CITY OF ALBUQUERQUE

September 4, 2008

Jean J. Bordenave, P.E.
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

Re: Vista Del Bosque Lot 1, 9798 A-D Coors Blvd. NW,
Request for Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 04/11/06 (B-13/D021C)
Certification dated 08/03/08

Mr. Bordenave,

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

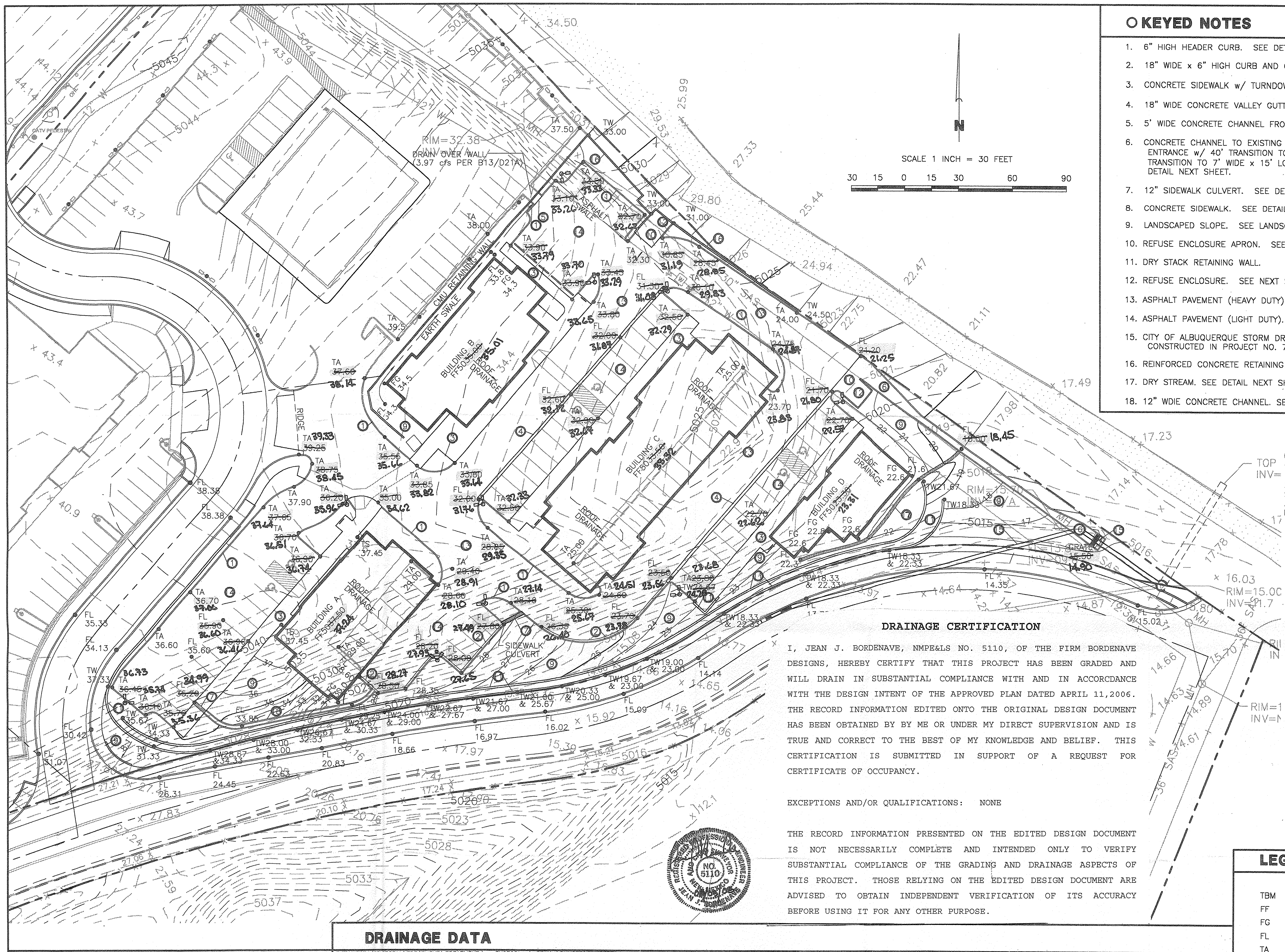
Based upon the information provided in your submittal received 9/03/08, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Timothy Sims
Plan Checker
Development and Building Services

