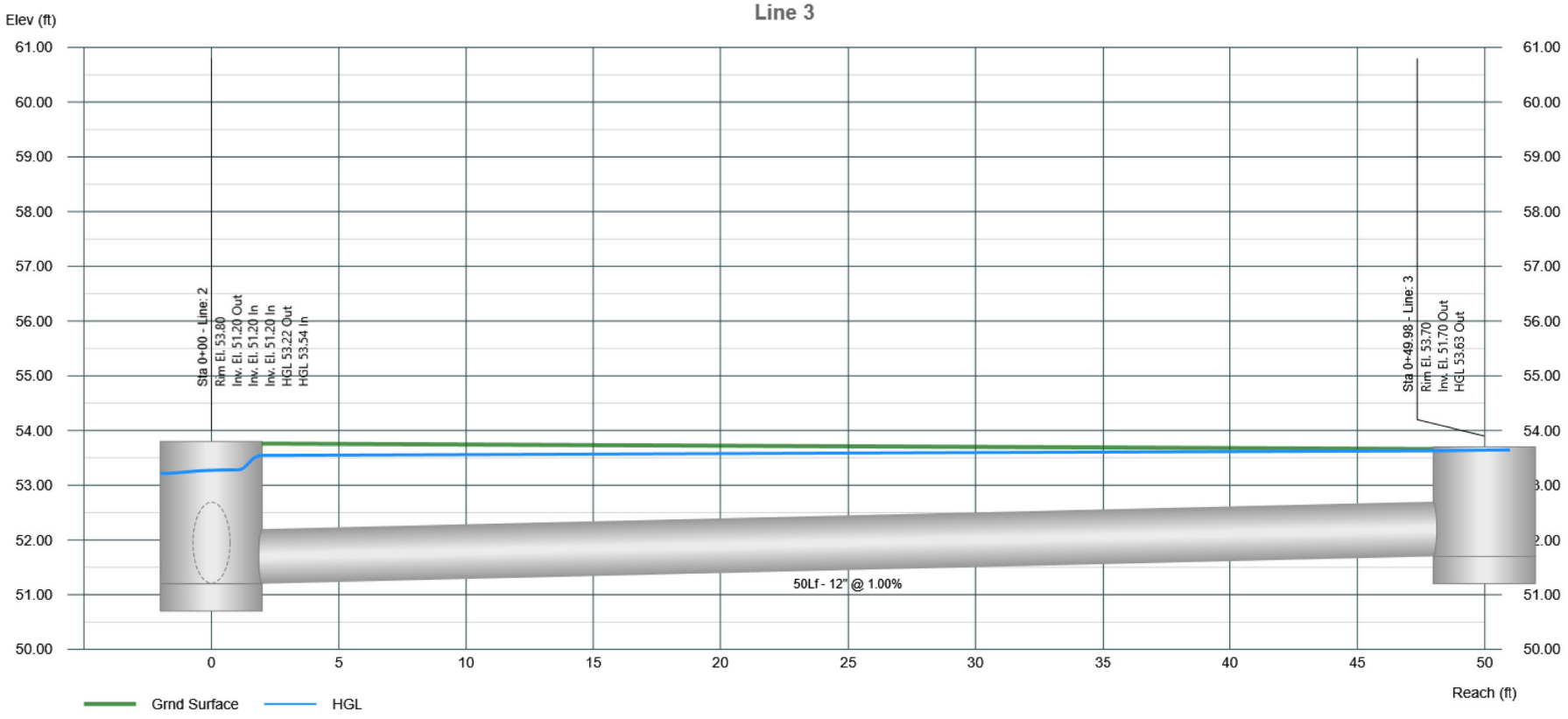


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

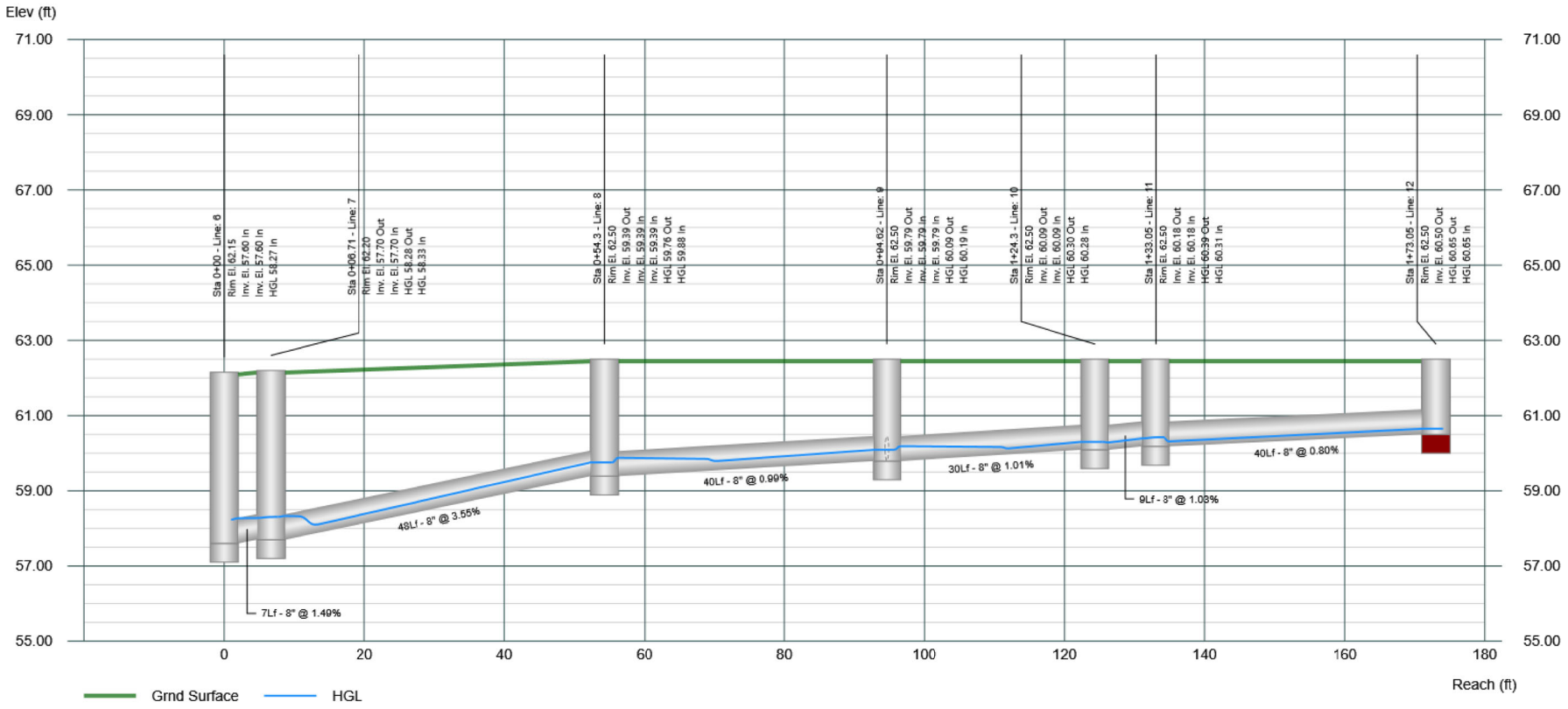


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

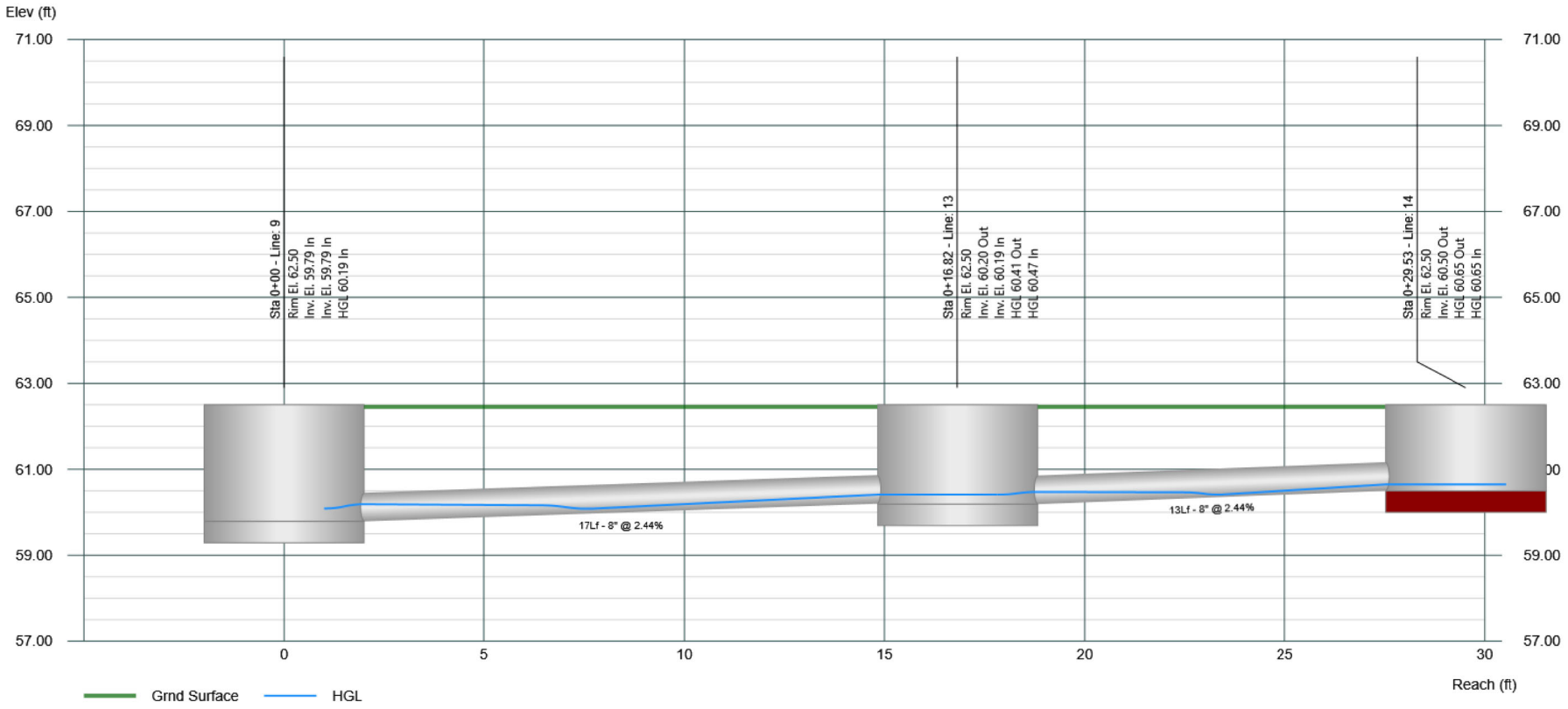


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

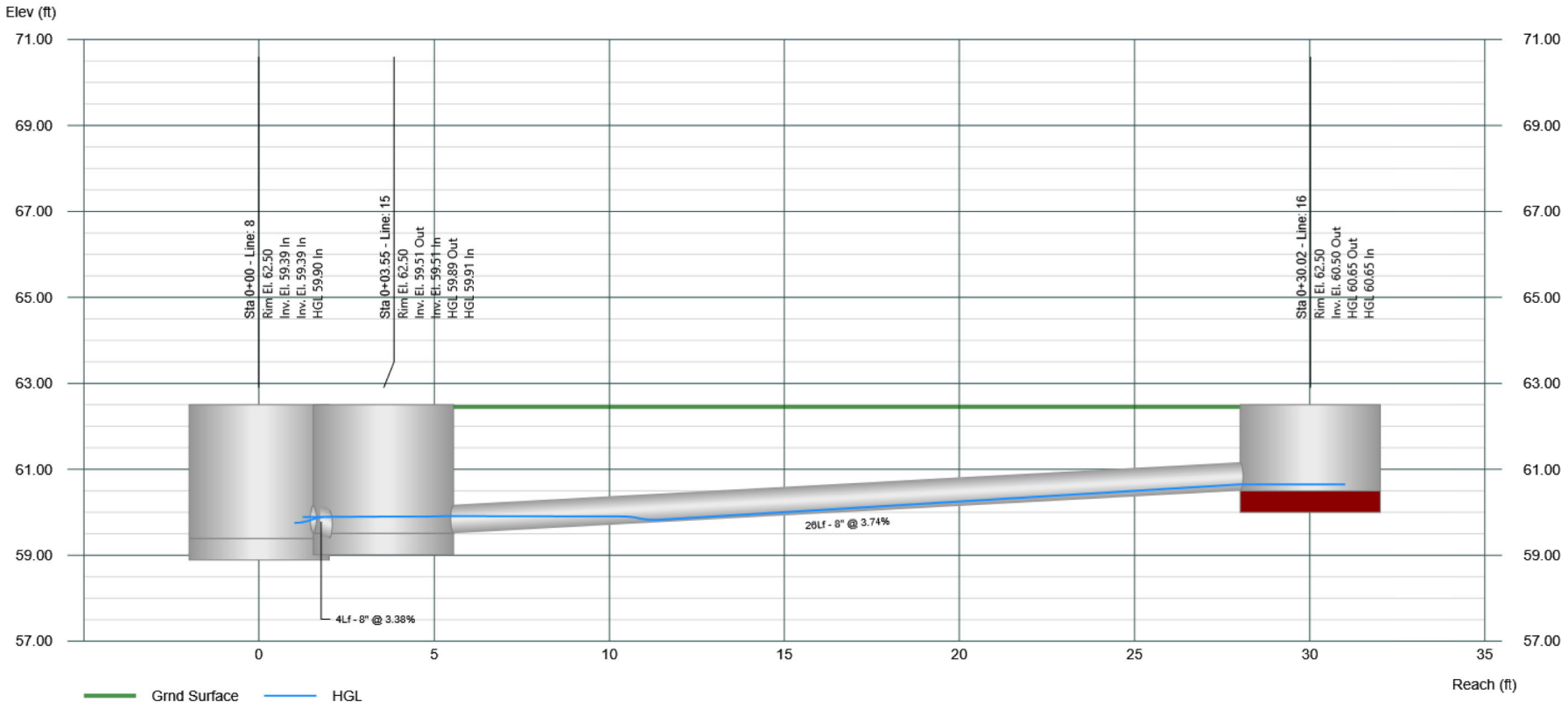


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

