

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

May 31, 2024

Scott Eddings, PE
Huitt-Zollers Inc.
333 Rio Rancho Dr NE, Suite 101
Rio Rancho, NM 87124

RE: Windrock Park
Permanent C.O. – Accepted
Engineer's Certification Date: 04/19/24
Engineer's Stamp Date: 04/27/22
Hydrology File: J19D058J

Dear Mr. Eddings:

PO Box 1293 Based on the Certification received 05/29/2024 and site visit on 05/31/2024, this letter serves as
a “green tag” from Hydrology Section for a Permanent Certificate of Occupancy to be issued by
the Building and Safety Division.

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

Sincerely,

NM 87103

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



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

TYPE OF DEVELOPMENT: Plat (# of lots) _____ Single Family Home
All other Developments

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

Engineering / Architect Certification
Conceptual Grading & Drainage Plan
Grading & Drainage Plan, and/or Drainage Report
Drainage Report (Work Order)
Drainage Master Plan
Conditional Letter of Map Revision (CLOMR)
Letter of Map Revision (LOMR)
Floodplain Development Permit
Traffic Circulation Layout (TCL) – Administrative
Traffic Circulation Layout (TCL) – DFT Approval
Traffic Impact Study (TIS)
Street Light Layout
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

Pad Certification
Building Permit
Grading Permit
Paving Permit
SO-19 Permit
Foundation Permit
Certificate of Occupancy - Temp Perm
Preliminary / Final Plat
Site Plan for Building Permit - DFT
Work Order (DRC)
Release of Financial Guarantee (ROFG)
CLOMR / LOMR
Conceptual TCL - DFT
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

THIS SITE IS UNDER THE EXISTING WINROCK DRAINAGE IMPLEMENTATION PLAN. STORM WATER FROM THIS PORTION OF THE SITE ENTERS THE EXISTING STORM DRAIN SYSTEM WHICH OUTFALLS INTO THE I-40 CHANNEL.

PER THE FEMA MAP NUMBER 35001 C0352G DATED SEPTEMBER 26, 2008 SHOWS THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AREA.

SITE DRAINAGE IS IN ACCORDANCE WITH THE APPROVED WINROCK TOWN CENTER MASTER DRAINAGE PLAN.

DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE APPROVED DRAINAGE MASTER PLAN FOR WINROCK TOWN CENTER AND WINROCK TOWN CENTER PARK DRAINAGE REPORT DATED 1/17/22.

ROAD E PEAK DISCHARGE IS 7.17 CFS WHICH OUTFALLS TO THE LAKE VIA 3 EA 2-FT SIDEWALK CULVERTS LOCATED AT THE LOW POINT WITHIN THE ON STREET PARKING.

THE LAKE OUTFALLS AT ANALYSIS POINT #2 INTO THE EXISTING STORM DRAIN NETWORK VIA A WATER QUALITY OUTLET STRUCTURE DESIGNED BY THE POND CONSULTANT AND AN 18-INCH STORM DRAIN SLOPED AT 0.5%. THE OUTFALL RATE IS 3 CFS.

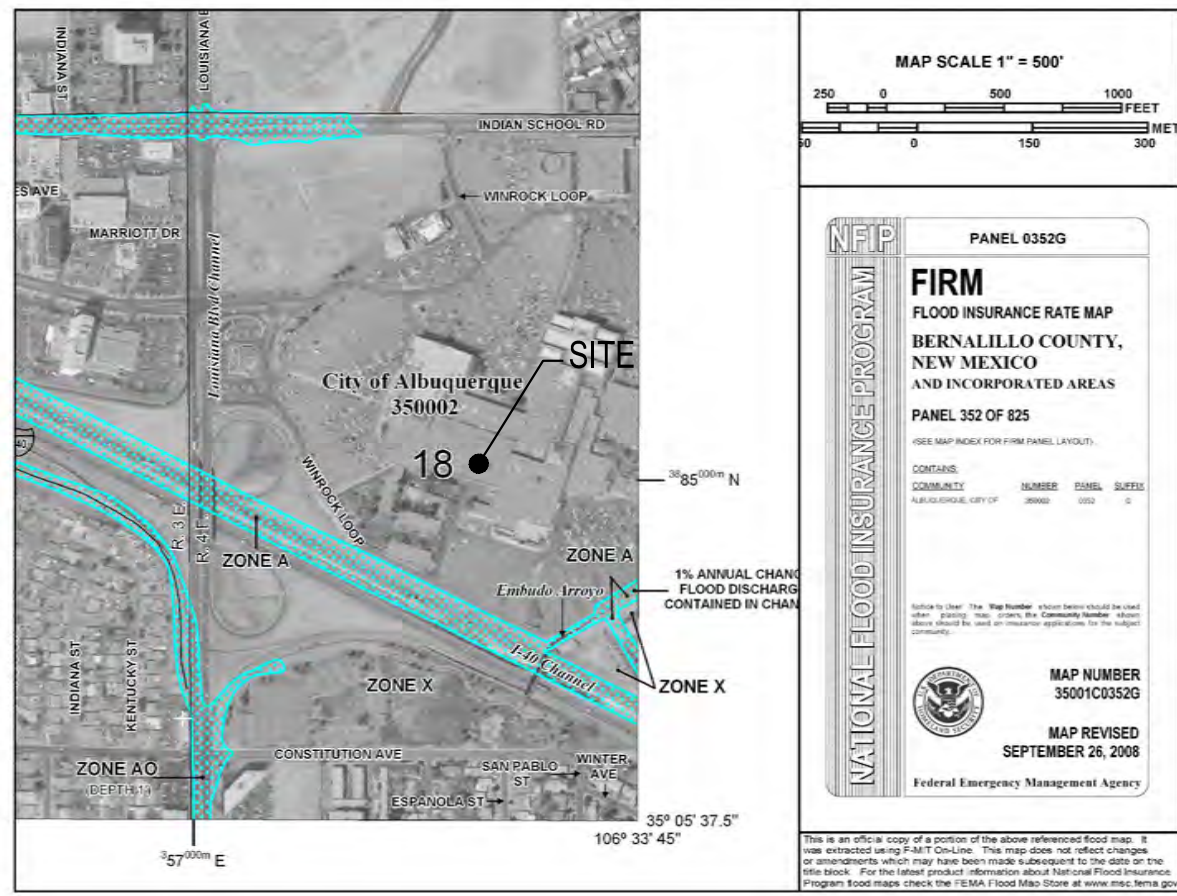
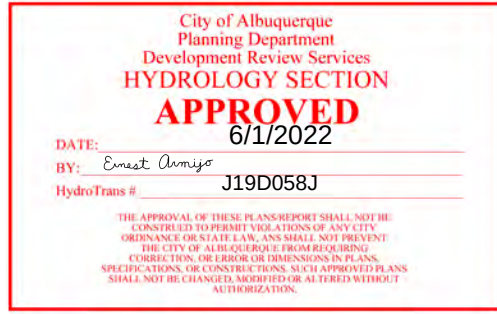
EXISTING SITE IS PARTIALLY PAVED AND THE EXISTING PAVED AREAS DISCHARGE INTO THE EXISTING STORM DRAIN WITHOUT WATER QUALITY.

WATER QUALITY REQUIREMENTS TREATING THE PAVED AREAS.

