CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

November 26, 2019

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

RE: **Albuquerque School of Excellence Expansion**
13201 Lomas NE
Grading and Drainage Plan Stamp Date: 11/20/19
Hydrology File: J22D050

Dear Mr. Bohannan,

Based on the submittal received on 11/25/19, the grading and drainage plan is approved for Building Permit.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Certificate of Occupancy (For Information):

1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

2. A Bernalillo County Recorded Drainage Covenant (No Public Easement) is required for the stormwater control ponds. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) regarding the routing and recording process for covenants. The routing and recording process for covenants can take a month or longer; Hydrology recommends beginning this process as soon as possible as to not delay approval for certificate of occupancy.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: ABQ School Excellence Building Permit #:_____ Hydrology File #: _____

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

Legal Description: Parcel E-1-A Land Div Plat Parcels D-1-A & E-1-A Formerly Parcel D-1 & E-1 Panorama Heights ADDN

City Address: 13201 Lomas Blvd NE Albuquerque NM 87112

Applicant: Tierra West, LLC Contact: Jonathan Niski

Address: 5571 Midway Park Place NE Albuquerque NM 87109

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

Other Contact: _____ Contact: _____

Address: _____

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

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE X ADMIN SITE

IS THIS A RESUBMITTAL? X Yes _____ No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ DRAINAGE REPORT
____ DRAINAGE MASTER PLAN
____ 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:

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
X GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 11/21/2019 By: Jonathan Niski

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____

TIERRA WEST, LLC

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

November 19, 2019

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
PO BOX 1293
Albuquerque, NM 87103

RE: ALBUQUERQUE SCHOOL OF EXCELLENCE EXPANSION
13201 LOMAS NE
GRADING AND DRAINAGE PLAN STAMP DATE: 11/7/19
HYDROLOGY FILE: J22D050

Dear Mr. Peterson

Per your Hydrology Review comments letter dated 11/19/19, please find the following responses addressing your comments listed below:

1. Please number the pounds and include sections and labels on each with the Stormwater Quality Volume (SWQV) and elevation, the 100-year volume and elevation, the peak 100 year inflow, top of pond elevation. Provide pond volume calculations by contour area; correct the volume on the western pond.
   The ponds are now labeled and the information is shown on the cross-sections and in the pond volume tables.

2. Please include the SWQV calculations. This site qualifies as redevelopment and is only required to retain runoff from the 80th percentile storm (Vol. =0.26"*Imp.Area).
   The storm water quality volumes are now shown on the Grading Plan.

3. The eastern (and western) pond cannot encroach on the ROW.
   The previously submitted plan was showing the boundary line in error which is now correct. Neither pond is encroaching in the right-of-way.

4. Provide a section though the proposed building and Lomas. Provide stabilization of slopes exceeding 3:1. There's one stem wall elevation called out as TW=43.00 that probably should be 49.66.
   Cross-sections were added to the plan and the wall elevations corrected. Slope protection is shown in the cross-sections and called out as crushed cobble 3"-4" in diameter.

5. 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.gove, 924-3420) 14 days prior to any earth disturbance.
   An erosion control plan will be submitted once the owner is ready to proceed and completes the NOI on line.

6. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.
   Certification will be provided once the site is substantially complete.

7. A Bernalillo County Recorded Drainage Covenant (No Public Easement) is required for the stormwater control ponds. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) regarding the routing and recording process for covenants. The routing and recording process for covenants can take a month or longer, Hydrology recommends beginning this process as soon as possible as to not delay approval for certificate of occupancy.
   Drainage Covenants will be submitted once the Grading Plan is approved for construction.

