

# CITY OF ALBUQUERQUE

Planning Department  
David Campbell, Director



Mayor Timothy M. Keller

February 15, 2019

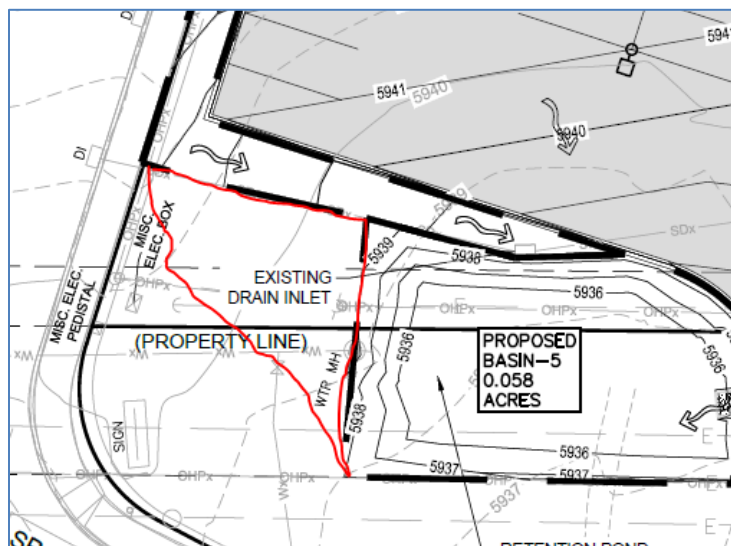
Jacky Lin, P.E.  
WHPacific, Inc.  
6501 Americas Parkway NE, Suite 400  
Albuquerque, NM 87110

RE: **James Dwyer Substation Parking Lot Expansion**  
**12700 Montgomery NE**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 2/1/19**  
**Hydrology File: G23D011**

Dear Mr. Lin:

Based on the submittal received on 2/4/19, the Grading Plan cannot be approved for Grading or Paving Permit until the following are corrected:

1. The pond needs to be sized for the undeveloped area between the pond and Montgomery, as this area drains into it also:



2. Because this pond serves as a detention pond, provide a primary outfall to the public ROW and include pond routing calculations and the storage-discharge curve. It'll also need an emergency spillway, sized for the 100-yr peak inflow. Alternatively, the pond can be converted to a retention pond if it is upsized to retain the 100-yr, 10-day volume. If configured this way, pond routing calculations and primary outfall are not required.

PO Box 1293

Albuquerque

NM 87103

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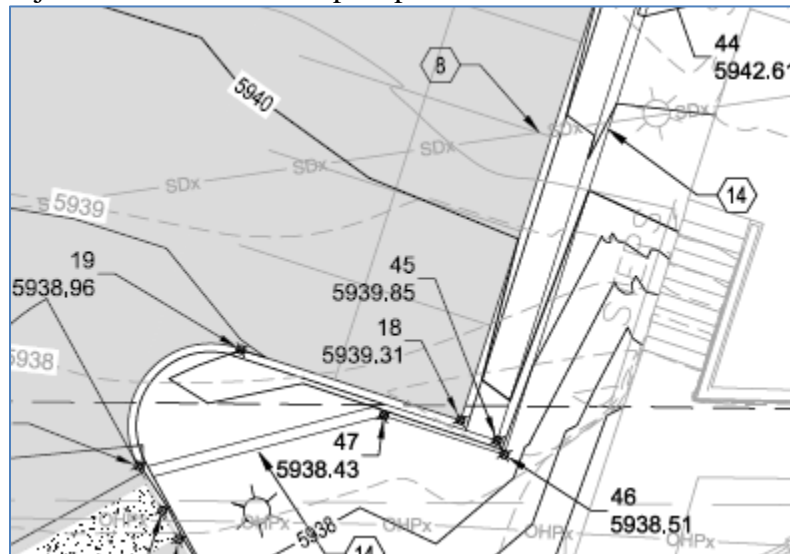
# CITY OF ALBUQUERQUE

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3. Provide an armored swale between the parking lot and back of sidewalk on Montgomery to convey flows to the pond.
4. Provide sections and hydraulic capacity calculations for the valley gutter/drive entrance. It seems as though peak flows will jump the valley gutter and continue out the drive entrance, bypassing the pond.
5. Provide additional spot elevations and grade-to-drain notes to ensure ponding does not occur at the SW corner of the parking lot. Also provide erosion protection between this corner and the adjacent stairs on the steep slope:



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If you have any questions, please contact me at 924-3695 or [dpeterson@cabq.gov](mailto:dpeterson@cabq.gov).

[www.cabq.gov](http://www.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 11/2018)

**Project Title:** James Dwyer Substation Parking Lot Expansion **Building Permit #:** N/A **Hydrology File #:** \_\_\_\_\_

**DRB#:** N/A **EPC#:** SI-2018-00172 **Work Order#:** N/A

**Legal Description:** Lots 3A and 4, Block 2 Glenwood Hills Unit 1, On Montgomery Between Spanish Bit and Landau Drive.

**City Address:** 12700 Montgomery Blvd. NE, Albuquerque, NM 87111

**Applicant:** WHPacific, Inc **Contact:** Minxuan(Jacky) Lin

**Address:** 6501 America Pkwy NE, Ste 400

**Phone#:** 505-348-5221 **Fax#:** \_\_\_\_\_ **E-mail:** jlin@whpacific.com

**Owner:** City of Albuquerque, Department of Municipal Development **Contact:** Stacy Herrera

**Address:** One Civic Plaza NW, 7th Floor, Albuquerque, NM 87102

**Phone#:** 505-768-2768 **Fax#:** \_\_\_\_\_ **E-mail:** stacyherrera@cabq.gov

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_\_# OF LOTS) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE  ADMIN SITE

IS THIS A RESUBMITTAL?: \_\_\_\_\_ Yes  No

**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/ TRANSPORTATION  HYDROLOGY/ DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

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

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

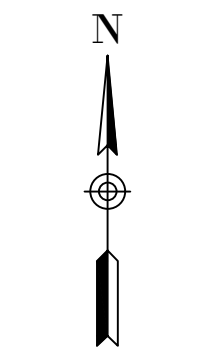
- \_\_\_\_\_ BUILDING PERMIT APPROVAL
- \_\_\_\_\_ CERTIFICATE OF OCCUPANCY
- \_\_\_\_\_ PRELIMINARY PLAT APPROVAL
- \_\_\_\_\_ SITE PLAN FOR SUB'D APPROVAL
- \_\_\_\_\_ SITE PLAN FOR BLDG. PERMIT APPROVAL
- \_\_\_\_\_ FINAL PLAT APPROVAL
- \_\_\_\_\_ SIA/ RELEASE OF FINANCIAL GUARANTEE
- \_\_\_\_\_ 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:** 2-4-2019 **By:** Minxuan(Jacky) Lin

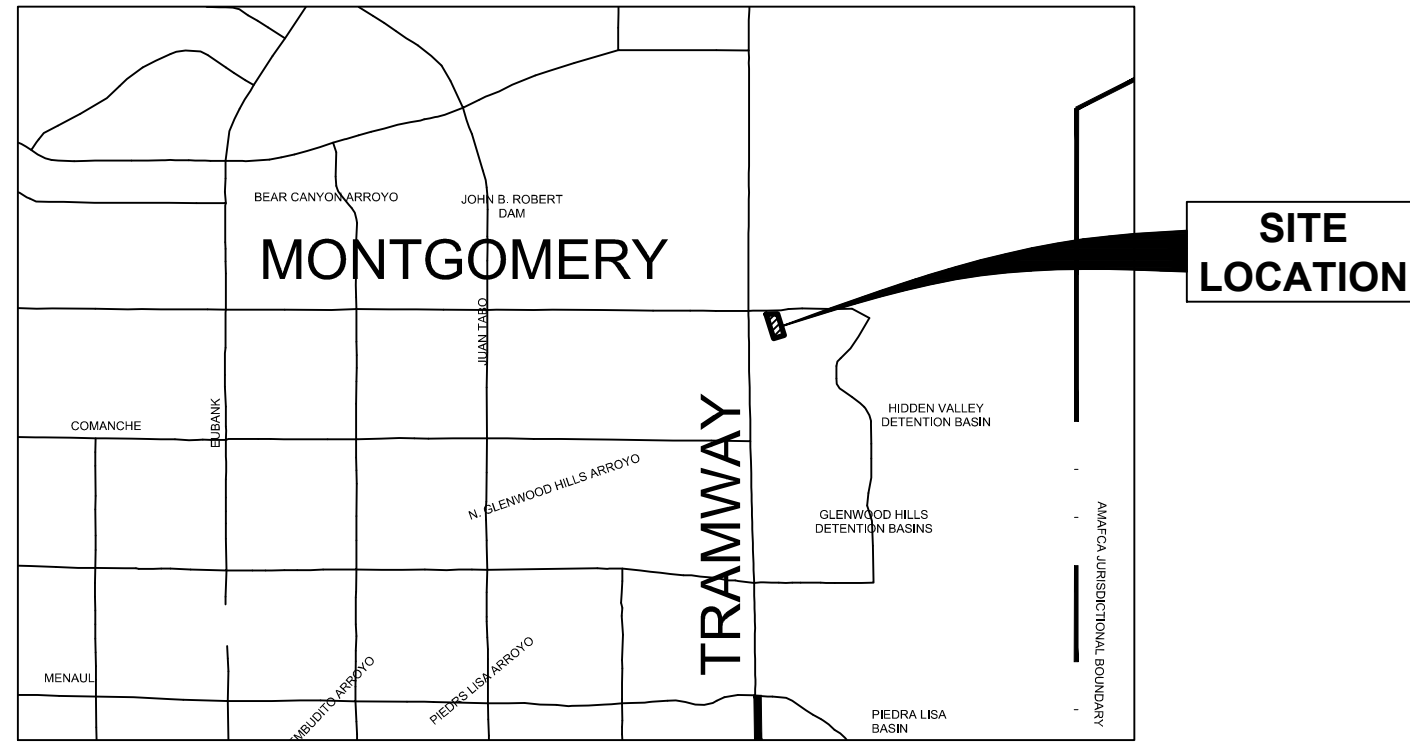
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_