C: CO Clerk
File



KEYED NOTES

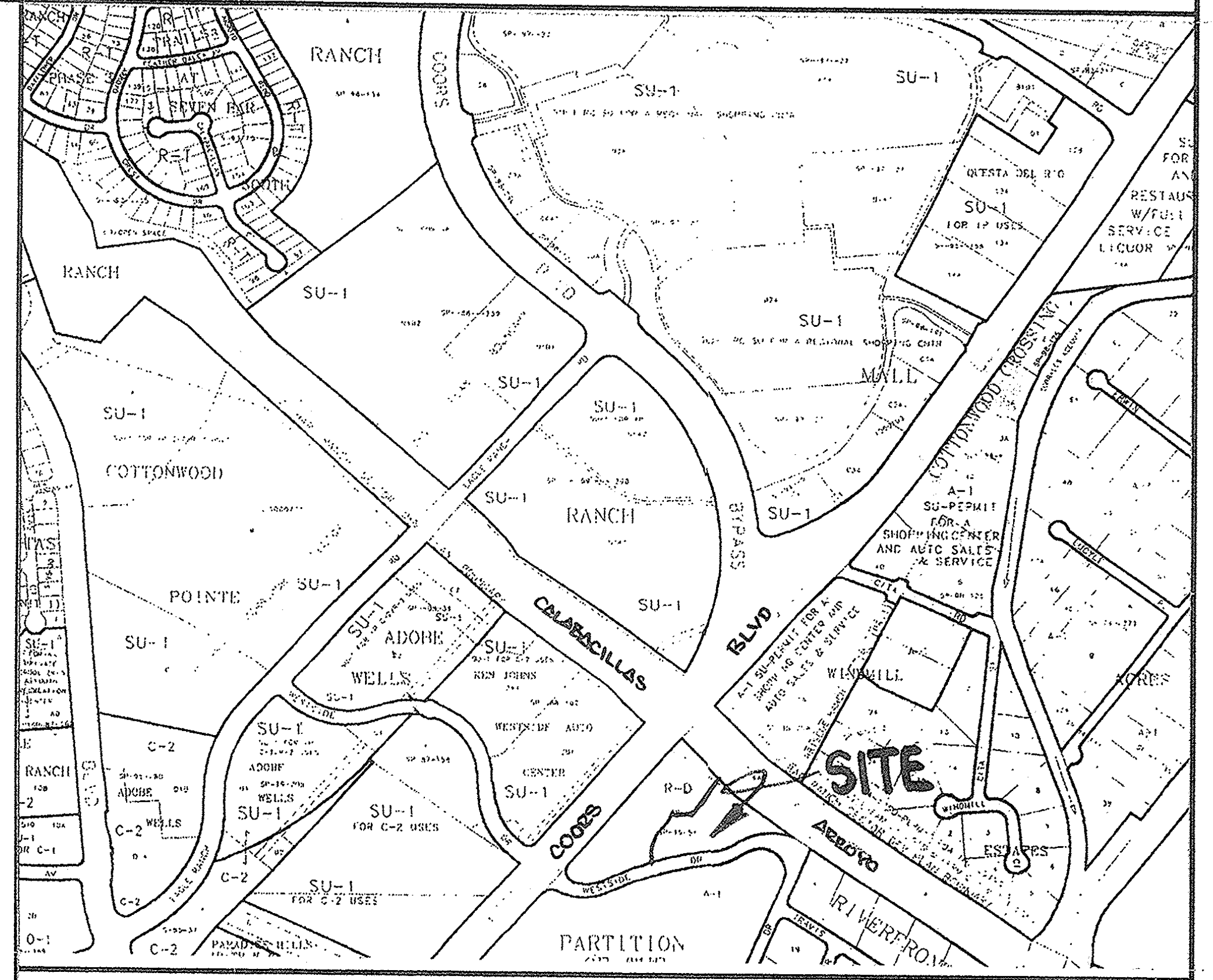
1. 6" HIGH HEADER CURB. SEE DETAIL NEXT SHEET.
2. 18" WIDE x 6" HIGH CURB AND GUTTER. SEE DETAIL NEXT SHEET.
3. CONCRETE SIDEWALK w/ TURNDOWN EDGE. SEE DETAIL NEXT SHT.
4. 18" WIDE CONCRETE VALLEY GUTTER. SEE DETAIL NEXT SHEET.
5. 5' WIDE CONCRETE CHANNEL FROM LOT 2 (CAS AUTO).
6. CONCRETE CHANNEL TO EXISTING CATCH BASIN. 10' WIDE AT ENTRANCE w/ 40' TRANSITION TO 3' WIDE MAIN CHANNEL AND 20' TRANSITION TO 7' WIDE x 15' LONG SECTION AT CATCH BASIN. SEE DETAIL NEXT SHEET.
7. 12" SIDEWALK CULVERT. SEE DETAIL NEXT SHEET.
8. CONCRETE SIDEWALK. SEE DETAIL NEXT SHEET.
9. LANDSCAPED SLOPE. SEE LANDSCAPING PLAN.
10. REFUSE ENCLOSURE APRON. SEE NEXT SHEET FOR ELEVATIONS.
11. DRY STACK RETAINING WALL.
12. REFUSE ENCLOSURE. SEE NEXT SHEET FOR FLOOR ELEVATIONS.
13. ASPHALT PAVEMENT (HEAVY DUTY). SEE DETAIL NEXT SHEET.
14. ASPHALT PAVEMENT (LIGHT DUTY). SEE DETAIL NEXT SHEET.
15. CITY OF ALBUQUERQUE STORM DRAIN, CATCH BASINS AND MANHOLES. CONSTRUCTED IN PROJECT NO. 741581.
16. REINFORCED CONCRETE RETAINING WALL.
17. DRY STREAM. SEE DETAIL NEXT SHEET.
18. 12" WDIE CONCRETE CHANNEL. SEE DETAIL NEXT SHEET.