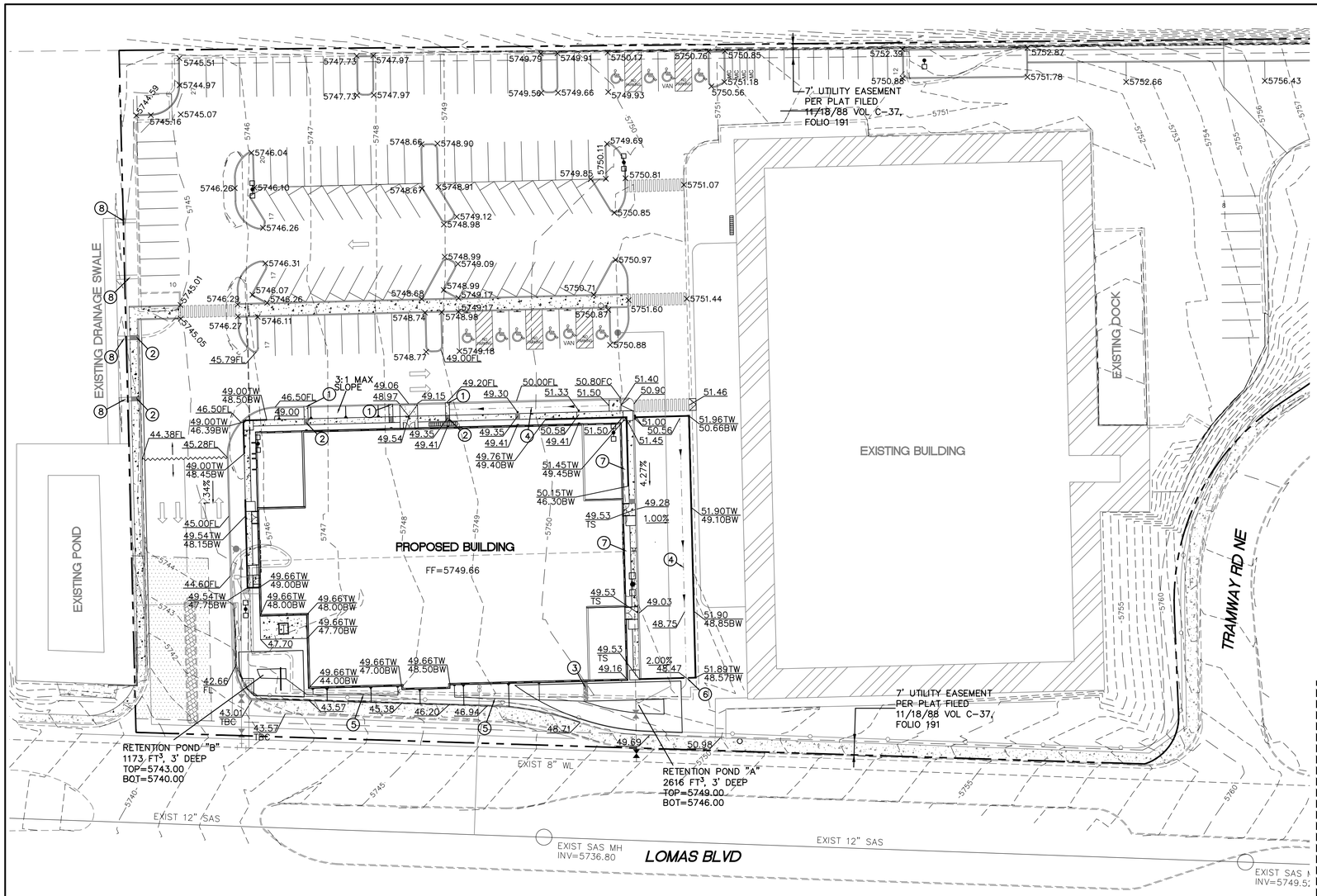
If you have any questions or need additional information regarding this matter, please do not hesitate to contact me.