VICINITY MAP  
NOT TO SCALE



# GLENWOOD HILLS, UNIT 1 LOT 4, BLOCK 2

### LEGAL DESCRIPTION

A TRACT OF LAND SITUATED WITHIN TOWNSHIP 10 NORTH, RANGE 4 EAST, SECTION 2, NEW MEXICO PRINCIPLE MERIDIAN, WITHIN THE CITY OF ALBUQUERQUE, COUNTY OF BERNALILLO, STATE OF NEW MEXICO. SAID TRACT OF LAND BEING DESCRIBED AS LOT 4, BLOCK 2 AS SHOWN ON THE PLAT ENTITLED "UNIT 1, GLENWOOD HILLS, SUBDIVISION, ALBUQUERQUE, NEW MEXICO", BEING MORE PARTICULARLY DESCRIBED BY NEW MEXICO STATE PLANE GRID, CENTRAL ZONE (NAD83) BEARINGS AND GRID DISTANCES AS FOLLOWS:

COMMENCING AT A FOUND CITY OF ALBUQUERQUE BRASS CAP MONUMENT "1-G23";

THENCE N 84°53'59" W, A DISTANCE OF 3,372.80 FT TO A POINT ON THE WESTERLY RIGHT OF WAY LINE LANDAU STREET TO A FOUND NO. 5 REBAR, BENT;

THENCE, S 72°39'13" W, ALONG THE SOUTHERLY BOUNDARY OF SAID LOT 4, BLOCK 2, A DISTANCE OF 220.13 FT TO A FOUND NO. 5 REBAR, WITH A YELLOW PLASTIC CAP MARKED "PS 11482";

THENCE, N 17°30'30" W, ALONG THE WESTERLY BOUNDARY OF SAID LOT 4, BLOCK 2, COMMON TO THE EASTERLY LINE OF LOT 3A, BLOCK 2 AND ALSO BEING THE EASTERLY BOUNDARY OF A 150 FT WIDE P.N.M. EASEMENT, COMMON TO THE WESTERLY BOUNDARY OF A 10 FT WIDE P.N.M. & M.S.T.&T. EASEMENT, A DISTANCE OF 519.08 FT TO A POINT ON THE NORTHERLY BOUNDARY OF SAID LOT 4, BLOCK 2, AND BEING ON THE SOUTHERLY RIGHT OF WAY LINE MONTGOMERY BOULEVARD TO A POINT NOT SET;

THENCE, N 89°44'38" E, WITH THE SAID SOUTHERLY RIGHT OF WAY LINE AND ON THE NORTHERLY BOUNDARY OF SAID LOT 4, BLOCK 2, A DISTANCE OF 231.10 FT TO THE INTERSECTION OF THE WESTERLY RIGHT OF WAY LINE LANDAU STREET TO A POINT NOT SET;

THENCE, S 17°26'06" E, ON THE SAID RIGHT OF WAY LINE LANDAU STREET AND ON THE EASTERLY BOUNDARY OF SAID LOT 4, BLOCK 2, A DISTANCE OF 451.17 FT TO THE POINT OF BEGINNING;

THE DESCRIBED ENCLOSED AREA CONSISTS OF 106,938.33 SQ. FT. OR 2.4550 ACRES OF LAND, MORE OR LESS.

### DOCUMENTS USED TO PREPARE THIS BOUNDARY SURVEY

1. Montgomery and Tramway Police Station Site Plan as prepared by Dekker/Perich/Sabatini, dated December 10, 2001, Project No. 6230.91.
2. Summary Plat Lots 2A and 3A being a Replat of Lot 3 and a portion of Lot 2 Block 2, Unit 1, Glenwood Hills, Bernalillo County, New Mexico, dated June 1983. Prepared by Ronald A. Forstbauer.
3. Unit 1, Glenwood Hills, dated February 1961.
4. Tracts X-1-A and X-2-A Block 2, Unit 1, Glenwood Hills, dated March, 1987 as prepared by Thomas T. Mann, Jr., dated April 2, 1987.
5. Tract A, Block 1, Unit 1 Glenwood Hills, filed September 18, 1983, C22-32.

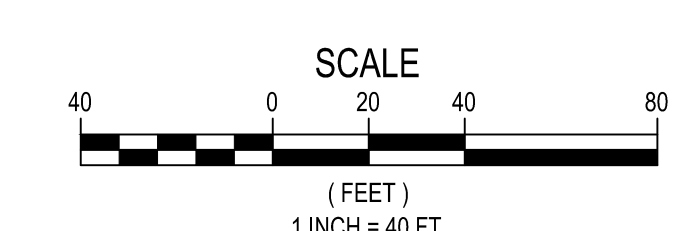
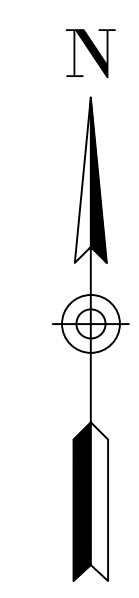
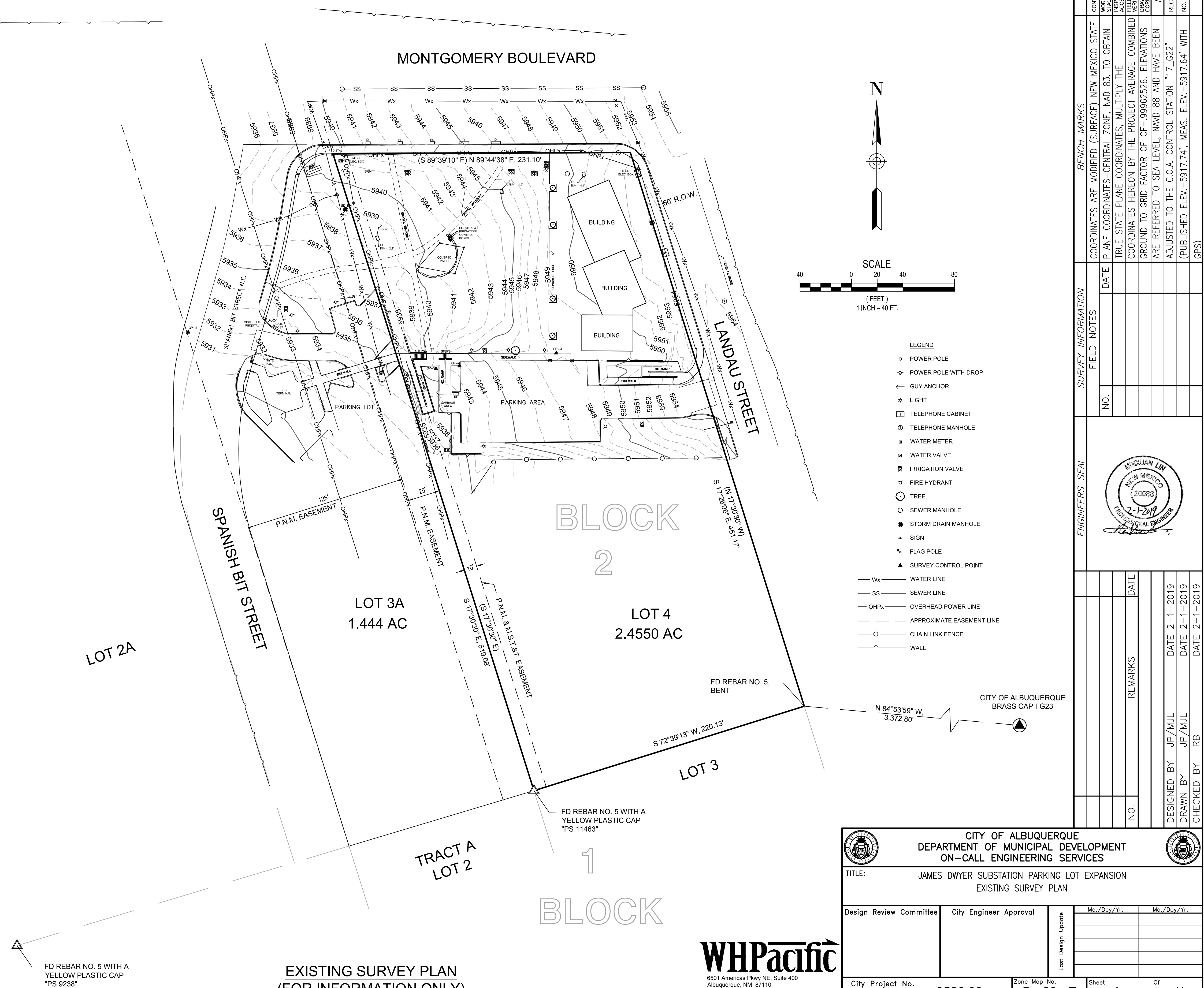
### NOTES:

1. Survey commenced on July 2, 2018 and was completed on July 31, 2018.
2. Surface improvements were located at the time of this survey.
3. Control Points shown were set at the time of this survey. Coordinates shown were derived from GPS Static observations as completed by NGS (OPUS).
4. The Basis of Bearing for this project is based on GPS (Grid) and the distance shown are grid distances.
5. The grid to ground scale factor for this project is 1.000374870. The combined grid scale factor for this project is 0.99962527.
6. The purpose of this survey was to define the boundary and provide a topographic survey of the existing conditions on a portion of Lot 3A and a portion of Lot 4. The boundary as shown was taken from the design drawings as provided by the City of Albuquerque, Public Works Department as prepared by Dekker/Perich/Sabatini, dated 8/1/2000.

