CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Interim Director

Mayor Timothy M. Keller

December 22, 2021

Ronald Bohannan, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87109

RE: Titan 150k Spec
Conceptual Grading and Drainage Plans
Engineer's Stamp Date: 12/06/21
Hydrology File: K09D051

Dear Mr. Bohannan:

Based upon the information provided in your submittal received 11/04/2021, the Conceptual Grading & Drainage Plans are approved for action by the DRB for Site Plan for Building Permit.

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 (Doug 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 (REV 6/2018)

Project Title: Titan 150K Spec Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: TR 9 Plat of TRS 1 Thru 12 Avalon

City Address: Bluewater Rd NW Albuquerque, NM 87121

Applicant: Tierra West, LLC Contact: _____

Address: 5571 Midway Park Place NE Albuquerque NM 87109

Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: _____

Other Contact: _____ Contact: _____

Address: _____

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

TYPE OF DEVELOPMENT: ____ PLAT (# of lots) ____ RESIDENCE __X__ DRB SITE ___ ADMIN SITE

IS THIS A RESUBMITTAL? ____ Yes __X__ No

DEPARTMENT ____ TRANSPORTATION __X__ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
__X__ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE REPORT
____ DRAINAGE MASTER PLAN
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ STREET LIGHT LAYOUT
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

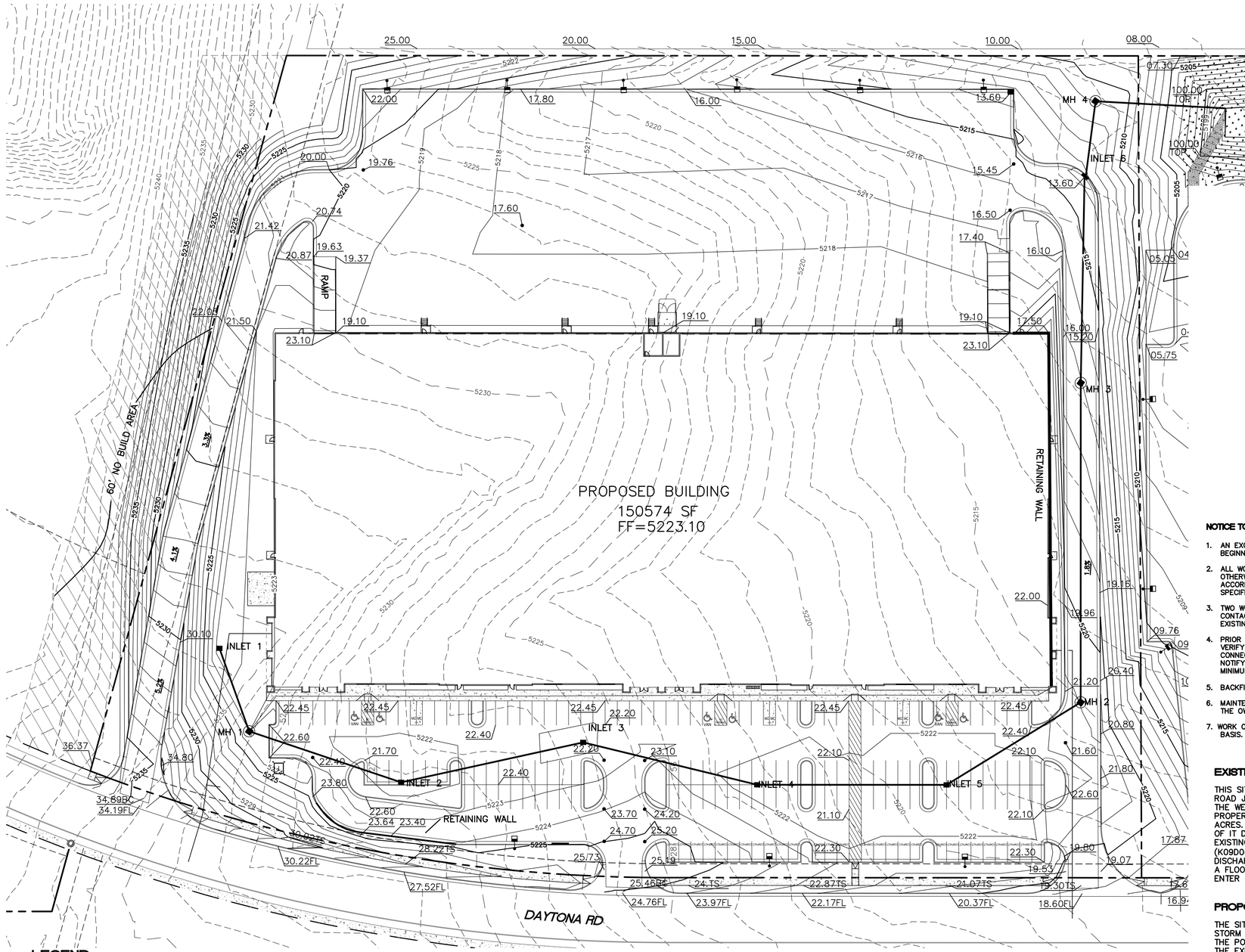
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
__X__ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL

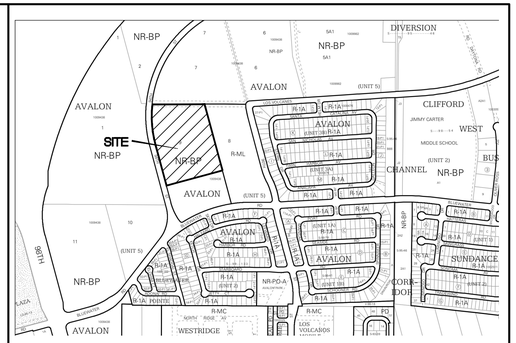
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 11/4/2021 By: Vince Carrica

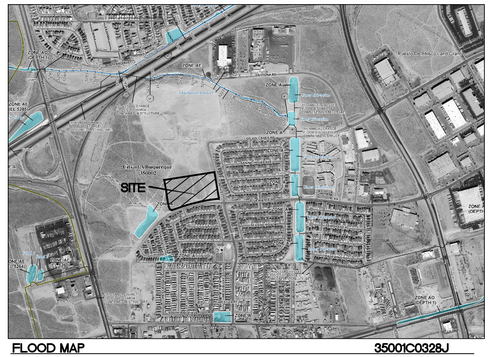
COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____





VICINITY MAP K-9-Z



FLOOD MAP 35001C0328J

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR ¾" GRAVEL

EXISTING DRAINAGE:

THIS SITE IS CURRENTLY VACANT AND IS LOCATED ON THE EAST SIDE OF DAYTONA ROAD JUST NORTH OF THE BLUEWATER RD. THE SITE IS BOUNDED BY ROADS ON THE WEST SIDE AND A MULTIFAMILY DEVELOPMENT ON THE EAST SIDE AND VACANT PROPERTY ON THE NORTH AND SOUTH SIDES. IT CONTAINS APPROXIMATELY 9.69 ACRES. THE SITE GENERALLY DRAINS FROM NORTHWEST TO SOUTHEAST WITH MOST OF IT DRAINING INTO THE ADJACENT SITE WHICH DRAINS TO BLUEWATER ROAD EXISTING STORM DRAIN. ACCORDING TO AN APPROVED MASTER DRAINAGE PLAN (K09D041) COMPLETED BY BOHANNAN HUSTON INC. THE ALLOWABLE DEVELOPED DISCHARGE FROM THE SITE IS 1.5 CFS PER ACRE. THE SITE IS NOT LOCATED WITH IN A FLOOD PLAIN AS SHOWN ON THE FIRM MAP. THERE ARE OFFSITE FLOWS THAT ENTER THE SITE FROM THE NORTH.