GENERAL NOTES:

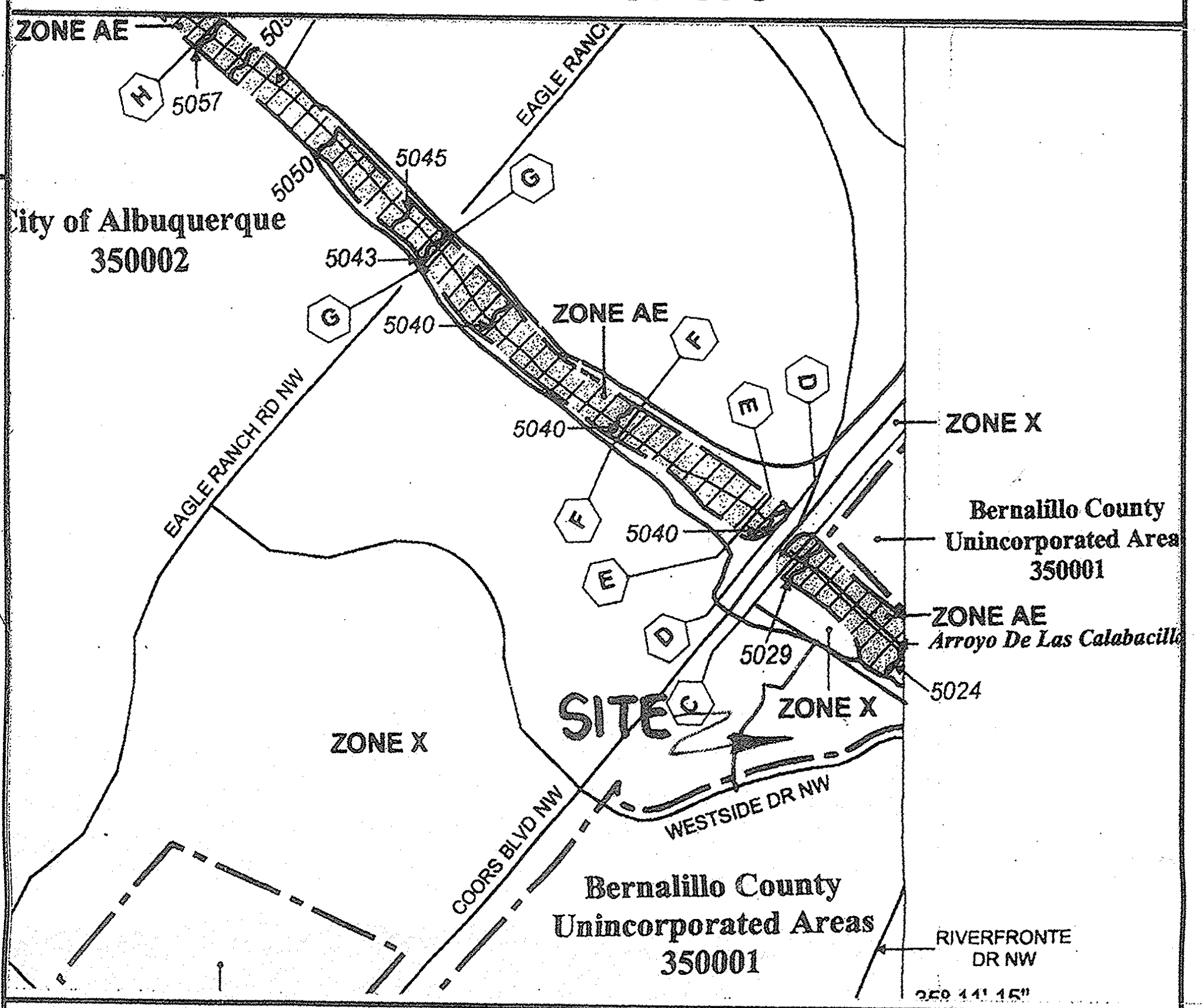
1. SEE NEXT SHEET FOR DETAILS.