### SURVEYOR'S CERTIFICATE

I, Lynn D. Lantz, New Mexico Professional Surveyor No. 10856, do hereby certify that this Boundary Survey Plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets that Minimum Standards for Surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is a Boundary Survey Plat of an existing tract.

Surveyor's Name \_\_\_\_\_ PS No. \_\_\_\_\_ Date \_\_\_\_\_



### LEGEND

- ◇ POWER POLE
  - ◇ POWER POLE WITH DROP
  - ← GUY ANCHOR
  - \* LIGHT
  - TELEPHONE CABINET
  - TELEPHONE MANHOLE
  - WATER METER
  - ⊗ WATER VALVE
  - ⊗ IRRIGATION VALVE
  - ⊗ FIRE HYDRANT
  - TREE
  - SEWER MANHOLE
  - STORM DRAIN MANHOLE
  - ▲ SIGN
  - ▲ SURVEY CONTROL POINT
- Wx — WATER LINE
  - Ss — SEWER LINE
  - OHPx — OVERHEAD POWER LINE
  - — APPROXIMATE EASEMENT LINE
  - ○ — CHAIN LINK FENCE
  - — WALL

AS BUILT INFORMATION	
CONTRACTOR	
WORK STACKED BY	
FIELD ACCEPTANCE BY	
FIELD CORRECTION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

SURVEY INFORMATION	
DATE	
FIELD NOTES	
NO.	

ENGINEERS SEAL	
REMARKS	
DATE	
DESIGNED BY	JP/MJL
DRAWN BY	JP/MJL
CHECKED BY	RB
DATE	2-1-2019
DATE	2-1-2019
DATE	2-1-2019

**CITY OF ALBUQUERQUE**  
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ON-CALL ENGINEERING SERVICES

TITLE: JAMES DWYER SUBSTATION PARKING LOT EXPANSION  
EXISTING SURVEY PLAN

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

City Project No. 6526.03      Zone Map No. G-23-Z      Sheet 3 of X

6501 Americas Pkwy NE, Suite 400  
Albuquerque, NM 87110  
505-247-0394 Fax 505-242-4845  
www.whpacific.com

EXISTING SURVEY PLAN  
(FOR INFORMATION ONLY)

FD REBAR NO. 5 WITH A  
YELLOW PLASTIC CAP  
"PS 9238"

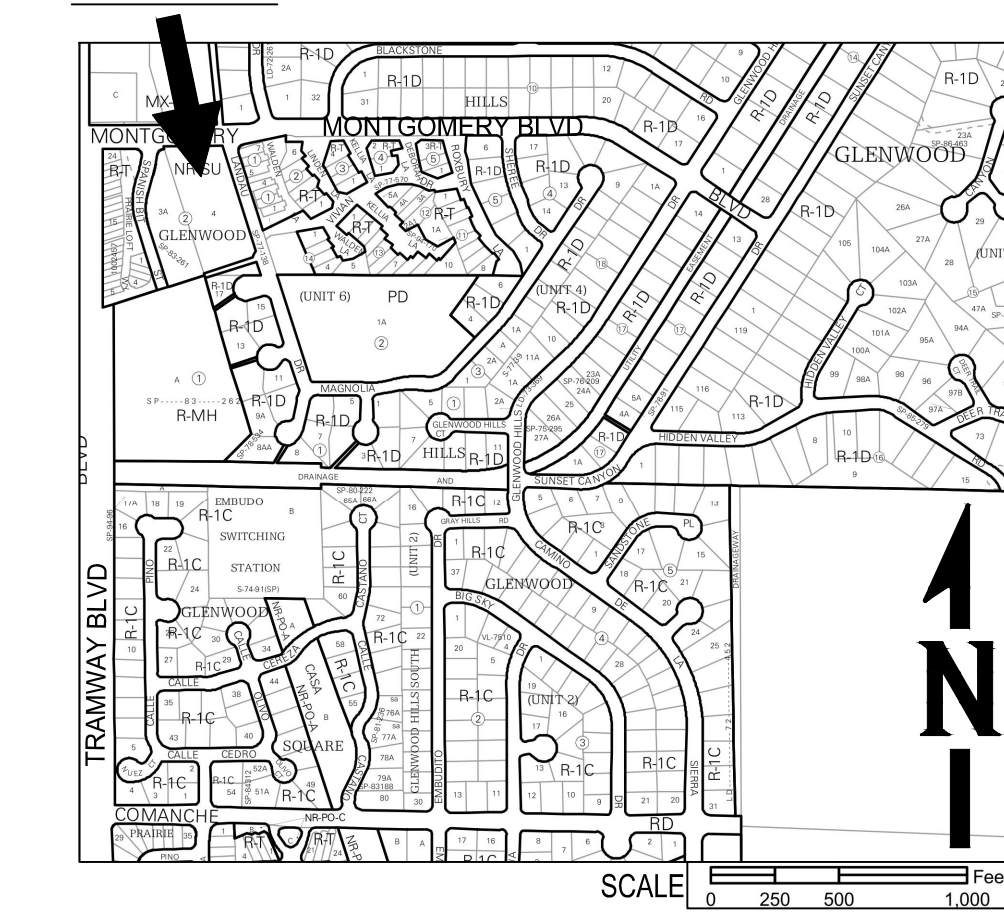




**GRADING & DRAINAGE PLAN**  
SCALE: 1" = 10'

**VICINITY MAP**

**PROJECT LOCATION**



**CONSTRUCTION NOTES**

- A. AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- B. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2011.
- C. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
- D. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- E. ALL ELEVATIONS SHOWN ON THIS PLAN FOR TO FLOW LINE OF CURB, TOP OF SIDEWALK, BOTTOM OF POND, BOTTOM OF WALL, FINISHED GRADE & EXISTING GRADE, UNLESS OTHERWISE NOTED.

**KEY NOTES**

1. TIE TO EXISTING GRADE, CONTRACTOR TO FIELD VERIFY.
2. NEW RETENTION POND. SEE PLANTING PLAN FOR MATERIAL USE ON RETENTION POND.
3. CONSTRUCT RETENTION POND @ 3H: 1V MAX SLOPE.
4. INSTALL 12" HDPE STORM DRAIN PIPE.
5. INSTALL 12" NYLOPLAST INLINE DRAIN BASIN WITH DOME GRATE, OR APPROVED EQUIVALENT.
6. TIE INTO EXISTING CONCRETE DRAIN INLET.
7. CONVERT EXISTING DRAIN INLET INTO STORM DRAIN MANHOLE WITH TRAFFIC RATED LID.
8. EXISTING STORM DRAIN LINE TO REMAIN & PROTECTED THROUGH CONSTRUCTION.
9. EXISTING STORM DRAIN INLET TO REMAIN & PROTECTED THROUGH CONSTRUCTION.
10. CONSTRUCT 4" CONCRETE VALLEY GUTTER PER C.O.A STANDARD DETAILS.
11. CONSTRUCT 4" WIDE CONCRETE RUNDOWN TO BOTTOM OF RETENTION POND PER DETAIL 4, SHEET 10.
12. INSTALL 10' X 10' RIPRAP PAD PER DETAIL 5, SHEET 10.
13. INSTALL CMU WALL & WROUGHT IRON FENCE PER DETAIL 1, SHEET 11.
14. INSTALL CMU WALL PER DETAIL 2, SHEET 11.
15. INSTALL WROUGHT IRON FENCE WITH CMU PILLASTERS AND CMU FOUNDATION PER DETAIL 3, SHEET 11.
16. CONSTRUCT CONCRETE STAIRS PER DETAIL 3, SHEET 10.

SCALE  
(FEET)  
1 INCH = 10 FT.