PROPOSED DRAINAGE:

THE SITE WILL DRAIN TO THE SOUTHEAST CORNER OF THE SITE INTO A PROPOSED STORM DRAIN WHICH WILL ROUTE THE FLOWS TO A PROPOSED DETENTION POND. THE POND WILL DISCHARGE AT THE CONTROLLED RATE OF 1.5 CFS PER ACRE TO THE EXISTING STORM DRAIN IN BLUEWATER ROAD. THIS POND WILL ALSO RETAIN THE WATER QUALITY VOLUME FOR THIS PARCEL.

GRAPHIC SCALE

40 0 20 40

(IN FEET)
1 inch = 40 ft.

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- RETAINING WALL

STRUCTURE TABLE

STRUCTURE	SIZE/TYPE	RIM	INVERT
INLET 1	TYPE 'C'	5221.30	5134.70
INLET 2	TYPE 'C'	5221.40	5130.09
INLET 3	TYPE 'C'	5221.60	5127.76
INLET 4	TYPE 'C'	5221.40	5134.00 IN 5131.42 OUT
INLET 5	TYPE 'C'	5221.40	5134.00 IN 5131.42 OUT
INLET 6	TYPE 'D'	5213.60	5128.29

MH TABLE

STRUCTURE	SIZE/TYPE	RIM	INVERT
MH 1	TYPE 'C' 4' DIA	5223.00	5134.70
MH 2	TYPE 'C' 4' DIA	5221.02	5130.09
MH 3	TYPE 'C' 4' DIA	5216.52	5127.76
MH 4	TYPE 'C' 4' DIA	5211.25	5134.00 IN 5131.42 OUT

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
12/22/21
DATE:
BY: Ronald R. Bohannan
HydroTrans #: K09D051
THESE PLANS AND/OR REPORT ARE CONCEPTUAL ONLY. MORE INFORMATION MAY BE NEEDED IN THEM AND SUBMITTED TO HYDROLOGY FOR BUILDING PERMIT APPROVAL.

CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

ENGINEER'S SEAL
RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER
12-20-21
RONALD R. BOHANNAN P.E. #7868

TITAN 150K SPEC BUILDING ALBUQUERQUE, NM

CONCEPTUAL GRADING AND DRAINAGE PLAN

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY: pm
DATE: 12-20-21
DRAWING: 2020088-150K-GR.DWG
SHEET #: GR-1
JOB #: 2020088

MASTER DRAINAGE REPORT

For

TRACT 9A & 9B AVALON SUBDIVISION UNIT 5
ALBUQUERQUE, NEW MEXICO

Prepared by

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

Prepared for

Westpointe 40 Developr
Albuquerque, NM

November 19, 2021

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
DATE: 12/22/21
BY: Renée C Brissette
HydroTrans # K09D050 & K09D051

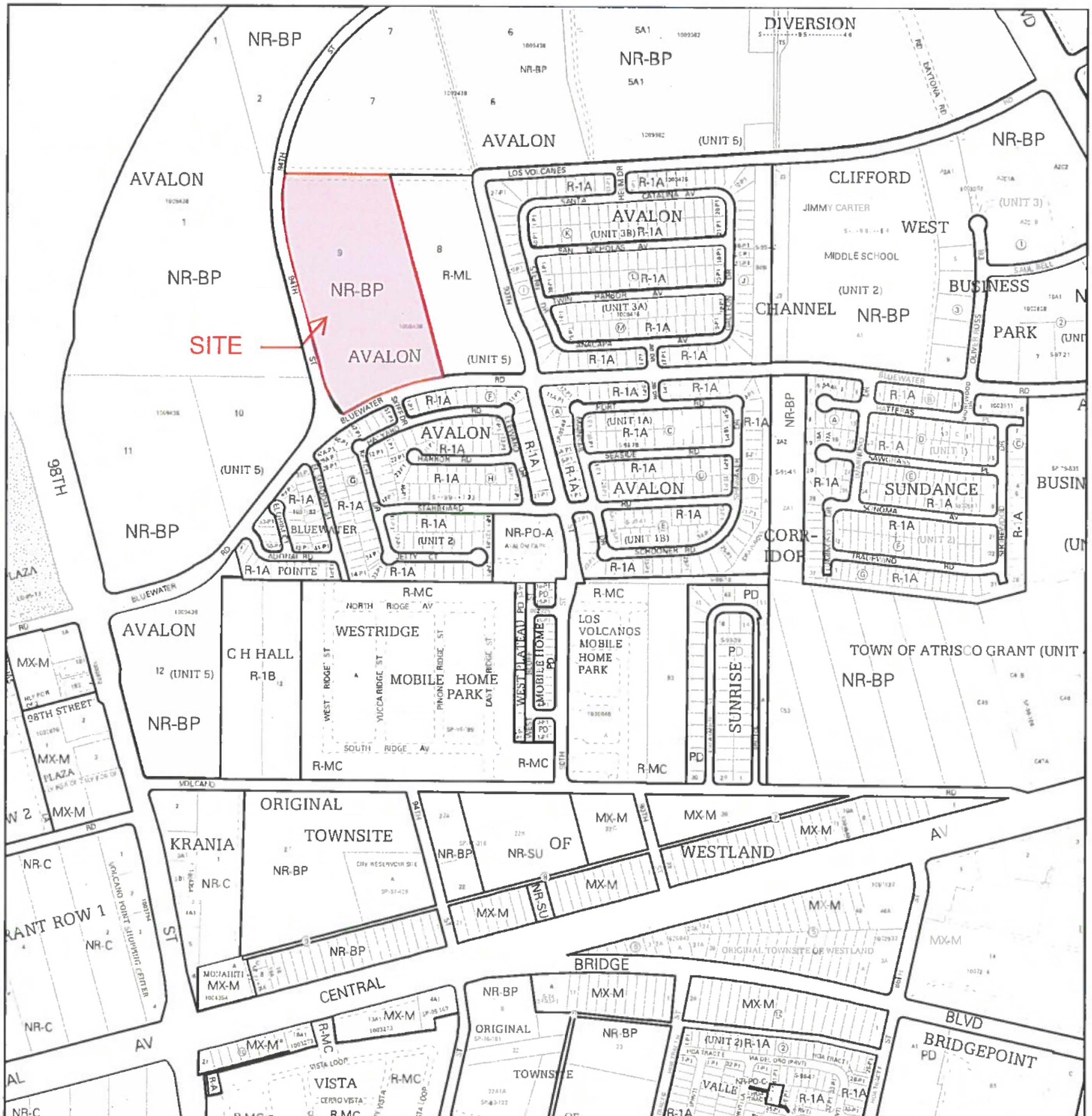
THESE PLANS AND/OR REPORT ARE CONCEPTUAL ONLY. MORE INFORMATION MAY BE NEEDED IN THEM AND SUBMITTED TO HYDROLOGY FOR BUILDING PERMIT APPROVAL.

RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER

11/23/2021

RONALD R BOHANNAN, PE #7868

TABLE OF CONTENTS



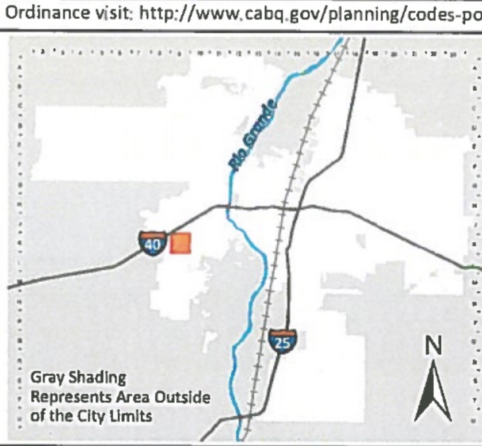
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

AGIS
Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



Zone Atlas Page:
K-09-Z

Easement
Escarpment
Petroglyph National Monument
Areas Outside of City Limits
Airport Protection Overlay (APO) Zone
Character Protection Overlay (CPO) Zone
Historic Protection Overlay (HPO) Zone
View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000

LOCATION

The proposed commercial development is located off Daytona Rd south of Interstate 40, east of 98th St., north of Bluewater Rd and west of Unser Blvd in southwest Albuquerque. It is comprised of approximately 16.1021 acres zoned NRBP. This report represents a mini-master 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 two onsite drainage basins.