VOLUME = 111,514 SF * 0.26IN/12 = 2,416 CUBIC FEET

THIS PROJECT ROUTES STORM WATER THROUGH THE PROPOSED LAKE

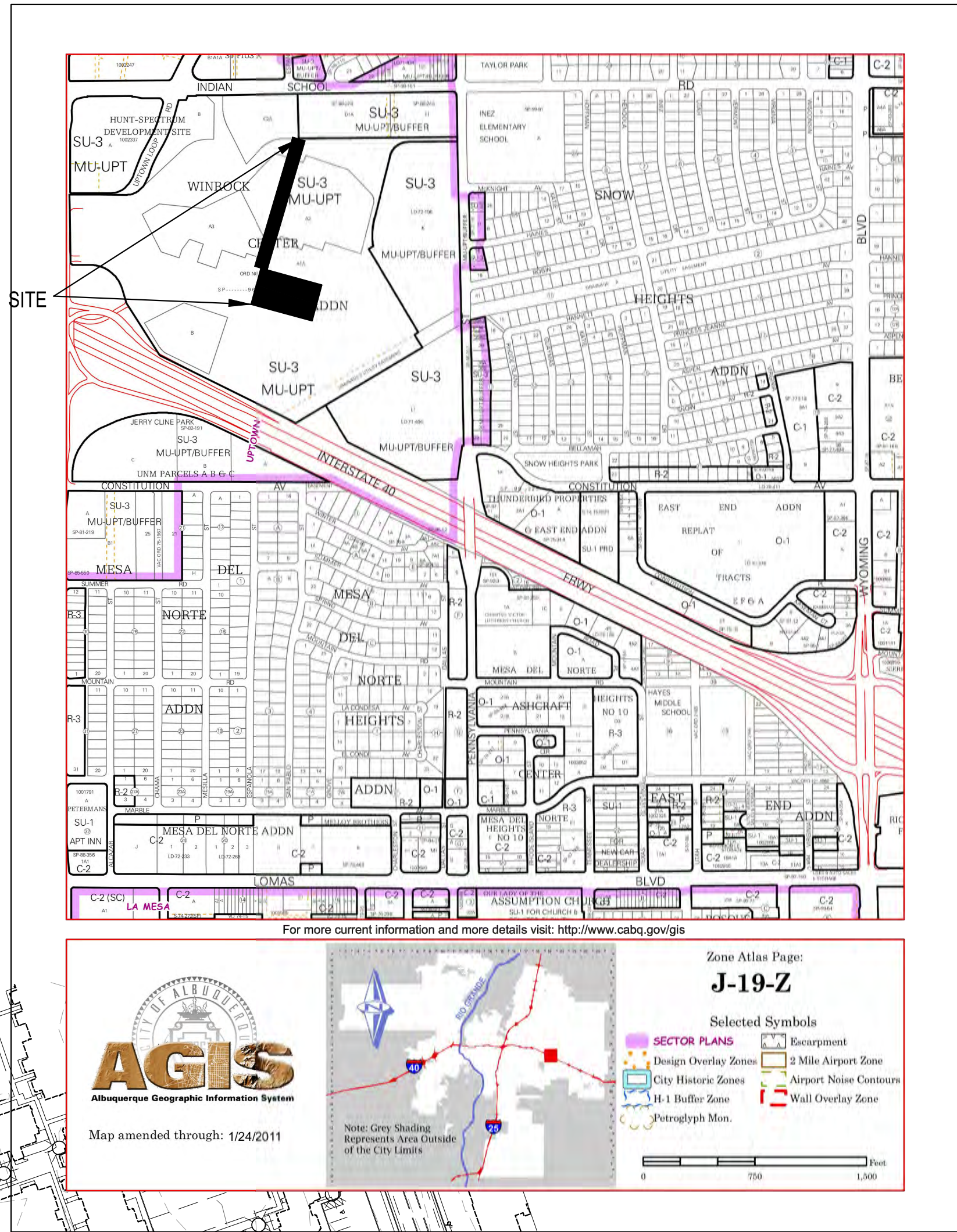
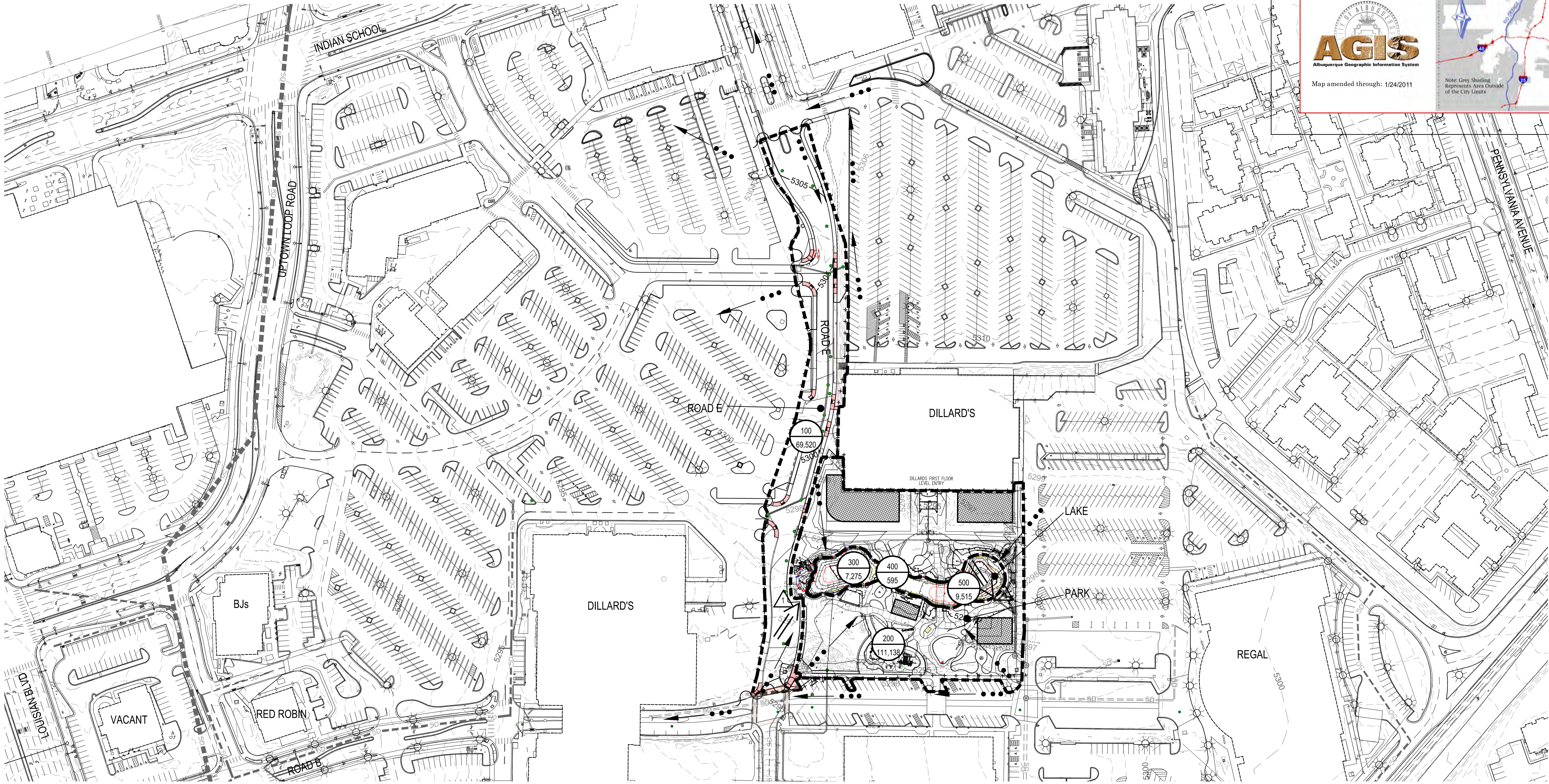
Figure 1: A vertical flow diagram showing the selection of a reference population for a GWAS. The diagram starts with a population of 100 (69,520) with $Q_{100,DEP} = 7.17$ CFS. This is followed by a selection step (triangle 1) leading to a population of 200 (111,138) with $Q_{200,DEP} = 8.92$ CFS. This is followed by a selection step (triangle 2) leading to a population of 300 (7,275) with $Q_{300,DEP} = 0.75$ CFS. This is followed by a selection step (triangle 3) leading to a population of 400 (595) with $Q_{400,DEP} = 0.06$ CFS. This is followed by a selection step (triangle 4) leading to a population of 500 (9,515) with $Q_{500,DEP} = 0.98$ CFS. The final population is 500 (9,515) with $Q_{500,DEP} = 0.98$ CFS.



FIRM PANEL 35001C0352G

Legend for the map symbols:

- BASIN ID
AREA (SF)
- BASIN BOUNDARY
- DISCHARGE LOCATION
- FLOW DIRECTION
- ANALYSIS POINT
- GRADE BREAK
- LIMITS OF DISTURBANCE



DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, of the Firm Huitt-Zollars, Inc., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022, THE RECORD INFORMATION ENTERED INTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED FROM Scott Eddings, NMPE 12856 OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott A. Eddings 4/19/24
Scott A. Eddings, NPE 12856 Date



MEYOR'S CERTIFICATION
 I, **M. STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND MEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE STATE OF UTAH, DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM THE CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS.
 DATED **on April 19, 2024.**