2. ALL TOP OF CURB AND TOP OF SIDEWALK ELEVATIONS ARE TO BE 6" ABOVE TOP OF ADJACENT ASPHALT ELEVATION UNLESS OTHERWISE SHOWN.

VICINITY MAP NO. B-13/14



FEMA FIRM PANEL NO. 108



DRAINAGE CERTIFICATION

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 ACCORCDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED APRIL 11,2006. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY 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: NONE

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.

NO. 5110

SITE CONDITIONS

EXISTING CONDITIONS

1. THE EXISTING SITE IS QUITE STEEP (>10% SLOPE) SLOPING DOWNWARD FROM WEST TO EAST. VEGETATION IS COMPOSED OF SPARSE GRASSES AND SCATTERED WEEDS. SOILS ARE SANDY LOAMS.

2. THERE IS AN EXISTING CATCH BASIN AT THE EASTERLY END OF THE SITE (ON THE PROPERTY) THAT DRAINS INTO THE LAS CALABACILLAS ARROYO. THE LOT WEST OF THE SITE (LOT 2) DRAINS ACROSS THE SUBJECT SITE.

PROPOSED CONDITIONS

1. THE PROPOSED OFFICE COMPLEX IS COMPOSED OF SEVERAL SMALLER BUILDINGS TO BETTER FIT THE EXISTING SLOPES. PARKING HAS BEEN PLACED UNDER THE EASTERLY PORTION OF TWO OF THE BUILDINGS TO FURTHER MATCH EXISTING SITE GRADES.

2. STORM WATER WILL CONTINUE TO BE ACCEPTED FROM LOT 2 TO THE WEST AND ROUTED ACROSS THE SUBJECT SITE TO A NEW ENLARGED CATCH BASIN TO REPLACE THE EXISTING OUTFALL. THE NEW OUTFALL FACILITY WILL HAVE A WATER QUALITY MANHOLE MEETING CITY AND AMAFCA SPECIFICATIONS. ALL ONSITE STORM WATER AS WELL AS THAT FROM LOT 2 WILL BE ROUTED ACROSS THE SUBJECT SITE VIA ASPHALT DRIVES AND A CONCRETE CHANNEL.

3. A DRY STACK RETAINING WALL IS LOCATED ALONG THE SOUTHERLY LOT LINE OF THE SITE TO AID IN MEETING THE STEEP EXISTING GRADE. THE GRADE DIFFERENCE IS MADE UP WITH TWO PARALLEL WALLS 3 FEET APART. THE LOWER WALL IS LOCATED AT THE PROPERTY LINE AND IS FOUR FEET HIGH. THE UPPER WALL VARIES FROM ZERO TO FOUR FEET HIGH. THE WALLS ARE OFFSET TO ACCOMMODATE LANDSCAPING.