**WHPacific**  
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505-247-0394 Fax 505-242-4845  
www.whpacific.com

**CITY OF ALBUQUERQUE**  
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ON-CALL ENGINEERING SERVICES

TITLE: JAMES DWYER SUBSTATION PARKING LOT EXPANSION  
GRADING PLAN

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

City Project No. 6526.03 Zone Map No. G-23-Z Sheet 7 of X

**AS BUILT INFORMATION**

CONTRACTOR	WORK STACKED BY	DATE OF ACCEPTANCE	FIELD LOCATION BY	DRAWINGS CORRECTED BY	MICRO-FILM INFORMATION
					RECORDED BY NO. DATE

**FIELD NOTES**

NO.	DATE	NOTES

**ENGINEERS SEAL**



REMARKS	DATE

DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
JP/MIL	2-1-2019	JP/MUL	2-1-2019	RB	2-1-2019

VICINITY MAP

PROJECT LOCATION



ABBREVIATION

- FL - FLOW LINE
- FG - FINISHED GRADE
- SWLK - SIDEWALK
- VG - VALLEY GUTTER

SURVEY CONTROL TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1502754.11	1566646.85	5934.23	FL
2	1502763.58	1566668.68	5936.68	FL
3	1502780.14	1566684.28	5937.13	FL-VG
4	1502785.31	1566689.17	5937.34	FL
5	1502806.00	1566697.34	5938.03	FL
6	1502846.06	1566697.18	5939.56	FL
7	1502886.12	1566697.02	5941.10	FL
8	1502886.30	1566742.02	5943.35	FL
9	1502886.48	1566787.02	5945.60	FL
10	1502886.58	1566814.02	5947.15	FL
11	1502854.87	1566814.14	5946.49	FL
12	1502848.87	1566814.17	5946.43	FL
13	1502802.08	1566814.35	5945.96	FL
14	1502796.08	1566814.38	5945.90	FL
15	1502748.60	1566814.56	5945.43	FL
16	1502748.46	1566778.56	5943.27	FL
17	1502748.32	1566742.56	5941.11	FL
18	1502748.20	1566712.56	5939.31	FL
19	1502762.18	1566712.50	5938.96	FL
20	1502765.92	1566703.87	5937.88	FL
21	1502763.68	1566701.76	5937.61	FL-VG
22	1502762.23	1566700.39	5937.70	FL
23	1502759.85	1566698.16	5937.54	FL
24	1502734.40	1566688.65	5934.75	FL
25	1502788.00	1566670.00	5935.50	POND

SURVEY CONTROL TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
26	1502836.16	1566657.47	5935.50	POND
27	1502841.09	1566663.83	5935.50	POND
28	1502842.50	1566680.00	5935.50	POND
29	1502809.50	1566689.00	5935.50	POND
30	1502791.50	1566679.50	5935.50	POND
31	1502786.11	1566688.31	5937.46	EG
32	1502806.00	1566696.17	5938.23	EG
33	1502845.94	1566696.01	5939.12	EG
34	1502887.29	1566695.85	5941.86	EG
35	1502887.47	1566742.02	5944.20	EG
36	1502887.65	1566787.01	5947.09	EG
37	1502887.77	1566818.18	5948.89	EG
38	1502745.45	1566818.75	5947.58	EG
39	1502746.08	1566815.07	5945.91	FG
40	1502745.43	1566815.08	5947.32	EG
41	1502745.95	1566778.61	5943.78	FG
42	1502745.29	1566778.61	5945.40	EG
43	1502745.81	1566742.62	5941.66	FG
44	1502745.15	1566742.62	5942.61	EG
45	1502745.70	1566712.07	5939.85	FG
46	1502745.03	1566711.41	5938.51	FG
47	1502752.71	1566711.38	5938.43	FG
48	1502746.12	1566818.07	5945.97	FG
49	1502795.60	1566817.88	5946.46	FG
50	1502795.60	1566818.55	5948.46	FG

SURVEY CONTROL TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
51	1502796.10	1566819.88	5946.18	STAIR
52	1502796.11	1566821.43	5948.18	STAIR
53	1502796.12	1566824.68	5949.05	SWLK
54	1502802.62	1566824.71	5949.10	SWLK
55	1502802.11	1566821.40	5948.24	STAIR
56	1502802.10	1566819.85	5946.24	STAIR
57	1502802.60	1566817.85	5946.53	FG
58	1502802.60	1566818.52	5948.48	FG
59	1502848.38	1566817.68	5947.00	FG
60	1502848.39	1566818.34	5948.24	FG
61	1502848.89	1566819.67	5946.71	STAIR
62	1502848.90	1566821.22	5948.71	STAIR
63	1502848.41	1566825.03	5949.05	SWLK
64	1502855.41	1566825.00	5949.11	SWLK
65	1502854.90	1566821.19	5948.77	STAIR
66	1502854.89	1566819.64	5946.77	STAIR
67	1502855.38	1566817.44	5947.06	FG
68	1502855.39	1566818.31	5948.32	FG
69	1502887.10	1566817.52	5947.71	FG
70	1502886.96	1566820.58	5949.00	FG
71	1502866.00	1566822.00	5947.76	FG-GRATE
72	1502839.00	1566822.00	5947.50	FG-GRATE
73	1502814.00	1566822.00	5947.75	FG-GRATE
74	1502781.50	1566822.00	5947.00	FG-GRATE
75	1502751.50	1566822.00	5947.30	FG-GRATE

AS BUILT INFORMATION	
CONTRACTOR	
WORK STACKED BY	
FIELD ACCEPTANCE BY	
FIELD LOCATION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

BENCH MARKS	
COORDINATES ARE MODIFIED (SURFACE) NEW MEXICO STATE	
PLANE COORDINATES-CENTRAL ZONE, NAD 83, TO OBTAIN	
TRUE STATE PLANE COORDINATES, MULTIPLY THE	
COORDINATES HEREON BY THE PROJECT AVERAGE COMBINED	
GROUND TO GRID FACTOR OF CF=.998662526. ELEVATIONS	
ARE REFERRED TO SEA LEVEL, NAVD 88 AND HAVE BEEN	
ADJUSTED TO THE C.O.A. CONTROL STATION "17_G22"	
(PUBLISHED ELEV.=5917.74', MEAS. ELEV.=5917.64' WITH	
(GPS)	

SURVEY INFORMATION	
DATE	
FIELD NOTES	
NO.	

ENGINEERS SEAL	
DESIGNED BY	JP/MJL
DRAWN BY	JP/MJL
CHECKED BY	RB
DATE	2-1-2019
DATE	2-1-2019
DATE	2-1-2019

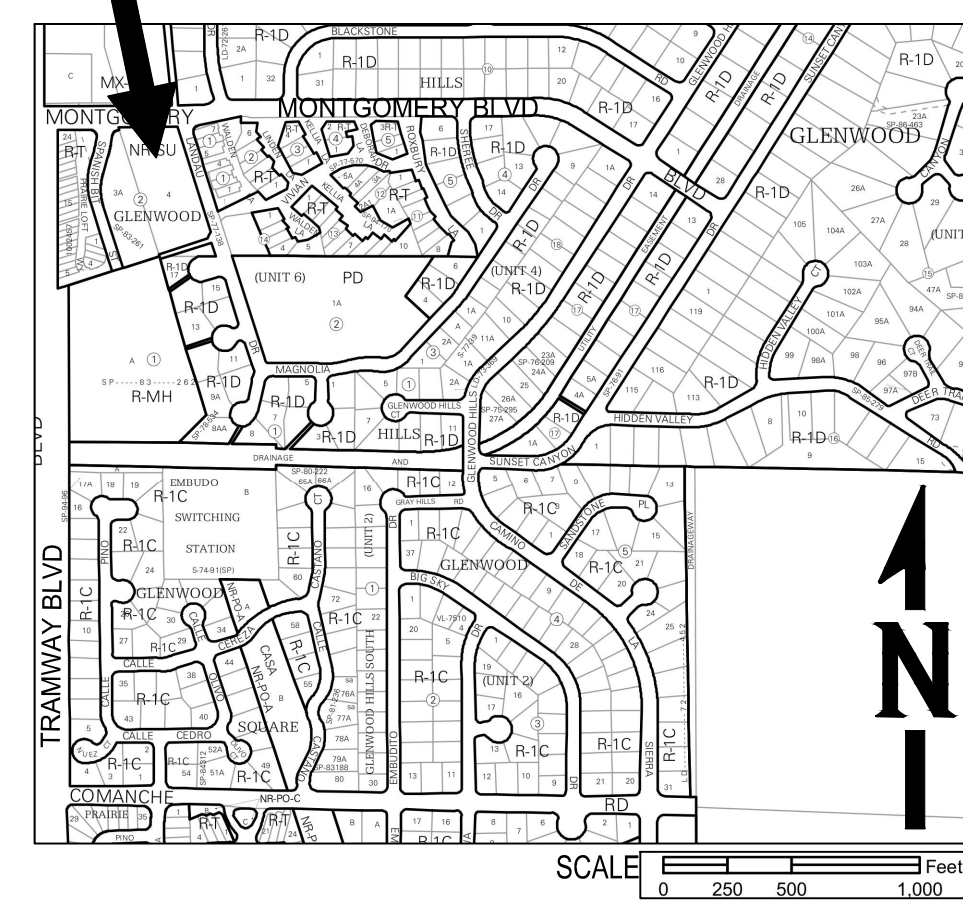
 <b>CITY OF ALBUQUERQUE</b> DEPARTMENT OF MUNICIPAL DEVELOPMENT ON-CALL ENGINEERING SERVICES	
TITLE: JAMES DWYER SUBSTATION PARKING LOT EXPANSION GRADING POINT TABLES	
Design Review Committee	City Engineer Approval
Ms./Day/Yr.      Ms./Day/Yr.	
City Project No. <b>6526.03</b> Zone Map No. <b>G - 23 - Z</b> Sheet <b>8</b> of <b>X</b>	