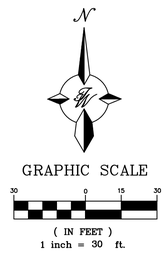
Sincerely,

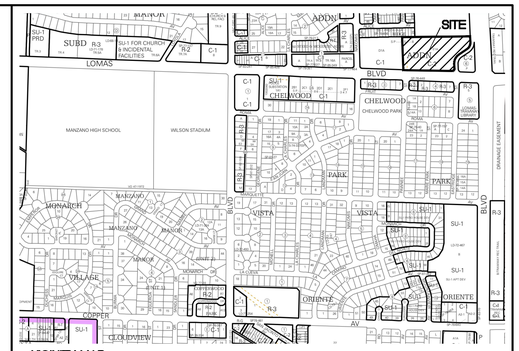
Ronald R. Bohannan, P.E

JN: 2019068

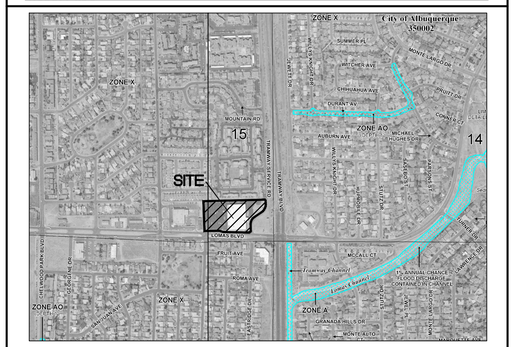
RRB/jn/ye



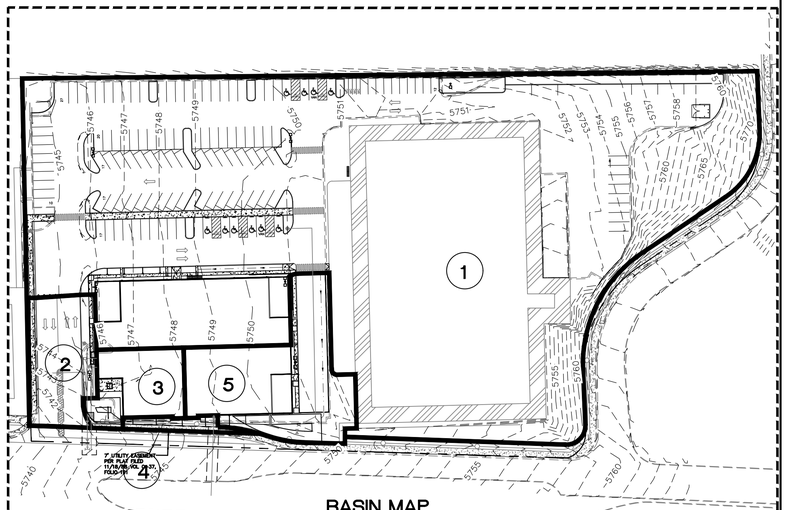




VICINITY MAP



FIRM MAP 35001C0359G, 35001C0378G



BASIN MAP

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- BUILDING
- SIDEWALK
- RETAINING WALL
- x 5048.25 — SPOT ELEVATION (FLOWLINE)
- XX.XX — SPOT ELEVATION (+5700)
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- 5010 — EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR

KEYED NOTES

1. 2' CURB CUT
2. 2' SIDEWALK CULVERT PER COA STD DWG 2236 (TYP)
3. COBBLE SWALE INTO POND
4. 2' SWALE
5. CAPTURE ROOF DRAINS IN 6" PIPE AND DAYLIGHT INTO POND
6. 2' OPENING IN WALL FOR DRAINAGE
7. LANDSCAPE AREA TO DRAIN THROUGH SIDEWALK CULVERT
8. EXISTING RUNDOWN

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.
8. PRIOR TO WORK WITHIN THE PASEO DEL NORTE RIGHT-OF-WAY, A NMDOT PERMIT WILL BE REQUIRED

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.