HUITT-ZOLLARS

MODULUS ARCHITECTS

100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE

WINROCK PARK

2100 LOUISIANA BLVD.

PROJECT MANAGER	JOB NO.	DRAWN BY:
-----------------	---------	-----------

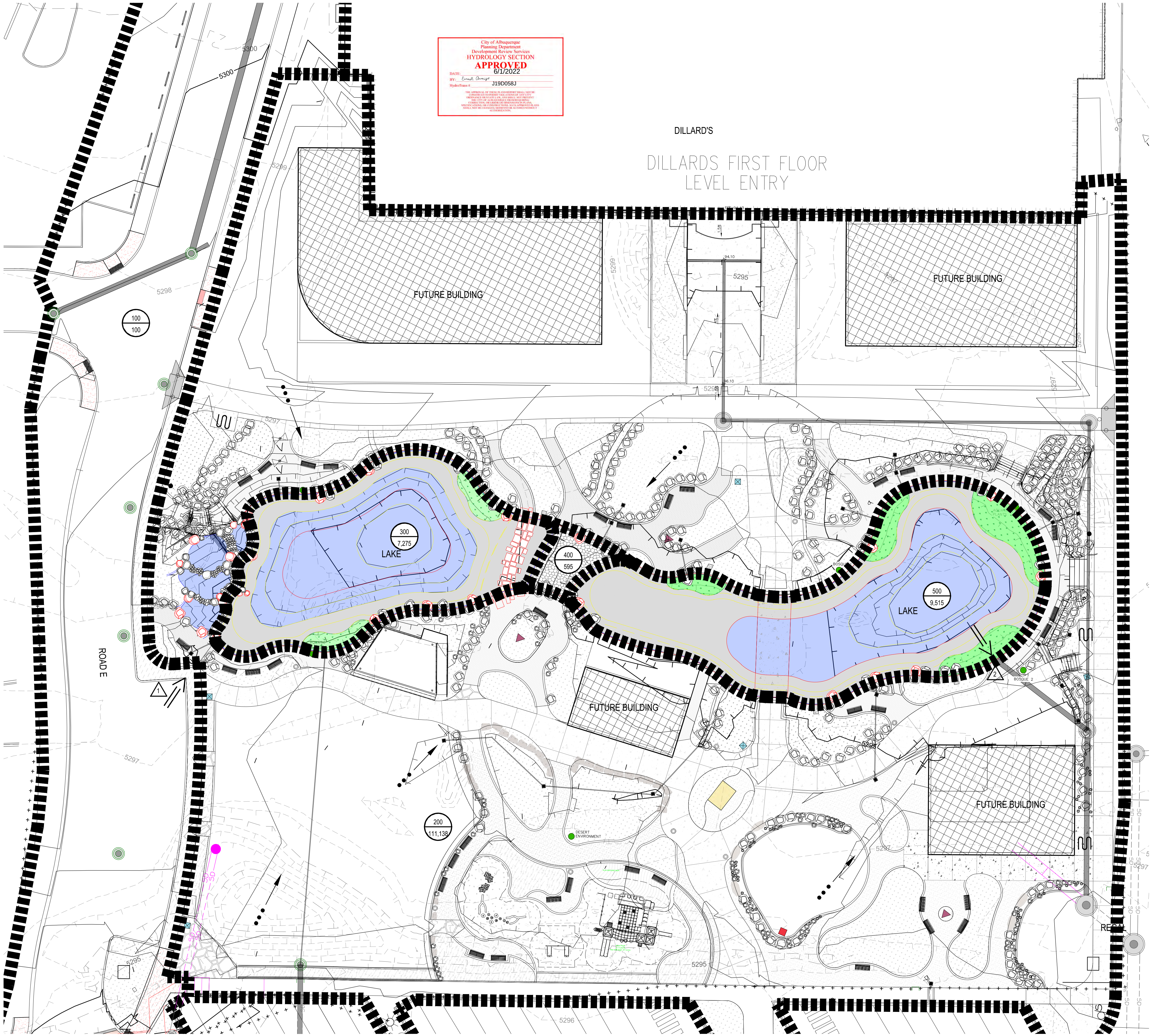
SHEET TITLE

DRAINAGE PLAN

DATE: 4/12/22

SCALE: AS NOTED

sheet-
C100
D



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 6/1/2022
BY: Ernest Chavez 31900583
Hydrologist II

- LEGEND
- BASIN ID: XP-X, X.XX
 - AREA (SF): X.XX
 - ANALYSIS POINT: X
 - BASIN BOUNDARY: - - - - -
 - DISCHARGE LOCATION: <====
 - FLOW DIRECTION: - . . . -
 - GRADE BREAK: ~~~~~
 - LIMITS OF DISTURBANCE: + + + + +

DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, OF THE FIRM Huitt-Zollars, Inc., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Kim Stelzer, NMPS 7482, OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



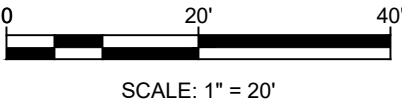
Scott A. Eddings
Scott A. Eddings, NPE 12856
4/19/24
Date

SURVEYOR'S CERTIFICATION
I, KIM STELZER, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF HUITT-ZOLLARS, INC., DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON April 19, 2024.



Pond Overflows to sanitary sewer system not storm drain to comply with ABCWUA direction.

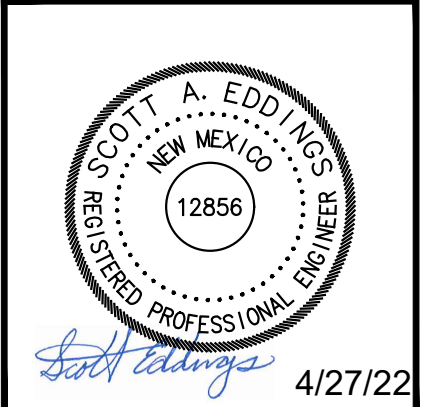
ENLARGED BASIN MAP



HUITT-ZOLLARS

REVISION		BY	DATE

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE WINROCK PARK 2100 LOUISIANA BLVD.			JOB NO.	DRAWN BY:
SHEET TITLE ENLARGED BASIN MAP				

DATE 4/12/22	SHEET C100A
SCALE AS NOTED	

HYDROLOGY - BASIN 100

DRAINAGE AREA 100 AREA = 1.60 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	
TREATMENT B	0.00 ac.	0.00 ac.	
TREATMENT C	0.00 ac.	0.00 ac.	
TREATMENT D	1.60 ac.	1.60 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(1.60)/ 1.60 ac.
= 2.58 in.
V100-360 = (2.58 x(1.60)/ 12 = 0.343131 ac-ft = 14947 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(1.60)= 7.17 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(1.60)/ 1.60 ac.
= 2.58 in.
V100-360 = (2.58 x(1.60)/ 12.0 = 0.343131 ac-ft = 14947 cf

V100-1440 = (0.34)+(1.60 x(2.84 - 2.43)/ 12 = 0.397660 ac-ft = 17322 cf

V100-10day = (0.34)+(1.60 x(4.10 - 2.43)/ 12 = 0.565236 ac-ft = 24622 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(1.60)= 7.17 cfs

HYDROLOGY - BASIN 400

DRAINAGE AREA 400 AREA = 0.01 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	
TREATMENT B	0.00 ac.	0.00 ac.	
TREATMENT C	0.00 ac.	0.00 ac.	
TREATMENT D	0.01 ac.	0.01 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.01)/ 0.01 ac.
= 2.58 in.
V100-360 = (2.58 x(0.01)/ 12 = 0.002937 ac-ft = 128 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.01)= 0.06 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.01)/ 0.01 ac.
= 2.58 in.
V100-360 = (2.58 x(0.01)/ 12.0 = 0.002937 ac-ft = 128 cf

V100-1440 = (0.00)+(0.01 x(2.84 - 2.43)/ 12 = 0.003403 ac-ft = 148 cf

V100-10day = (0.00)+(0.01 x(4.10 - 2.43)/ 12 = 0.004838 ac-ft = 211 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.01)= 0.06 cfs

HYDROLOGY - BASIN 200

DRAINAGE AREA 200 AREA = 2.55 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	
TREATMENT B	2.55 ac.	0.64 ac.	
TREATMENT C	0.00 ac.	0.96 ac.	
TREATMENT D	0.00 ac.	0.96 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(2.55)+(1.09 x(0.00)+(2.58 x(0.00)/ 2.55 ac.
= 0.86 in.
V100-360 = (0.86 x(2.55)/ 12 = 0.182849 ac-ft = 7965 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(2.55)+(3.17 x(0.00)+(4.49 x(0.00)= 6.35 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.64)+(1.09 x(0.96)+(2.58 x(0.96)/ 2.55 ac.
= 1.59 in.
V100-360 = (1.59 x(2.55)/ 12.0 = 0.338323 ac-ft = 14737 cf

V100-1440 = (0.34)+(0.96 x(2.84 - 2.43)/ 12 = 0.371013 ac-ft = 16161 cf

V100-10day = (0.34)+(0.96 x(4.10 - 2.43)/ 12 = 0.471473 ac-ft = 20537 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.64)+(3.17 x(0.96)+(4.49 x(0.96)= 8.92 cfs

HYDROLOGY - BASIN 500

DRAINAGE AREA 500 AREA = 0.22 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	
TREATMENT B	0.00 ac.	0.00 ac.	
TREATMENT C	0.00 ac.	0.00 ac.	
TREATMENT D	0.22 ac.	0.22 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.22)/ 0.22 ac.
= 2.58 in.
V100-360 = (2.58 x(0.22)/ 12 = 0.046963 ac-ft = 2046 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.22)= 0.98 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.22)/ 0.22 ac.
= 2.58 in.
V100-360 = (2.58 x(0.22)/ 12.0 = 0.046963 ac-ft = 2046 cf

V100-1440 = (0.05)+(0.22 x(2.84 - 2.43)/ 12 = 0.054427 ac-ft = 2371 cf

V100-10day = (0.05)+(0.22 x(4.10 - 2.43)/ 12 = 0.077362 ac-ft = 3370 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.22)= 0.98 cfs

HYDROLOGY - BASIN 300

DRAINAGE AREA 300 AREA = 0.17 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.43 in.
1440 = 2.84 in.
10day = 4.10 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.67 in.	1.84 cfs/ac.
TREATMENT B	0.86 in.	2.49 cfs/ac.
TREATMENT C	1.09 in.	3.17 cfs/ac.
TREATMENT D	2.58 in.	4.49 cfs/ac.

