City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Utility Trailer Sales Building Permit #: _____ Hydrology File #: _____

DRB#: 1008585 EPC#: 18-EPC-40004 Work Order#: _____

Legal Description: Tract 3 Plat of TRS 1 Thru 12 Avalon Subdivision Unit 5

City Address: 8201 Daytona Rd NW Albuquerque NM 87121

Applicant: Tierra West, LLC Contact: Vince Carrica

Address: 5571 Midway Park Place NE Albuquerque NM 87109

Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: vcarrica@tierrawestllc.com

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

_X_ HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
_X_ GRADING PLAN
____ DRAINAGE MASTER PLAN
_X_ DRAINAGE REPORT
____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: _X_ Yes ____ No

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_X_ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
_X_ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL

____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR

____ **PRE-DESIGN MEETING?**

____ OTHER (SPECIFY) _____

DATE SUBMITTED: 5/07/2018 By: Vince Carrica

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

TIERRA WEST, LLC

5571 Midway Park Pl. NE Albuquerque, NM 87109
(505) 858-3100 fax (505) 858-1118 1-800-245-3102
tierrawestllc.com

May 01, 2018

Mr. Dana Peterson
PO Box 1293
Albuquerque, NM 87103

RE: UTILITY TRAILER SALES
8201 DAYTONA RD NW
GRADING AND DRAINAGE PLAN
ENGINEERS STAMP DATE: 3/27/18
HYDROLOGY FILE: K09D026B

Dear Mr. Peterson:

Please find the following responses addressing your comments listed below:

Prior to Site Plan for Building Permit:

1. The site must demonstrate adequate downstream capacity per 14-5-2-12(G) of the Albuquerque Code of Ordinances. Please refer to the 2013 Amole-Hubbell drainage report, Basin 202.2 for guidance relating to the development of this site.
   Response: The I-40 South Unser Mini DMP (K09D026) Analysis Point AP-1.1 shows a flow rate at the subject site's SE corner for the 100 year design storm under developed conditions equal to 66.5 cfs. As shown in the calculations provided with this drainage report, the capacity of the storm drain at that location is 78 cfs. Development within the subject site is being developed at a lower impervious percentage than was used in the Mini DMP and the remaining sites upstream will most likely do the same. Also, the Mini DMP was prepared prior to the City's first flush requirement to retain the runoff from 0.44" storm events. Therefor the 66.5 cfs noted in the Mini DMP is conservative and is being met with existing and proposed storm drain improvements.

2. Provide the subbasin delineation map.
   Response: Subbasin delineation map has been included in the report.

3. How are offsite flows from I-40 and remnant Mirehaven Arroyo being conveyed through your site?
   Response: Upland flows from the I-40 right of way to the north is conveyed east in the existing drainage swale and captured by the existing sediment and existing storm drain in the NE corner of the Utility Trailer Sales site. Upland flows from the remnant Mirehaven Arroyo are conveyed in a swale along the west property line in the adjacent tract to Daytona. A sediment pond is proposed to be located just outside the Daytona right of way. Flows from the sediment pond will discharge to the proposed Daytona Roadway.

4. If any work in the NMDOT ROW is proposed, then written concurrence must be obtained from NMDOT D3 Drainage. Please contact Tim Trujillo P.E. (TimothyR.Trujillo@state.nm.us).

Response: The riprap rundown and sediment pond located in the NE corner of the site are existing. No work within the Interstate 40 right-of-way is planned.

5. Clearly show on plans the limits of construction, areas of new impervious, existing and proposed topo.
   Response: Plans have been modified to clearly identify construction and impervious areas. Existing contours were also added to the plan.

6. All required drainage infrastructure improvements need to be sized and calculations provided; all improvements need to be shown on the plan. Adequate conveyance needs to be provided for the upstream developed conditions in accordance with the 2013 Amole-Hubbell drainage report.
   Response: Drainage improvements were sized to handle developed flows. Calculations are provided in appendix. See response for comment #1 above for meeting upstream developed conditions.

7. The grading plan needs to be stamped.
   Response: The grading plan is stamped and signed.

8. Include project benchmark and datum.
   Response: A benchmark and datum was added to the plan.

9. Onsite first flush ponds and any other on-site drainage facilities need to be sized and hydraulic calculations provided.
   Response: calculations for sizes and required capacities are shown within the appendix of the drainage report.

10. Provide written permission from the adjoining property (Tract 2) for work on their property.
    Response: We will provide written permission from adjacent property owner for grading within their property.

11. Either a recorded SIA with financial guarantee or close-out of the public work order will be required prior to final sign off of the Site Plan.
    Response: An engineer's estimate and an SIA will be provided upon approval of the infrastructure list as required by DRC. A copy of the proposed infrastructure list is attached.

Prior to Building Permit

12. This project will require an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PS, ccherne@cabq.gov or 924-3420). The plan included with this submittal should be submitted separately to Curtis.
    Response: The ESC plan has been submitted directly to the Stormwater Quality Engineer.

13. A Drainage Covenant will be required for the stormwater quality ponds. The original notarized form, exhibit A (legible on 8.5 x 11paper), and recording fee($25, payable to City of Albuquerque) must be turned into DRC (4th Plaza del Sol) for routing. Please

contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.
Response: Drainage Covenants will be recorded for all required stormwater quality ponds.