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

11/20/2018

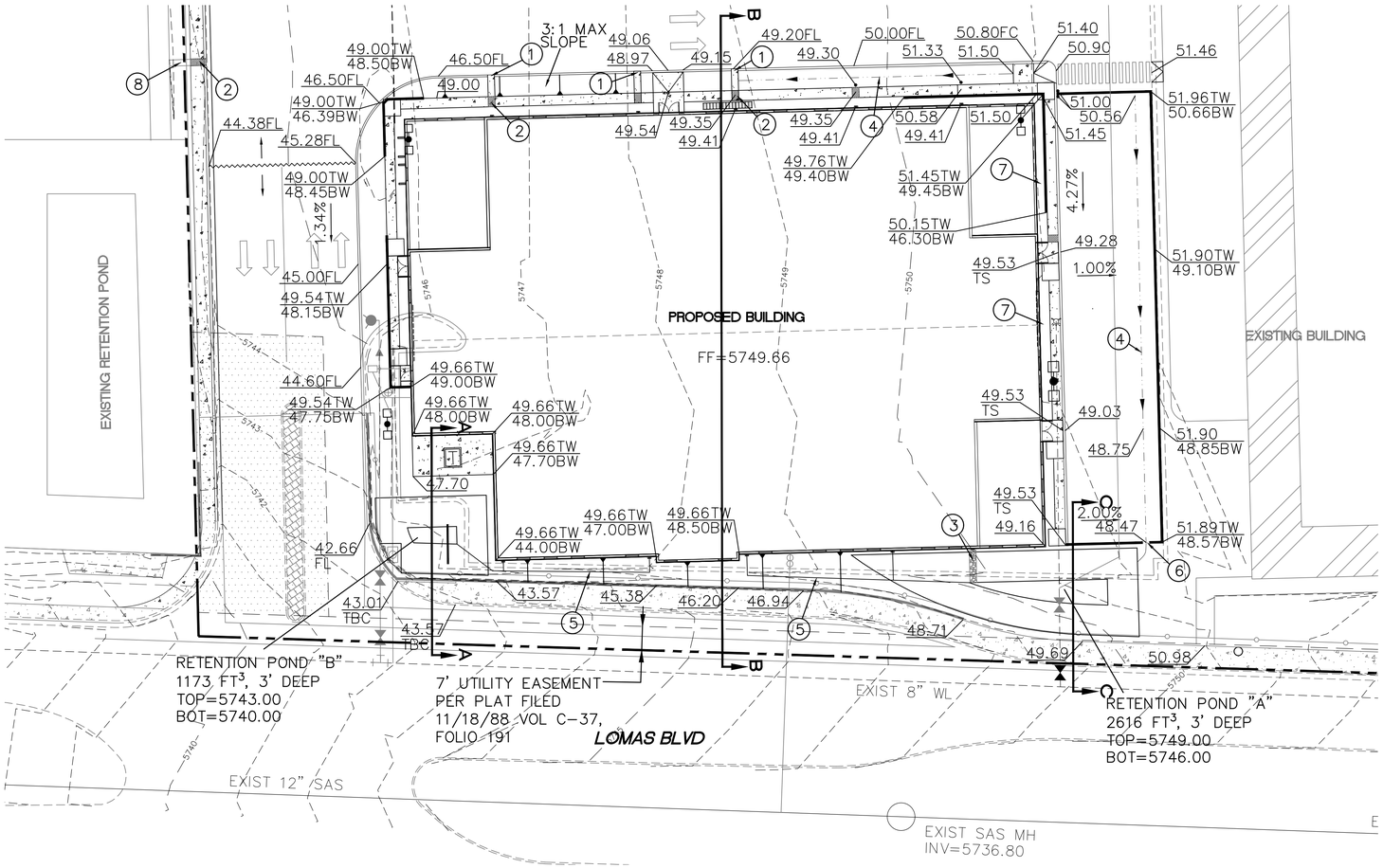
RONALD R. BOHANNAN P.E. #7868

ABQ SCHOOL OF EXCELLENCE

OVERALL 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	11-20-19
DRAWING	2019068-GR
SHEET #	GR-1
JOB #	2019068



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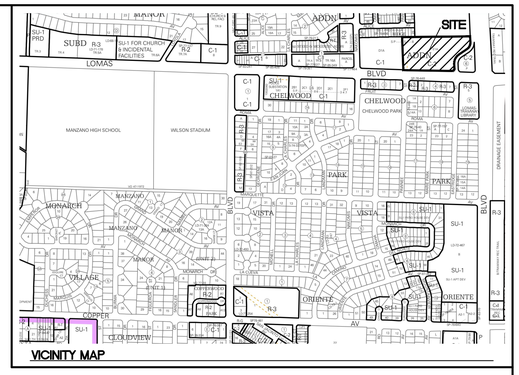

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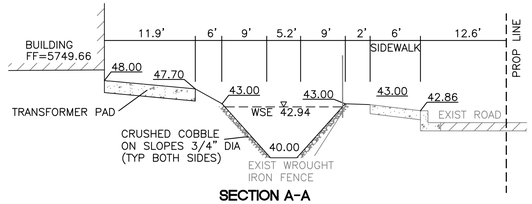
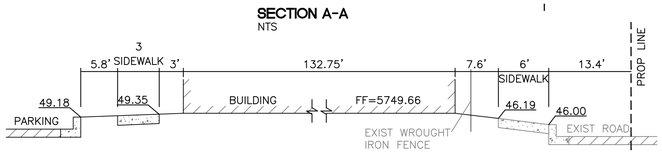
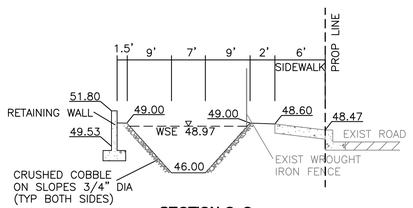