EXISTING DRAINGE CONDITIONS

The site is currently vacant with the exception of a temporary drainage pond in the southeast corner of the site. It is a part of Master Drainage Report for Westpointe 40 (Avalon Subdivision Unit 5) by BHI dated July 2019 (K09D041). The site drains predominantly northwest to southeast. Runoff from the existing site is conveyed to the existing temporary drainage pond in the southeast corner of the site via surface flow. The pond overflows to Blue Water Rd. and into an existing storm drain.

FIRM MAP

The site is not located in a designated flood plain as shown on the attached Flood Hazard Zone Map No. 35001C0328J dated 11/4/2016.

DESIGN-CRITERIA

The drainage plan presented in this report was prepared in accordance with the City of Albuquerque Drainage Ordinances and Chapter 6 of the Development Process Manual DPM. The hydrological analysis is based on the 100-year frequency, 24-hour duration storm, as Represented in Article 6-2(A), Hydrology, of the Development Process Manual. The plan will also include retention of the storm water quality in

National Flood Hazard Layer FIRMette

FEMA

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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 *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas 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 D*

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
- 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

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/23/2021 at 12:01 PM 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: basemap 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.

landscaped areas and a storm water detention pond. See attached Weighted E Table for excess precipitation values calculated for this site.

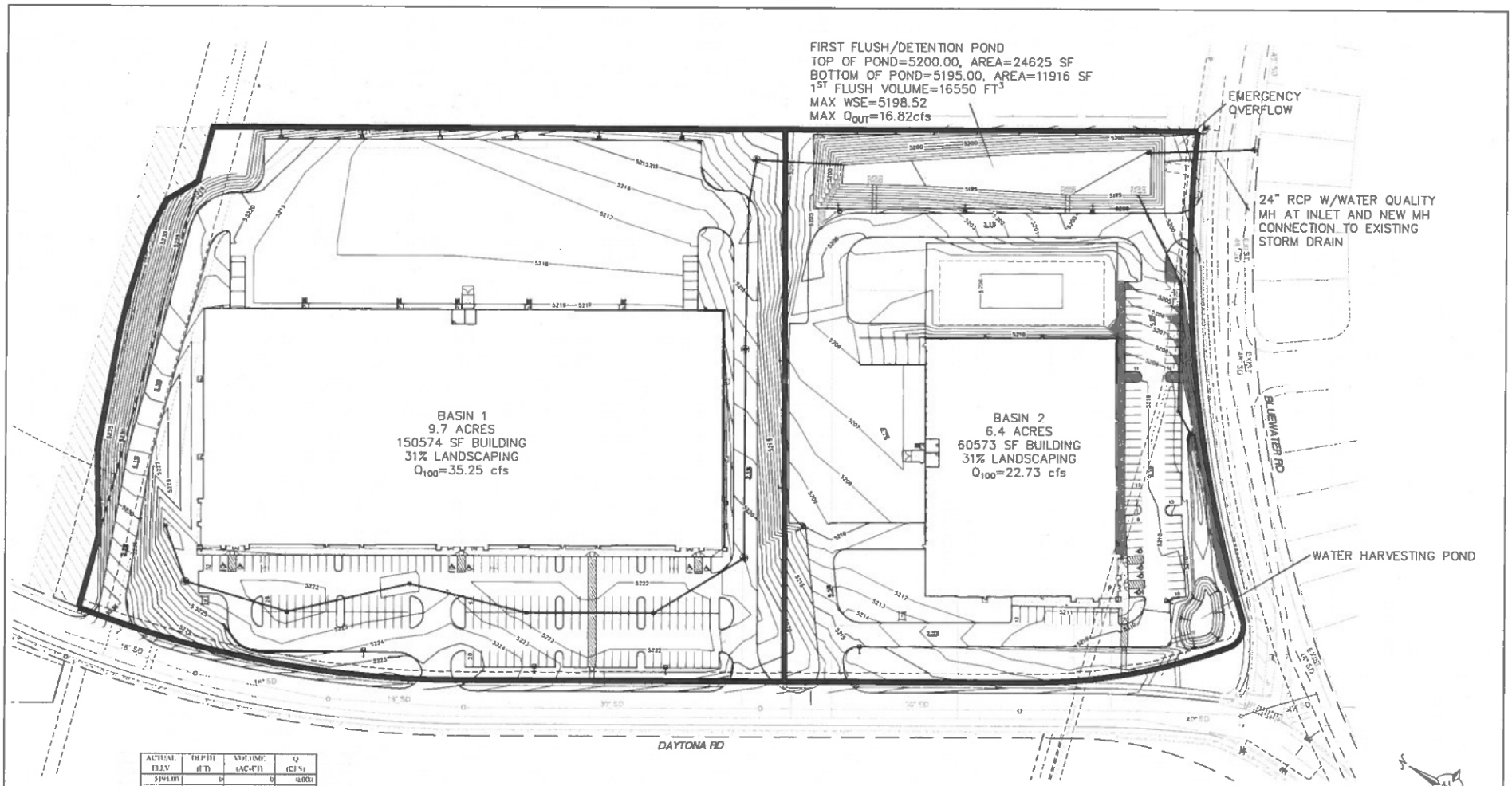
DEVELOPED-DRAINAGE CONDITIONS

The site is proposed to be developed with two users, Blue Sky Development and a 150K spec building. The overall 16.1021 acre Tract 9 parcel will be platted into two parcels. Tract 9A will be a 9.6888 acre parcel and will contain the 150K spec building. Tract 9B will be a 6.4133 acre parcel and will contain the Blue Sky Development. Both tracks will drain to a proposed detention pond in the southeast corner of Tract 9B via surface flows and onsite storm drains. The proposed adjacent Daytona Rd. will be constructed with a storm drain to capture runoff from the roadway and from future development of properties to the west of Daytona.

The proposed outfall for both the onsite storm drain pond and the Daytona Rd. storm drain will be to an existing storm drain in Bluewater Rd. The onsite storm drain pond will retain the required first flush volumes from both Tract 9A & 9B under developed conditions. The outfall from the pond will discharge to the existing Bluewater Rd. storm drain at or below the allowable discharge rate of 1.5 CFS per acre (23.4 CFS) as noted in Table 2-Allowable Discharge Summary, pg. 12 of the Master Drainage Report For Westpointe 40 (Avalon Subdivision Unit 5) prepared by BHI dated July 25, 2019 (K09D041). See attached excerpt. Refer to enclosed Weighted E computation spreadsheet for undeveloped and developed conditions.

SUMMARY

The proposed grading and drainage plan for the proposed development of the existing undeveloped Tracts 9A & 9B properties includes surface flows and an onsite storm drain to convey runoff to a water quality and storm water detention pond. The pond will retain first flush volumes for both tracts and the pond will exit the site to the existing storm drain in the Bluewater Rd. right of way. The storm drain capacity downstream of the site is sufficient to carry the ultimate developed runoff as outlined in the I-40 South and Unser Diversion Mini DMP.



ACTUAL ELEV	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
5195.00	0	0	0.000
5196.00	1.00	0.3028	8.000
5196.23	1.23	0.3807	9.000
5197.00	2.00	0.6641	7.130
5198.00	3.00	1.0858	13.374
5199.00	4.00	1.5620	20.125
5200.00	5.00	2.0987	25.176

Orifice Equation
Q = CA SQRT(2gH)

C=	0.6
Diameter (in)	24
Area (ft^2)=	3.141592654
g=	32.2
H (Ft)=	Depth of water above center of orifice
Q (CFS)=	Flow

Developed Basins

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)	100-Year Weighted E (ac-ft)	100-Year Volume (ac-ft)	100-Year Flow cfs
1	422532.00	9.700	0.01516	0%	0	31%	3.007	0%	0	69%	6.693	1.567	1.267	35.35
2	278784.00	6.400	0.01000	0%	0	35%	2.240	0%	0	65%	4.160	1.515	0.808	22.73
Total	701316.00	16.100	0.02516								10.853		2.075	58.08

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

FIRST FLUSH VOLUME = 16,546 CU.FT.