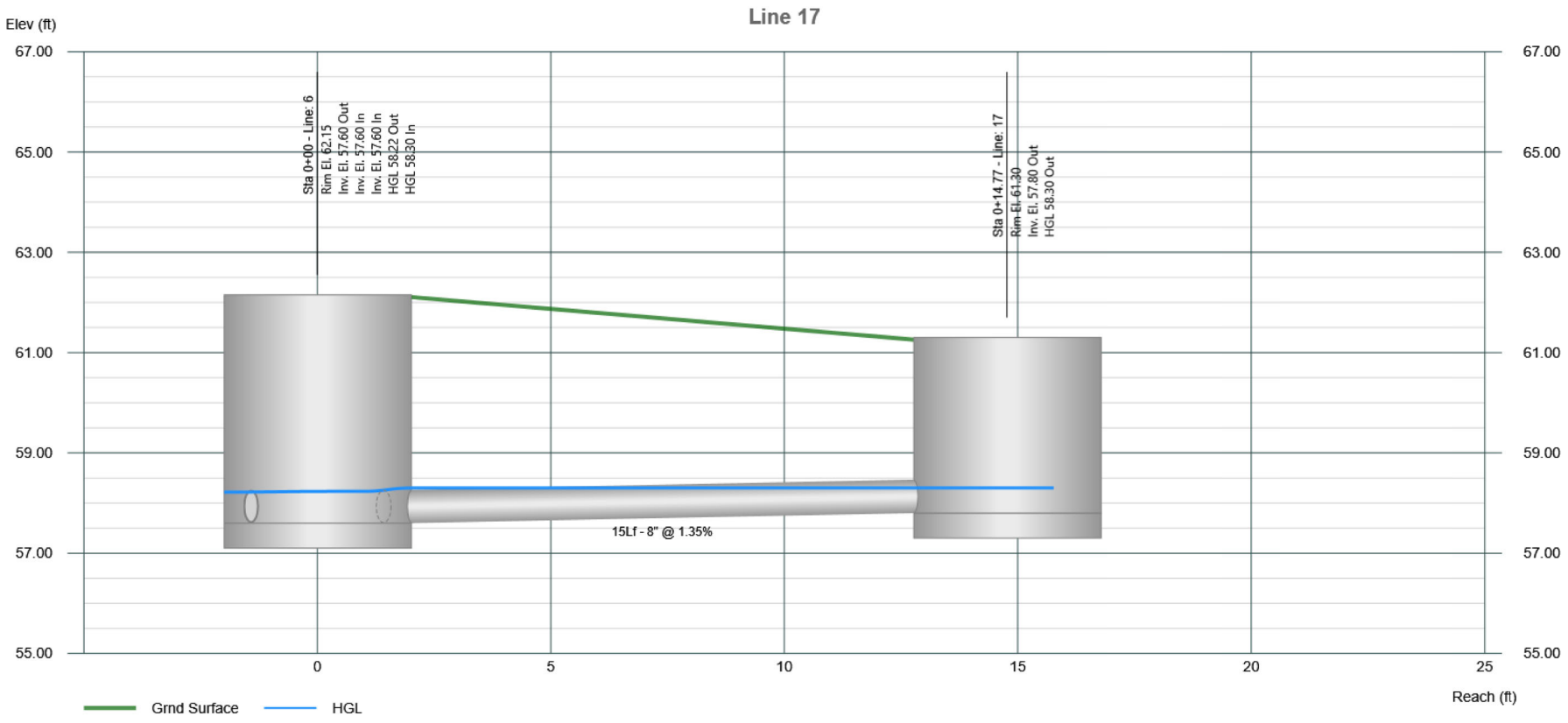


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

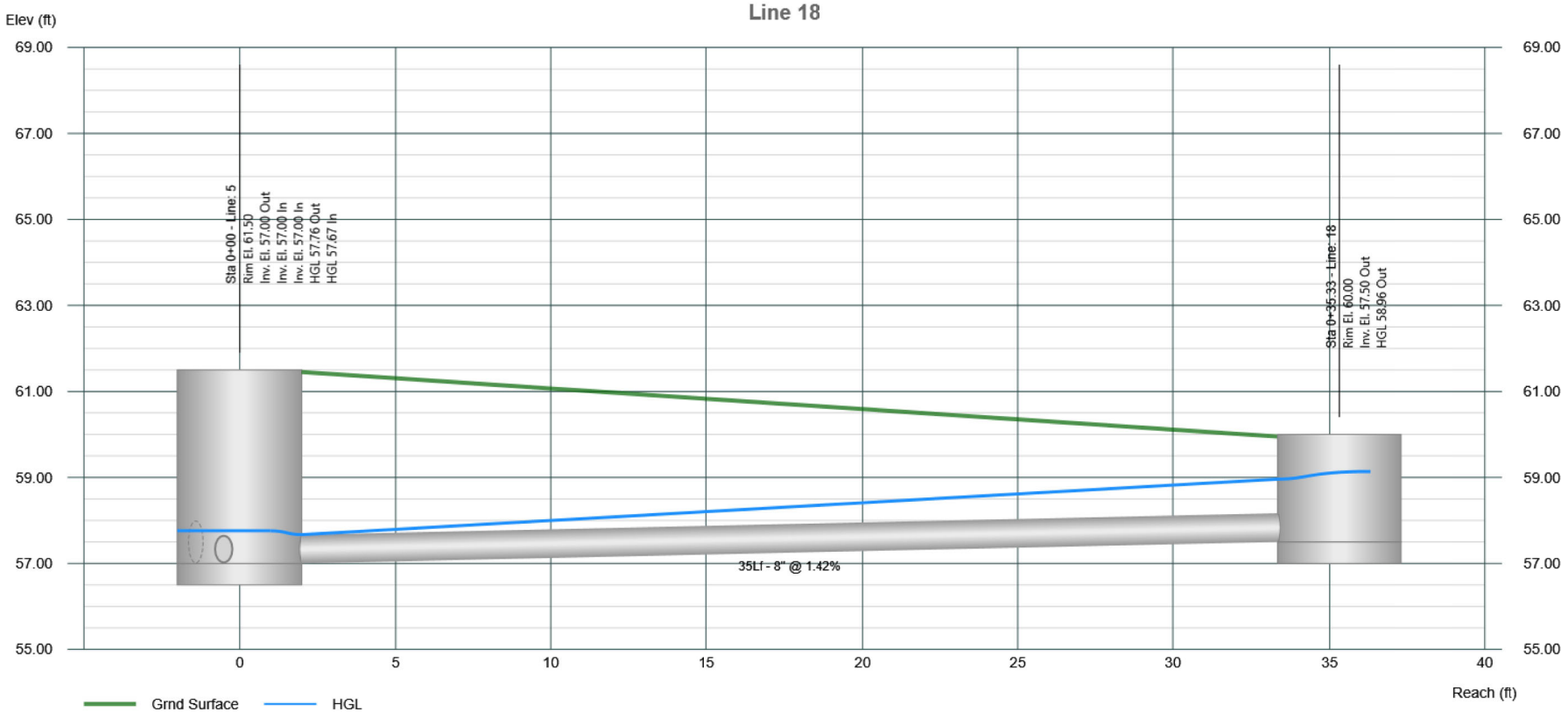


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

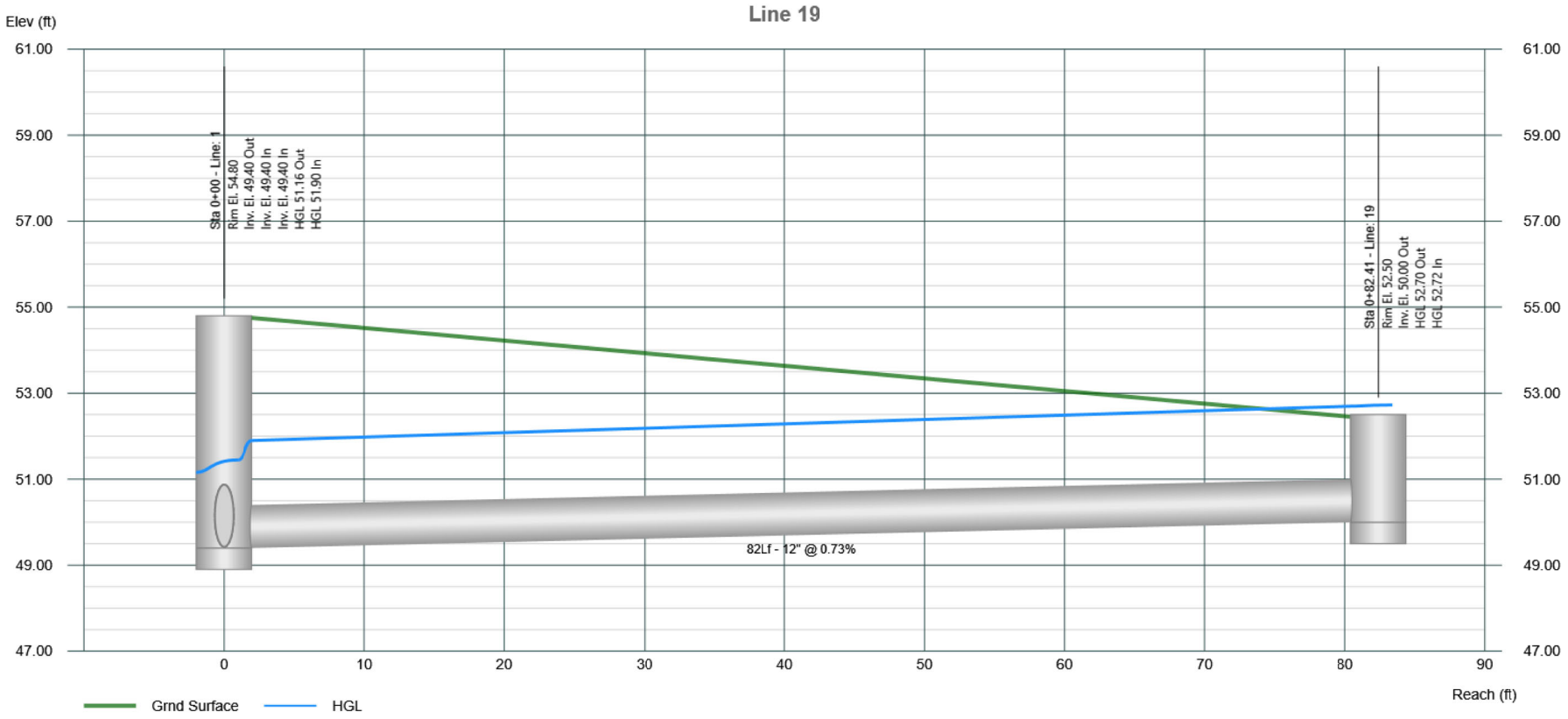


Profile View

Stormwater Studio 2021 v 3.0.0.25

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023



Energy Grade Line Calculations

Project Name: Enter Project Name..2573 SD-10YR.