SECTION A-A
NTS



SECTION B-B



SECTION C-C
NTS

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

Weighted E Method

Mountain Off-Site Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year Weighted E (in)	100-Year Volume (ac-ft)	100-Year Flow cfs	10-Year Weighted E (in)	10-Year Volume (ac-ft)	10-Year Flow cfs
1	188,240	4.32	0%	0	25%	1.08	0%	0.00	75%	3.24	2.250	0.810	20.17	1.383	0.498	13.14
2	7,375	0.17	0%	0	15%	0.03	0%	0.00	85%	0.14	2.406	0.034	0.83	1.506	0.021	0.55
3	5,895	0.14	0%	0	22%	0.03	0%	0.00	78%	0.11	2.297	0.026	0.64	1.419	0.016	0.42
4	750	0.02	0%	0	0%	0.00	100%	0.02	0%	0.00	1.460	0.002	0.06	0.730	0.001	0.04
5	15,536	0.36	0%	0	42%	0.15	0%	0.00	58%	0.21	1.985	0.059	1.52	1.173	0.035	0.96
		5.00										**0.931**	**23.23**			

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

Excess Precipitation, E (inches)		
Zone 4	100-Year	10 - Year
E_a	0.8	0.28
E_b	1.08	0.46
E_c	1.46	0.73
E_d	2.64	1.69

Peak Discharge (cfs/acre)		
Zone 4	100-Year	10 - Year
Q_a	2.2	0.87
Q_b	2.92	1.45
Q_c	3.73	2.26
Q_d	5.25	3.57

VOLUME CALCULATIONS

POND "A"

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 * D²
C = (At - Ab) / Dt
Ab = 204.00
At = 1,540.00
Dt = 3.00
C = 445.33

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	VOLUME (CU-FT)	
5746.00	0.00	0.00	0	
5746.59	0.59	0.0045	198	1st Flush
5747.00	1.00	0.0098	427	
5748.00	2.00	0.0298	1299	
5748.97	2.97	0.0590	2570	100 yr WSE
5749.00	3.00	0.0601	2616	

POND "B"

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 * D²
C = (At - Ab) / Dt
Ab = 67.00
At = 716.00
Dt = 3.00
C = 216.33

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	VOLUME (CU-FT)	
5740.00	0.00	0.00	0	
5740.71	0.71	0.0024	103	1st Flush
5741.00	1.00	0.0040	175	
5742.00	2.00	0.0130	567	
5742.94	2.94	0.0260	1133	100 yr WSE
5743.00	3.00	0.0270	1175	

FIRST FLUSH CALCULATIONS

POND "A": 9148 FT² * 0.26"/12"=198 FT³
POND "B": 4792 FT² * 0.26"/12"=103 FT³

EXISTING DRAINAGE CONTIDION:
THE SITE IS AN EXISTING DEVELOPED LOT CONSISTING OF A SINGLE BUILDING AND PARKING LOT. THE SITE WAS ORIGINALLY APPROVED AS A GROCERY STORE IN 1995 AND THEN CONVERTED TO THE EXISTING SCHOOL IN 2016. THE SITE DRAINS FROM EAST TO WEST AND THE SURFACE RUNOFF IS CONTAINED IN A DRAINAGE CHANNEL JUST OFF-SITE ALONG THE WESTERN PROPERTY LINE. THE DRAINAGE CHANNEL DIRECTS THE FLOWS TO AN EXISTING RETENTION POND THAT HAS AN EMERGENCY OVERFLOW ONTO LOMAS BLVD. THERE IS AN EXISTING DRAINAGE EASEMENT IN PLACE FOR THE DRAINAGE CHANNEL AND RETENTION POND. THE SITE IS LOCATED IN ZONE X.

PROPOSED DRAINAGE CONDITION:
FOR THE MOST PART THE SITE WILL FOLLOW THE EXISTING DRAINAGE PATTERN. A NEW BUILDING IS BEING PROPOSED ON THE SOUTH PARKING LOT SO THE IMPERVIOUS AREA IS NOT INCREASED FROM WHEN THE SITE WAS ORIGINALLY DEVELOPED. THE EXISTING RETENTION POND WILL CONTAIN THE FIRST FLUSH FOR THE SITE AS IT IS SIZED TO CONTAIN THE 100YR FLOW. WITH THE CONSTRUCTION OF THE PROPOSED BUILDING THERE ARE TWO SMALL AREAS THAT WILL NOT BE ABLE TO DRAIN TO THE EXISTING RETENTION POND. FOR EACH OF THOSE BASINS PONDS ARE BEING CREATED TO CONTAIN THE 100 YR FLOW AND WILL THEREFORE CONTAIN THE FIRST FLUSH. BOTH POND WILL OVERFLOW ONTO LOMAS BLVD. IN THE EVENT A RAINFALL EXCEEDS THE 100 YR STORM.

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.

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SHEET #: GR-2
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