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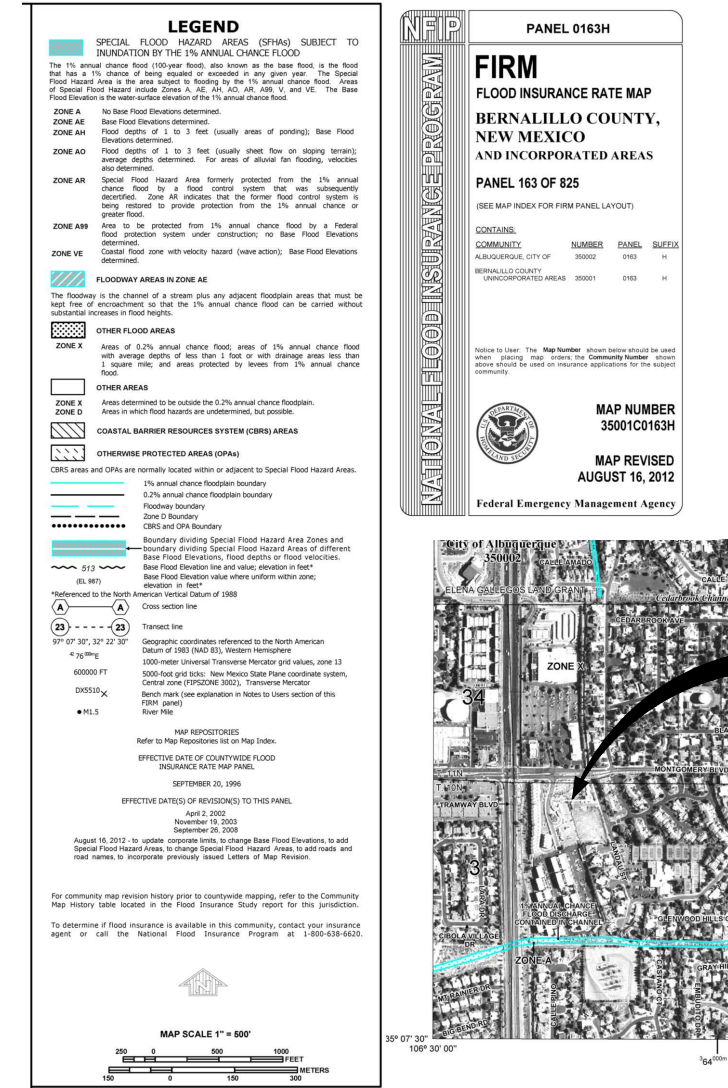


VICINITY MAP

PROJECT LOCATION



FIRM MAP : MAP NUMBER 35001C0163H



PROJECT LOCATION



100-YR & 90th PERCENTILE STORM EVENTS HYDROLOGIC CALCULATIONS

BASIN	AREA (ACRES)	LAND TREATMENT				100-YR			90th Percentile Storm Events				
		A (%)	B (%)	C (%)	D (%)	UNIT PEAK DISCHARGE (CFS/AC)	WEIGHTED E (IN)	PEAK DISCHARGE (CFS)	VOLUME 6 HOUR (AC-FT)	UNIT PEAK DISCHARGE (CFS/AC)	WEIGHTED E (IN)	PEAK DISCHARGE (CFS)	VOLUME 6 HOUR (AC-FT)
EXISTING CONDITIONS													
EX 1	0.03	0.0	0.0	0.0	100.0	5.25	2.64	0.16	0.01				
EX 2	0.07	0.0	0.0	0.0	100.0	5.25	2.64	0.37	0.02				
EX 3	0.24	0.0	0.0	100.0	0.0	3.73	1.46	0.90	0.03				
EX 4	0.34	0.0	0.0	88.0	12.0	3.91	1.60	1.33	0.05				
TOTALS	0.68						2.75		0.097			0.00	0.00
PROPOSED CONDITIONS													
1	0.117	0.0	0.0	23.0	77.0	4.90	2.37	0.57	0.02	0.44	0.00	0.004	
2	0.035	0.0	0.0	100.0	0.0	3.73	1.46	0.13	0.004				
3	0.058	0.0	0.0	90.0	10.0	3.88	1.58	0.23	0.008				
4	0.41	0.0	0.0	2.0	88.0	4.69	2.35	1.92	0.080	0.44	0.00	0.02	
5	0.058	0.0	0.0	100.0	0.0	3.73	1.46	0.22	0.007				
TOTALS	0.68							3.07	0.122			0.00	0.02
PROPOSED VS. EXISTING DIFFERENCE													
								0.32	0.026			0.00	0.02

REFERENCE:

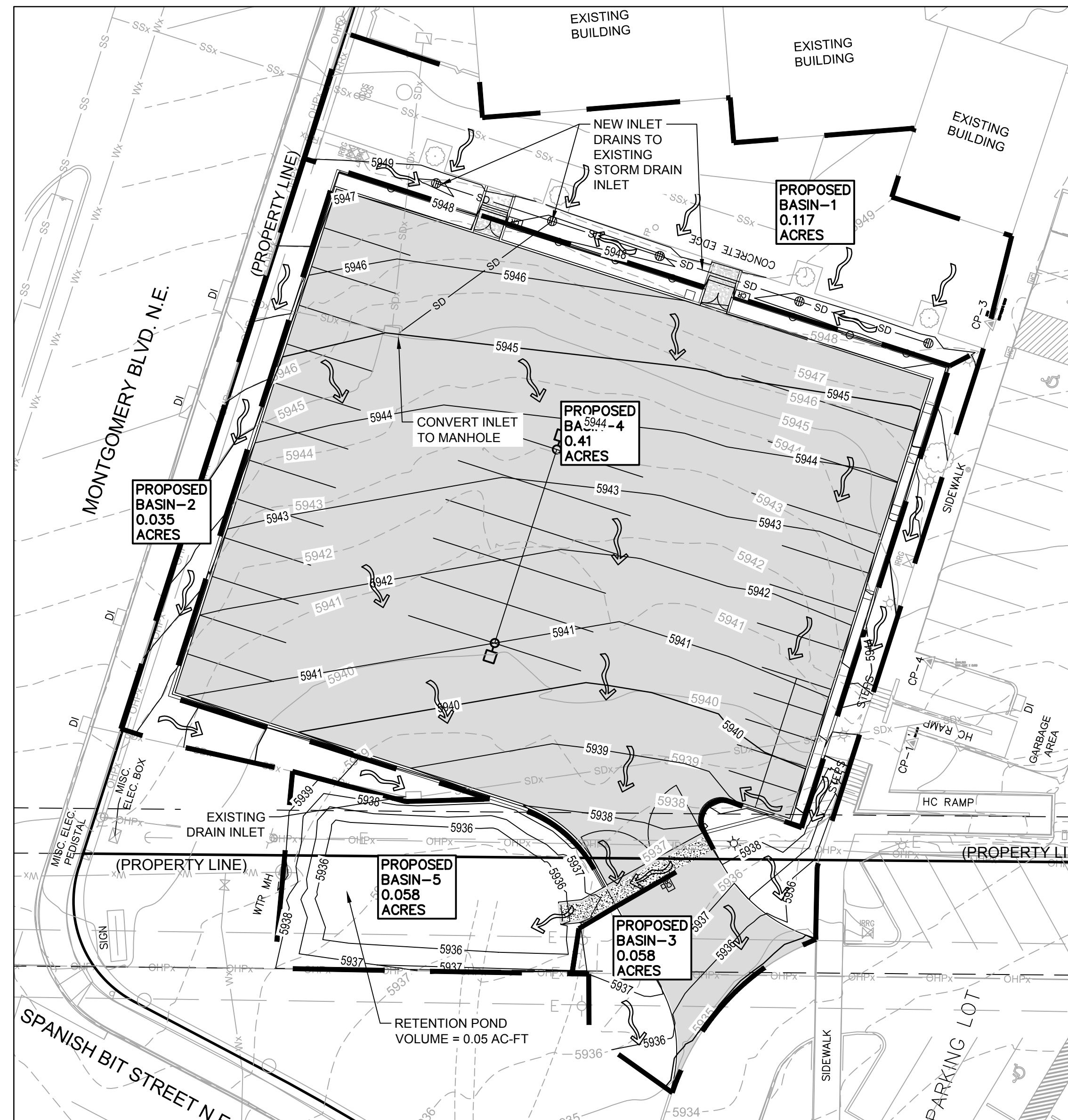
SECTION 22.2, HYDROLOGY, DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA OCTOBER 2008 REVISION, CITY OF ALBUQUERQUE, NEW MEXICO  
 PRECIPITATION ZONES = ZONE 4  
 DRAINAGE ORDINANCE DEFINES THE 90th PERCENTILE STORM EVENTS AS 0.44 INCHES.