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

ENGINEER'S SEAL	WESTPOINT 40 ALBUQUERQUE, NM	DRAWN BY pm
	BASIN MAP/DRAINAGE EXHIBIT	DATE 11-10-21
		DRAWING 2020088-150K-GR.DWG
	TIERRA WEST, LLC 5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # 1
RONALD R. BOHANNAN P.E. #7868		JOB # 2020088

Weighted E Method

Zone #1

Undeveloped Basins

												100-Year		
Basin	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)			
1	422532.00	9.700	0.01516	100%	9.7	0%	0.000	0%	0	0%	0.000	0.440	0.356	12.51
2	278784.00	6.400	0.01000	100%	6.4	0%	0.000	0%	0	0%	0.000	0.440	0.235	8.26
Total	701316.00	16.100	0.02516								0.000		0.590	20.77

Developed Basins

												100-Year		
Basin	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)			
1	422532.00	9.700	0.01516	0%	0	31%	3.007	0%	0	69%	6.693	1.567	1.267	35.35
2	278784.00	6.400	0.01000	0%	0	35%	2.240	0%	0	65%	4.160	1.515	0.808	22.73
Total	701316.00	16.100	0.02516								10.853		2.075	58.08

Equations:

FIRST FLUSH VOLUME = 16,546 CU.FT.

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

VOLUME CALCULATIONS

WESTPOINTE 40 TRACTS 9a &9B

Ab - Bottom Of The Pond Surface Area
At - Top Of The Pond Surface Area
D - Water Depth
Dt - Total Pond Depth
C - Change In Surface Area / Water Depth

Volume = Ab * D + 0.5 * C * D^2
C = (At - Ab) / Dt

Ab =	11,916.00	B.O.P.=	5195.00
At =	24,652.00	T.O.P. =	5200.00
Dt =	5.00		
C =	2547.20		
B Elev. =	5,195.00		

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
5195.00	0	0	0.000
5196.00	1.00	0.3028	0.000
5196.23	1.23	0.3807	0.000
5197.00	2.00	0.6641	7.130
5198.00	3.00	1.0838	13.274
5199.00	4.00	1.5620	20.125
5200.00	5.00	2.0987	25.176

Orifice Equation
Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	24
Area (ft^2)=	3.141592654
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

Table 2 – Allowable Discharge Summary

Tract	Allowable Unit Discharge[1] (cfs/ac)	Drainage Area (ac)	Allowable Discharge (cfs)
Tract 1	1.5	32.7	47.6
Tract 2 – (North portion, drains to Daytona Road storm drain)	2.3	9.5	22.0
Tract 2 – (South portion, drains to Bluewater Road storm drain)	1.5	4.3	6.2
Tract 3[2]	2.3	5.7	13.2
Tract 6	3.2	14.6	46.7
Tract 7	3.2	14.6	46.3
Tract 9	1.5	16.1	23.4
Tract 10	1.5	7.3	10.6
Tract 11	1.5	16.7	24.2

[1] Refer to Appendix C for Allowable Unit Discharge calculations, based on downstream capacity, free discharge from ROW, and accommodation of offsite flows.

[2] Tract 3 is not a part of this Master Drainage Report, but a developed condition allowable discharge is provided based on the assumption that all tracts draining to Daytona Road will be held to the same detention requirements.

2. BLUEWATER ROAD DRAINAGE AREAS

The proposed drainage concept for the portion of the project site draining to Bluewater Road consists of a detention pond along the western boundary of Tract 1 to capture and attenuate offsite flows from I-40 ROW. This pond would allow sediment to drop out and be drained by an 18-inch storm drain (with an associated peak outflow of approximately 10 cfs) that passes through Tract 1 within a new drainage easement and connects to the proposed storm drain in 94th Street, which will connect to the existing storm drain in Bluewater Road. Other detention ponds will be provided to accommodate onsite flows only, will discharge to the existing or proposed storm drains in the adjacent public roadways, and ensure downstream capacities are not exceeded. The conceptual size and design parameters for proposed ponds based on the HEC-HMS modeling are provided in Table 3.

INPUT

```
************************************************************
*                  TRACTS 9A & 9B - WESTPOINTE 40          *
************************************************************
* 100-YEAR, 24-HR STORM  (UNDER PROPOSED CONDITIONS) W/ routing *
************************************************************
START                TIME=0.0
*
*
RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                     RAIN DAY=2.66 IN DT=0.05 HR
*
*
*BASIN 1
*
COMPUTE NM HYD       ID=1 HYD NO=100.1 AREA=0.01516 SQ MI
                     PER A=0.00 PER B=31.00 PER C=0.00 PER D=69.00
                     TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=1 CODE=1
*
*
*BASIN 2
*
COMPUTE NM HYD       ID=2 HYD NO=100.2 AREA=0.01000 SQ MI
                     PER A=0.00 PER B=35.00 PER C=0.00 PER D=65.00
                     TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=1
*
*
ADD HYD              ID=20 HYD NO=100.20 ID=1  ID=2
*
*
*ROUTE BASIN 1 & 2 THROUGH WATER QUALITY DETENTION POND
*
*
ROUTE RESERVOIR      ID=55 HYD NO=200.1 INFLOW ID=20 CODE=24
                     OUTFLOW (CFS) STORAGE(AC-FT) ELEVATION(FT)
                     0.000          0.0000             95.00
                     0.010          0.3028             96.00
                     0.020          0.3807             96.23
                     7.130          0.6641             97.00
                     13.274         1.0838             98.00
                     20.125         1.5620             99.00
                     25.176         2.0987            100.00
*
PRINT HYD            ID=55  CODE=1
*
*
FINISH
```