LEGAL DESCRIPTION

LOTS 1, CAS ADDITION

PERMANENT BENCHMARK

ACS NM446-N10 ELEVATION 5045.51 (NGVD 1929)

DRAINAGE DATA

CONDITION	BASIN	STORM RETURN PERIOD	TREATMENT TYPE (table 4)	TREATMENT AREA	EXCESS PRECIPITATION (table 8)	PEAK RUNOFF (table 9)	RUNOFF VOLUME	RUNOFF RATE
-	-	year	-	sq. ft.	in.	cfs/acre	cu. ft.	cfs
EXISTING	SITE	10	A	66844	0.08	0.24	446	0.37
			B	3810	0.22	0.76	70	0.07
			C	23070	0.44	1.49	846	0.79
			D	0	1.24	2.89	0	0.00
			TOTAL	93724			1361	1.22
		100	A	66844	0.44	1.29	2451	1.98
			B	3810	0.67	2.03	213	0.18
			C	23070	0.99	2.87	1903	1.52
			D	0	1.97	4.37	0	0.00
			TOTAL	93724			4567	3.68
DEVELOPED	SITE STREET	10	A	0	0.08	0.24	0	0.00
			B	2740	0.22	0.76	50	0.05
			C	0	0.44	1.49	0	0.00
			D	6350	1.24	2.89	656	0.42
			TOTAL	9090			706	0.47
		100	A	0	0.44	1.29	0	0.00
			B	2740	0.67	2.03	153	0.13
			C	0	0.99	2.87	0	0.00
			D	6350	1.97	4.37	1042	0.64
			TOTAL	9090			1195	0.76
	SITE CHANNEL	10	A	0	0.08	0.24	0	0.00
			B	20870	0.22	0.76	383	0.36
			C	0	0.44	1.49	0	0.00
			D	63764	1.24	2.89	6589	4.23
			TOTAL	84634			6972	4.59
		100	A	0	0.44	1.29	0	0.00
			B	20870	0.67	2.03	1165	0.97
			C	0	0.99	2.87	0	0.00
			D	63764	1.97	4.37	10468	6.40
			TOTAL	84634			11633	7.37

NORTH DRIVE AISLE

VEE CHANNEL

$Q=(1.489/n)AR^{.667}S^{.500.}$ where $Q=6.2$ cfs, $SS_1=.00001$
$SS_2=33$, $S= 0.0342$ ft/ft, $n=0.020$
therefore Depth = 0.39 ft, Velocity = 5.34 fps

CHANNEL INLET

BROAD CRESTED WEIR

$Q=CLH^{1.5}$ where $Q= 12.45$ cfs, $L = 10.0$ ft, $C=2.8$
therefore $H = 0.63$ ft

TAPER HEADER CURB FROM 6" HIGH AT 10' WEST TO 9" HIGH AT INLET TO 6" HIGH 20' EAST.

CHANNEL FLOW

RECTANGULAR CHANNEL

$Q=(1.489/n)AR^{.667}S^{.500.}$ where $Q=12.45$ cfs, Width = 3 ft
$S= 0.0342$ ft/ft, $n=0.013$
therefore Depth = 0.42 ft, Velocity = 10.00 fps

CATCH BASIN

BASIN IS IN SUMP, THEREFORE ASSUME IT TO BE 50% CLOGGED. SHARP CRESTED WEIR WHERE;

$Q=CLH^{1.5}$ where $Q= 12.4$ cfs, $L = 12.15$ ft for ½ of a Dbl D Basin, and $C=3.2$
therefore $H = 0.47$ ft

NOTE: H WILL BE REDUCED BY ORIFICE FLOW IN GRATE.