EXISTING CONDITIONS:	AREA	PROPOSED CONDITIONS:	AREA
TREATMENT A	0.00 ac.	0.00 ac.	
TREATMENT B	0.00 ac.	0.00 ac.	
TREATMENT C	0.00 ac.	0.00 ac.	
TREATMENT D	0.17 ac.	0.17 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.17)/ 0.17 ac.
= 2.58 in.
V100-360 = (2.58 x(0.17)/ 12 = 0.035907 ac-ft = 1564 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.17)= 0.75 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.67 x(0.00)+(0.86 x(0.00)+(1.09 x(0.00)+(2.58 x(0.17)/ 0.17 ac.
= 2.58 in.
V100-360 = (2.58 x(0.17)/ 12.0 = 0.035907 ac-ft = 1564 cf

V100-1440 = (0.04)+(0.17 x(2.84 - 2.43)/ 12 = 0.041614 ac-ft = 1813 cf

V100-10day = (0.04)+(0.17 x(4.10 - 2.43)/ 12 = 0.059150 ac-ft = 2577 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.84 x(0.00)+(2.49 x(0.00)+(3.17 x(0.00)+(4.49 x(0.17)= 0.75 cfs

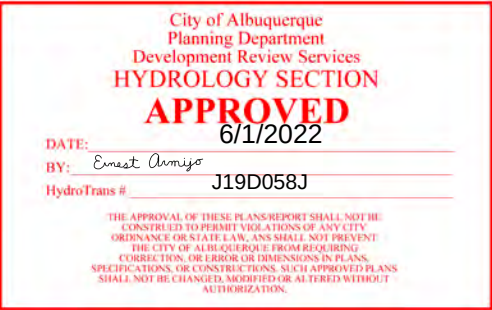
LAKE RAITING CURVE

Lower Lake
Rating Curve
April-22

Elev.	Area	Volume (cu-ft)	Cum Vol	Outlet Q
5292.5	8091	0.00	0.00	0
5293.5	9515	8803.00	8803.00	2
5294.4	10997	10256.00	19059.00	2
5295.5	21424	16210.50	35269.50	2

SIDEWALK CULVERT CAPACITY

Worksheet for Rectangular Channel - 1	
Project Description	
Friction Method	Manning Formula
Solve For	Discharge
Input Data	
Roughness Coefficient	0.013
Channel Slope	0.02000 ft/ft
Normal Depth	0.40 ft
Bottom Width	1.00 ft
Results	
Discharge	2.37 ft ³ /s
Flow Area	0.40 ft ²
Wetted Perimeter	1.80 ft
Hydraulic Radius	0.22 ft
Top Width	1.00 ft
Critical Depth	0.56 ft
Critical Slope	0.00813 ft/ft
Velocity	5.93 ft/s
Velocity Head	0.55 ft
Specific Energy	0.95 ft
Froude Number	1.65
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.40 ft
Critical Depth	0.56 ft
Channel Slope	0.02000 ft/ft
Critical Slope	0.00813 ft/ft

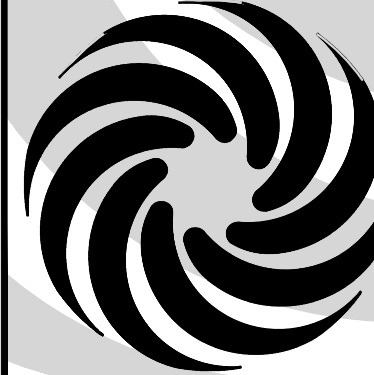


DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, OF THE FIRM Huitt-Zollars, Inc., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Kim Stelzer, NMPS 7482, OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

Scott A. Eddings 4/19/24
Scott A. Eddings, NPE 12856 Date



MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER: [blank]
JOB NO.: [blank]
DRAWN BY: [blank]
SHEET TITLE: HYDROLOGY & HYDRAULICS

DATE: 4/12/22
SCALE: AS NOTED
SHEET: C100B

HUITT-ZOLLARS



CONSTRUCTION NOTES

1. ROUGH CUT LAKE - SEE LAKE PLANS FOR DETAILS
2. EDGE CONDITION- SEE LAKE PLANS
3. BUILDING PAD - OVEREX 4 FEET BELOW FOOTING
4. TRENCH DRAIN AT ENTRY WAY
5. SWALE - DISCHARGE INTO LAKE
6. REMOVE TEMPORARY STORM WATER QUALITY FACILITY
7. LAKE PROVIDES STORM WATER QUALITY FOR WINROCK TOWN CENTER
8. REMOVE EXISTING CURB
9. NOT USED
10. EXISTING CURB OPENING TO REMAIN
11. EXISTING CURB AND GUTTER TO REMAIN
12. INSTALL TYPE C DOUBLE INLET
13. INSTALL TYPE D INLET
14. INSTALL RETAINING WALL, 4' MAX HT, SEE STRUCTURAL



GENERAL NOTES

1. ALL DISTURBED COMMERCIAL LOTS AND NON-RESIDENTIAL LOTS AREAS NOT PROPOSED TO BE IMPROVED SHALL BE STRAW CRIMPED W/ NATIVE SEEDING PER COA SPECIFICATION 1011 & 1012.
2. SEE PLAT FOR LOT DIMENSIONS.
3. EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION FOR THIS PROJECT.
4. CONTRACTOR SHALL PREPARE AND PROCESS DUST CONTROL AND EROSION SEDIMENT CONTROL PLAN THROUGH CITY OF ALBUQUERQUE.
5. THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROJECT.

DRAINAGE CERTIFICATION
I, **Scott Eddings**, NMPE 12856, OF THE FIRM **Huitt-Zollars, Inc.** HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 22, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY **Kim Stelzer**, NMPS 7482, OF THE FIRM **Huitt-Zollars, Inc.** I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott Eddings
Scott A. Eddings, NPE 12856
4/19/24
Date

SURVEYOR'S CERTIFICATION
I, **KIM STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF **HUITT-ZOLLARS, INC.** DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON April 19, 2024.

Kim C. Stelzer
KIM C. STELZER
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
7482

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

SCOTT A. EDDINGS
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
12856
Scott Eddings

6/29/23
4/27/22

PROJECT TITLE
WINROCK PARK
2100 LOUISIANA BLVD.

PROJECT NUMBER
JOB NO.

DRAWN BY:
DATE
4/12/22

SCALE
AS NOTED

REVISION
BY
DATE
6/29/23

SE
ADD RETAINING WALL AND STORM DRAIN INLETS

SHEET TITLE
PARK GRADING PLAN

C101

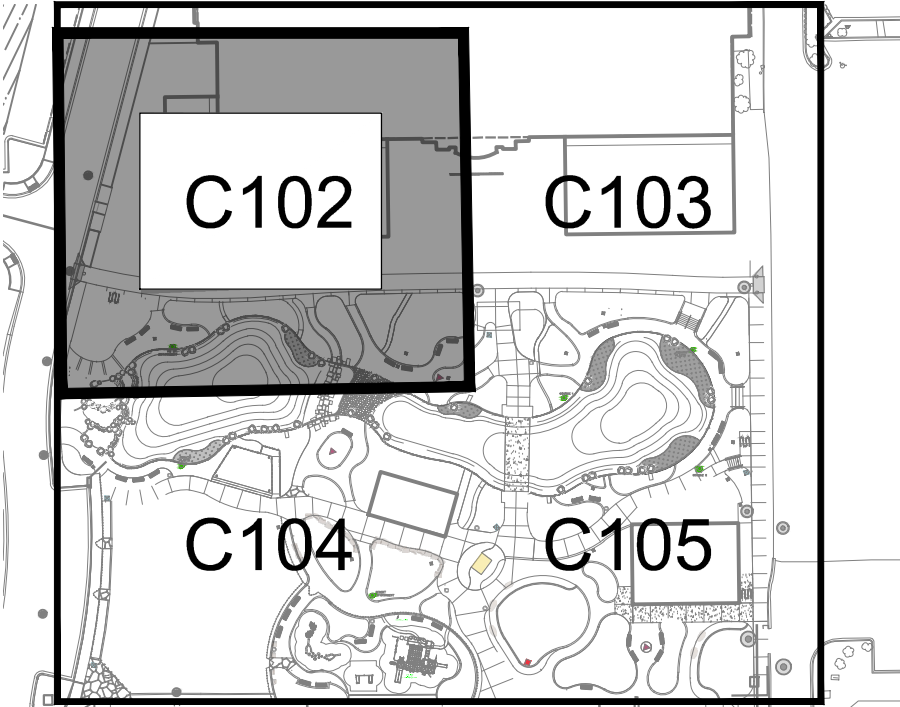
DRAINAGE CERTIFICATION
I, **Scott Eddings**, NMPE 12856, OF THE FIRM **Huitt-Zollars, Inc.**, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED **April 27, 2022**. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY **Kim Stelzer**, NMPS 7482, OF THE FIRM **Huitt-Zollars, Inc.**. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON **April 19, 2024** AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HERON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENTA RE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



Scott Eddings
Scott A. Eddings, NPE 12856
4/19/24
Date

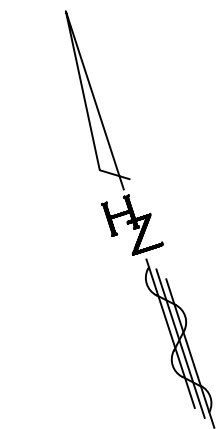
SURVEYOR'S CERTIFICATON
I, **KIM STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF **HUITT-ZOLLARS, INC.**, DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON **April 19, 2024**.