RETENTION POND

ELEVATION	AREA (F <sup>2</sup> )	STORAGE (F <sup>3</sup> )	STORAGE (AC-FT)	CUMMULATIVE STORAGE (F <sup>3</sup> )	CUMMULATIVE STORAGE (AC-FT)
5935.5	1080	0	0.00	0	0.00
5936	1379	615	0.01	615	0.01
5936.5	1709	772	0.02	1387	0.03
5937	2070	945	0.02	2332	0.05
TOTAL STORAGE				2332	0.05



EXISTING DRAINAGE PLAN  
 1" = 20'



PROPOSED DRAINAGE PLAN  
 SCALE: 1" = 20'

LEGAL DESCRIPTION  
 LOTS 3A AND 4, BLOCK 2, UNIT 1, GLENWOOD HILLS TOGETHER

DRAINAGE BASIN AREA  
 0.54 ACRE; 23,489.04 SF

FLOOD ZONE DESIGNATION  
 NO PORTION OF THIS SITE LIES WITH A FLOOD PLAN AS DESIGNATED ON PANEL 163 OF 825 OF THE FEMA FLOOD INSURANCE RATE MAPS, MAP NUMBER 35001C0163H DATED AUGUST 16, 2012.

DRAINAGE CRITERIA

CALCULATIONS FOR EXISTING PEAK DISCHARGE AND VOLUMETRIC RUNOFF WERE PERFORMED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL CHAPTER 22, SECTION 2, HYDROLOGY'S DRAINAGE CRITERIA FOR THE 100-YR, 6 HOUR DESIGN STORM.

HYDROLOGIC STUDY

EXISTING CONDITIONS

THE SITE IS PRESENTLY LANDSCAPED AREA ON THE WEST SIDE OF THE EXISTING JAMES DWYER POLICE SUBSTATION. THERE WAS AN OPEN PAVILION NEAR THE CENTER OF THE PARCEL, AND GRAVEL TRAILS TRAVERSED THE SITE. THE GROUND SURFACE CONTAINED A MODERATE GROWTH OF GRASS AND SHRUBS. IT IS BORDERED BY MONTGOMERY BLVD. TO THE NORTH, LANDAU DRIVE TO THE EAST AND SPANISH BIT DRIVE TO THE WEST. BOTH MONTGOMERY BLVD. AND SPANISH BIT DRIVE HAVE EXISTING STORM DRAIN SYSTEMS WITH INLETS ADJACENT TO THE PROPERTY.

SITE DRAINAGE TRENDED TO THE WEST FROM EXISTING JAMES DWYER POLICE SUBSTATION BUILDING AS SURFACE SHEET FLOW AT SLOPE APPROXIMATELY 8-15%. AN INLET LOCATED AT THE EAST END OF THE SITE ACCEPTS THE EXISTING FLOWS FROM THE POLICE SUBSTATION. ANOTHER INLET LOCATED AT THE WEST END OF THE SITE ACCEPTS THE FLOW WITHIN THE SITE. BOTH INLETS COLLECT FLOWS THEN CONVEYED TO EXISTING STORM DRAIN SYSTEM LOCATED AT MONTGOMERY BLVD. THE REST OF THE AREA SURFACE FLOW TO SPANISH BIT DRIVE. SEE EXISTING DRAIN PLAN FOR EXISTING BASINS.

PROPOSED CONDITIONS

THE PROPOSED SITE IMPROVEMENTS FOR THE SITE WILL CONSIST OF A NEW SECURE PAVED PARKING LOT FOR LAW REINFORCEMENT VEHICLES WITH CMU RETAINING WALL / IRON FENCE, PEDESTRIAN & VEHICLE ACCESS GATES AND ONSITE PARKING LIGHTS.

THE PROPOSED DRAINAGE WILL BE DIVIDED INTO 5 BASINS, WITH OFF-SITE BASIN & ONSITE BASINS. SEE PROPOSED DRAINAGE PLAN FOR BASINS.

BASIN 1 WILL CONSISTED AREAS OF EXISTING SUB STATION CONCRETE SIDEWALK, DRAINAGE FLOW WILL COLLECTED THROUGH NEW INLINE DRAINS BETWEEN THE EXISTING AREA AND NEW IRON FENCE THAT CONNECT TO THE EXISTING STORM DRAIN SYSTEM LOCATED AT MONTGOMERY BLVD. BASIN 2 RUNOFF WILL BE SURFACE FLOW ALONG THE NORTHWEST WALL TO THE EXISTING DRAIN INLET OUTSIDE THE CMU WALL THAT CONVEYED TO THE SAME STORM DRAIN SYSTEM LOCATED AT MONTGOMERY BLVD.

BASIN 3 WILL BE CONSISTED OF OUTSIDE OF SOUTH WALL AND DRIVEWAY ENTRANCE TO THE NEW GATED PARKING. RUNOFF WILL SURFACE FLOW TO EXISTING PARK & RIDE PARKING LOT THAT CONVEYED TO SPANISH BIT STREET.

BASIN 4 WILL BE ALL AREA WITHIN THE SECURED PARKING. ALL DRAINAGE FLOWS WILL SURFACE FLOW THROUGH PROPOSED VALLEY GUTTER & CONCRETE RUNDOWN THAT LOCATED AT THE FRONT PARKING ENTRANCE.

BASIN 5 CONSISTED PROPOSED RETENTION POND, THE RETENTION WILL BE CONSTRUCTED AT THE DOWN STREAM OF THE CONCRETE RUNDOWN TO INTERCEPT THE 90 PERCENTILE RUNOFF & TO RETAIN THE DIFFERENCE OF THE HISTORIC RUNOFF FROM PRE-DEVELOPMENT TO POST-DEVELOPMENT.

THE RETENTION POND WILL BE DESIGNED WITH GRAVEL MULCH WITH LANDSCAPING.

DRAINAGE SUMMARY:

EXISTING DISCHARGE TO STORM INLET CONNECTED @ MONTGOMERY:  
 EX. BASIN 1 & EX. BASIN 3, DISCHARGE = 1.05 CFS, VOLUME = 0.04 AC-FT.

PROPOSED DISCHARGE TO STORM INLET CONNECTED @ MONTGOMERY:  
 PROP. BASIN 1 & 2, DISCHARGE = 0.70 CFS, VOLUME = 0.03 AC-FT.

NET DISCHARGE TO STORM INLET = -0.35 CFS, VOLUME = -0.01 AC-FT.

EXISTING DISCHARGE TO SPANISH BIT STREET:  
 EX. BASIN 2 & EX. BASIN 4, DISCHARGE = 1.70 CFS, VOLUME = 0.06 AC-FT.

PROPOSED DISCHARGE TO SPANISH BIT STREET:  
 PROP. BASIN 3, DISCHARGE = 0.23 CFS, VOLUME = 0.008 AC-FT.

PROPOSED DISCHARGE TO RETENTION POND:  
 PROP. BASIN 4 & 5, DISCHARGE = 2.14 CFS, VOLUME = 0.087 AC-FT.

PROPOSED POND STORAGE: VOLUME = 0.05 AC-FT, DISCHARGE 1.23 CFS.

TOTAL PROPOSED DISCHARGE TO SPANISH BIT STREET = 1.14 CFS, VOLUME = 0.045 AC-FT.

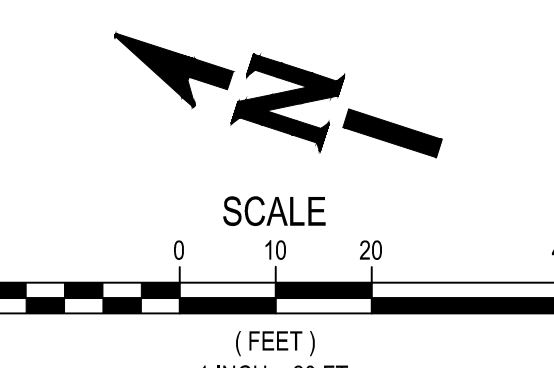
NET DISCHARGE TO SPANISH BIT STREET = -0.56 CFS, VOLUME = -0.015 AC-FT.

HYDROLOGIC STUDY CONCLUSION

THE EXISTING 100-YR RUNOFF VOLUME FROM THE SITE IS 0.10 AC-FT FOR THE 100-YR, 6HR EVENT. THE PROPOSED RUNOFF FROM THE SITE IS 0.075 AC-FT SINCE MOST OF THE SURFACE RUNOFF WILL BE RETAINED IN RETENTION BASIN ONSITE. THIS RESULTS IN A NET REDUCTION OF 0.91 CFS FROM EXISTING TO PROPOSED CONDITIONS. THE PROPOSED PARKING LOT ADDITION WILL HAVE NO IMPACT ON THE DOWNSTREAM AREAS SINCE THE RUNOFF AND DISCHARGE ARE LESS FROM THE PRE-DEVELOPED TO DEVELOPED CONDITION.

THE RETENTION POND HAVE BEEN DEVELOPED ON SITE FOR TWO REASONS:

- 1) TO MITIGATE STORM WATER RUNOFF FROM EXISTING TO PROPOSED CONDITIONS
- 2) TO MANGE 90th PERCENTILE STORM EVENT FIRST FLUSH GENERATED BY CONTRIBUTING IMPERVIOUS SURFACES.



CITY OF ALBUQUERQUE  
 DEPARTMENT OF MUNICIPAL DEVELOPMENT  
 ON-CALL ENGINEERING SERVICES

TITLE: JAMES DWYER SUBSTATION PARKING LOT EXPANSION DRAINAGE PLAN

Design Review Committee City Engineer Approval

City Project No. 6526.03 Zone Map No. G-23-Z Sheet 6 of X

Ms./Day/Yr. Ms./Day/Yr.