04-12-2023

Stormwater Studio 2021 v 3.0.0.25

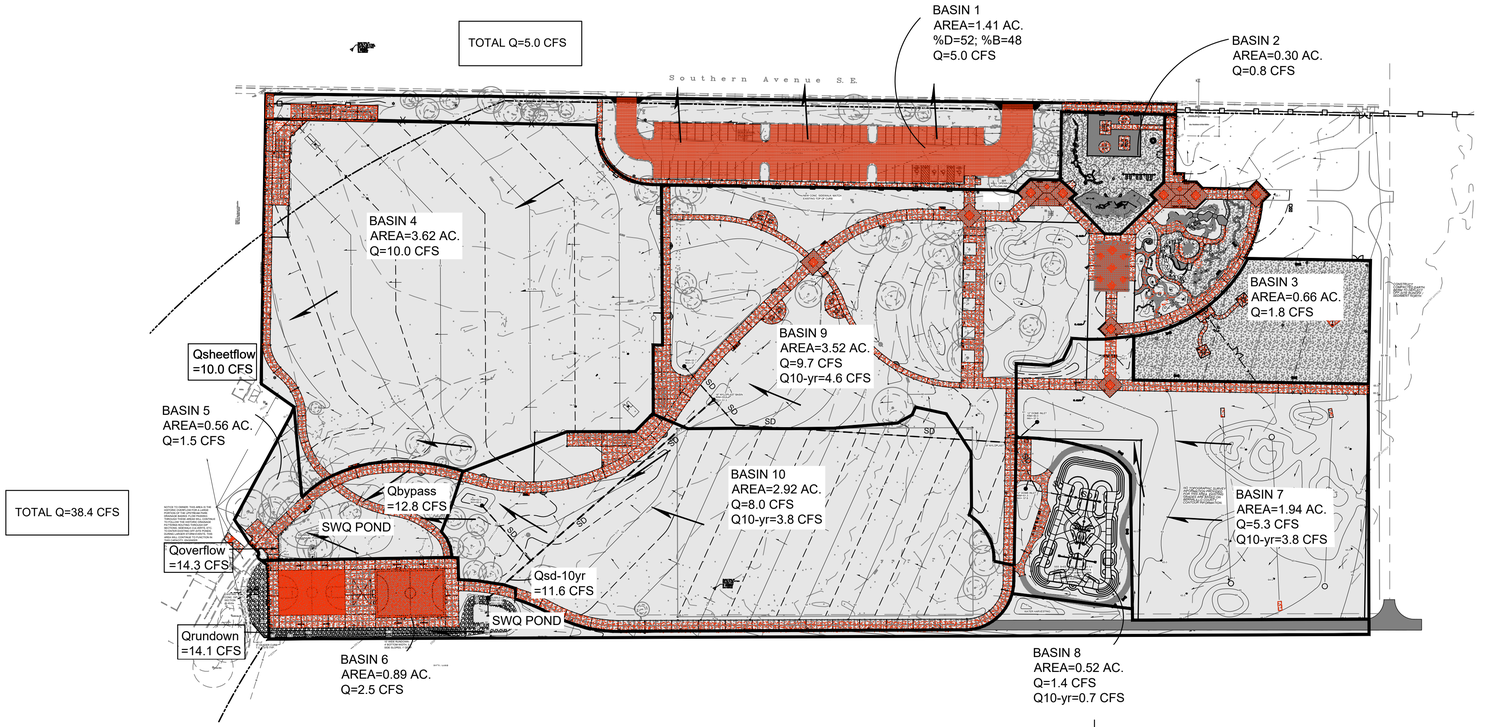
Line No	Line Size	Q	Downstream							Length	Upstream							Pipe		Junction		
			Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev		Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev	n Value	Enrgy Loss	HGLa Elev	EGLa Elev	Enrgy Loss
	(in)	(cfs)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)
1	18	11.60	49.00	1.50³	1.77	50.50	6.57	0.67	51.17	63.36	49.40	1.50	1.77	51.16	6.56	0.67	51.83	0.012	0.659	51.45	52.12	0.29
2	18	7.80	49.40	1.50	1.77	51.93	4.41	0.30	52.24	272.58	51.20	1.50	1.77	53.22	4.41	0.30	53.52	0.012	1.282	53.28	53.58	0.06
3	12	1.60	51.20	1.00	0.79	53.54	2.04	0.06	53.61	49.98	51.70	1.00	0.79	53.63	2.04	0.06	53.70	0.012	0.086	53.64	53.71	0.01
4	12	3.20	51.20	1.00	0.79	53.43	4.08	0.26	53.69	37.37	51.80	1.00	0.79	53.69	4.07	0.26	53.94	0.012	0.257	53.83	54.08	0.14
5	12	3.20	51.80	1.00	0.79	53.93	4.08	0.26	54.19	310.82	57.00	0.76²	0.64	57.76	5.01	0.39	58.15	0.012	3.960	57.76	58.15	0.00
6	8	0.70	57.00	0.67	0.35	58.11	2.01	0.06	58.17	41.62	57.60	0.62	0.34	58.22	2.07	0.07	58.28	0.012	0.111	58.23	58.30	0.02
7	8	0.60	57.60	0.67	0.35	58.27	1.72	0.05	58.32	6.71	57.70	0.58	0.32	58.28	1.87	0.05	58.33	0.012	0.013	58.31	58.36	0.03
8	8	0.60	57.70	0.63	0.34	58.33	1.76	0.05	58.38	47.58	59.39	0.37²	0.20	59.76	3.07	0.15	59.90	0.012	1.523	59.76	59.90	0.00
9	8	0.40	59.39	0.49	0.27	59.88	1.46	0.03	59.91	40.33	59.79	0.30²	0.15	60.09	2.65	0.11	60.20	0.012	0.287	60.09	60.20	0.00
10	8	0.20	59.79	0.40	0.22	60.19	0.92	0.01	60.20	29.67	60.09	0.21²	0.09	60.30	2.11	0.07	60.37	0.012	0.169	60.30	60.37	0.00
11	8	0.20	60.09	0.19‡	0.08	60.28	2.37	0.09	60.38	8.75	60.18	0.21	0.10	60.39	2.09	0.07	60.46	0.013	0.085	60.43	60.49	0.03
12	8	0.10	60.18	0.13‡	0.05	60.31	2.00	0.06	60.50	40.00	60.50	0.15²	0.06	60.65	1.72	0.05	60.69	0.012	0.199	60.65	60.69	0.00
13	8	0.20	59.79	0.40	0.22	60.19	0.92	0.01	60.20	16.82	60.20	0.21²	0.09	60.41	2.11	0.07	60.48	0.012	0.279	60.41	60.48	0.00
14	8	0.10	60.19	0.28	0.14	60.47	0.71	0.01	60.48	12.70	60.50	0.15²	0.06	60.65	1.72	0.05	60.69	0.012	0.213	60.65	60.69	0.00
15	8	0.20	59.39	0.51	0.28	59.90	0.70	0.01	59.90	3.55	59.51	0.38	0.21	59.89	0.97	0.01	59.91	0.012	0.002	59.90	59.91	0.01
16	8	0.10	59.51	0.40	0.22	59.91	0.45	0.00	59.92	26.47	60.50	0.15²	0.06	60.65	1.72	0.05	60.69	0.012	0.780	60.65	60.69	0.00
17	8	0.10	57.60	0.67	0.35	58.30	0.29	0.00	58.30	14.77	57.80	0.50	0.28	58.30	0.36	0.00	58.30	0.012	0.001	58.30	58.30	0.00
18	8	2.50	57.00	0.67³	0.35	57.67	7.16	0.80	58.47	35.33	57.50	0.67	0.35	58.96	7.16	0.80	59.76	0.012	1.290	59.14	59.94	0.18
19	12	3.80	49.40	1.00³	0.79	51.90	4.84	0.36	52.26	82.41	50.00	1.00	0.79	52.70	4.84	0.36	53.06	0.012	0.800	52.72	53.09	0.03

Notes: Return Period = 2-yrs. ² Critical depth. ³ Normal depth. ‡ Supercritical.

Project File: 2573 SD-10 YEAR.sws

APPENDIX C

Drainage Basin Exhibit



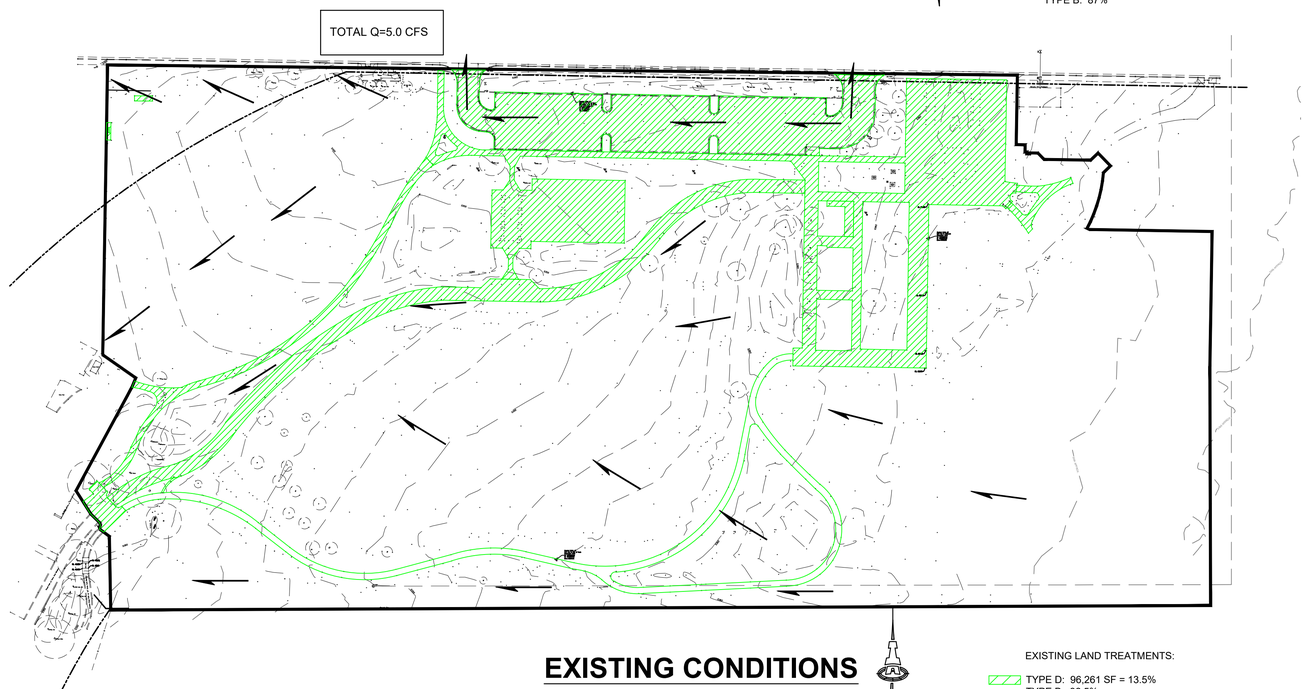
DEVELOPED CONDITIONS DRAINAGE PLAN

1"=80'

DEVELOPED LAND TREATMENTS:

BASIN 1
TYPE D: 31,862 SF/61,484 SF= 52%
TYPE B: 48%

REMAINING BASINS 2-9
TYPE D: 84,860 SF/649976 SF=13%
TYPE B: 87%



EXISTING CONDITIONS DRAINAGE PLAN

1"=80'

EXISTING LAND TREATMENTS:

TYPE D: 96,261 SF = 13.5%
TYPE B: 86.5%

DRAINAGE NOTES:

PHIL CHACON PARK SHALL BE REDEVELOPED WITH PLAYGROUNDS, RECREATION FIELDS AND WALKS. THE EXISTING PARKING LOT AT THE NORTH END OF THE PROJECT SHALL BE RESURFACED.

THE PROPOSED GRADING OF THE SITE SHALL FOLLOW THE EXISTING DRAINAGE PATTERNS WITH A PORTION OF THE SITE DRAINING TO SOUTHERN AVE. AND THE REMAINDER OF THE SITE DRAINING TO THE SOUTHWEST CORNER OF THE PARK.

THE DEVELOPED DISCHARGE TO SOUTHERN AVE. WILL BE THE SAME AS THE HISTORICAL. SINCE BASINS 2 AND 3 (PLAYGROUND AREAS) WILL FULLY RETAIN THE STORM WATER, THE DEVELOPED DISCHARGE AT THE SOUTHWEST CORNER OF THE PARK WILL BE REDUCED (38.4 CFS DEVELOPED; 40.1 CFS HISTORICAL).

THE STORM DRAIN IS DESIGNED TO CARRY THE 10-YEAR FLOWS; THE REMAINDER WILL BE BYPASSED.

STORM WATER QUALITY (SWQ):

TWO STORM WATER QUALITY (SWQ) PONDS WILL BE INSTALLED EAST AND NORTH OF THE BASKETBALL COURTS AT THE SOUTHWEST CORNER OF THE PARK TO RETAIN THE VOLUME OF 0.26" FALLING ON THE IMPERVIOUS AREAS.