GRADING SHEET INDEX



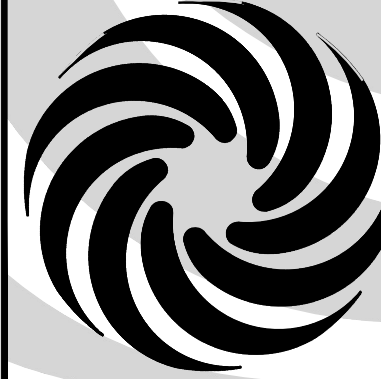
- LEGEND**
- 5050 EXISTING (INDEX) CONTOUR
 - 5251 EXISTING (INTERMEDIATE) CONTOUR
 - 5040 PROPOSED (INDEX) CONTOUR
 - 5041 PROPOSED (INTERMEDIATE) CONTOUR
 - WATER BLOCK
 - NEW CURB & GUTTER
 - FUTURE CURB & GUTTER
 - XX.XXTP TOP OF PAVEMENT
 - XX.XXTC TOP OF CURB ELEVATION
 - XX.XXFL FLOW LINE ELEVATION
 - XX.XXTOC TOP OF CONCRETE
 - FLOW DIRECTION
 - GRADING LIMITS
 - 6" - 8" ROCK
 - GRAVEL MULCH
 - SLOPE STABILIZATION
 - GRAVEL BASE COURSE ROAD



0 10' 20'
SCALE: 1" = 10'

HUITT-ZOLLARS

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE
WINROCK PARK
2100 LOUISIANA BLVD.

DRAWN BY:
JOB NO.

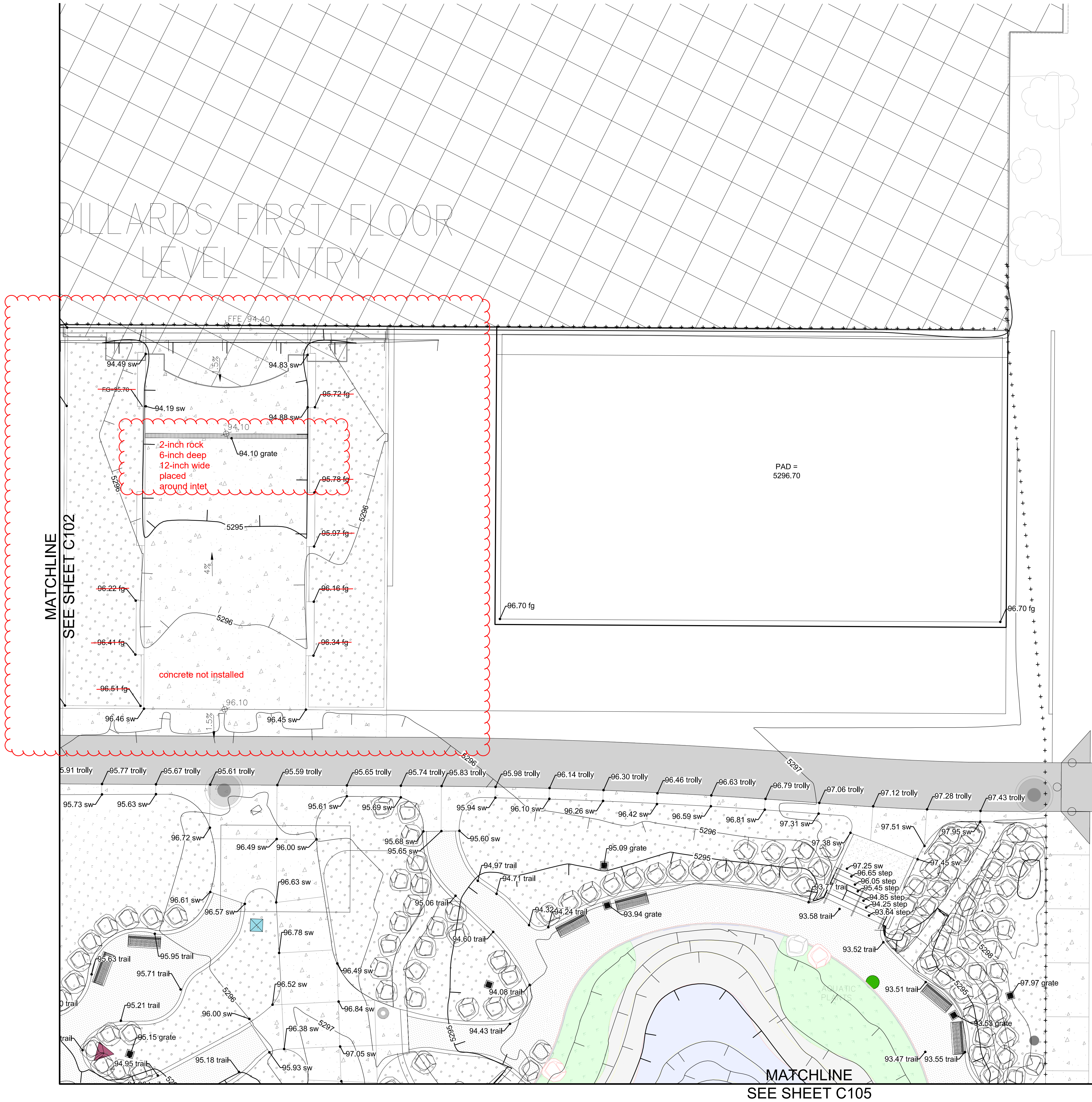
PROJECT MANAGER

SHEET TITLE
PARK GRADING ENLARGEMENT

DATE
4/12/22

SCALE
AS NOTED

SHEET
C102



GRADING SHEET INDEX

DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, OF THE FIRM Huitt-Zollars, Inc. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Kim Stelzer, NMPS 7482, OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott Eddings 4/19/24
Scott A. Eddings, NPE 12856 Date

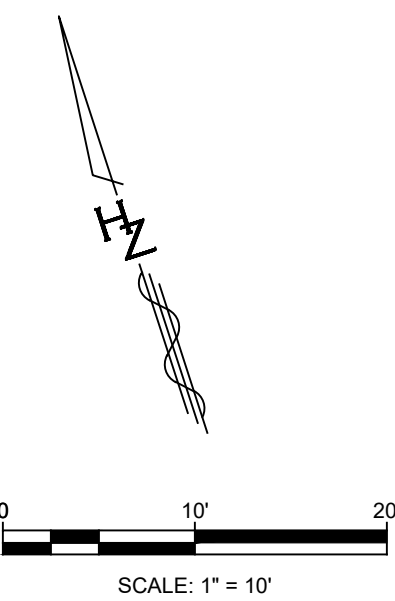


SURVEYOR'S CERTIFICATION
I, KIM STELZER, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF HUITT-ZOLLARS, INC. DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON April 19, 2024.



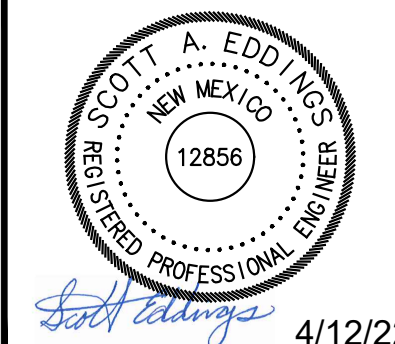
LEGEND

- 5050 EXISTING (INDEX) CONTOUR
- 5251 EXISTING (INTERMEDIATE) CONTOUR
- 5040 PROPOSED (INDEX) CONTOUR
- 5041 PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- XX.XXTP TOP OF PAVEMENT
- XX.XXTC TOP OF CURB ELEVATION
- XX.XXFL FLOW LINE ELEVATION
- XX.XXTOC TOP OF CONCRETE
- ... FLOW DIRECTION
- ++ ++ GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
- SLOPE STABILIZATION
- GRAVEL BASE COURSE ROAD



ENLARGEMENT - NORTHEAST QUADRANT
SCALE: 1" = 10'