DESIGNED BY: JP/MUL DATE: 2-1-2019  
 DRAWN BY: JP/MUL DATE: 2-1-2019  
 CHECKED BY: RB DATE: 2-1-2019

AS BUILT INFORMATION	
CONTRACTOR	
WORK STACKED BY	
FIELD ACCEPTANCE BY	
FIELD CORRECTION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

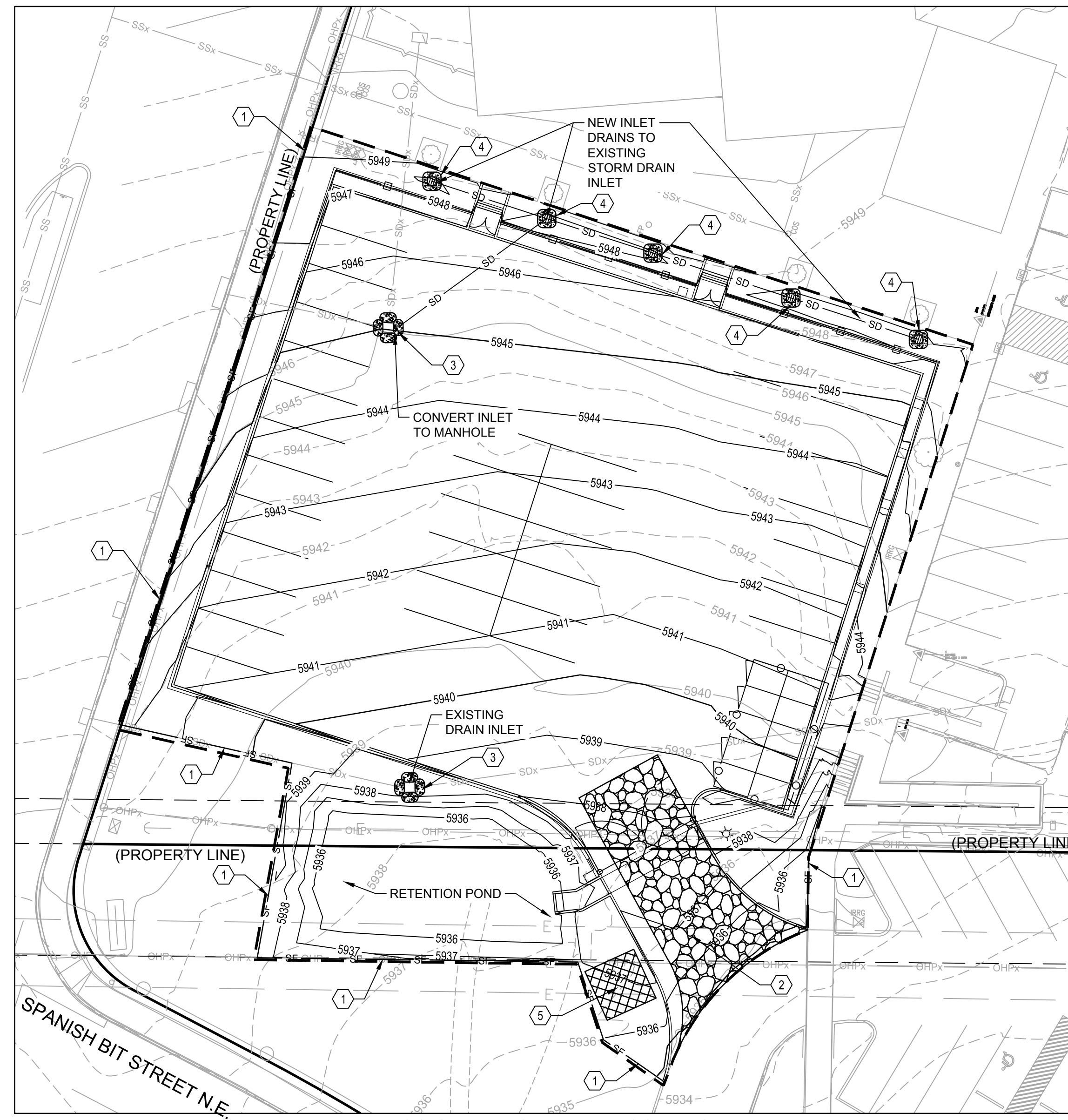
BENCH MARKS	
COORDINATES ARE MODIFIED (SURFACE) NEW MEXICO STATE	
PLANE COORDINATES-CENTRAL ZONE, NAD 83, TO OBTAIN	
TRUE STATE PLANE COORDINATES, MULTIPLY THE	
COORDINATES HEREON BY THE PROJECT AVERAGE COMBINED	
GROUND TO GRID FACTOR OF CF=99862526. ELEVATIONS	
ARE REFERRED TO SEA LEVEL, NAVD 88 AND HAVE BEEN	
ADJUSTED TO THE C.O.A. CONTROL STATION "17_G22"	
(PUBLISHED ELEV.=5917.74', MEAS. ELEV.=5917.64' WITH	
GPS)	

SURVEY INFORMATION	
DATE	
FIELD NOTES	
NO.	

ENGINEERS SEAL	
MAXIMILIAN LIM	
NEW MEXICO	
20068	
2-1-2019	
PROFESSIONAL ENGINEER	

REMARKS	
NO.	
DATE	





**EROSION AND SEDIMENT CONTROL PLAN**  
SCALE: 1" = 20'

**GENERAL NOTES:**

1. PARKING AND STAGING AREAS ARE LOCATED OFF DISTURBED SITE IF NOT INDICATED ON THIS DRAWING.
2. NATURAL VEGETATION WILL BE USED AS THE INITIAL BMP.
3. ALL SITE FEATURES (EXISTING/PROPOSED GRADES, EXISTING CONSTRUCTION, FUTURE CONSTRUCTION, ETC.) SHOWN IS FOR INFORMATION ONLY.
4. LOCATE TEMPORARY CONCRETE WASHOUT, CONSTRUCTION ENTRANCE, AND TRASH CONTAINMENT AREA TO MINIMIZE SITE DISTURBANCE DURING CONSTRUCTION ACTIVITY AND MODIFY AS REQUIRED PER SITE REQUIREMENTS.
5. DISTURBED AREAS REMAINING NOT COVERED BY PERMANENT STRUCTURES OR BMPS SHALL BE STABILIZED BY SEEDING LAY CHAPTER 76, ARTICLE 10, SECTION 11-22 NMSA 1978.
6. PROJECT IS REQUIRED TO MAINTAIN A REGIMENT OF STREET SWEEPING AND CLEAN UP MEASURES IN THE EVENT OF TRACK OUT TO MINIMIZE AND PREVENT OFF SITE CONVEYANCES.
7. PERMANENT STABILIZATION:  
GRAVEL MULCH  
REVEGETATION SEEDING  
(PER PROJECT PLANTING PLAN)

**VICINITY MAP**

**PROJECT LOCATION**

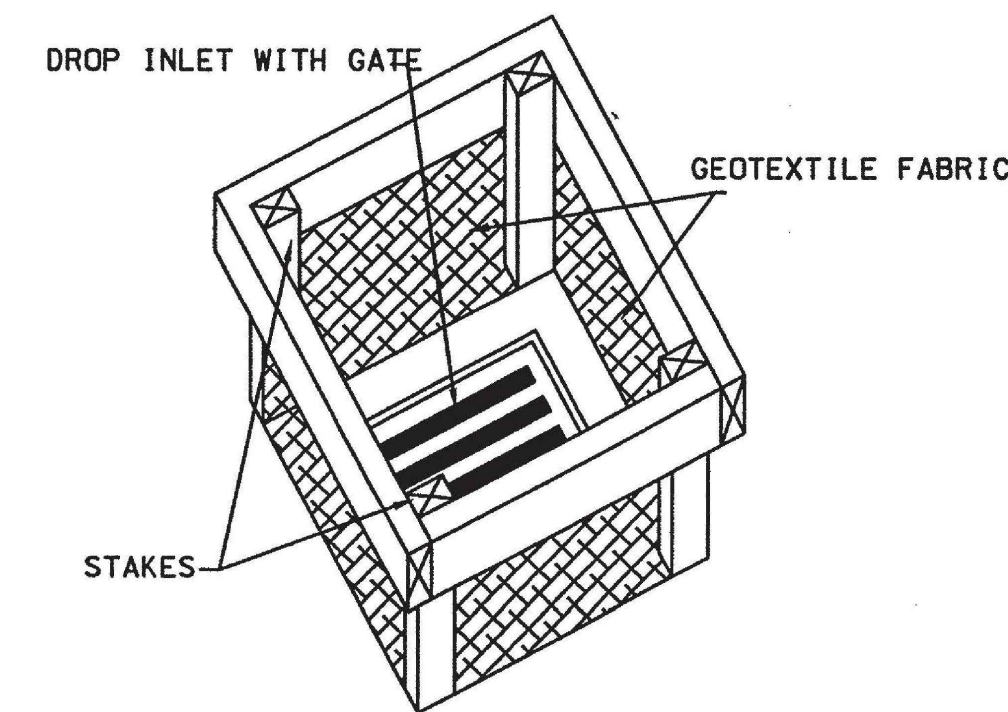


**LEGEND**

- DISTURBED AREA
- SF - SF - SILT FENCE
- [Pattern] STABILIZED CONSTRUCTION ENTRANCE
- [Pattern] CONCRETE WASH OUT PIT
- [Symbol] INLET PROTECTION