LEGEND

TBM	TEMPORARY BENCHMARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TCP	TOP OF CONCRETE
TC	TOP OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER
MH	MANHOLE
CB	CATCH BASIN GRATE
LP	LIGHT POLE
PP	POWER POLE
GW	GUY WIRE
PED	ELEC. OR TEL. PEDESTAL
RD	ROOF DRAINAGE POINT
— - —	DRAINAGE BASIN BOUNDARY
	EXISTING CONTOUR
	PROPOSED CONTOUR
XX.XX	EXISTING SPOT ELEVATION
● XX.XX	PROPOSED SPOT ELEVATION
~~XX.XX~~ XX.XX	RECORD SPOT ELEVATION

no.	date	remarks	by

REVISIONS

RECEIVED
SEP 0 8 2006
HYDROLOGY SECTION

NO. 5110
JEAN J. BORDENAVE

project title
VISTA DEL BOSQUE
WESTSIDE DRIVE NW
ALBUQUERQUE, NM

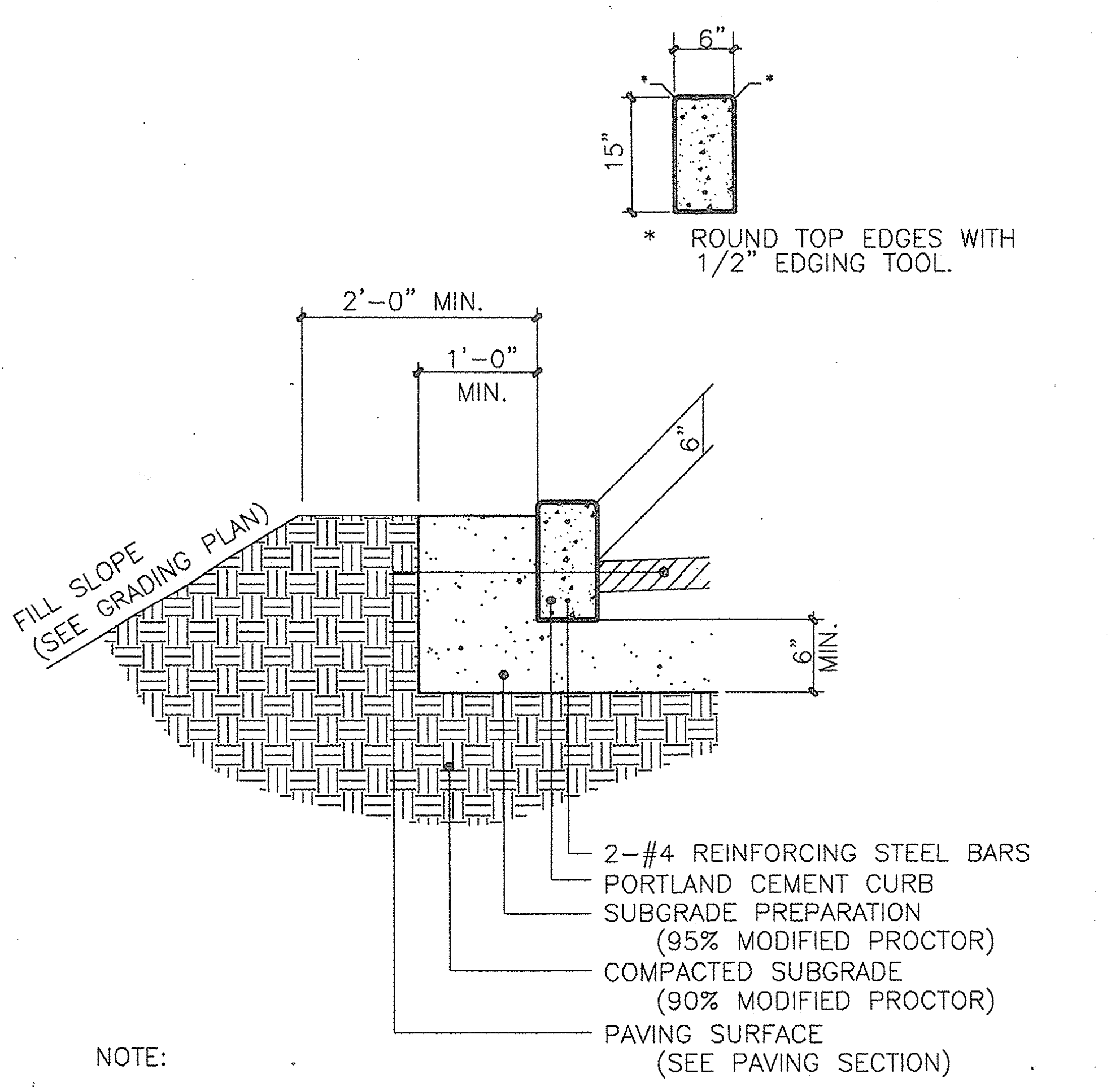
sheet title
GRADING & DRAINAGE

sheet date	design by	project no.