SWQ VOLUME REQUIRED = 2,523 CF
SWQ VOLUME PROVIDED = 2,488 CF

BASIN SUMMARY

Basin No.	Description	Q 100 (CFS)	Q10 (CFS)	SWQV (CF)
1	To Southern Ave.	**5.0**	2.8	693
2	Self Ponding	**0.8**	0.4	36
3	Self Ponding	**1.8**	0.9	81
4	To SW Offsite Pond	**10.0**	4.7	444
5	To SW Offsite Pond	**1.5**	0.7	68
6	To Rundown	**2.5**	1.2	109
7	To Storm Drain	5.3	**2.5**	238
8	To Storm Drain	1.4	**0.7**	63
9	To Storm Drain	9.7	**4.6**	431
10	To Storm Drain	8.0	**3.8**	358
TOTAL		46.0	22.3	2,523

Total to Storm Drain 24.4 **11.6** cfs (12.8 cfs bypass)

Total Q to Rundown **14.1** cfs (=11.6+2.5)

SWQ POND EAST OF BASKETBALL COURT		
Contour	Area	Volume
50.5	842	
52.0	1400	1682 CF
POND VOLUME =		**1682** CF

SWQ POND NORTH OF BASKETBALL COURT		
Contour	Area	Volume
50.0	558	
50.6	2130	806 CF
POND VOLUME =		**806** CF

Job Name:	**Phil Chacon Park**
Client:	**PLAND**
Date Prepared:	**2/23/2023**
Date Modified:	**4/11/2023**
Precipitation Zone:	**3**

CALCULATIONS: Phil Chacon Park : 43565

Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE: 711460 SF = 16.33 ACRE

100-year, 6-hour

HISTORIC FLOWS:		Treatment SF	%
Area A	=	0	0%
Area B	=	615199	86.47%
Area C	=	0	0%
Area D	=	96261	13.53%
Total Area	=	711460	100%

DEVELOPED FLOWS:		Treatment SF	%
Area A	=	0	0%
Area B	=	594738	83.59%
Area C	=	0	0%
Area D	=	116722	16.41%
Total Area	=	711460	100%

EXCESS PRECIP: Precip. Zone 3
E_A = 0.67
E_B = 0.86
E_C = 1.09
E_D = 2.58

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted $E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$

Historic E	=	1.09	in.	Developed E	=	1.14	in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V_{360}	=	64785	CF	Developed V_{360}	=	67718	CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D$ / 43,560

For Precipitation Zone 3

Q_{pA}	=	1.84		Q_{pC}	=	3.17	
Q_{pB}	=	2.49		Q_{pD}	=	4.49	
Historic Q_p	=	45.1	CFS	Developed Q_p	=	46.0	CFS

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

Engineer

PHIL CHACON PARK
RENOVATION
CITY OF ALBUQUERQUE

DESIGN
ISSUE: DEVELOPMENT
PROJECT NUMBER: IA 2573
FILE: -
DRAWN BY: ANW-BJB
CHECKED BY: ANW
DATE: 2023-08-02

No	Description	Date

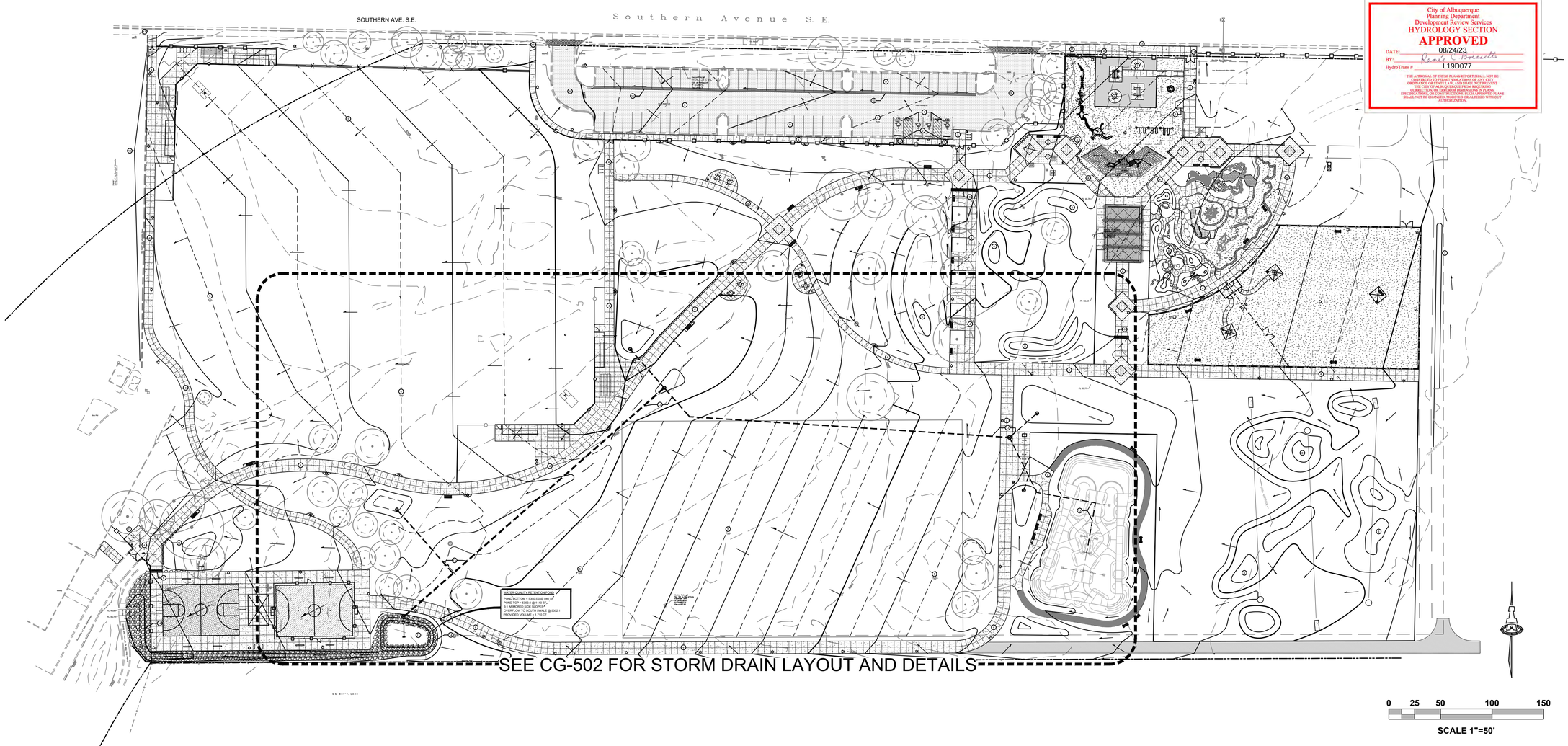
SHEET TITLE

DRAINAGE BASIN EXHIBIT

SHEET NUMBER

CB-100

M:\PROJECTS\2000\2739\DOCS\23-CTD BASIN EXH.dwg Feb 9/2023 2:35 PM



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renee C. Brissette
Hydro/Trans #: L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO BE AN APPROVAL OF A VIOLATION OF ORDINANCES OR REGULATIONS ENACTED BY THE CITY OF ALBUQUERQUE FROM BEGINNING CONSTRUCTION, OR ERROR OR DIMENSIONS IN PLANS. SHOULD ANY ERROR APPEAR IN THESE PLANS, THE PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

GENERAL NOTES

A. ALL SITE PREPARATION, GRADING OPERATIONS, FOUNDATION CONSTRUCTION, AND PAVEMENT INSTALLATION WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, WHICH WILL BE PROVIDED BY THE OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE NOTED IN THE PLANS, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

B. PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.

C. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

D. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NDPES PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NPDES PERMIT BY OTHERS.). CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE WHO WILL PREPARE SWPPP AND INSPECT REQUIRED ELEMENTS.

E. ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS AND POSITIVE SLOPE TOWARD EXISTING AND/OR PROPOSED DRAINAGE PATHS. PAVING AND ROADWAY GRADES SHALL BE ±0.1' FROM PLAN ELEVATIONS. BUILDING PAD ELEVATION SHALL BE ±0.05' FROM PLAN ELEVATION.

F. WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.

G. PAD ELEVATIONS SHALL BE WITHIN 0.1±.

H. POND DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN (TOP OF POND, BOTTOM OF POND, SIZE OF ORIFICE, AREA OF POND, ETC.) TO BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES. SEE DETAIL SHEET FOR ADDITIONAL INFORMATION.

I. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.

J. EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS FIVE WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF NECESSARY DRY UTILITY ADJUSTMENTS.

K. FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE (FOR CERTIFICATE OF OCCUPANCY) CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES:

K.A. AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;

K.B. TOP AND BOTTOM ELEVATIONS AS REQUIRED TO DEFINE THE PERIMETER OF PONDS (TO BE USED BY ENGINEER TO CALCULATE AS-BUILT VOLUME PROVIDED);

K.C. ALL CONSTRUCTION, INCLUDING DRAIN INLETS, PIPES AND PONDS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.

L. UPON WRITTEN REQUEST, THE ELECTRONIC FILE OF THE GRADING AND DRAINAGE WILL BE PROVIDED TO THE CONTRACTOR FOR VERTICAL CONTROL.

M. SITE CONSTRUCTION LAYOUT / STAKING SHALL BE COORDINATED WITH THE OWNER.

N. NO WORK SHALL BE PERFORMED IN THE PUBLIC R/W WITHOUT AN APPROVED WORK ORDER OR EXCAVATION PERMIT.

O. CONSTRUCT PAVING AT ELEVATIONS SHOWN. SEE LANDSCAPE CONSTRUCTION PLANS FOR PAVING NOTES AND DETAILS INCLUDING PAVEMENT SECTIONS, ACCESS DRIVES, MOW CURB, SIDEWALK RAMPS, SIDEWALKS, CONCRETE EDGERS, ATHLETIC COURTS, ETC. PROVIDE SMOOTH TRANSITIONS TO EXISTING PAVEMENT.

P. PROTECT EXISTING TREES TO REMAIN. COORDINATE WITH LANDSCAPE ARCHTECT (L.A.).

Q. COORDINATE TURF MOUNDS WITH L.A. MAXIMUM TURF SLOPE = 6:1 UNLESS LANDSCAPE ARCHITECT (L.A.) APPROVES GREATER. MINIMUM TURF SLOPE = 1% UNLESS NOTED.

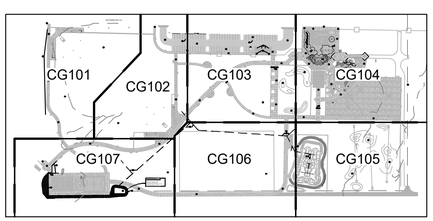
R. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED.

ADA COMPLIANCE

SIDEWALK(S):
LONGITUDINAL SLOPE SHALL NOT EXCEED 20:1 (5%).
TARGET CROSS SLOPE = 1% TO 1.5%.
CROSS SLOPE SHALL NOT EXCEED 2%

ACCESSIBLE RAMP(S):
TARGET LONGITUDINAL SLOPE = 7%
LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.33%).
TARGET CROSS SLOPE = 1% TO 1.5%.
CROSS SLOPE SHALL NOT EXCEED 2%

ACCESSIBLE PARKING:
TARGET SLOPE = 1% TO 1.5%.
SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION



KEY MAP

PROJECT INFORMATION

PROPERTY: THE SITE IS A PREVIOUSLY DEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP L-19. THE SITE IS BOUND TO THE NORTH BY SOUTHERN AVE, TO THE SOUTH BY KIRKLAND AIR FORCE BASE, TO THE WEST BY VAN BUREN MIDDLE SCHOOL.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A PARK WITH RECREATION FIELDS, PLAYGROUNDS, AND WALKS.

LEGAL: AN UNPLATTED TRACT OF LAND WITHIN THE S/2 SE/4 NW/4 OF SEC.ION 30, T.10 N., R.4 E., N.M.P.M.

SITE AREA DISTURBED: 16.33 AC.

BENCHMARK: VERTICAL DATUM IS BASED UPON ALBUQUERQUE CONTROL SURVEY MONUMENT "STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

OFF-SITE: MINOR OFFSITE FLOW FROM THE EAST WILL CONTINUE TO BE ROUTED THROUGH THIS PROPERTY.

FLOOD HAZARD: THE SUBJECT PROPERTY APPEARS TO LIE WITHIN "ZONE X" (AREA WITH REDUCED FLOOD RISK DUE TO LEVEE) AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP NUMBERS 35001C0354H & 35001C0358H, EFFECTIVE DATE 08/16/2012.

SURVEYOR: REX J. VOGLER, NM PS #10466

DRAINAGE NARRATIVE: THE PROPOSED IMPROVEMENTS ARE RELATED TO REDEFINING THE PARK USAGE AND UPDATING THE PEDESTRIAN PATHS AND PARKING, ADDING A STORM DRAIN SYSTEM TO ROUTE UP TO THE 10-YEAR STORM EVENT, AND MAINTAINING HISTORIC DRAINAGE OUTFALL POINTS. PER CALCULATIONS, THE RUNOFF DURING THE 100-YEAR 6-HOUR STORM WILL DECREASE DUE TO THE ADDITION OF TWO SELF-PONDING PLAYGROUND AREAS. THE STORM DRAIN IS DESIGNED TO ACCOMODATE THE 10-YEAR STORM WITH LARGER STORMS OVERTOPPING THE RESPECTIVE DRAINAGE INLET BASINS AND SURFACE DRAINING TO THE HISTORIC LOW END OF THE PROPERTY.