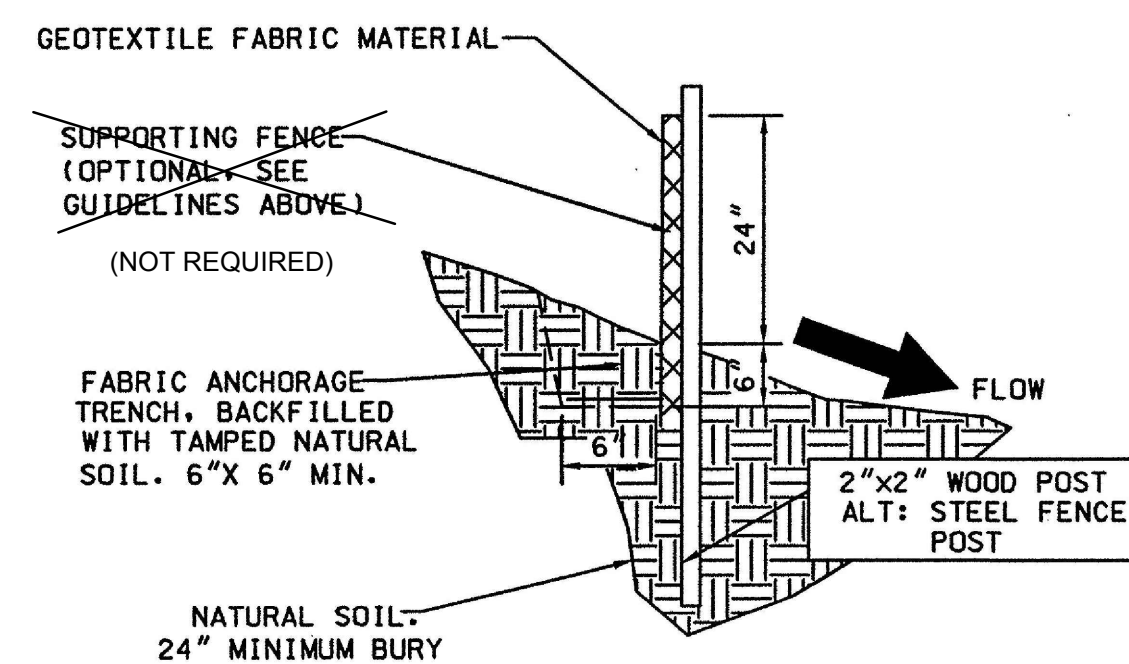
**KEY NOTES**

1. INSTALL SILT FENCE PER DETAIL 1 ON THIS SHEET.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL 2 ON THIS SHEET.
3. INSTALL INLET PROTECTION ON EXISTING DRAIN INLET PER DETAIL 3 ON THIS SHEET.
4. INSTALL INLET PROTECTION ON NEW INLINE DRAIN PER DETAIL 3 ON THIS SHEET.
5. CONCRETE WASH OUT PIT.



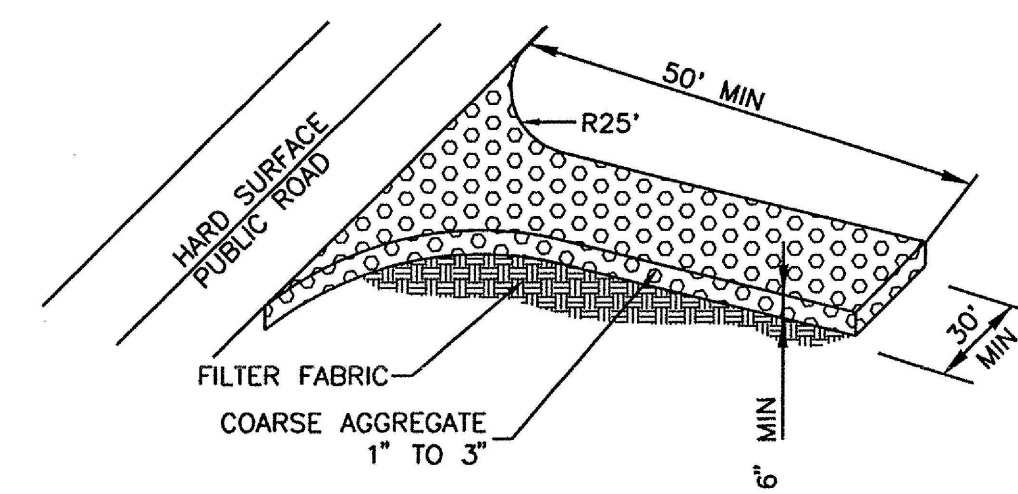
**TYPE I**

NOTE: WHEN SPECIFIED, ROCKS OR STRAW BALES CAN BE SUBSTITUTED FOR SILT FENCE.



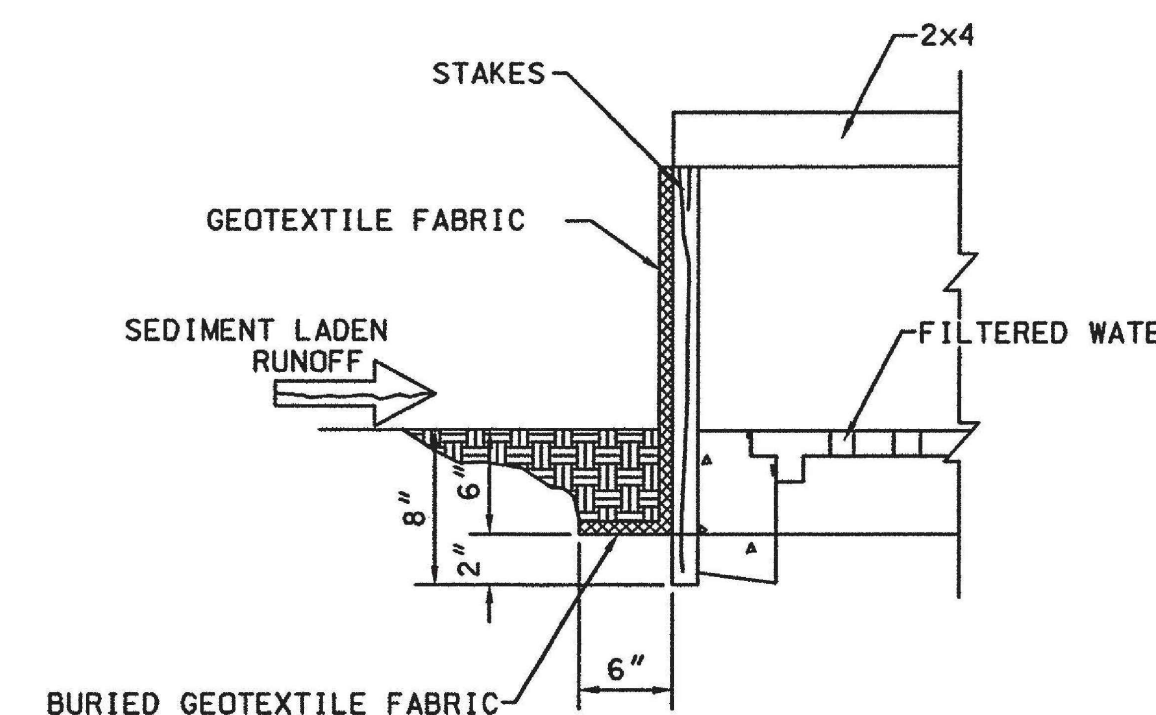
**SILT FENCE**  
SCALE: N.T.S.

1  
6A



**STABILIZED CONSTRUCTION ENTRANCE**  
SCALE: N.T.S.

2  
6A



**INLET PROTECTION**  
SCALE: N.T.S.

3  
6A

**EROSION AND SEDIMENT CONTROL DETAILS**

SCALE: N.T.S.

SCALE (FEET)  
1 INCH = 20 FT.

**WHPacific**  
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www.whpacific.com

CITY OF ALBUQUERQUE  
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ON-CALL ENGINEERING SERVICES

TITLE: JAMES DWYER SUBSTATION PARKING LOT EXPANSION  
EROSION AND SEDIMENT CONTROL PLAN

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

City Project No. 6526.03 Zone Map No. G-23-Z Sheet 6-A of X

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL	
CONTRACTOR		COORDINATES ARE MODIFIED (SURFACE) NEW MEXICO STATE		DATE			DESIGNED BY: JP/MUL DATE: 2-1-2019 DRAWN BY: JP/MUL DATE: 2-1-2019 CHECKED BY: RB DATE: 2-1-2019
WORK STACKED BY		PLANE COORDINATES-CENTRAL ZONE, NAD 83, TO OBTAIN		NO.			
ACCEPTANCE BY		TRUE STATE PLANE COORDINATES, MULTIPLY THE		FIELD NOTES			
FIELD NO.		COORDINATES HEREON BY THE PROJECT AVERAGE COMBINED					
DATE		GROUND TO GRID FACTOR OF CF=99862526. ELEVATIONS					
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		(PUBLISHED ELEV.=5917.74', MEAS. ELEV.=5917.64' WITH					
		GPS)					