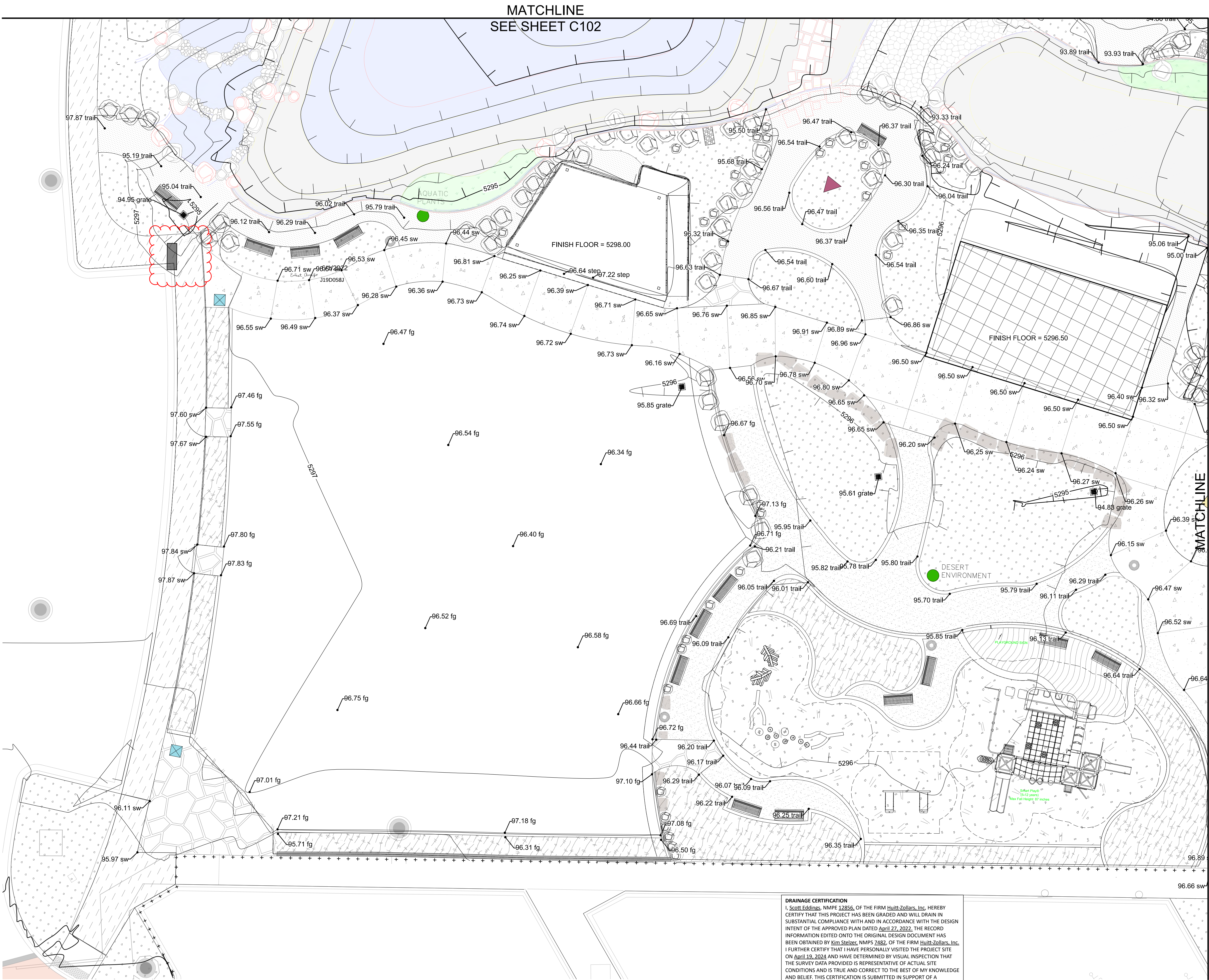
MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT NUMBER: 2100 LOUISIANA
JOB NO.: 2100 LOUISIANA
DRAWN BY: JES
SHEET TITLE: PARK GRADING ENLARGEMENT

DATE: 4/12/22
SCALE: AS NOTED
SHEET: C103

REV	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			



ENLARGEMENT - SOUTHWEST QUADRANT
SCALE: 1" = 10'

DRAINAGE CERTIFICATION
I, **Scott A. Eddings**, NMP# 12856, OF THE FIRM **Huitt-Zollars, Inc.**, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED **April 22, 2022**. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY **Kim Stelzer**, NMP# 7482, OF THE FIRM **Huitt-Zollars, Inc.** I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON **April 19, 2024** AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

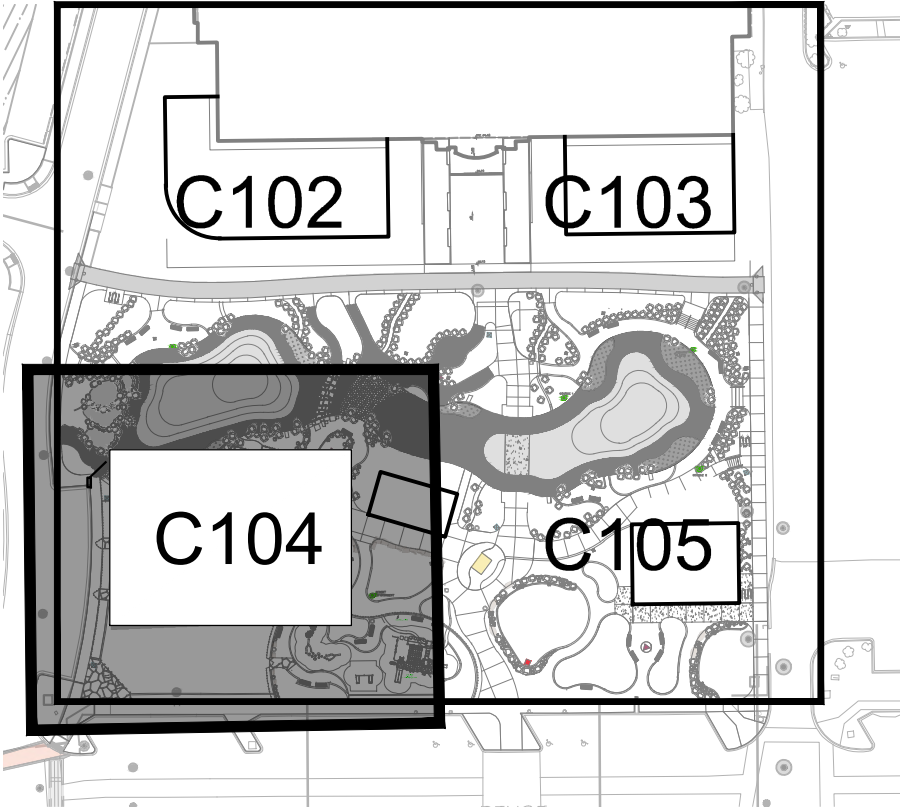
THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott A. Eddings
Scott A. Eddings, NPE 12856 Date 4/19/24



SURVEYOR'S CERTIFICATION
I, **KIM STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF **HUITT-ZOLLARS, INC.**, DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON **April 19, 2024**.



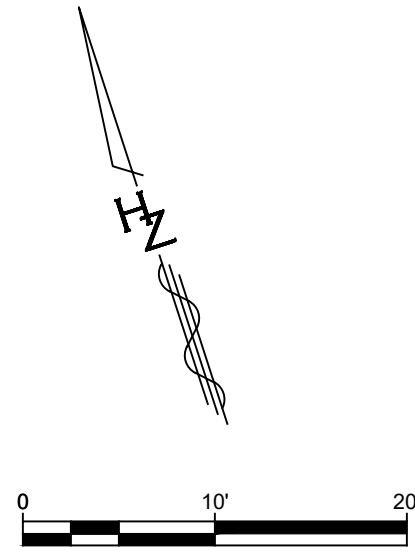


GRADING SHEET INDEX



LEGEND

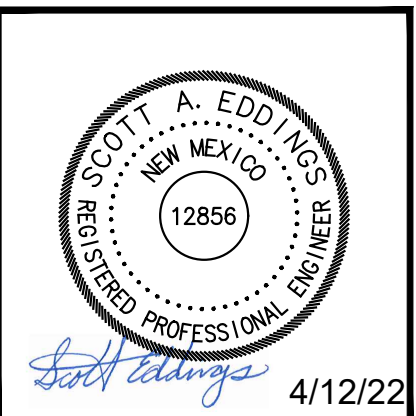
- EXISTING (INDEX) CONTOUR
- EXISTING (INTERMEDIATE) CONTOUR
- PROPOSED (INDEX) CONTOUR
- PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- TOP OF PAVEMENT
- TOP OF CURB ELEVATION
- TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
- SLOPE STABILIZATION
- GRAVEL BASE COURSE ROAD