SEE CG-501 FOR GRADING AND DRAINAGE DETAILS. SEE ADA COMPLIANCE NOTES THIS SHEET FOR TARGET SLOPES AND MAXIMUM SLOPES.

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
WORK ACCEPTANCE BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE
MICRO-FILM INFORMATION
RECORDED BY: DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

ENGINEER'S SEAL
NEW MEXICO 17631 PROFESSIONAL ENGINEER ASA M. NILSSON-REEBEN LICENSED LANDSCAPE ARCHITECT
08/02/2023

REVISIONS

NO.	DATE	REMARKS	BY
	06/01/23		BJB
	06/01/23		BJB
	08/01/23		ANW

DESIGNED BY: BJB
DRAWN BY: BJB
CHECKED BY: ANW

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

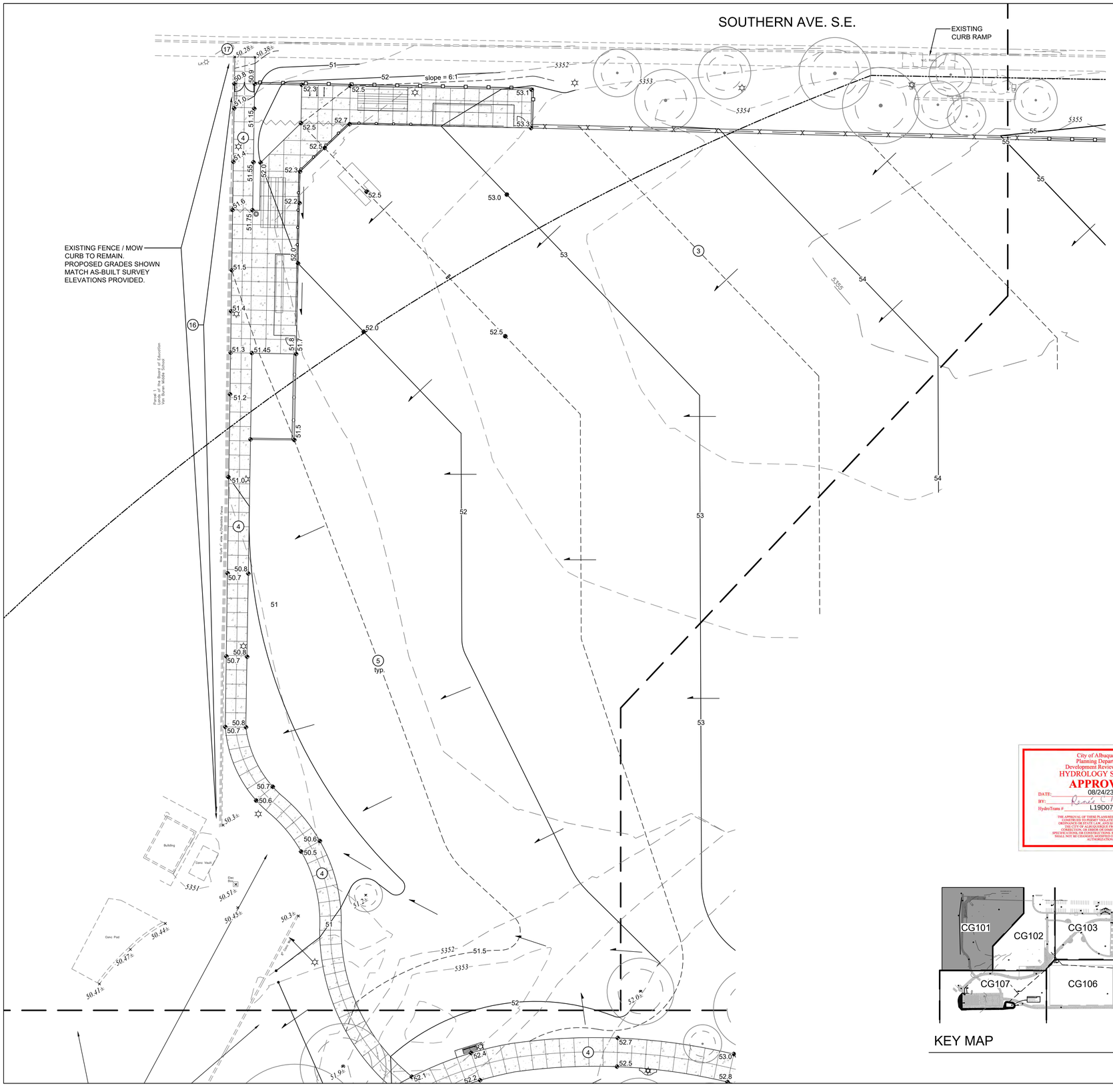
PHIL CHACON PARK RENOVATION
OVERALL GRADING PLAN

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 621492 | Zone Map No. L-19 | Sheet **CG100**

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE:



KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

LEGEND

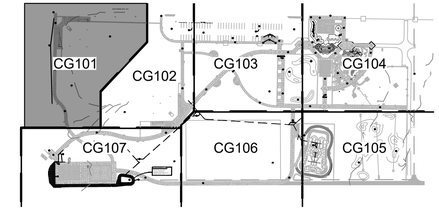
4965	EXISTING CONTOUR
57.89%	EXISTING SPOT ELEVATION
71	PROPOSED CONTOUR
70.5	PROPOSED SPOT ELEVATION
	FLOW DIRECTION
	EROSION PROTECTION
	MATCHLINE - SEE KEY MAP
	GRADE BREAK / GRADING HIGH POINT.

0 10 20 40 60

SCALE 1"=20'

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: René C. Brissette
HydroTrans # L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO BE A VIOLATION OF ANY STATE OR ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION OF ERRORS OR OMISSIONS IN THE PLANS/SPECIFICATIONS OR OTHER DOCUMENTS WHEN FOUND. APPROVAL SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.



KEY MAP

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

ENGINEER'S SEAL
ASA M. NILSSON-WEBER
NEW MEXICO
17631
LICENSED PROFESSIONAL ENGINEER
08/02/2023

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
WORK ACCEPTED BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

NO.	DATE	REVISIONS	BY
		REMARKS	

DESIGNED BY: BJB DATE 06/01/23
DRAWN BY: BJB DATE 06/01/23
CHECKED BY: ANW DATE 08/01/23

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION

ENLARGED GRADING PLAN 1

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

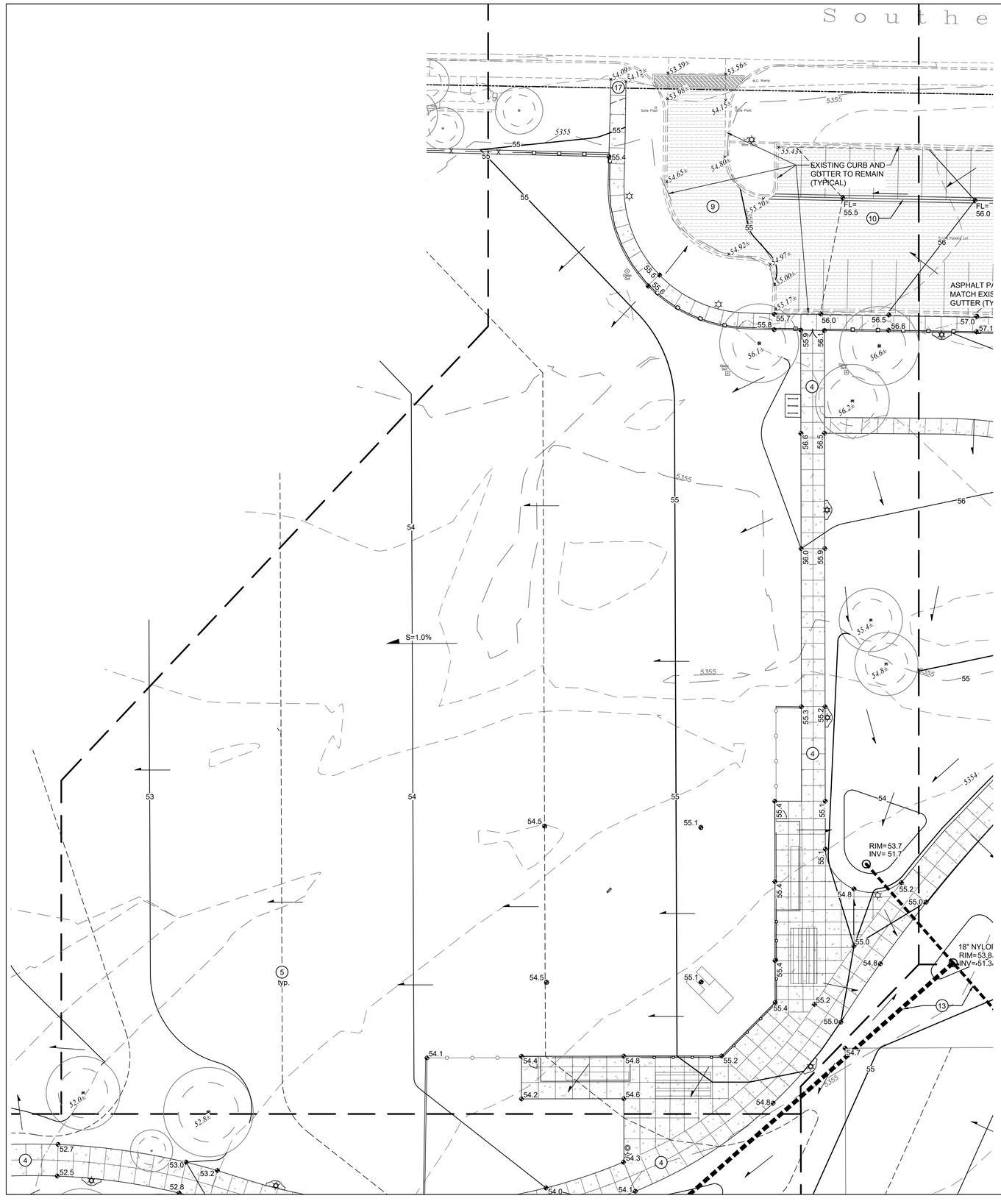
City Project No. 621492 | Zone Map No. L-19 | Sheet **CG101**

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION

PROJECT# 621492

RECORD DRAWINGS
DATE:



KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

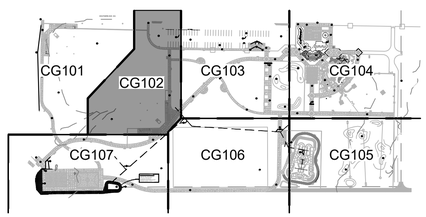
LEGEND

- EXISTING CONTOUR (4965)
- EXISTING SPOT ELEVATION (57.89)
- PROPOSED CONTOUR (71)
- PROPOSED SPOT ELEVATION (70.5)
- FLOW DIRECTION
- EROSION PROTECTION
- MATCHLINE - SEE KEY MAP
- GRADE BREAK / GRADING HIGH POINT.

0 10 20 40 60

SCALE 1"=20'

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renée Brissette
HydroTrans # L19D077
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW AND DOES NOT PREVENT THE ENFORCEMENT OF SAME. ANY ERRORS, OMISSIONS, CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTION SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.