14. Additional comments will likely be provided at Building Permit, based on the outcome of the above remarks and level of detail shown on plan.
Response: Understood

Prior to Certificate Occupancy

15. The Drainage Covenant will need to be recorded with Bernalillo County and a copy included with the drainage certification.
Response: Understood

If you have any questions or need additional information regarding this matter, please do not hesitate to contact me.

Sincerely,

Vincent Carrica, PE

JN: 2017041
VPC/kw

DRAINAGE REPORT

For

8201 Daytona Rd.
ALBUQUERQUE, NEW MEXICO

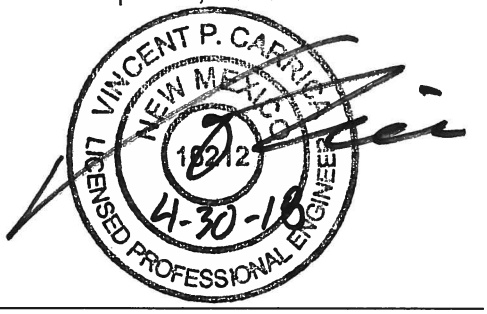
Prepared by

Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, New Mexico 87109

Prepared for

Utility Trailer Sales
Albuquerque, NM

April 30, 2018



VINCENT CARRICA, PE #16212

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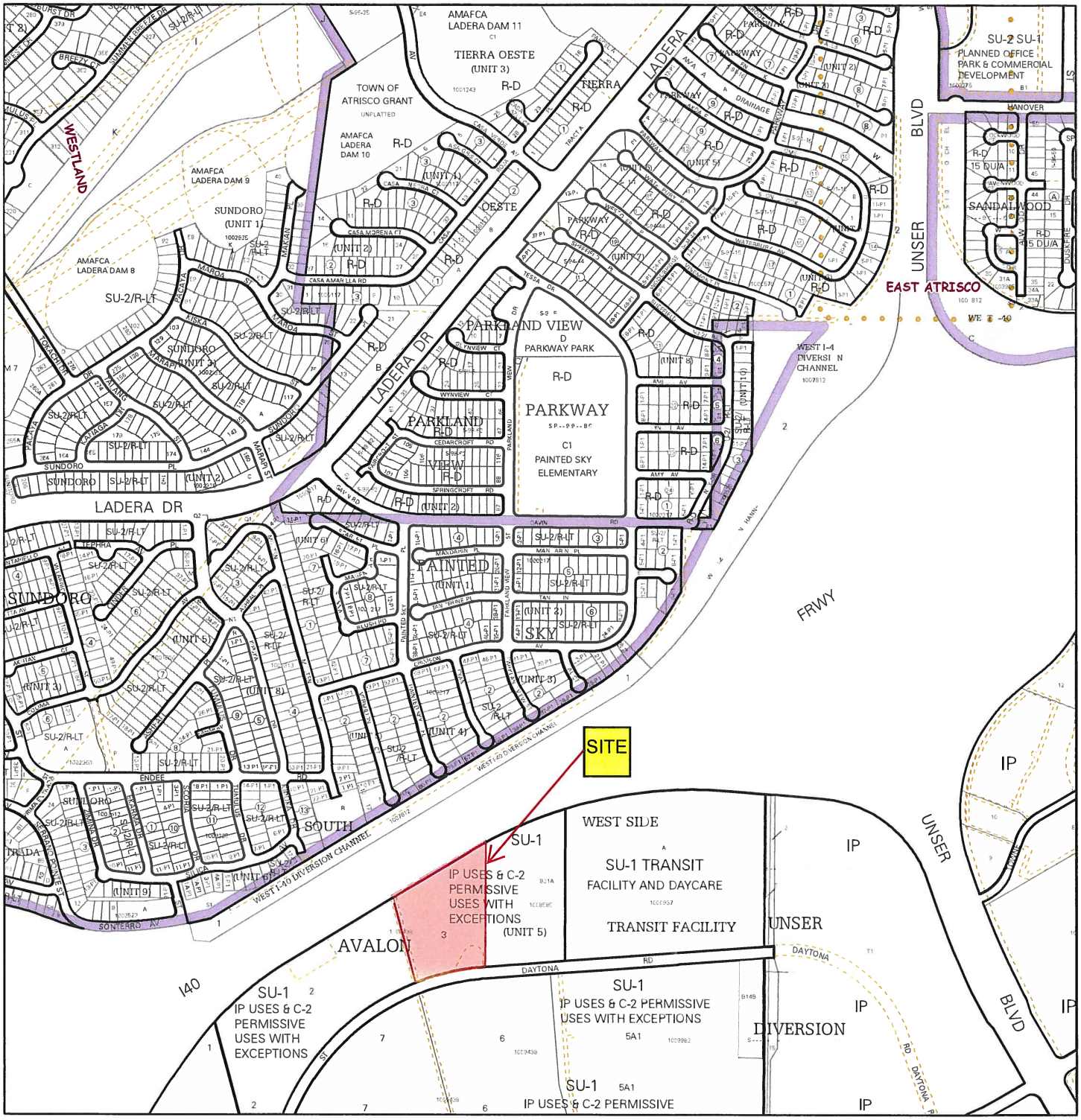
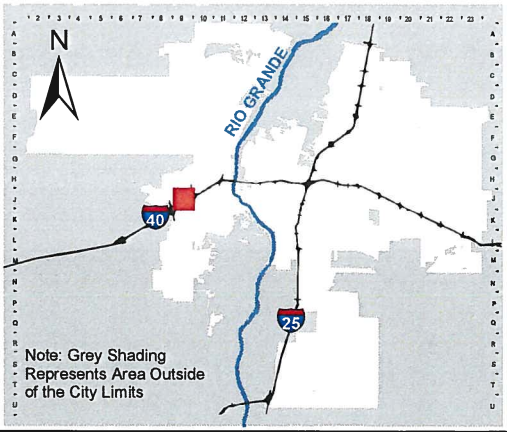


For more current information and details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 1/28/2016



Zone Atlas Page:

J-09-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

LOCATION

The proposed commercial development is located off Daytona Rd south of Interstate 40 and west of Unser Blvd in southwest Albuquerque. It is comprised of approximately 5.52 acres zoned SU-1 for IP uses. This report represents a drainage management and grading plan for approval by the City of Albuquerque, for grading and Building Permit submittal.