OUTPUT

```
      AHYMO PROGRAM (AHYMO-S4)                    - Version: S4.01a - Rel: 01a
           RUN DATE (MON/DAY/YR) = 11/23/2021
           START TIME (HR:MIN:SEC) = 11:26:28     USER NO.=
AHYMO_Temp_User:20122010
           INPUT FILE = C:\Users\Vince\Desktop\HYMO Westpoint_40.txt


    ************************************************************
    *                TRACTS 9A & 9B - WESTPOINTE 40            *
    ************************************************************
    * 100-YEAR, 24-HR STORM  (UNDER PROPOSED CONDITIONS) W/ routing *
    ************************************************************
    START              TIME=0.0
    *
    *
    RAINFALL           TYPE=2 RAIN QUARTER=0.0 IN
                       RAIN ONE=1.87 IN RAIN SIX=2.20 IN
                       RAIN DAY=2.66 IN DT=0.05 HR

                  24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
                  DT =   0.050000 HOURS       END TIME =    24.000002 HOURS
                    0.0000  0.0022  0.0045  0.0069  0.0096  0.0123  0.0154
                    0.0197  0.0264  0.0336  0.0412  0.0494  0.0578  0.0664
                    0.0753  0.0844  0.0946  0.1052  0.1168  0.1387  0.1657
                    0.2020  0.2430  0.2937  0.3614  0.4375  0.5689  0.7733
                    1.1234  1.3695  1.5635  1.6610  1.7465  1.8079  1.8568
                    1.8994  1.9306  1.9592  1.9828  1.9979  2.0087  2.0183
                    2.0273  2.0352  2.0426  2.0499  2.0568  2.0625  2.0659
                    2.0692  2.0724  2.0754  2.0784  2.0813  2.0842  2.0870
                    2.0896  2.0923  2.0949  2.0974  2.0999  2.1023  2.1046
                    2.1069  2.1092  2.1115  2.1136  2.1158  2.1179  2.1199
                    2.1220  2.1240  2.1260  2.1280  2.1299  2.1318  2.1337
                    2.1356  2.1374  2.1392  2.1411  2.1428  2.1446  2.1463
                    2.1481  2.1498  2.1514  2.1531  2.1548  2.1564  2.1580
                    2.1596  2.1612  2.1628  2.1643  2.1658  2.1674  2.1689
                    2.1704  2.1718  2.1733  2.1747  2.1762  2.1776  2.1790
                    2.1804  2.1818  2.1832  2.1845  2.1859  2.1872  2.1885
                    2.1899  2.1912  2.1924  2.1937  2.1950  2.1963  2.1975
                    2.1988  2.2000  2.2013  2.2026  2.2038  2.2051  2.2064
                    2.2077  2.2089  2.2102  2.2115  2.2128  2.2141  2.2153
                    2.2166  2.2179  2.2192  2.2204  2.2217  2.2230  2.2243
                    2.2256  2.2268  2.2281  2.2294  2.2307  2.2319  2.2332
                    2.2345  2.2358  2.2371  2.2383  2.2396  2.2409  2.2422
                    2.2434  2.2447  2.2460  2.2473  2.2486  2.2498  2.2511
                    2.2524  2.2537  2.2549  2.2562  2.2575  2.2588  2.2601
                    2.2613  2.2626  2.2639  2.2652  2.2664  2.2677  2.2690
                    2.2703  2.2716  2.2728  2.2741  2.2754  2.2767  2.2779
                    2.2792  2.2805  2.2818  2.2831  2.2843  2.2856  2.2869
```

```
2.2882  2.2894  2.2907  2.2920  2.2933  2.2946  2.2958
2.2971  2.2984  2.2997  2.3009  2.3022  2.3035  2.3048
2.3061  2.3073  2.3086  2.3099  2.3112  2.3124  2.3137
2.3150  2.3163  2.3176  2.3188  2.3201  2.3214  2.3227
2.3239  2.3252  2.3265  2.3278  2.3291  2.3303  2.3316
2.3329  2.3342  2.3354  2.3367  2.3380  2.3393  2.3406
2.3418  2.3431  2.3444  2.3457  2.3469  2.3482  2.3495
2.3508  2.3521  2.3533  2.3546  2.3559  2.3572  2.3584
2.3597  2.3610  2.3623  2.3636  2.3648  2.3661  2.3674
2.3687  2.3699  2.3712  2.3725  2.3738  2.3750  2.3763
2.3776  2.3789  2.3802  2.3814  2.3827  2.3840  2.3853
2.3865  2.3878  2.3891  2.3904  2.3917  2.3929  2.3942
2.3955  2.3968  2.3980  2.3993  2.4006  2.4019  2.4032
2.4044  2.4057  2.4070  2.4083  2.4095  2.4108  2.4121
2.4134  2.4147  2.4159  2.4172  2.4185  2.4198  2.4210
2.4223  2.4236  2.4249  2.4262  2.4274  2.4287  2.4300
2.4313  2.4325  2.4338  2.4351  2.4364  2.4377  2.4389
2.4402  2.4415  2.4428  2.4440  2.4453  2.4466  2.4479
2.4492  2.4504  2.4517  2.4530  2.4543  2.4555  2.4568
2.4581  2.4594  2.4607  2.4619  2.4632  2.4645  2.4658
2.4670  2.4683  2.4696  2.4709  2.4722  2.4734  2.4747
2.4760  2.4773  2.4785  2.4798  2.4811  2.4824  2.4837
2.4849  2.4862  2.4875  2.4888  2.4900  2.4913  2.4926
2.4939  2.4952  2.4964  2.4977  2.4990  2.5003  2.5015
2.5028  2.5041  2.5054  2.5067  2.5079  2.5092  2.5105
2.5118  2.5130  2.5143  2.5156  2.5169  2.5182  2.5194
2.5207  2.5220  2.5233  2.5245  2.5258  2.5271  2.5284
2.5297  2.5309  2.5322  2.5335  2.5348  2.5360  2.5373
2.5386  2.5399  2.5412  2.5424  2.5437  2.5450  2.5463
2.5475  2.5488  2.5501  2.5514  2.5527  2.5539  2.5552
2.5565  2.5578  2.5590  2.5603  2.5616  2.5629  2.5642
2.5654  2.5667  2.5680  2.5693  2.5705  2.5718  2.5731
2.5744  2.5757  2.5769  2.5782  2.5795  2.5808  2.5820
2.5833  2.5846  2.5859  2.5872  2.5884  2.5897  2.5910
2.5923  2.5935  2.5948  2.5961  2.5974  2.5987  2.5999
2.6012  2.6025  2.6038  2.6050  2.6063  2.6076  2.6089
2.6102  2.6114  2.6127  2.6140  2.6153  2.6165  2.6178
2.6191  2.6204  2.6217  2.6229  2.6242  2.6255  2.6268
2.6280  2.6293  2.6306  2.6319  2.6332  2.6344  2.6357
2.6370  2.6383  2.6395  2.6408  2.6421  2.6434  2.6447
2.6459  2.6472  2.6485  2.6498  2.6510  2.6523  2.6536
2.6549  2.6562  2.6574  2.6587  2.6600

*
*
*BASIN 1
*
COMPUTE NM HYD      ID=1 HYD NO=100.1 AREA=0.01516 SQ MI
                    PER A=0.00 PER B=31.00 PER C=0.00 PER D=69.00
                    TP=-0.1333 HR MASS RAINFALL=-1
```

```
         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =   41.298    CFS   UNIT VOLUME =   0.9989       B =   526.28
 P60 = 1.8700
         AREA =     0.010460 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.050000


         K =  0.130992HR    TP =  0.133300HR    K/TP RATIO =  0.982685     SHAPE
CONSTANT, N =  3.593298
         UNIT PEAK =   11.532    CFS   UNIT VOLUME =    1.000       B =   327.08
 P60 = 1.8700
         AREA =     0.004700 SQ MI    IA =   0.50000 INCHES    INF =   1.25000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.050000

    PRINT HYD           ID=1 CODE=1

                                       PARTIAL HYDROGRAPH   100.10


        RUNOFF VOLUME =     1.92681 INCHES      =       1.5579 ACRE-FEET
        PEAK DISCHARGE RATE =      37.23 CFS  AT   1.500 HOURS   BASIN AREA =
0.0152 SQ. MI.



    *
    *
    *BASIN 2
    *
    COMPUTE NM HYD      ID=2 HYD NO=100.2 AREA=0.01000 SQ MI
                        PER A=0.00 PER B=35.00 PER C=0.00 PER D=65.00
                        TP=-0.1333 HR MASS RAINFALL=-1

         K =  0.072649HR    TP =  0.133300HR    K/TP RATIO =  0.545000     SHAPE
CONSTANT, N =  7.106428
         UNIT PEAK =   25.662    CFS   UNIT VOLUME =   0.9987       B =   526.28
 P60 = 1.8700
         AREA =     0.006500 SQ MI    IA =   0.10000 INCHES    INF =   0.04000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.050000


         K =  0.130992HR    TP =  0.133300HR    K/TP RATIO =  0.982685     SHAPE
```

```
CONSTANT, N =  3.593298
         UNIT PEAK =    8.5881     CFS    UNIT VOLUME =    0.9997        B =    327.08
 P60 = 1.8700
         AREA =      0.003500 SQ MI     IA =    0.50000 INCHES     INF =    1.25000
INCHES PER HOUR
         RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
0.050000

    PRINT HYD            ID=2 CODE=1

                                        PARTIAL HYDROGRAPH    100.20


        RUNOFF VOLUME =      1.86373 INCHES      =        0.9940 ACRE-FEET
        PEAK DISCHARGE RATE =       24.04 CFS  AT    1.500 HOURS    BASIN AREA =
0.0100 SQ. MI.



    *
    *
    ADD HYD                          ID=20 HYD NO=100.20 ID=1  ID=2

    *
    *
    *ROUTE BASIN 1 & 2 THROUGH WATER QUALITY DETENTION POND
    *
    *
    ROUTE RESERVOIR      ID=55 HYD NO=200.1 INFLOW ID=20 CODE=24
                             OUTFLOW (CFS) STORAGE(AC-FT) ELEVATION(FT)
                                    0.000          0.0000             95.00

                                    0.010          0.3028             96.00

                                    0.020          0.3807             96.23

                                    7.130          0.6641             97.00

                                   13.274          1.0838             98.00

                                   20.125          1.5620             99.00

                                   25.176          2.0987            100.00


      *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

        TIME       INFLOW     ELEV       VOLUME     OUTFLOW
        (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)
```