KEY MAP

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION

ENLARGED GRADING PLAN 2

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet
621492	L-19	**CG102**

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
WORK ACCEPTED BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
Jason A.M. Nilsson-Weber
NEW MEXICO
17631
PROFESSIONAL ENGINEER
08/02/2023

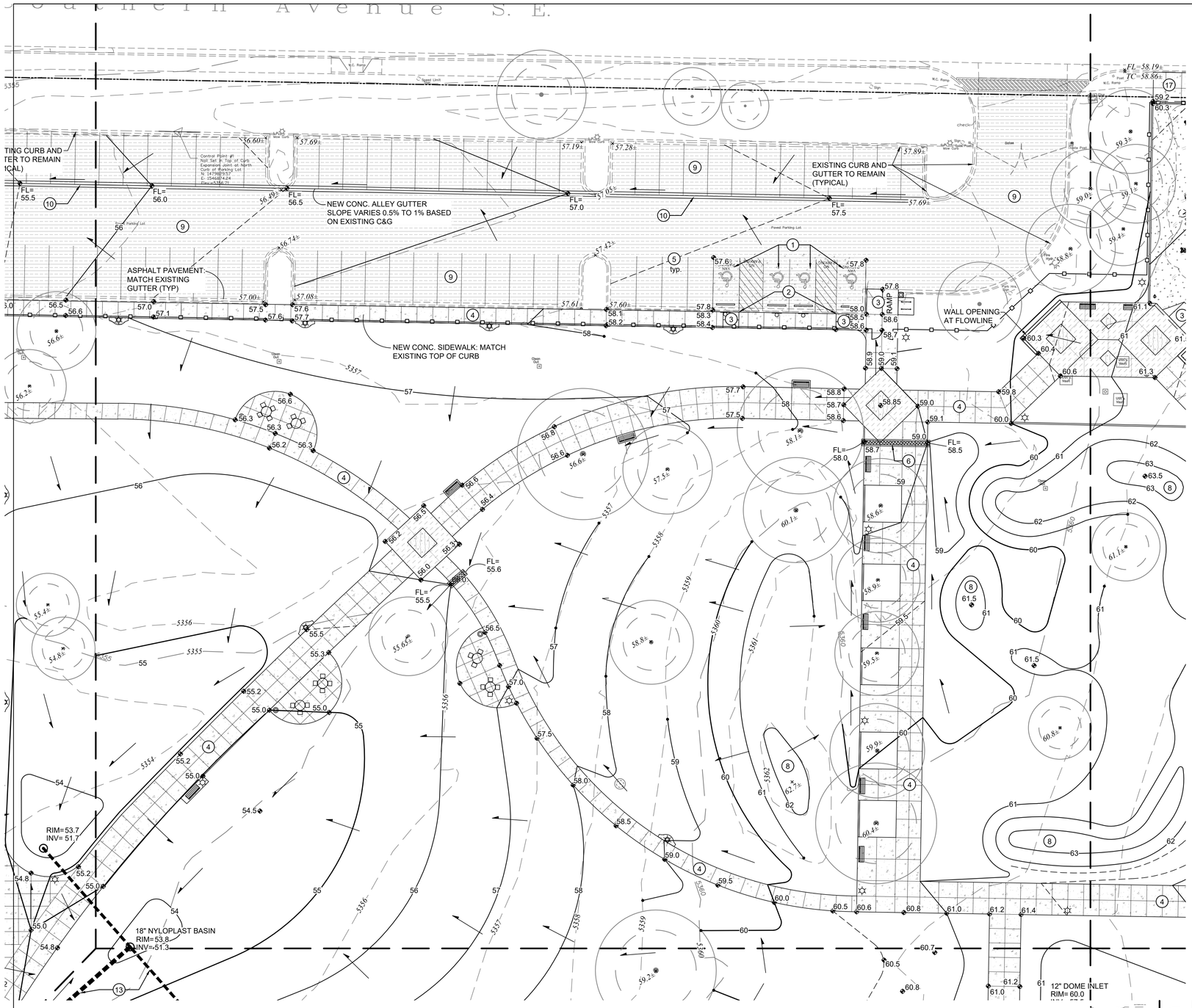
REVISIONS

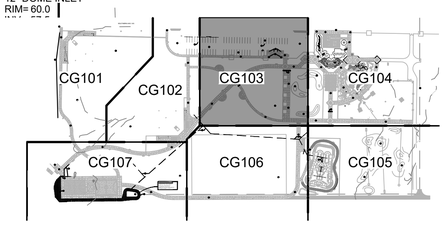
NO.	DATE	REMARKS	BY
	06/01/23		
	06/01/23		
	08/01/23		

DESIGNED BY: BJB
DRAWN BY: BJB
CHECKED BY: AMW

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE:





KEY MAP

KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

LEGEND

- EXISTING CONTOUR (4965)
- EXISTING SPOT ELEVATION (57.89±)
- PROPOSED CONTOUR (71)
- PROPOSED SPOT ELEVATION (70.5)
- FLOW DIRECTION
- EROSION PROTECTION
- MATCHLINE - SEE KEY MAP
- GRADE BREAK / GRADING HIGH POINT.

0 10 20 40 60

SCALE 1"=20'

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renée C. Brissette
HydroTrans #: L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. NEITHER THE APPROVAL BY THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DISMISSION IN PLANS, SPECIFICATIONS OR CONSTRUCTION. APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
RECORD DRAWINGS ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

ENGINEER'S SEAL
JOHN ASA M. NILSSON-WEBER
NEW MEXICO
17631
PROFESSIONAL ENGINEER
08/02/2023

NO.	DATE	REMARKS	BY
	06/01/23		BJB
	06/01/23		BJB
	08/01/23		ANW

DESIGNED BY: BJB
DRAWN BY: BJB
CHECKED BY: ANW

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

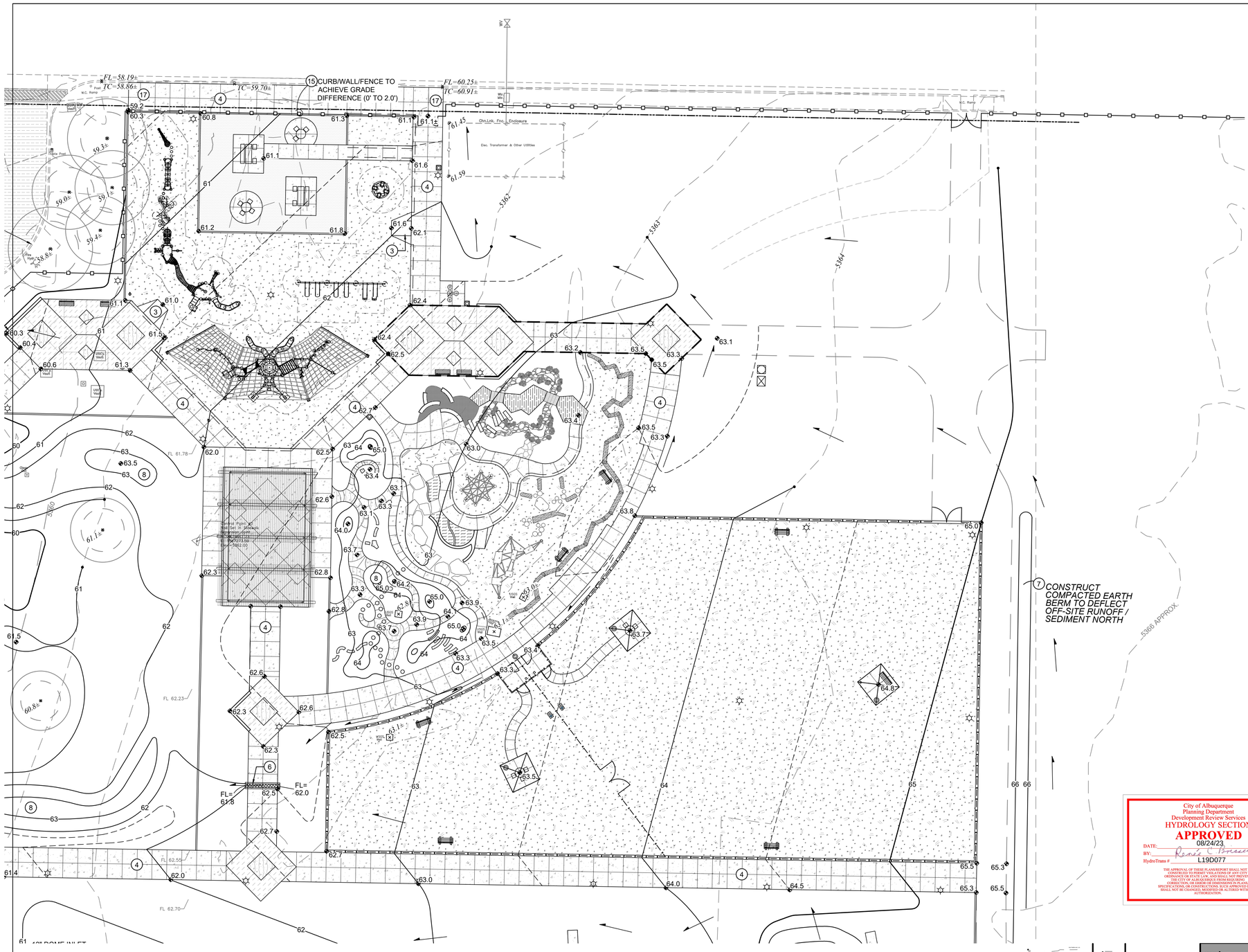
PHIL CHACON PARK RENOVATION
ENLARGED GRADING PLAN 3

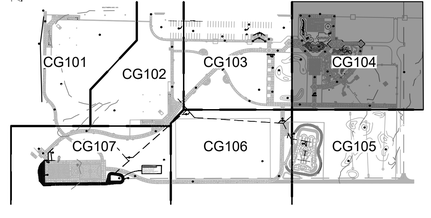
Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 621492 | Zone Map No. L-19 | Sheet **CG103**

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE:





KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

LEGEND

4965	EXISTING CONTOUR
57.89±	EXISTING SPOT ELEVATION
71	PROPOSED CONTOUR
70.5	PROPOSED SPOT ELEVATION
→	FLOW DIRECTION
▨	EROSION PROTECTION
— — —	MATCHLINE - SEE KEY MAP
～～～	GRADE BREAK / GRADING HIGH POINT.

SCALE 1"=20'

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renée C. Brissette
HydroTrans # L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

KEY MAP

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION
ENLARGED GRADING PLAN 4

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

Last Design Update

City Project No. 621492
Zone Map No. L-19
Sheet **CG104**

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY DATE
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

ENGINEER'S SEAL
ÅSA M. NILSSON-WEBER
17631
08/02/2023
Åsa Nilsson-Weber

REVISIONS

NO.	DATE	REMARKS	BY

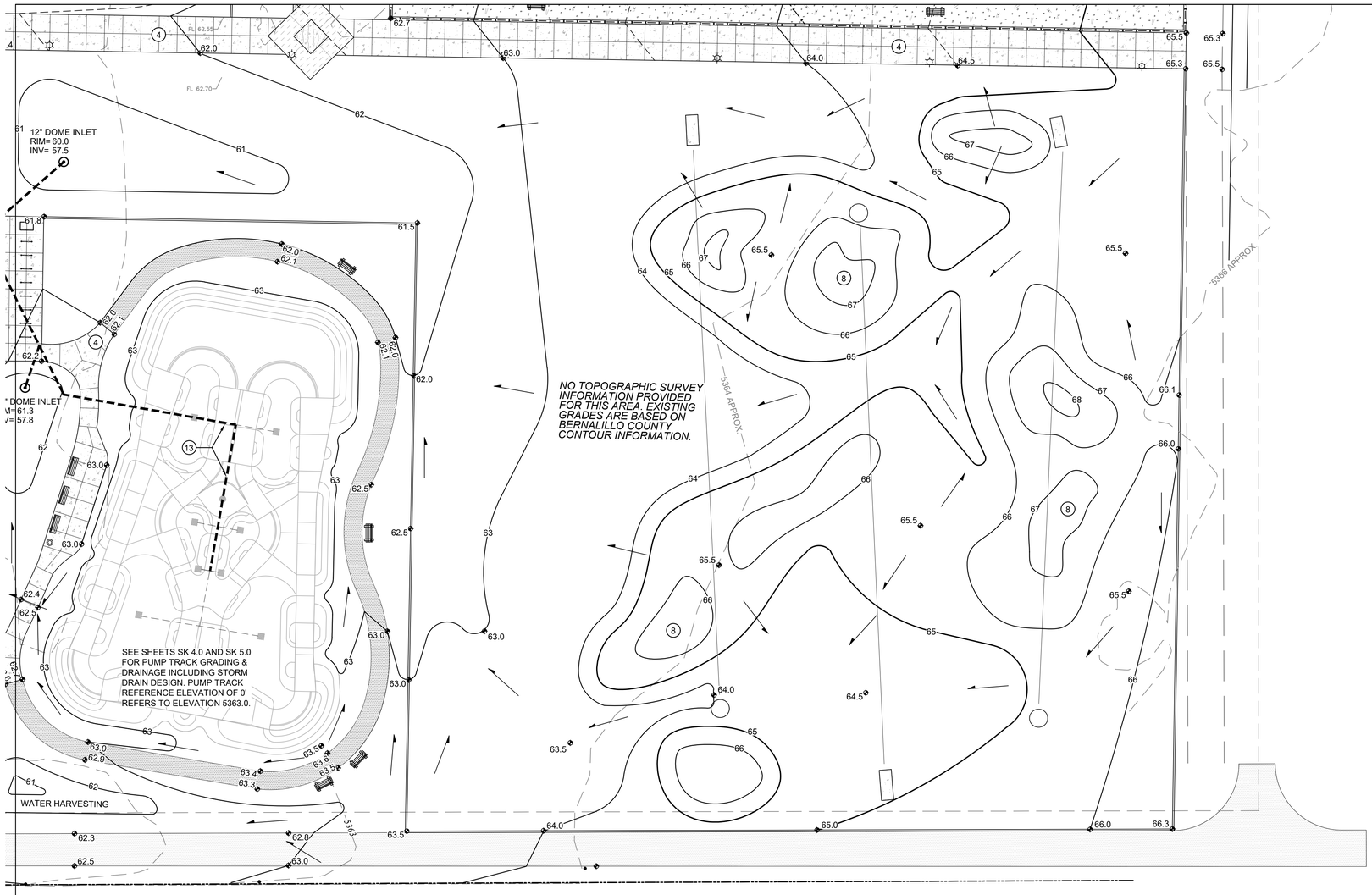
DESIGNED BY: BJB DATE 06/01/23
DRAWN BY: BJB DATE 06/01/23
CHECKED BY: ANW DATE 08/01/23

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION

PROJECT# 621492

RECORD DRAWINGS
DATE:



KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

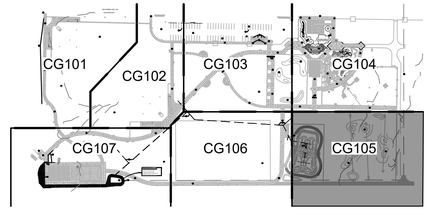
1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

LEGEND

4965	EXISTING CONTOUR
57.89%	EXISTING SPOT ELEVATION
71	PROPOSED CONTOUR
70.5	PROPOSED SPOT ELEVATION
	FLOW DIRECTION
	EROSION PROTECTION
	MATCHLINE - SEE KEY MAP
	GRADE BREAK / GRADING HIGH POINT.