DRAINAGE BASIN DESIGNATION

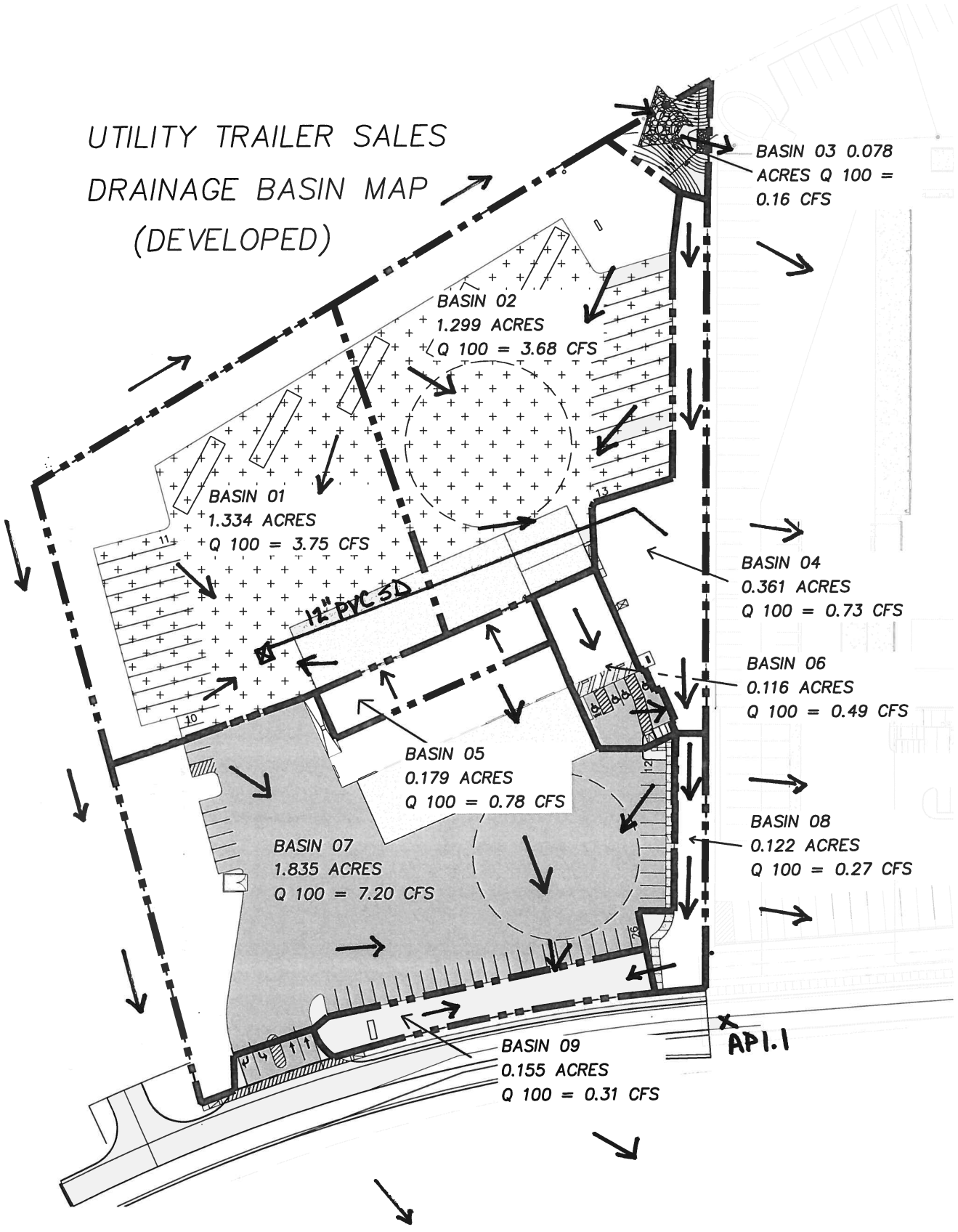
The drainage basins for proposed conditions are as indicated on the BASIN MAP included in this report. The site is broken into nine onsite drainage basins.

EXISTING DRAINGE CONDITIONS

The site is currently vacant with the exception of a roadway turnaround. It drains predominantly northwest to southeast and is elevated approximately eight feet above the developed property to the east. An existing drainage way and desilting pond exists in the northeast corner of the site that channels runoff from the Interstate to an existing storm drain in the adjacent property. Runoff from north of the upland is captured in the AMAFCA North I-40 Diversion system. That diversion system removes the bulk of the contributing area to the two arroyos that run diagonally through the site from northwest to south east. Runoff from the existing site is conveyed to the Unser Diversion Pond system via street flow and an existing storm drain in Daytona Rd.