HUITT-ZOLLARS

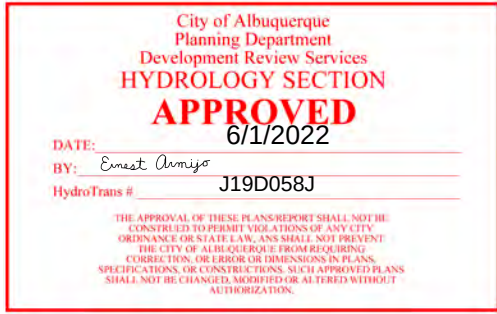
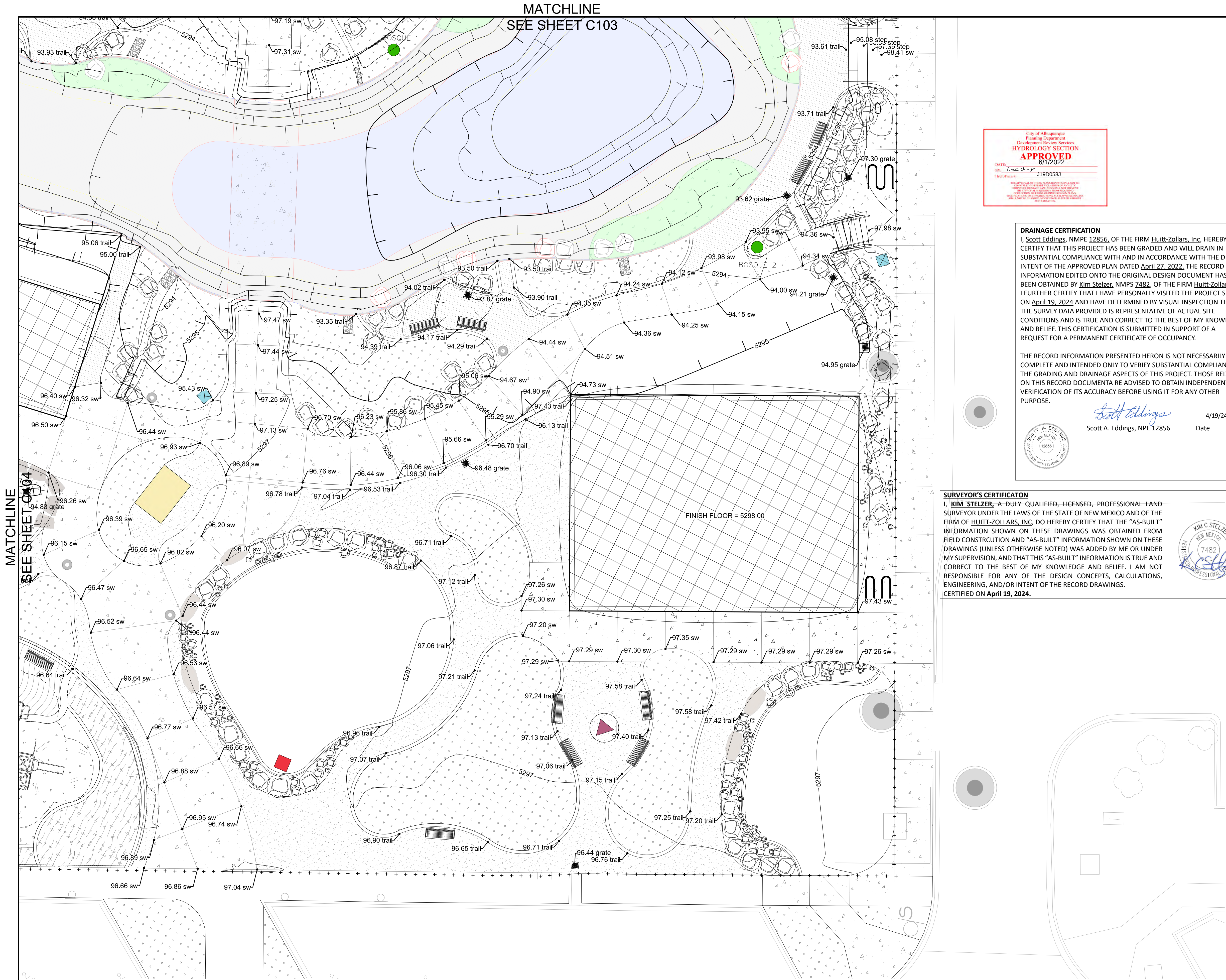
REV	DATE	BY	REVISION

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498



PROJECT TITLE WINROCK PARK 2100 LOUISIANA BLVD.	DRAWN BY: JCS	SHEET TITLE PARK GRADING ENLARGEMENT
---	------------------	---

DATE 4/12/22	SHEET C104
SCALE AS NOTED	



DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, OF THE FIRM Huitt-Zollars, Inc. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Kim Stelzer, NMPS 7482, OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott Eddings 4/19/24
Scott A. Eddings, NPE 12856 Date



SURVEYOR'S CERTIFICATION
I, **KIM STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF **HUITT-ZOLLARS, INC.**, DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON April 19, 2024.

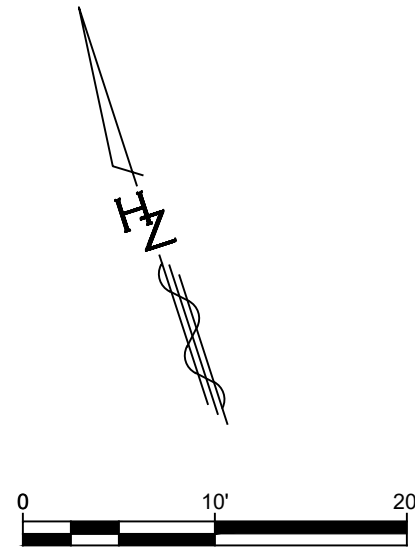


GRADING SHEET INDEX



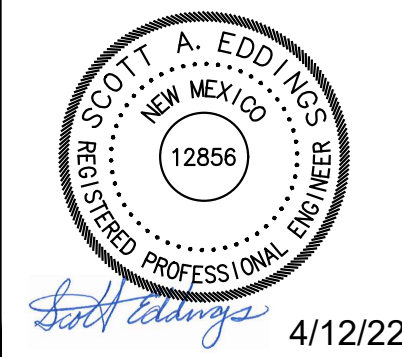
LEGEND

- 5050 EXISTING (INDEX) CONTOUR
- 5251 EXISTING (INTERMEDIATE) CONTOUR
- 5040 PROPOSED (INDEX) CONTOUR
- 5041 PROPOSED (INTERMEDIATE) CONTOUR
- WATER BLOCK
- NEW CURB & GUTTER
- FUTURE CURB & GUTTER
- XX.XTTP TOP OF PAVEMENT
- XX.XXTC TOP OF CURB ELEVATION
- XX.XXFL FLOW LINE ELEVATION
- XX.XXTOC TOP OF CONCRETE
- FLOW DIRECTION
- GRADING LIMITS
- 6" - 8" ROCK
- GRAVEL MULCH
- SLOPE STABILIZATION
- GRAVEL BASE COURSE ROAD



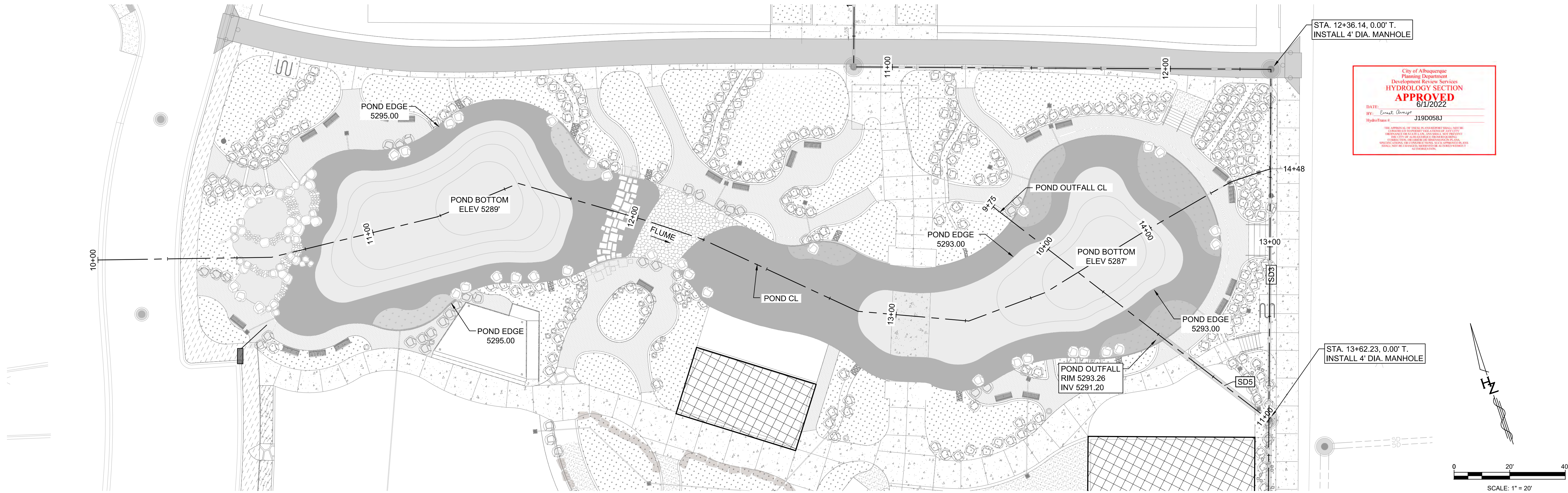
ENLARGEMENT - SOUTHEAST QUADRANT
SCALE: 1" = 10'

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

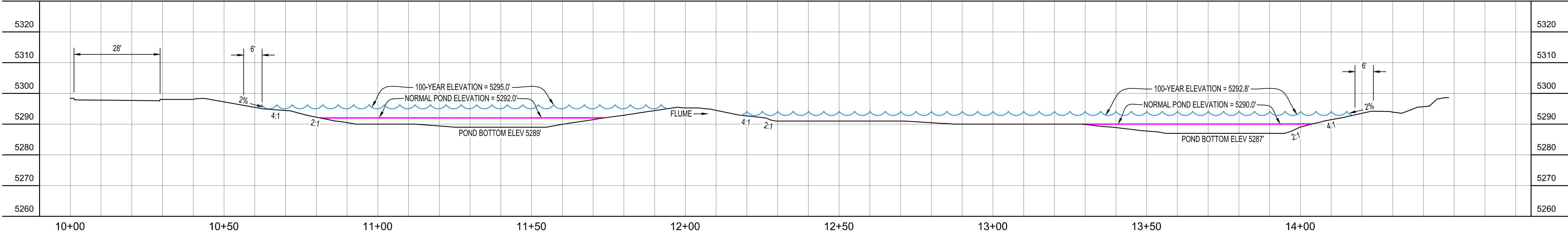


PROJECT TITLE: WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER: JESSICA HUGHES
DRAWN BY: JESSICA HUGHES
JOB NO.: 24-001
SHEET TITLE: PARK GRADING ENLARGEMENT