0 10 20 40 60

SCALE 1"=20'



KEY MAP

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renée C. Brissette
HydroTrans #: L19D077

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. NOR SHALL IT RELIEVE THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DEMISIONS IN PLANS, SPECIFICATIONS OR CONSTRUCTION. NO CHANGES, ADDITIONS OR ALTERATIONS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
RECEIVED WORKS ACCEPTANCE BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE
MICRO-FILM INFORMATION
RECORDED BY: DATE
NO.

ENGINEER'S SEAL
ASA M. NILSSON-WEBER
NEW MEXICO
17631
LICENSED PROFESSIONAL ENGINEER
08/02/2023

NO.	DATE	REMARKS	BY
REVISIONS			

DESIGNED BY: BJB DATE 06/01/23
DRAWN BY: BJB DATE 06/01/23
CHECKED BY: ANW DATE 08/01/23

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION
ENLARGED GRADING PLAN 5

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

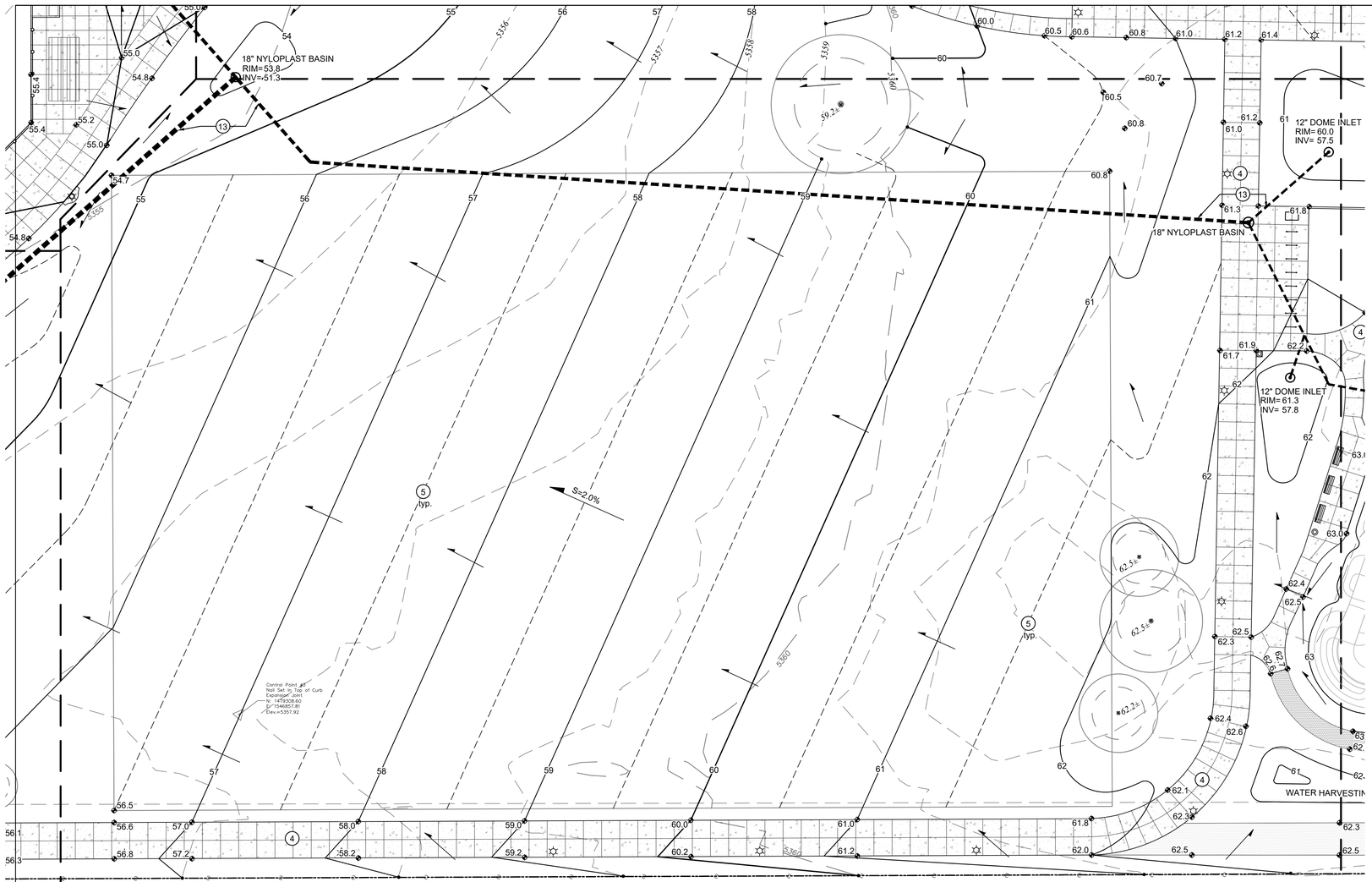
City Project No. 621492 | Zone Map No. L-19 | Sheet **CG105**

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION

PROJECT# 621492

RECORD DRAWINGS
DATE:



KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

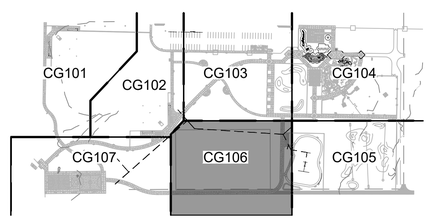
LEGEND

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW DIRECTION
- EROSION PROTECTION
- MATCHLINE - SEE KEY MAP
- GRADE BREAK / GRADING HIGH POINT.

0 10 20 40 60

SCALE 1"=20'

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: René C. Brissette
HydroTrans # L19D077
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO BE A VIOLATION OF ANY FEDERAL ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR OMISSION IN PLANS, SPECIFICATIONS OR CONSTRUCTION. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.



KEY MAP

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION
ENLARGED GRADING PLAN 6

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet
621492	L-19	**CG106**

REVISIONS

NO.	DATE	REMARKS	BY
		DESIGNED BY: BJB	DATE 06/01/23
		DRAWN BY: BJB	DATE 06/01/23
		CHECKED BY: ANW	DATE 08/01/23

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
WORK ACCEPTED BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

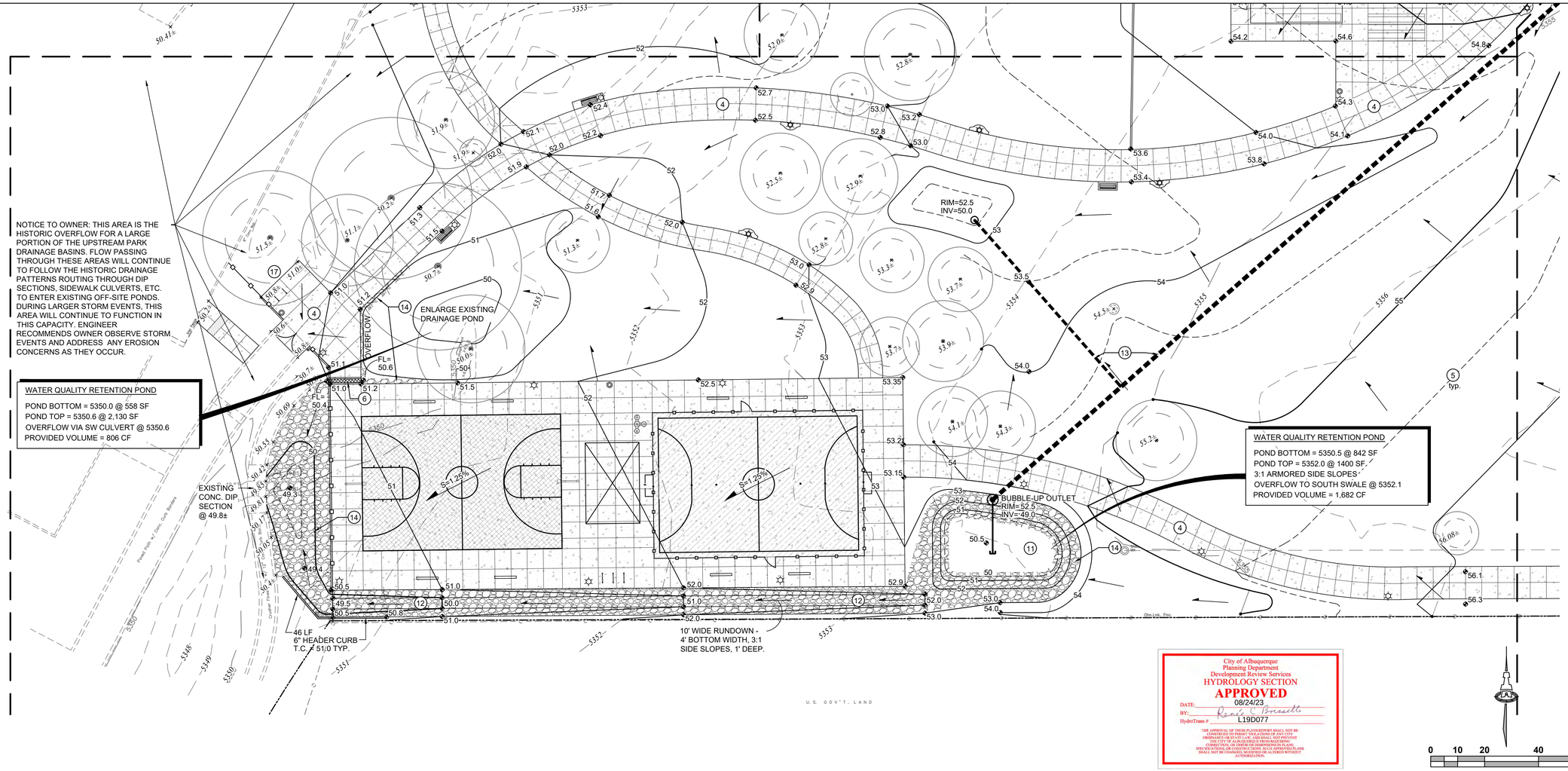
SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

ENGINEER'S SEAL
ASIM M. NILSSON-WEBER
NEW MEXICO
17631
PROFESSIONAL ENGINEER
08/02/2023

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE:



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Ronald R. Bohannan
HydroTrans #: L19D077
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO BE A VIOLATION OF ANY PROVISION OR ORDINANCE OF STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS/REPORT. NO SPECIFICATIONS, OR CONSTRUCTIONS, SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

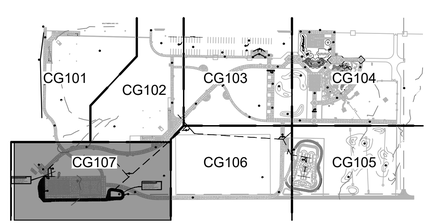
KEYED NOTES

THESE NOTES ARE REFERENCED ON SHEETS CG101 - CG107. NOT ALL NOTES ARE USED ON EACH SHEET. SEE CG100 FOR ADA COMPLIANCE NOTES AND GENERAL NOTES.