FIRM MAP

AMAFCA completed a LOMR to adjust the FEMA mapping for this area (LOMR 17-06-0267P Effective 11/28/2016). The site is no longer located in a designated Flood Hazard Zone Map No. 35001C0328J dated 11/4/2016.


UTILITY TRAILER SALES
DRAINAGE BASIN MAP
(DEVELOPED)
BASIN 03 0.078 ACRES Q 100 = 0.16 CFS
BASIN 02
1.299 ACRES
Q 100 = 3.68 CFS
BASIN 01
1.334 ACRES
Q 100 = 3.75 CFS
12" PVC SD
BASIN 04
0.361 ACRES
Q 100 = 0.73 CFS
BASIN 06
0.116 ACRES
Q 100 = 0.49 CFS
BASIN 05
0.179 ACRES
Q 100 = 0.78 CFS
BASIN 07
1.835 ACRES
Q 100 = 7.20 CFS
BASIN 08
0.122 ACRES
Q 100 = 0.27 CFS
BASIN 09
0.155 ACRES
Q 100 = 0.31 CFS
AP1.1

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/27/2018 at 10:17:25 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

DESIGN-CRITERIA

The drainage plan presented in this report was prepared in accordance with the City of Albuquerque Drainage Ordinances and Chapter 22 of the Development Process Manual DPM. The hydrological analysis is based on the 100-year frequency, 6-hour duration storm, as Represented in Section 22, Part A, Hydrology, of the Development Process Manual. The plan will also include retention of the first flush in on-site landscaped areas. See attached Weighted E Table for excess precipitation values calculated for this site.

DEVELOPED-DRAINAGE CONDITIONS

The site is proposed to be developed with a single user, Utility Trailer Sales. In coordination with the landowner to the west, a drainage swale will be constructed to intercept undeveloped upland flows to the west prior to them entering the site. Also, no offsite drainage will enter the site from the north, east and south. The site will free discharge to Daytona roadway and existing storm drain and will be conveyed to the Unser Diversion Pond system located east of the site. Flows will be conveyed through the site via surface flows and a small onsite storm drain located north of the proposed building facility. Drainage swales will then channel flows to shallow first flush retention ponds before existing the site.

Refer to enclosed Weighted E computation spreadsheet for existing and developed. Storm drain capacities are listed in a table in the appendix.

SUMMARY

The proposed grading and drainage plan for the proposed development of the existing undeveloped property includes surface flows and an onsite storm drain to convey runoff to drainage swales along the south and east property lines. The flows will be routed through first flush pond located in landscaped areas prior to the flows exiting the site to the Daytona right of way. Once in the right of way, flows will be routed to the Unser Diversion Pond system via street flow and an existing storm drain channel located in Daytona Rd. The storm drain capacity through the site and downstream of the site is sufficient to carry the ultimate developed runoff of

66.5 cfs outlined in the I-40 South and Unser Diversion Mini DMP (see attached Plate 2 from the plan).

Utility Trailer Sales

Weighted E Method

Zone #1

Developed Basins

												100-Year			10-Year			2-Year		
Basin	Area (sf)	Area (acres)	Area (sq miles)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
1	58551.00	1.344	0.00210	0%	0	27%	0.363	63%	0.846812	10%	0.134	1.002	0.112	3.75	0.461	0.052	1.93	0.150	0.017	0.64
2	56599.00	1.299	0.00203	0%	0	19%	0.247	73%	0.948514	8%	0.104	1.008	0.109	3.68	0.462	0.050	1.90	0.147	0.016	0.63
3	3401.00	0.078	0.00012	0%	0	100%	0.078	0%	0	0%	0.000	0.670	0.004	0.16	0.220	0.001	0.06	0.010	0.000	0.00
4	15746.00	0.361	0.00056	0%	0	100%	0.361	0%	0	0%	0.000	0.670	0.020	0.73	0.220	0.007	0.27	0.010	0.000	0.01
5	7780.00	0.179	0.00028	0%	0	0%	0.000	0%	0	100%	0.179	1.970	0.029	0.78	1.240	0.018	0.52	0.720	0.011	0.30
6	4910.00	0.113	0.00018	0%	0	0%	0.000	0%	0	100%	0.113	1.970	0.019	0.49	1.240	0.012	0.33	0.720	0.007	0.19
7	79924.00	1.835	0.00287	0%	0	19%	0.349	0%	0	81%	1.486	1.723	0.263	7.20	1.046	0.160	4.56	0.585	0.089	2.52
8	5311.00	0.122	0.00019	0%	0	93%	0.113	0%	0	7%	0.009	0.761	0.008	0.27	0.291	0.003	0.11	0.060	0.001	0.02
9	6550.00	0.150	0.00023	0%	0	100%	0.150	0%	0	0%	0.000	0.670	0.008	0.31	0.220	0.003	0.11	0.010	0.000	0.00
Total	238772.00	5.481	0.00856										0.573	17.37		0.305	9.79		0.141	4.31

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Utility Trailer Sales

Pipe Capacity Check

D (in)	Slope (%)	Area (ft^2)	R	Q Provided (cfs)	Velocity (ft/s)	Q Required (cfs)
12	2	0.79	0.25	5.05	6.43	4.14
18	3.85	1.77	0.375	20.67	11.69	9.7
24	6	3.14	0.5	55.56	17.69	17.21
36	3.23	7.07	0.75	120.19	17.00	66.5
36	4.1	7.07	0.75	135.42	19.16	66.5
36	1.38	7.07	0.75	78.56	11.11	66.5

TIERRA WEST, LLC

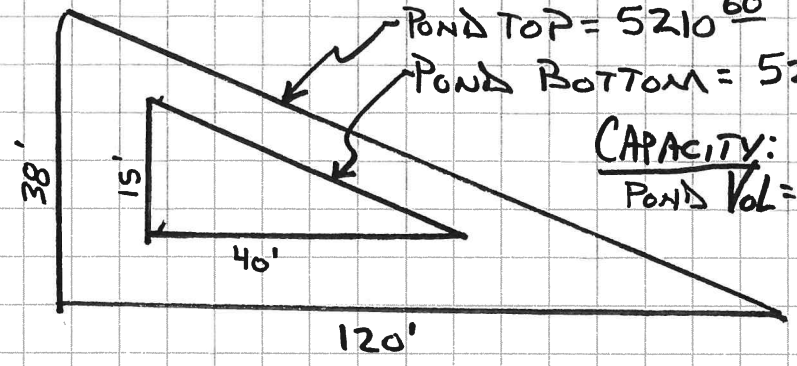
Project UTILITY TRAILER SALES Date 4-30-18

Project No.

Meeting Purpose POND (FIRST FLUSH) CALCS Sheet No 1 of 1

Attendees

POND "A" (EAST of BUILDING)



POND TOP = 5210^{60}

POND BOTTOM = 5208^{60}

CAPACITY:

POND VOL = $\left[\frac{15(40)}{2} + \frac{120(38)}{2}\right] 1/2 = 2{,}580 ft^3$

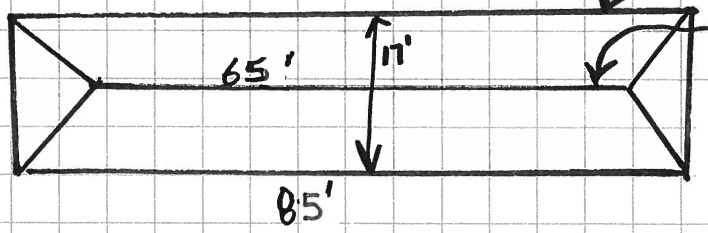
IMPERVIOUS AREA = 19,600sf

REQUIRED VOL = $19{,}600 sf \left(\frac{.34}{12}\right)$

$= 540 ft^3$

CAP ≥ REQ ✓

POND "B" (ADJACENT TO DAYTONA Rd)



POND TOP = 5212^{00}

POND BOTTOM = 5209^{00}

CAPACITY:

POND VOL = $\left(\frac{65+85}{2}\right) 17 \left(\frac{1}{2}\right) (3) = 1{,}912 ft^3$

IMPERVIOUS AREA = 67,070 sf

REQUIRED VOL = $67{,}070 \left(\frac{.34}{12}\right)$

$= 1{,}900 ft^3$

CAP ≥ REQ. ✓

5571 Midway Park Place NE • Albuquerque, NM 87109 • (505) 858-3100 • (505) 858-1118 Fax • 1-800-245-3102 • twllc@tierrawestllc.com

Worksheet for Irregular Section - Full Width

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Channel Slope	0.04050	ft/ft
Normal Depth	0.49	ft

Section Definitions

Station (ft)	Elevation (ft)
0+00	100.67
0+00	100.00
0+02	100.13
0+20	100.48
0+38	100.13
0+40	100.00
0+40	100.67

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 100.67)	(0+40, 100.67)	0.016

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Discharge	55.22	ft^3/s
Elevation Range	100.00 to 100.67 ft	
Flow Area	8.46	ft^2
Wetted Perimeter	40.99	ft
Hydraulic Radius	0.21	ft
Top Width	40.00	ft

Worksheet for Irregular Section - Full Width

Results

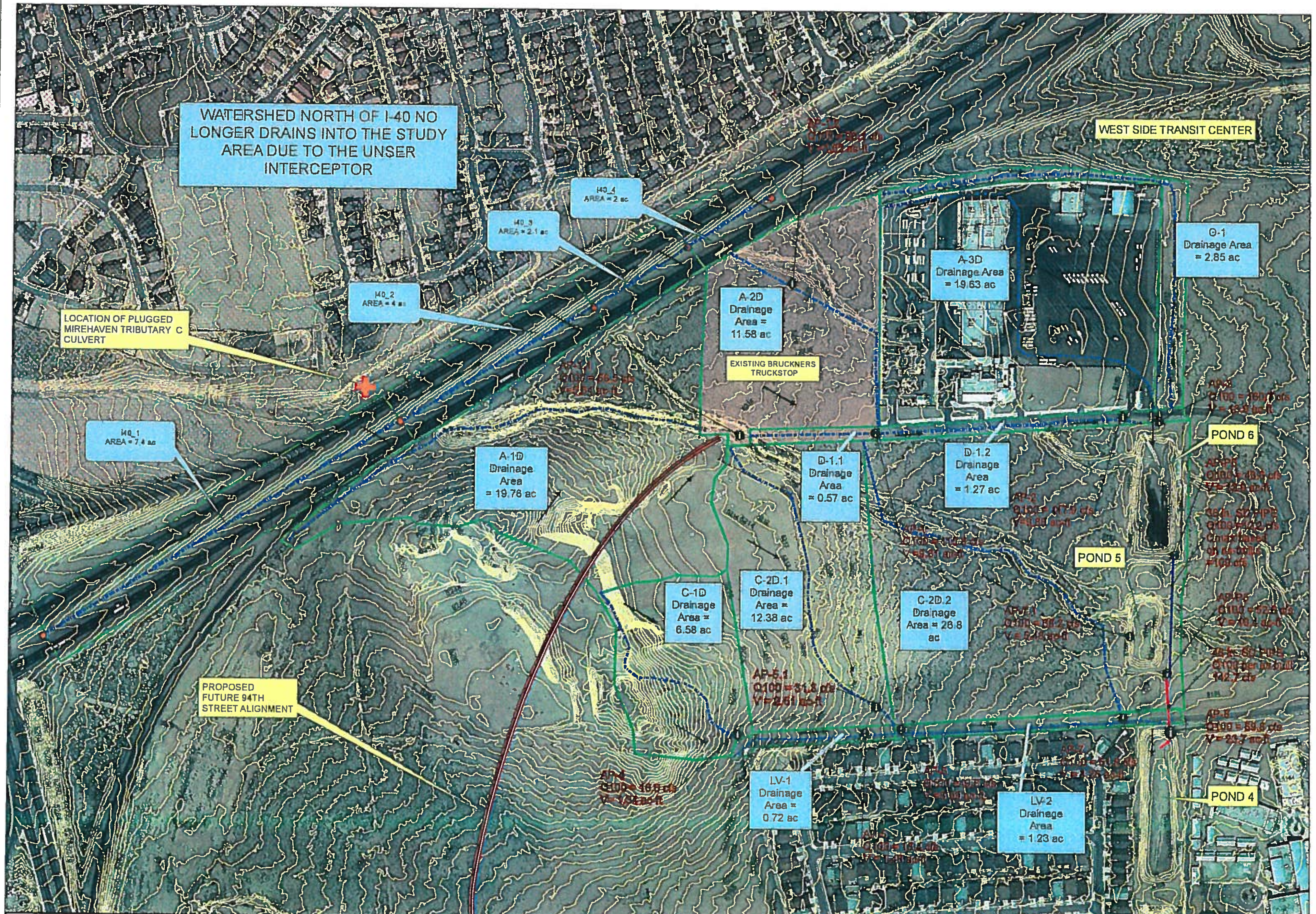
Normal Depth		0.49	ft
Critical Depth		0.67	ft
Critical Slope		0.00534	ft/ft
Velocity		6.53	ft/s
Velocity Head		0.66	ft
Specific Energy		1.15	ft
Froude Number		2.50	
Flow Type	Supercritical		

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	0.49	ft
Critical Depth	0.67	ft
Channel Slope	0.04050	ft/ft
Critical Slope	0.00534	ft/ft



LEGEND

SUBBASIN BOUNDARY

LONGEST FLOWPATH FOR Tc

A-2D SUBBASIN ID

AP-1 ANALYSIS POINT

FLOW DIRECTION

I40 MEDIAN DROP INLETS

N

0 50 100 200 Feet

EX POND 6 RATING CURVE		
Elevation	Storage	Disharge
ft.	ac-ft.	cfs
5170	0	0
5171	0.14	4
5172	0.83	6.2
5173	1.77	7.9
5174	2.79	9.2
5175	3.87	10.4
5176	5.04	11.5
5177	6.27	79.5
5178	7.46	86.1
5179	9.01	93.2

DATA FROM MASTER DRAINAGE PLAN FOR THE WEST SIDE TRANSIT FACILITY

EX POND 4 RATING CURVE		
Elevation	Storage	Disharge
ft	ac-ft	cfs
5147	0	0
5148	0.08	0
5149	0.51	3
5150	1.3	5.7
5151	2.29	7.5
5151.9	3.26	8.7
5152	3.37	11.7
5152.5	3.94	50.6
5153	4.52	92.5
5154	5.76	104.3
5155	7.18	115.9
5156	8.51	124.6

DATA FROM MASTER DRAINAGE PLAN FOR THE WEST SIDE TRANSIT FACILITY

EX POND 5 RATING CURVE		
Elevation	Storage	Disharge
ft.	ac-ft	cfs
5160	0	0
5161	0.02	4
5162	0.37	6.5
5163	0.76	8.2
5164	1.19	9.7
5164.5	1.42	41.6
5165	1.66	93
5165.5	1.89	106.3
5166	2.12	116.7
5167	2.74	132.6
5168	3.35	146.8
5168.8	3.87	157.2
5169	4.01	160
5170	4.73	172

DATA FROM MASTER DRAINAGE PLANE FOR THE WEST SIDE TRANSIT FACILITY

DEVEX Option 1 POND 5 RATING CURVE WITH 12 IN. ORIFICE		
Elevation	Storage	Discharge
ft	ac-ft	cfs
a	a	b
5160	0	0.0
5161	0.02	3.8
5162	0.37	5.3
5163	0.76	6.5
5164	1.19	7.6
5164.5	1.42	8.0
5165	1.66	8.5
5165.5	1.89	8.9
5166	2.12	9.3
5167	2.74	10.0
5168	3.35	10.7
5168.8	3.87	11.2
5169	4.01	11.3
5170	4.73	12.0

a - DATA FROM MASTER DRAINAGE PLAN FOR THE WEST SIDE TRANSIT FACILITY
b - DISCHARGE BASED ON ORIFICE EQN. SEE APPENDIX B FOR COMPUTATION

DEVEX - Option 1 Summary of Input and Output Parameters										
Sub basin	Area	Weighted Curve Number	Percent of Hydrologic Soil Group				% Impervious	Tc	Q100	V100
	(acres)		A	B	C	D	%	(mins)	(cfs)	(ac-ft)
A-1D	19.8	90	58	42	0	0	90	12	50.10	4.03
A-2D	11.6	90	53	47	0	0	90	12	29.35	2.36
A-3D	19.6	89	28	72	0	0	90	17	43.14	3.99
C-1D	6.6	89	100	0	0	0	90	12	16.64	1.34
C-2D.1	12.4	90	86	14	0	0	90	12	31.29	2.51
C-2D.2	26.8	91	58	42	0	0	90	12	68.17	5.48
D-1.1	0.6	87	37	63	0	0	90	12	1.28	0.116
D-1.2	1.3	87	37	63	0	0	90	12	2.85	0.258
LV-1	0.7	87	32	68	0	0	90	12	1.81	0.15
LV-2	1.2	87	32	68	0	0	90	12	3.07	0.25
O-1	2.9	66	72	27	0	0	0	16	1.00	0.08
I40_1	7.4	89	0	100	0	0	90	18	15.65	1.49
I40_2	4.0	89	0	100	0	0	90	12	9.99	0.80
I40_3	2.1	89	0	100	0	0	90	12	5.24	0.42
I40_4	2.0	83	100	0	0	0	90	12	4.89	0.39

Summary of Pond Routings												
Pond	Model Description	Design Volume	100 Yr 24 Hr Peak Storage Volume	100 Yr 24 Hr Inflow Volume	100 Yr 24 Hr Outflow Volume	100 Yr 24 Hr Inflow	100 Yr 24 Hr Outflow	Elevation of Emergency Spillway	100 Yr 24 Hr Peak Water Surface Elevation	Freeboard from Emergency Spillway	Available Storage	Comments
		ac ft	ac ft	ac ft	cfs	cfs	cfs	ft	ft	ft	ac ft	
		a						a		b		
Pond 4	DEVEX 2 Conditions Modeled with most current data using HEC-HMS	8.51	4.17	23.7	23.7	122.1	67.9	5155.1	5152.71	2.4	4.34	Watershed modeled as fully developed commercial/business site at 90% impervious, using latest NOAA 14 100-Yr 24-Hr rainfall depth of 2.52 in. Basin C 2D.2 drains to Pond 5 with existing outfall structure
Pond 5	"	4.73	1.56	19.4	19.4	78.1	70.8	5168.8	5164.8	4.0	3.17	
Pond 6	"	9.01	5.62	13.9	13.9	160.7	43.6	5177.9	5176.47	1.4	3.39	
Pond 4	DEVEX Option 1	8.51	4.04	23.7	23.7	69.9	57.9	5155.1	5152.59	2.5	4.47	Watershed modeled as fully developed commercial/business site at 90% impervious, using latest NOAA 14 100-Yr 24-Hr rainfall depth of 2.52 in. Basin C 2D.2 drains to Pond 5 with modified outfall restricting discharge using a 12" outlet pipe as principal spillway
Pond 5	DEVEX Option 1	4.73	2.00	5.48	5.5	68.2	9.1	5168.8	5165.73	3.1	2.73	
Pond 6	DEVEX Option 1	9.01	5.62	13.9	13.9	160.7	43.6	5177.9	5176.47	1.4	3.39	

a - All values reported on this table are taken directly from The Master Drainage Plan for the West Side Transit Facility
100 Yr 24 Hr rainfall depth based on lates NOAA Atlas 14 data
b - Freeboard = Elevation of Emergency Spillway - Peak Water Surface Elevation

DEVEX CONDITIONS HEC-HMS INPUT PARAMETERS

Sub-basin	Sub-basin Area (acres)	Sub-basin Area (sq mi)	Number of Reaches	...	Sub-basin
A-1D	19.758	0.0309	2	[illegible]	A-1D
A-2D	11.581	0.0181	2	[illegible]	A-2D
A-3D	19.625	0.0307	2	[illegible]	A-3D
C-1D	6.581	0.0103	2	[illegible]	C-1D
C-2D.1	12.376	0.0193	2	[illegible]	C-2D.1
C-2D.2	26.803	0.0419	2	[illegible]	C-2D.2
D-1.1	0.558	0.0009	2	[illegible]	D-1.1
D-1.2	1.268	0.0020	2	[illegible]	D-1.2
LV-1	0.721	0.0011	2	[illegible]	LV-1
LV-2	1.225	0.0019	2	[illegible]	LV-2
O-1	2.857	0.0045	2	[illegible]	O-1
I40_1	7.3624	0.0115	2	[illegible]	I40_1
I40_2	3.958	0.0062	2	[illegible]	I40_2
I40_3	2.0761	0.0032	2	[illegible]	I40_3
I40_4	1.9784	0.0031	1	[illegible]	I40_4

a) All measurements were obtained from the Drainage Basin Maps based on Lidar contour mapping dated 2010
b) Obtained from Table F-5 in the DPM pg. 22-64
d) Obtained from Table F-6 in the DPM pg. 22-64
[illegible]

EASTERLING CONSULTANTS

I-40 SOUTH AND UNSER DIVERSION MINI DMP
PLATE 2

FINAL DEVELOPED CONDITIONS DRAINAGE BASIN MAP
JUNE, 2014

Document Path: G:\177-13-01 Kelleher I-40 South LLC\DevDMP\GIS\New Plates 6-5-14\DEVEXOpt_Cond.mxd

Current DRC
Project Number:_____

FIGURE 12

Date Submitted: 4/20/18
Date Site Plan Approved:_____
Date Preliminary Plat Approved: N/A
Date Preliminary Plat Expires: N/A
DRB Project No.: 1008585
DRB Application No.:_____

INFRASTRUCTURE LIST

(Rev 2-16-18)

EXHIBIT "A"

TO SUBDIVISION IMPROVEMENTS AGREEMENT

DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

UTILITY TRAILER SALES
PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

TRACT 3 AVALON SUBDIVISION UNIT 5
EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Following is a summary of PUBLIC/PRIVATE Infrastructure required to be constructed or financially guaranteed for the above development. This Listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantees. All such revisions require approval by the DRC Chair, the User Department and agent/owner. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City.