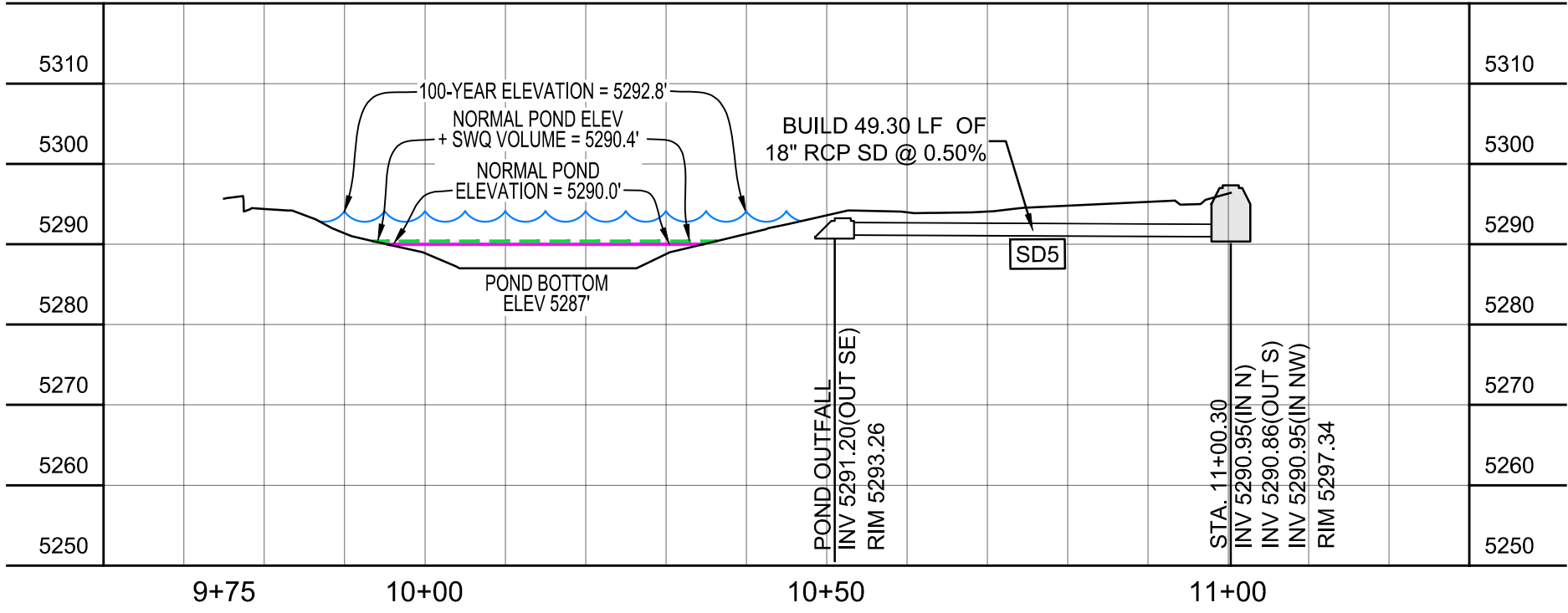
DATE: 4/12/22
SCALE: AS NOTED
SHEET: C105



POND PLAN VIEW



POND CL SECTION



POND OUTFALL CL SECTION

DRAINAGE CERTIFICATION
I, **Scott Eddings**, NMPE 12856, OF THE FIRM Huitt-Zollars, Inc. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Kim Stelzer, NMPS 7482, OF THE FIRM Huitt-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HERON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENTA RE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott Eddings 4/19/24
Scott A. Eddings, NPE 12856 Date

SURVEYOR'S CERTIFICATION
I, **KIM STELZER**, A DULY QUALIFIED, LICENSED, PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO AND OF THE FIRM OF HUITT-ZOLLARS, INC. DO HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM FIELD CONSTRUCTION AND "AS-BUILT" INFORMATION SHOWN ON THESE DRAWINGS (UNLESS OTHERWISE NOTED) WAS ADDED BY ME OR UNDER MY SUPERVISION, AND THAT THIS "AS-BUILT" INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I AM NOT RESPONSIBLE FOR ANY OF THE DESIGN CONCEPTS, CALCULATIONS, ENGINEERING, AND/OR INTENT OF THE RECORD DRAWINGS. CERTIFIED ON April 19, 2024.

Kim C. Stelzer
KIM C. STELZER
NEW MEXICO
REGISTERED
7482
PROFESSIONAL
LAND SURVEYOR

REV	DATE	BY	REVISION
1	4/12/22		
2			
3			
4			
5			
6			
7			
8			
9			
10			

MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 600
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

SCOTT A. EDDINGS
NEW MEXICO
REGISTERED
12856
PROFESSIONAL
ENGINEER
Scott Eddings 4/27/22

WINROCK PARK
2100 LOUISIANA BLVD.
PROJECT MANAGER
PROJECT NO.
DRAWN BY:
SHEET TITLE
POND SECTIONS

DATE: 4/12/22
SCALE: AS NOTED
SHEET: C101A

Developed Basin Summary for Winrock Park			
Basin	Area (SF)	Q (CFS)	V (AC-FT)
100	69520	7.2	0.398
300	7275	0.8	0.040
Total Flow into Upper Pond =		8.0	0.44
200	111136	8.9	0.370
400	595	0.1	0.003
500	9515	1.0	0.054
Total Flow into Lower Pond =		10.0	0.43

Upper Pond Rating Curve

Depth (ft)	Area		Volume (ac-ft)	Cumulative Volume (ac-ft)	Flume Outlet (cfs)
	(sq ft)	(ac)			
5289	615	0.014	0	0	0.0
5290	1864	0.043	0.028	0.028	0.0
5291	2815	0.065	0.054	0.082	0.0
5292	3857	0.089	0.077	0.159	0.0
5293	5136	0.118	0.103	0.262	0.0
5294	5977	0.137	0.128	0.390	0.0
5295	7195	0.165	0.151	0.541	0.0
5295.5	7319	0.168	0.083	0.624	25.7

Lower Pond Rating Curve

Depth (ft)	Area		Volume (ac-ft)	Cumulative Volume (ac-ft)	18" Outlet Pipe (cfs)
	(sq ft)	(ac)			
5287	805	0.018	0	0	0.0
5288	1661	0.038	0.028	0.028	0.0
5289	3706	0.085	0.062	0.090	0.0
5290	6128	0.141	0.113	0.203	0.0
5291	7168	0.165	0.153	0.355	0.0
5292	8162	0.187	0.176	0.531	1.9
5293	9674	0.222	0.205	0.736	8.7
5294	10786	0.248	0.235	0.971	12.2

The flow volume generated from the contributing basins into Winrock Park is less than the total pond capacity, therefore, the ponds will primarily act as retention ponds for the 100-year storm event. Please refer to the table below for a summary of the pond characteristics.

Winrock Park Ponds	
Upper Pond Capacity @ 5295	0.54 AC-FT
Upper Pond Normal Volume @ 5292	0.16 AC-FT
Upper Pond 100-Year Volume	0.60 AC-FT
Excess Volume to Lower Pond through Flume	0.06 AC-FT
Upper Pond Bottom Elevation	5289.0
Upper Pond Top Elevation	5295.0
Upper Pond 100-Year Max. Elevation	5295.5
Upper Pond Outlet Elevation (Flume)	5295.0
Upper Pond 100-Year Outflow	25.7 CFS
Lower Pond Capacity @ 5294	0.97 AC-FT
Lower Pond Normal Volume @ 5290	0.20 AC-FT
Lower Pond 100-Year Volume	0.69 AC-FT
Lower Pond Bottom Elevation	5287.0
Lower Pond Top Elevation	5294.0
Lower Pond 100-Year Max. Elevation	5292.8
Lower Pond Outlet Elevation (18" Pipe)	5291.2
Lower Pond 100-Year Outflow	7.8 CFS
Stormwater Quality Volume Required	0.06 AC-FT
Normal Volume + SWQ Volume @ 5290.4	0.26 AC-FT

DRAINAGE CERTIFICATION
I, Scott Eddings, NMPE 12856, OF THE FIRM Hult-Zollars, Inc. HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED April 27, 2022. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Ken Stelzer, NMPS 7282, OF THE FIRM Hult-Zollars, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON April 19, 2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR A PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Scott A. Eddings, NPE 12856
Date 4/19/24



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
6/1/2022
DATE: _____
BY: Ernest Amigo
HydroTrans # J19D058J

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, DELETION OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.