1. ADA COMPLIANT PARKING SPACES AND ACCESS AISLE(S).
2. FLUSH ADA COMPLIANT TRANSITION.
3. ADA COMPLIANT CURB RAMP.
4. ADA COMPLIANT PEDESTRIAN ACCESS WALK.
5. 0.5' DASHED DESIGN CONTOURS TO CLARIFY GRADING CONCEPT.
6. 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
7. 3' WIDE (TOP WIDTH) X 12" HIGH COMPACTED EARTH BERM TO DEFLECT UPSTREAM FLOW NORTH AROUND PLAYFIELDS.
8. COORDINATE TURF MOUNDS WITH L.A.
9. NEW ASPHALT PAVEMENT. NOTE: EXISTING CURB AND GUTTER TO REMAIN. FIELD ADJUST ASPHALT PROVIDE GRADING TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
10. 2' WIDE CONCRETE ALLEY GUTTER TO DEFINE / PROTECT ASPHALT FLOWLINE. PROVIDE SMOOTH TRANSITIONS FIELD ADJUST ALLEY GUTTER EDGES TO PROVIDE SMOOTH TRANSTIONS AND TO MAINTAIN POSITIVE DRAINAGE.
11. NEW 18" DEEP STORMWATER QUALITY RETENTION POND (SWQR). STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
12. NEW 10' WIDE ROCK RUNDOWN. 4' BOTTOM WIDTH, 3:1 SIDE SLOPES, 1' DEEP. SEE CG-501 FOR DETAIL.
13. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
14. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. SEE CG-501 FOR ADDITIONAL INFORMATION.
15. CONSTRUCT GRADE TRANSITION WALL AT ELEVATIONS SHOWN. RETAINING HEIGHT VARIES. STRUCTURAL DESIGN TO BE PROVIDED TO L.A. BY WALL CONTRACTOR. COORDINATE WITH L.A.
16. GRADES THIS AREA REFLECT EXISTING MOW CURB / FENCE ALONG WEST BOUNDARY TO REMAIN.
17. PROVIDE SMOOTH, ADA COMPLIANT TRANSITION TO EXISTING WALK.

LEGEND

- EXISTING CONTOUR (4965)
- EXISTING SPOT ELEVATION (57.89)
- PROPOSED CONTOUR (71)
- PROPOSED SPOT ELEVATION (70.5)
- FLOW DIRECTION
- EROSION PROTECTION
- MATCHLINE - SEE KEY MAP
- GRADE BREAK / GRADING HIGH POINT.



KEY MAP

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

REVISIONS

NO.	DATE	REMARKS	BY
		DESIGNED BY:	BJB 06/01/23
		DRAWN BY:	BJB 06/01/23
		CHECKED BY:	ANW 08/01/23

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION
ENLARGED GRADING PLAN 7

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 621492 | Zone Map No. L-19 | Sheet **CG107**

ENGINEER'S SEAL
ISAAC M. NILSSON-WEBER
NEW MEXICO
17631
PROFESSIONAL ENGINEER
08/02/2023

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'", ELEVATION = 5337.43 FEET (NAVD 88).

AS-BUILT INFORMATION

CONTRACTOR	
WORK STAKED BY:	DATE
FIELD CHANGES:	
ACCEPTANCE BY:	DATE
FIELD VERIFICATION BY:	DATE
DRAWINGS CORRECTED BY:	DATE

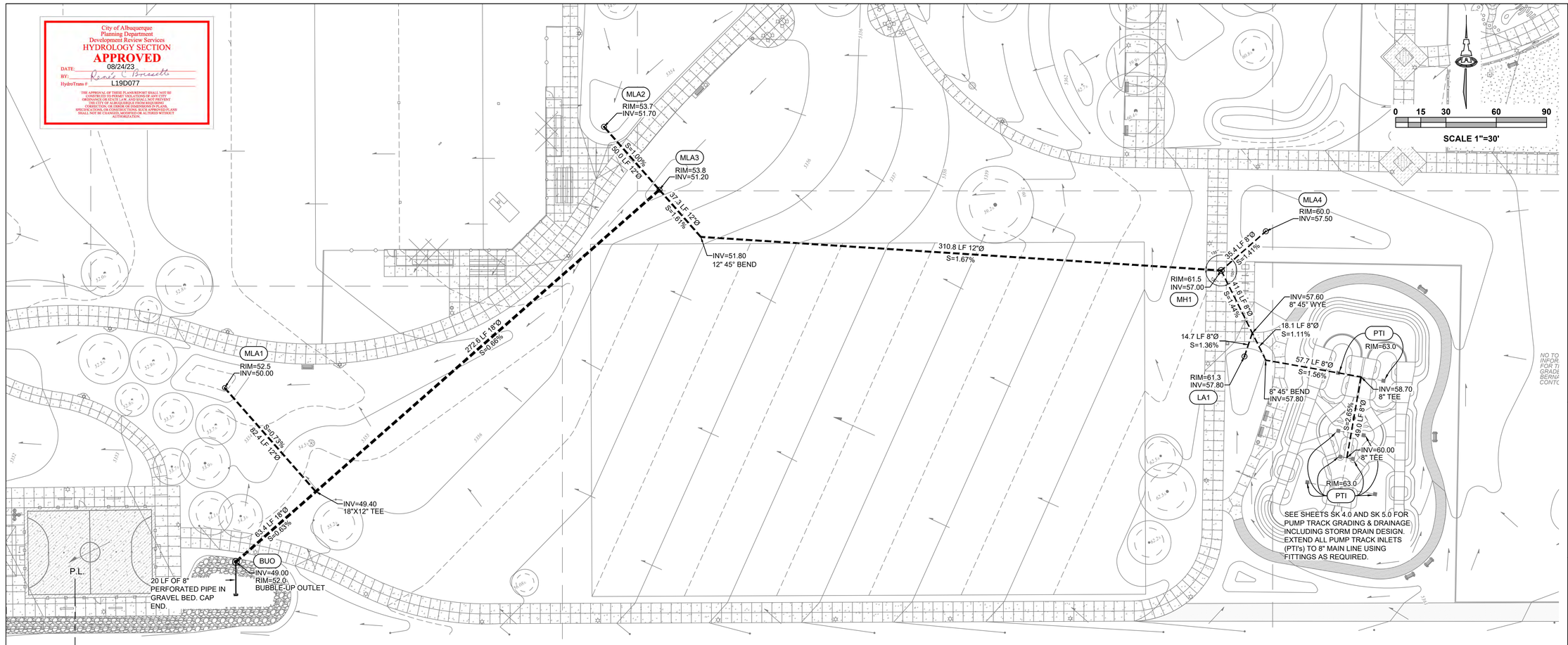
MICRO-FILM INFORMATION
RECORDED BY: DATE
NO.

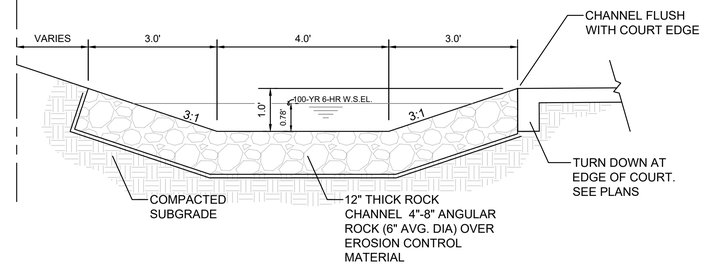
100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE:

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 08/24/23
BY: Renee Brissette
HydroTrans # L19D077

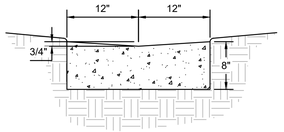
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. THE APPROVAL SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR OMISSIONS IN PLANS, SPECIFICATIONS OR CONSTRUCTION. APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.





10' WIDE ROCK RUNDOWN

SCALE: N.T.S.

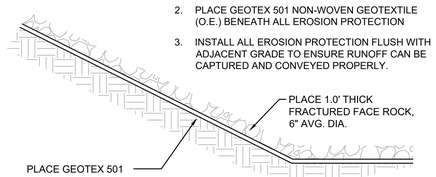


GENERAL NOTES

1. SEALED CONTRACTION JOINTS @ 4' MIN.
2. FINISHED EDGE OF ASPHALT PAVING TO BE 1/2" ABOVE EDGE OF CONCRETE (TYP).

CONCRETE ALLEY GUTTER

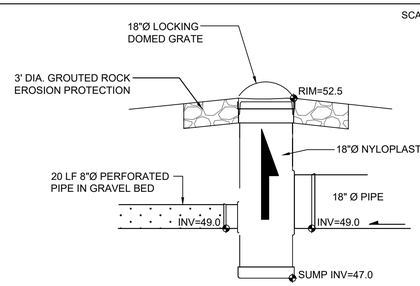
SCALE: N.T.S.



1. 6" AVERAGE DIAMETER (D60) ANGULAR ROCK (VARY BETWEEN 4" AND 8" DIAMETER
2. PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION
3. INSTALL ALL EROSION PROTECTION FLUSH WITH ADJACENT GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.

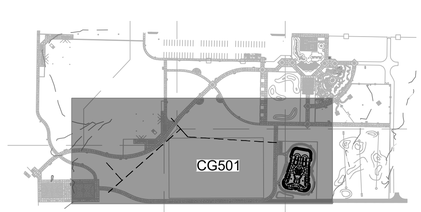
EROSION PROTECTION - MEDIUM

SCALE: N.T.S.



BUBBLE-UP OUTLET (BUO)

SCALE: N.T.S.



KEY PLAN

A. ALL PRIVATE STORM DRAIN LINES AND FITTINGS SHALL BE THE FOLLOWING MATERIAL:
- < 12" DIA. SHALL BE ADS N-12 WT PIPE
- = 12" DIA. SHALL BE EITHER ADS N-12 WT PIPE OR ADS MEGA GREEN WT PIPE
- > 12" DIA. SHALL BE ADS N-12 WT PIPE OR ADS MEGA GREEN WT PIPE

B. INSTALL ALL STORM DRAIN INLETS AND PIPE PER MANUFACTURER'S SPECIFICATIONS.

C. STORM DRAIN SYSTEM WILL REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER FUNCTIONING DURING STORM EVENTS. ENGINEER RECOMMENDS THAT OWNER PUT IN PLACE INSPECTION AND MAINTENANCE REQUIREMENTS SCHEDULED TO OCCUR YEARLY AND AFTER MAJOR STORM EVENTS.

D. EACH PROPOSED MINOR LANDSCAPE INLET (LA#) TO CONSIST OF
- 8"Ø ADS INLINE DRAIN WITH 6" OUTLET
- FITTING (INSERTA-TEE, 90° BEND OR TEE) AS REQUIRED TO CONNECT TO MAIN LINE
- 8" LOCKING DOMED GRATE
- CONCRETE COLLAR

E. EACH PROPOSED MANHOLE (MH#) TO CONSIST OF
- ADS NYLOPLAST DRAIN BASIN. SEE PLAN FOR BASIN DIAMETER, PIPE ANGLES, SIZES, AND INVERTS
- 2.0' SUMP
- LOCKING SOLID GRATE
- CONCRETE COLLAR

F. EACH PROPOSED MAJOR LANDSCAPE INLET (MLA#)
- ADS NYLOPLAST DRAIN BASIN. SEE PLAN FOR BASIN DIAMETER, PIPE ANGLES, SIZES, AND INVERTS
- 2.0' SUMP
- LOCKING DOMED GRATE
- CONCRETE COLLAR

G. EACH PROPOSED PUMP TRACK INLET (MLA#)
- SEE SHEETS SK 4.0 AND SK 5.0 FOR PUMP TRACK STORM DRAIN DESIGN. EXTEND ALL PUMP TRACK INLETS (PTI's) TO 8" MAIN LINE USING FITTINGS AS REQUIRED.

STORM DRAIN NOTES

SCALE: N.T.S.

X.X LF X"Ø — LENGTH AND DIAMETER OF PIPE SECTION
S=X.XX% — FLOWLINE SLOPE OF PIPE SECTION
(LA#) — LANDSCAPE INLET
(BUO) — BUBBLE-UP OUTLET
(MLA#) — MAJOR LANDSCAPE INLET
(MH#) — MANHOLE
(PTI) — PUMP TRACK INLET

LEGEND

ENGINEER'S SEAL
ISAAC M. NILSSON-WEBER
NEW MEXICO
17631
PROFESSIONAL ENGINEER
08/02/2023

AS-BUILT INFORMATION
CONTRACTOR
WORK STAKED BY: DATE
WORK INSPECTED BY: DATE
ACCEPTANCE BY: DATE
FIELD VERIFICATION BY: DATE
DRAWINGS CORRECTED BY: DATE
MICRO-FILM INFORMATION
RECORDED BY: DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT
"STA. 'G_2'" ELEVATION = 5337.43 FEET (NAVD 88).

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	REX VOGLER	02/21/23

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

MRWM
LANDSCAPE ARCHITECTS
mrwmla.com 505 268 2266

NO.	DATE	REMARKS	BY
REVISIONS			

DESIGNED BY: BJB
DRAWN BY: BJB
CHECKED BY: ANW

CITY OF ALBUQUERQUE
STRATEGIC PLANNING AND DESIGN
PARKS AND RECREATION DEPARTMENT

PHIL CHACON PARK RENOVATION
STORM DRAIN AND DRAINAGE DETAILS

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet
621492	L-19	CG501

100% CD
DATE: AUGUST 11, 2023

PHIL CHACON PARK RENOVATION
PROJECT# 621492
RECORD DRAWINGS
DATE: