

COAL AVENUE

JEFFERSON STREET

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SITE GRADING, DRAINAGE & PAVING

- SITE WATER AND SEWER 

- NOTE: SEE ARCHITECTURAL SITE PLAN FOR SITE DIMENSIONS.

LOT A, BLOCK 11, VALLEY VIEW ADDITION

ACS 6-K17 ELEVATION 5202.273 NAVD 88

The map shows an aerial view of a neighborhood with various streets and landmarks. A red dashed line outlines a specific area labeled 'SITE'. Other labels include 'Highland Pond', 'ZONE X', 'ZONE AI', and 'ZONE X'. The map also shows surrounding streets like Highland Ave, Silver Ave, and Coal Ave.

I, JEAN J. BORDENAVE, NMPE&LS NO. 5110, OF THE FIRM BORDENAVE DESIGNS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED SEP. 22, 2011. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

EXCEPTIONS AND/OR QUALIFICATIONS:
ALL 3 PONDS ELIMINATED. LITTLE IMPACT ON FIRST FLUSH FLOWS AS 2 OF THE PONDS DIDN'T INTERCEPT FLOWS FROM IMPERVIOUS SURFACES AND THIRD POND ELIMINATED DUE TO TRANSFORMER INSTALLATION.

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



04/01/15

TB	TEMPORARY BENCHMARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TC	TOP OF CONCRETE
BC	TOP BACK OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER

1. THE SITE IS PRESENTLY VACANT, SLOPES GENTLY DOWNWARD TO THE WEST AND VEGETATION IS SPARSE. THE PROPOSED USE IS MULTIFAMILY RESIDENTIAL WITH MOST OF THE SITE BEING IMPERVIOUS SURFACES AND PERIMETER LANDSCAPING.
2. THE PEAK DISCHARGE RATE WILL INCREASE BY 1.01 AND 1.06 CFS FOR THE 10 YEAR AND 100 YEAR STORMS RESPECTIVELY AND THE 6 HOUR RUNOFF VOLUMES FOR THE 10 YEAR AND 100 YEAR STORM WILL INCREASE BY 1583 AND 2097 CUBIC FEET RESPECTIVELY.
- ALL DRAINAGE WILL BE DIRECTED TO THE ADJUTING STREETS VIA ASPHALT OR CONCRETE SURFACES
3. THE SITE IS LOCATED IN A 'ZONE X' PER FEMA FIRM MAP NO. 354, DATED SEPTEMBER, 2008.
4. TOPO SURVEY DATA SHOWN ON THIS DRAWING WAS OBTAINED BY CONSTRUCTION SURVEY TECHNOLOGIES, INC., DATED JUNE, 2011.

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING. IF THE SITE IS CONTROLLED BY A SWPPP PLAN, EROSION CONTROL SHALL BE ACCOMPLISHED ACCORDING TO THE PLAN.

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. IF ANY OBSTRUCTIONS EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

THERE ARE NO OFFSITE FLOWS ENTERING THE PROPOSED PROJECT

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK WITHIN THE CITY RIGHT-OF-WAY, DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREIN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 TRUTH UPDATE NO. 8.
3. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. 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 IN ACCORDANCE WITH ARTERIAL STREET USE.
6. MAINTENANCE OF THE SIDEWALK CULVERT FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

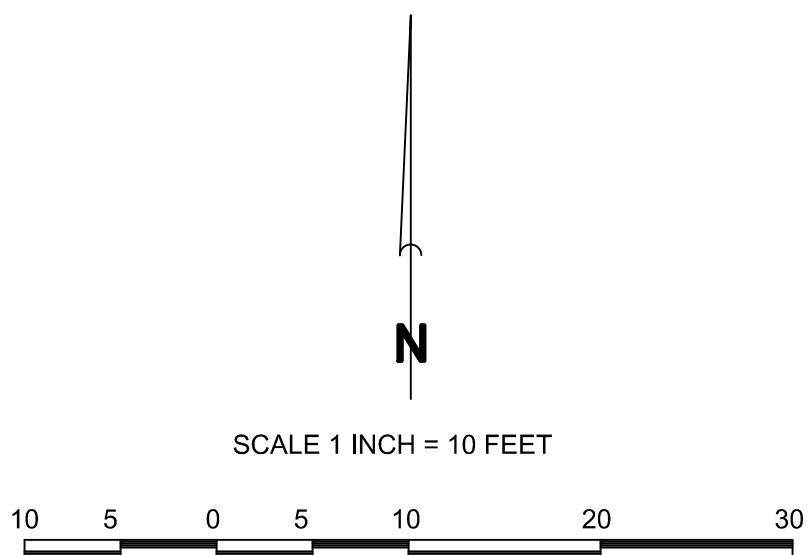
APPROVALS	NAME/S	DATE
A.C.E./DESIGN		
INSPECTOR		
A.C.E./FIELD		

CONDITION	B A R E N S I T E	STORM RETURN PERIOD IN YEARS	TREATMENT TYPE (table 4)	TREATMENT AREA sq. ft.	EXCESS PRECIPITATION IN inches (table 8)	PEAK RUNOFF cfs/acre (table 9)	RUNOFF VOLUME cu. ft.	RUNOFF RATE cfs	
EXISTING	S I T E	10	A	19097	0.13	0.38	207	0.17	
			B	0	0.28	0.95	0	0.00	
			C	0	0.52	1.71	0	0.00	
			D	0	1.34	3.14	0	0.00	
			TOTAL	19097			207	0.17	
		100	A	19097	0.53	1.56	843	0.68	
			B	0	0.78	2.28	0	0.00	
			C	0	1.13	3.14	0	0.00	
			D	0	2.12	4.7	0	0.00	
			TOTAL	19097			843	0.68	
DEVELOPED		S I T E	10	A	0	0.13	0.38	0	0.00
				B	3883	0.28	0.95	91	0.08
	C			0	0.52	1.71	0	0.00	
	D			15214	1.34	3.14	1699	1.10	
	TOTAL			19097			1790	1.18	
	100		A	0	0.53	1.56	0	0.00	
			B	3883	0.78	2.28	252	0.20	
			C	0	1.13	3.14	0	0.00	
			D	15214	2.12	4.7	2688	1.64	
			TOTAL	19097			2940	1.84	
	A		100	A	0	0.53	1.56	0	0.00
				B	1655	0.78	2.28	108	0.09
		C		0	1.13	3.14	0	0.00	
		D		1674	2.12	4.7	2840	1.73	
		TOTAL		17729			2947	1.82	

ENTRY (Broad Crested Weir)
 $Q = CLH^{3/2}$, where $C = 1.82$ cfs, $C = 2.8$, $H = 0.45$ ft
 Therefore $L = 2.15$ ft
 USE 27" CHANNEL AT ENTRY

BARREL (Mannings)
 $Q = (1.49/n)AR^{2/3}S^{1/2}$, $C = 1.82$ cfs, $n = 0.013$, $W = 1.0$ ft, $S = 0.016$ ft/ft
 Therefore flow depth = 0.41 ft and velocity = 4.44 fps
 Note side wall thickness is the same width as the channel and slightly shorter. Therefore the velocity is higher and the depth is shallower.

BARREL TAPER
 Taper = 20 Degree Maximum
 $(2.25 - 1) \tan 20 = 3.43$ ft
 Build 3'-6" Long Taper



CITY OF ALBUQUERQUE



April 6, 2015

Jake Bordenave, P.E.
Bordenave Designs
PO Box 91194
Albuquerque, New Mexico 87109

RE: **Reed Apartments**
Jefferson NE
Request Permanent C.O. – Accepted
Engineers Stamp Date 9/22/14 (K17D105)
Certification Dated (4/1/2015)

Dear Mr. Bordenave,

Based upon the information provided in your certification received 4/2/2015, the permanent CO for this site is acceptable for release of Certificate of Occupancy by Hydrology.

PO Box 1293

Albuquerque

If you have any questions you can contact me at 924-3695 or Rudy Rael at 924-3977.

New Mexico 87103

www.cabq.gov

Sincerely,

Rita Harmon, P.E.
Senior Engineer
Planning Department

RR/RH
C: File