0.00	0.00	95.00	0.000	0.00
1.20	7.63	95.29	0.088	0.00
2.40	2.08	97.68	0.949	11.31
3.60	0.11	96.40	0.443	1.57
4.80	0.15	96.25	0.390	0.25
6.00	0.26	96.25	0.389	0.23
7.20	0.28	96.26	0.391	0.27
8.40	0.28	96.26	0.391	0.28
9.60	0.28	96.26	0.391	0.28
10.80	0.28	96.26	0.391	0.28
12.00	0.28	96.26	0.391	0.28
13.20	0.28	96.26	0.391	0.28
14.40	0.28	96.26	0.391	0.28
15.60	0.28	96.26	0.391	0.28
16.80	0.28	96.26	0.391	0.28
18.00	0.28	96.26	0.391	0.28
19.20	0.28	96.26	0.391	0.28
20.40	0.28	96.26	0.391	0.28
21.60	0.28	96.26	0.391	0.28
22.80	0.28	96.26	0.391	0.28
24.00	0.28	96.26	0.391	0.28
25.20	0.00	96.23	0.381	0.04
26.40	0.00	96.23	0.379	0.02
27.60	0.00	96.22	0.377	0.02
28.80	0.00	96.21	0.375	0.02
30.00	0.00	96.21	0.373	0.02
31.20	0.00	96.20	0.372	0.02
32.40	0.00	96.20	0.370	0.02
33.60	0.00	96.19	0.368	0.02
34.80	0.00	96.19	0.366	0.02
36.00	0.00	96.18	0.364	0.02
37.20	0.00	96.18	0.362	0.02
38.40	0.00	96.17	0.361	0.02
39.60	0.00	96.17	0.359	0.02
40.80	0.00	96.16	0.357	0.02
42.00	0.00	96.16	0.356	0.02
43.20	0.00	96.15	0.354	0.02
44.40	0.00	96.15	0.352	0.02
45.60	0.00	96.14	0.351	0.02
46.80	0.00	96.14	0.349	0.02
48.00	0.00	96.13	0.348	0.02
49.20	0.00	96.13	0.346	0.02
50.40	0.00	96.12	0.345	0.02
51.60	0.00	96.12	0.343	0.02
52.80	0.00	96.11	0.342	0.01
54.00	0.00	96.11	0.340	0.01
55.20	0.00	96.11	0.339	0.01
56.40	0.00	96.10	0.337	0.01
57.60	0.00	96.10	0.336	0.01
58.80	0.00	96.09	0.334	0.01

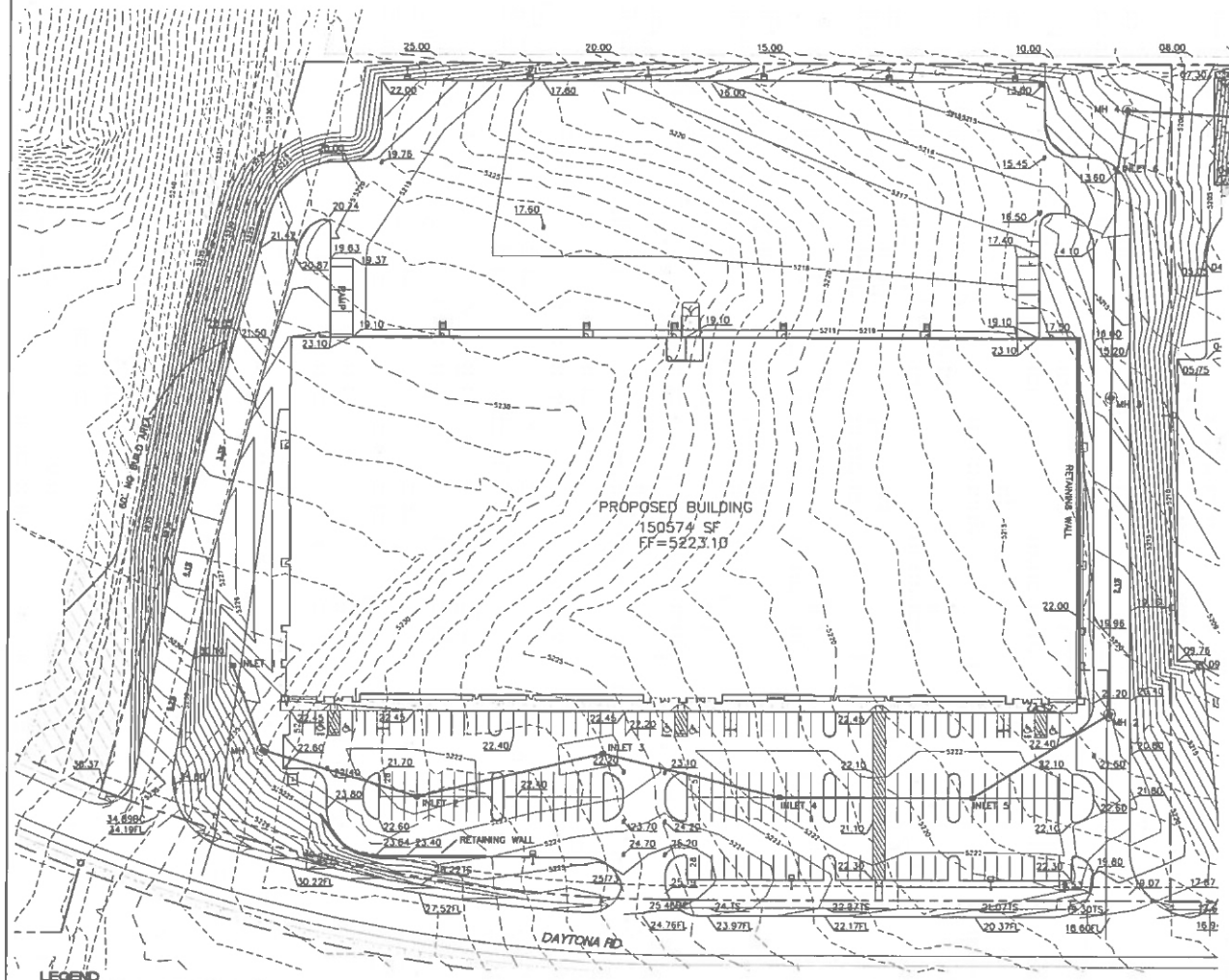
60.00	0.00	96.09	0.333	0.01
61.20	0.00	96.08	0.332	0.01
62.40	0.00	96.08	0.330	0.01
63.60	0.00	96.08	0.329	0.01
64.80	0.00	96.07	0.328	0.01
66.00	0.00	96.07	0.326	0.01

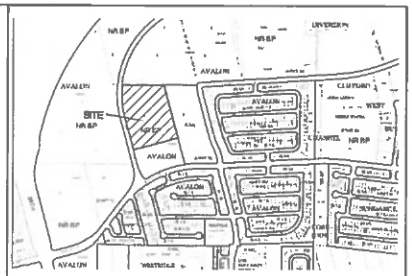
TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
67.20	0.00	96.07	0.325	0.01
68.40	0.00	96.06	0.324	0.01
69.60	0.00	96.06	0.322	0.01
70.80	0.00	96.05	0.321	0.01
72.00	0.00	96.05	0.320	0.01
73.20	0.00	96.05	0.319	0.01
74.40	0.00	96.04	0.318	0.01
75.60	0.00	96.04	0.316	0.01
76.80	0.00	96.04	0.315	0.01
78.00	0.00	96.03	0.314	0.01
79.20	0.00	96.03	0.313	0.01
80.40	0.00	96.03	0.312	0.01
81.60	0.00	96.02	0.311	0.01
82.80	0.00	96.02	0.310	0.01
84.00	0.00	96.02	0.309	0.01
85.20	0.00	96.01	0.308	0.01
86.40	0.00	96.01	0.307	0.01
87.60	0.00	96.01	0.306	0.01
88.80	0.00	96.00	0.304	0.01
90.00	0.00	96.00	0.303	0.01
91.20	0.00	96.00	0.302	0.01
92.40	0.00	96.00	0.301	0.01
93.60	0.00	95.99	0.301	0.01
94.80	0.00	95.99	0.300	0.01
96.00	0.00	95.99	0.299	0.01
97.20	0.00	95.98	0.298	0.01
98.40	0.00	95.98	0.297	0.01
99.60	0.00	95.98	0.296	0.01
100.80	0.00	95.97	0.295	0.01
102.00	0.00	95.97	0.294	0.01
103.20	0.00	95.97	0.293	0.01
104.40	0.00	95.96	0.292	0.01
105.60	0.00	95.96	0.291	0.01
106.80	0.00	95.96	0.290	0.01
108.00	0.00	95.95	0.289	0.01
109.20	0.00	95.95	0.288	0.01
110.40	0.00	95.95	0.287	0.01
111.60	0.00	95.94	0.286	0.01
112.80	0.00	95.94	0.285	0.01
114.00	0.00	95.94	0.284	0.01

115.20	0.00	95.94	0.283	0.01
116.40	0.00	95.93	0.282	0.01
117.60	0.00	95.93	0.281	0.01
118.80	0.00	95.93	0.281	0.01
120.00	0.00	95.92	0.280	0.01
121.20	0.00	95.92	0.279	0.01
122.40	0.00	95.92	0.278	0.01
123.60	0.00	95.91	0.277	0.01
124.80	0.00	95.91	0.276	0.01
126.00	0.00	95.91	0.275	0.01
127.20	0.00	95.91	0.274	0.01
128.40	0.00	95.90	0.273	0.01
129.60	0.00	95.90	0.272	0.01
130.80	0.00	95.90	0.271	0.01
132.00	0.00	95.89	0.271	0.01
133.20	0.00	95.89	0.270	0.01

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
134.40	0.00	95.89	0.269	0.01
135.60	0.00	95.88	0.268	0.01
136.80	0.00	95.88	0.267	0.01
138.00	0.00	95.88	0.266	0.01
139.20	0.00	95.88	0.265	0.01
140.40	0.00	95.87	0.264	0.01
141.60	0.00	95.87	0.264	0.01
142.80	0.00	95.87	0.263	0.01
144.00	0.00	95.86	0.262	0.01
145.20	0.00	95.86	0.261	0.01
146.40	0.00	95.86	0.260	0.01
147.60	0.00	95.86	0.259	0.01
148.80	0.00	95.85	0.258	0.01
150.00	0.00	95.85	0.258	0.01
151.20	0.00	95.85	0.257	0.01
152.40	0.00	95.85	0.256	0.01
153.60	0.00	95.84	0.255	0.01
154.80	0.00	95.84	0.254	0.01
156.00	0.00	95.84	0.253	0.01
157.20	0.00	95.83	0.253	0.01
158.40	0.00	95.83	0.252	0.01
159.60	0.00	95.83	0.251	0.01
160.80	0.00	95.83	0.250	0.01
162.00	0.00	95.82	0.249	0.01
163.20	0.00	95.82	0.249	0.01
164.40	0.00	95.82	0.248	0.01
165.60	0.00	95.82	0.247	0.01
166.80	0.00	95.81	0.246	0.01
168.00	0.00	95.81	0.245	0.01
169.20	0.00	95.81	0.244	0.01

```
   170.40       0.00     95.80      0.244      0.01
   171.60       0.00     95.80      0.243      0.01
   172.80       0.00     95.80      0.242      0.01
   174.00       0.00     95.80      0.241      0.01
   175.20       0.00     95.79      0.241      0.01
   176.40       0.00     95.79      0.240      0.01
   177.60       0.00     95.79      0.239      0.01
   178.80       0.00     95.79      0.238      0.01
   180.00       0.00     95.78      0.237      0.01
   181.20       0.00     95.78      0.237      0.01
   182.40       0.00     95.78      0.236      0.01
   183.60       0.00     95.78      0.235      0.01
   184.80       0.00     95.77      0.234      0.01
   186.00       0.00     95.77      0.234      0.01
   187.20       0.00     95.77      0.233      0.01
   188.40       0.00     95.77      0.232      0.01
   189.60       0.00     95.76      0.231      0.01
   190.80       0.00     95.76      0.230      0.01
   192.00       0.00     95.76      0.230      0.01
   193.20       0.00     95.76      0.229      0.01
   194.40       0.00     95.75      0.228      0.01
   195.60       0.00     95.75      0.227      0.01
   196.80       0.00     95.75      0.227      0.01
   198.00       0.00     95.75      0.226      0.01
   199.20       0.00     95.74      0.225      0.01
 PEAK DISCHARGE =       16.821 CFS - PEAK OCCURS AT HOUR    1.80
 MAXIMUM WATER SURFACE ELEVATION =       98.518
 MAXIMUM STORAGE =        1.3313 AC-FT      INCREMENTAL TIME=    0.050000HRS

*
PRINT HYD           ID=55  CODE=1

                                   PARTIAL HYDROGRAPH   200.10


     RUNOFF VOLUME =     1.73420 INCHES      =       2.3271 ACRE-FEET
     PEAK DISCHARGE RATE =      16.82 CFS  AT   1.800 HOURS   BASIN AREA =
0.0252 SQ. MI.



*
*
FINISH

     NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 11:26:28
```





NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREIN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 760-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 2" GRAVEL.

EXISTING DRAINAGE:

THIS SITE IS CURRENTLY VACANT AND IS LOCATED ON THE EAST SIDE OF DAYTONA ROAD JUST NORTH OF THE BLUEWATER RD. THE SITE IS BOUNDED BY ROADS ON THE WEST SIDE AND A MULTIFAMILY DEVELOPMENT ON THE EAST SIDE AND VACANT PROPERTY ON THE NORTH AND SOUTH SIDES. IT CONTAINS APPROXIMATELY 8.69 ACRES. THE SITE GENERALLY DRAINS FROM NORTHWEST TO SOUTHEAST WITH MOST OF IT DRAINING INTO THE ADJACENT SITE WHICH DRAINS TO BLUEWATER ROAD EXISTING STORM DRAIN. ACCORDING TO AN APPROVED MASTER DRAINAGE PLAN (K09D041) COMPLETED BY BOHANNAN HUSTON INC. THE ALLOWABLE DEVELOPED DISCHARGE FROM THE SITE IS 1.5 CFS PER ACRE. THE SITE IS NOT LOCATED WITH IN A FLOOD PLAIN AS SHOWN ON THE FIRM MAP. THERE ARE OFFSITE FLOWS THAT ENTER THE SITE FROM THE NORTH.