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification: Private Inspector	Private P.E.	City Cnst Engineer
		24' F-Edge	Major Local Paving, Curb & Gutter 6' Sidewalk (north side)	Daytona Road	East Property Line	150' West of West Property Line	/	/	/
		8"	SAS Gravity Line	Daytona Road	East Property Line	150' West of West Property Line	/	/	/
		12"	Water PVC Line	Daytona Road	70' West of East Property Line	West Property Line	/	/	/
		36"	RCP Storm Sewer	Daytona Road	160' West of East Property Line	150' West of West Property Line	/	/	/
		26' E-E	Temporary Turnaround	Daytona Road	40' West of West Property Line		/	/	/
		8"	Temporary Asphalt Curb	Daytona Road	East Property Line	West Property Line	/	/	/
							/	/	/
							/	/	/
							/	/	/

The items listed below are on the CCIP and approved for Impact Fee credits. Signatures from the Impact Fee Administrator and the City User Department is required prior to DRB approval of this listing. The Items listed below are subject to the standard SIA requirements.

Financially Guaranteed DRC #	Constructed Under DRC #	Size	Type of Improvement	Location	From	To	Construction Certification: Private Inspector	Private P.E.	City Cnst Engineer
							/	/	/
							/	/	/

Approval of Creditable Items:

Impact Fee Admistrator Signature Date

Approval of Creditable Items:

City User Dept. Signature Date

NOTES

If the site is located in a floodplain, then the financial guarantee will not be released until the LOMR is approved by FEMA.

Street lights per City rquirements.

1 Storm drain to include manholes and inlets

2

3

AGENT / OWNER

NAME (print)

FIRM

SIGNATURE - date

DEVELOPMENT REVIEW BOARD MEMBER APPROVALS

DRB CHAIR - date

TRANSPORTATION DEVELOPMENT - date

UTILITY DEVELOPMENT - date

CITY ENGINEER - date

PARKS & RECREATION - date

AMAFCA - date

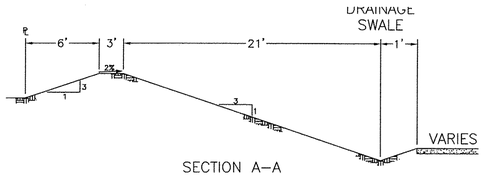
CODE ENFORCEMENT - date

_____ - date

DESIGN REVIEW COMMITTEE REVISIONS

REVISION	DATE	DRC CHAIR	USER DEPARTMENT	AGENT /OWNER

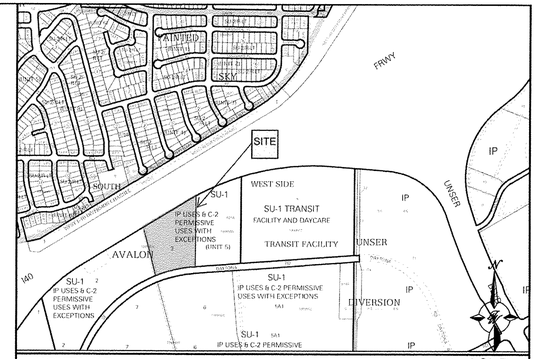
(Rev. 2-16-18)



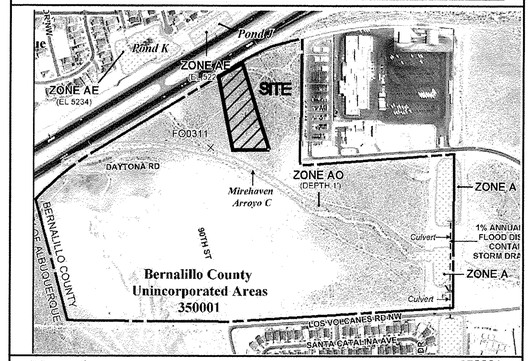
SECTION A–A

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT–OF–WAY
- BUILDING
- SIDEWALK
- SCREEN WALL
- RETAINING WALL
- 5010 CONTOUR MAJOR
- 5011 CONTOUR MINOR
- x 5048.25 SPOT ELEVATION
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- x 5048.25 EXISTING SPOT ELEVATION



VICINITY MAP: J-09-Z



FIRM MAP: 350002

GRAPHIC SCALE

40 20 0 20 40

SCALE: 1"=40'

ENGINEER'S SEAL

VINCENT P. CARRICA
NEW MEXICO
16212
11-30-18
REGISTERED PROFESSIONAL ENGINEER

VINCENT P. CARRICA
P.E. #16212

UTILITY TRAILER SALES
ALBUQUURQUE NM
GRADING AND DRAINAGE PLAN

TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858–3100
www.tierrawestllc.com

DRAWN BY	LA
DATE	4/20/2018
	2017041–GRADING
SHEET #	C2
JOB #	2017041