PROPOSED DRAINAGE:

THE SITE WILL DRAIN TO THE SOUTHEAST CORNER OF THE SITE INTO A PROPOSED STORM DRAIN WHICH WILL ROUTE THE FLOWS TO A PROPOSED DETENTION POND. THE POND WILL DISCHARGE AT THE CONTROLLED RATE OF 1.5 CFS PER ACRE TO THE EXISTING STORM DRAIN IN BLUEWATER ROAD. THIS POND WILL ALSO RETAIN THE WATER QUALITY VOLUME FOR THIS PARCEL.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- RETAINING WALL

STRUCTURE TABLE

STRUCTURE	SIZE/TYPE	RIM	INVERT
INLET 1	TYPE 'C'	5221.30	5134.70
INLET 2	TYPE 'C'	5221.40	5130.09
INLET 3	TYPE 'C'	5221.60	5127.76
INLET 4	TYPE 'C'	5221.40	5134.00 IN 5131.42 OUT
INLET 5	TYPE 'C'	5221.40	5134.00 IN 5131.42 OUT
INLET 6	TYPE 'D'	5213.80	5128.29

MH TABLE

STRUCTURE	SIZE/TYPE	RIM	INVERT
MH 1	TYPE 'C' 4' DIA	5223.00	5134.70
MH 2	TYPE 'C' 4' DIA	5221.02	5130.09
MH 3	TYPE 'C' 4' DIA	5216.52	5127.76
MH 4	TYPE 'C' 4' DIA	5211.25	5134.00 IN 5131.47 OUT

CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION. TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS. PRIOR TO STARTING THE WORK, ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

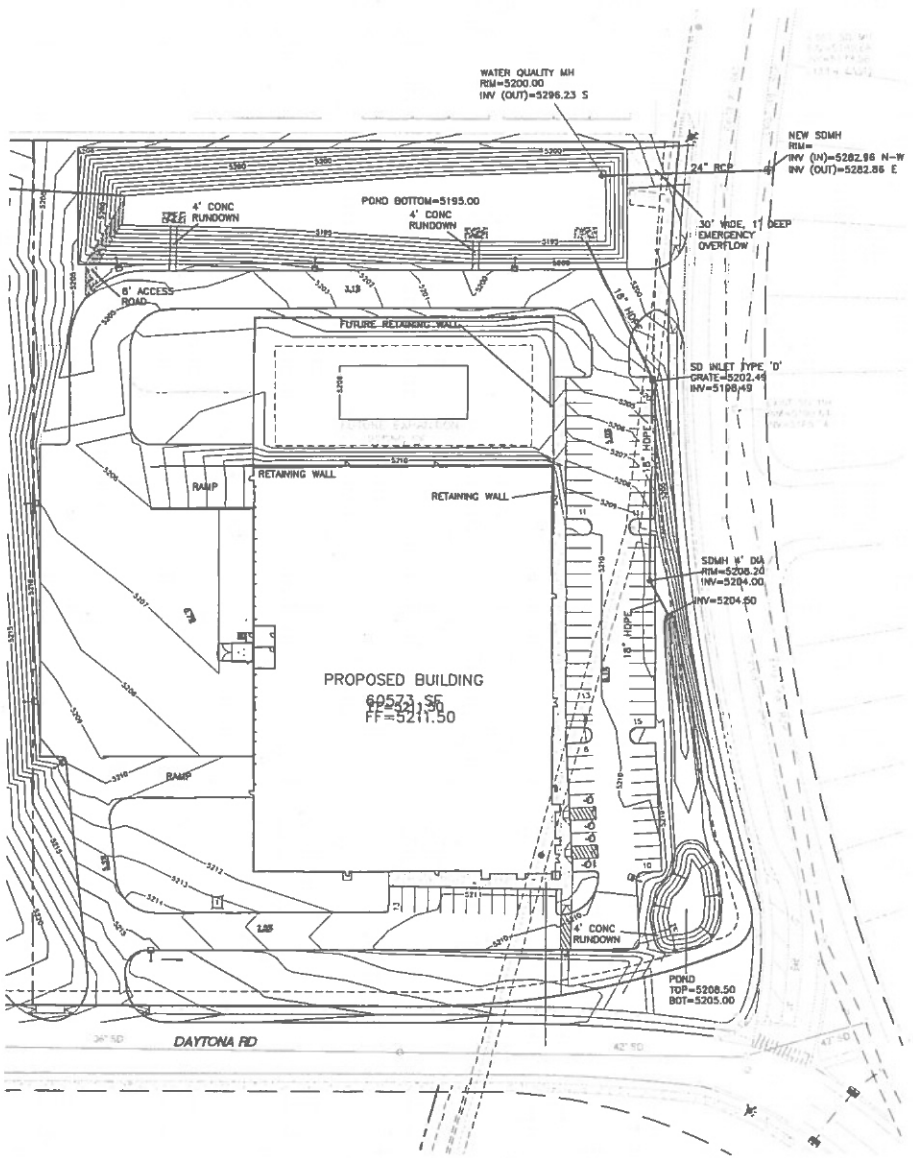
ENGINEER'S SEAL
RONALD R. BOHANNAN
NEW MEXICO
7986
PROFESSIONAL ENGINEER
11-4-21
RONALD R. BOHANNAN
P.E. #7986

TITAN 150K SPEC BUILDING
ALBUQUERQUE, NM

CONCEPTUAL GRADING AND DRAINAGE PLAN

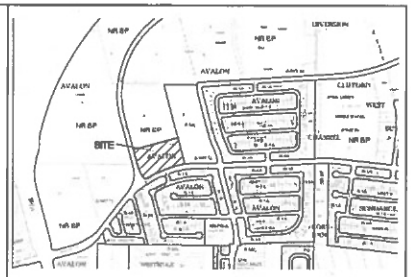
TierraWest, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY: pm
DATE: 11-4-21
DRAWING: 2020088-150K-GR.DWG
SHEET #: GR-1
JOB #: 2020088



LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- RETAINING WALL



VICINITY MAP K-9-Z

FLOOD MAP 35001C0028J

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREIN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 3" GRAVEL.

EXISTING DRAINAGE

THIS SITE IS CURRENTLY VACANT AND IS LOCATED ON THE SOUTHEAST CORNER OF BLUEWATER RD AND DAYTONA RD. THE SITE IS BOUNDED BY ROADS ON THE WEST AND SOUTH SIDES AND A MULTIFAMILY DEVELOPMENT ON THE EAST SIDE AND VACANT PROPERTY ON THE NORTH SIDE. IT CONTAINS APPROXIMATELY 6.41 ACRES. THE SITE GENERALLY DRAINS FROM NORTHWEST TO SOUTHEAST WITH MOST OF IT DRAINING INTO BLUEWATER ROAD EXISTING STORM DRAIN. ACCORDING TO AN APPROVED MASTER DRAINAGE PLAN (K09D041) COMPLETED BY BOHANNAN HUSTON INC. THE ALLOWABLE DEVELOPED DISCHARGE FROM THE SITE TO THE EXISTING STORM SEWER IN BLUEWATER IS 1.5 CFS PER ACRE. THE SITE IS NOT LOCATED WITH IN A FLOOD PLAIN AS SHOWN ON THE FIRM MAP. THERE ARE OFFSITE FLOWS THAT ENTER THE SITE FROM THE NORTH.

PROPOSED DRAINAGE

THE SITE WILL DRAIN TO THE SOUTHEAST CORNER OF THE SITE INTO A PROPOSED DETENTION POND. THE POND WILL DISCHARGE AT THE CONTROLLED RATE OF 1.5 CFS PER ACRE TO THE EXISTING STORM DRAIN IN BLUEWATER ROAD. THIS POND WILL ALSO RETAIN THE WATER QUALITY VOLUME FOR THIS PARCEL.

CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

ENGINEER'S SEAL
RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER
11-10-21
RONALD R. BOHANNAN P.E. #7868

BLUE SKY DISTRIBUTING
ALBUQUERQUE, NM

CONCEPTUAL GRADING AND DRAINAGE PLAN

TIERRA WEST, LLC
5571 MIDWAY PARK PL NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY: pm
DATE: 11-10-21
DRAWING: 2020088-80K.DWG
SHEET #: GR-1
JOB #: 2020088