04/26/05	JJB	0408

BORDENAVE DESIGNS
P.O. BOX 91194, ALBUQUERQUE, NM 87199
(505)823-1344 FAX (505)821-9105

sheet 1 of 2

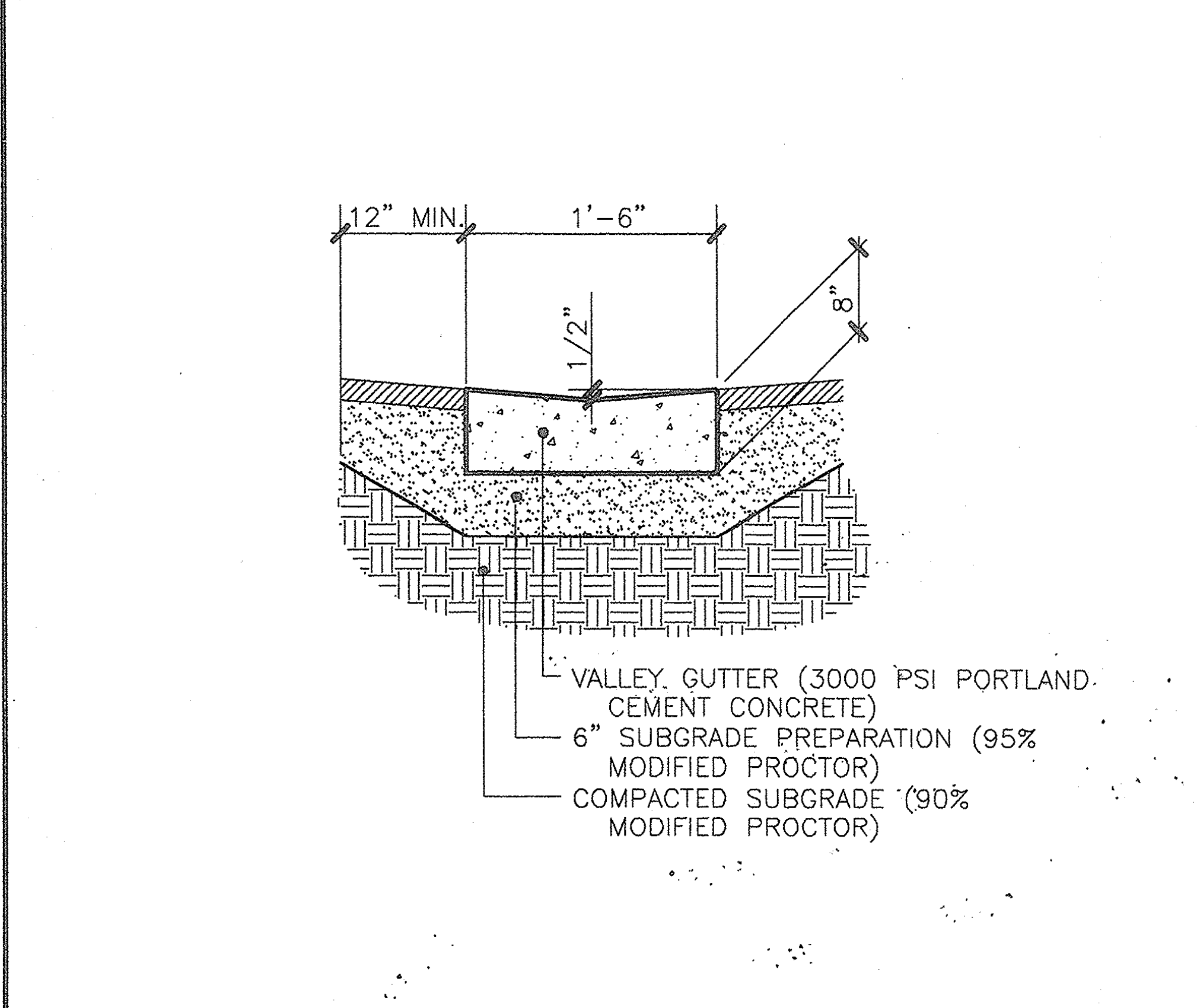
HEADER CURB



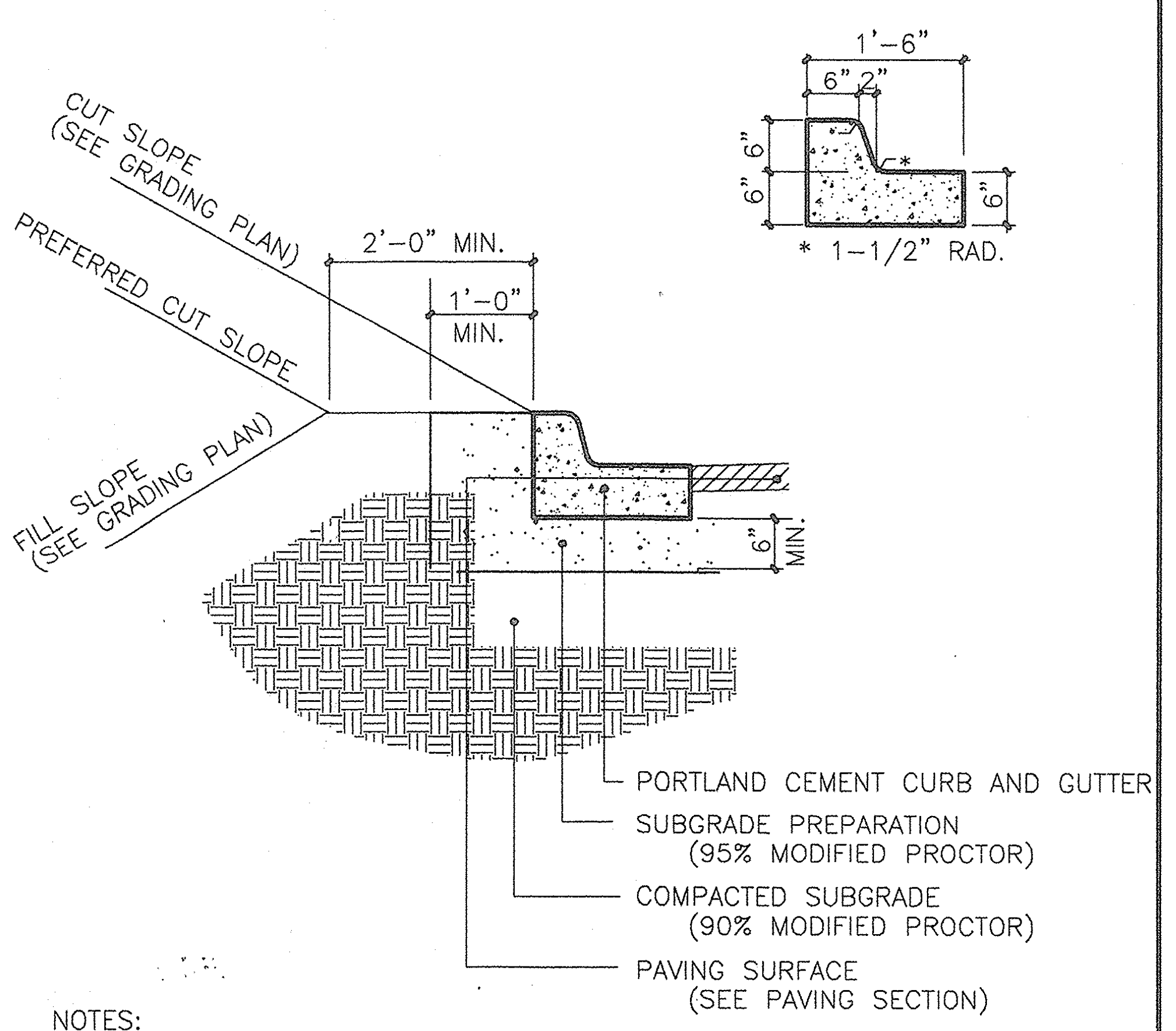
NOTE:

PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTST AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

VALLEY GUTTER



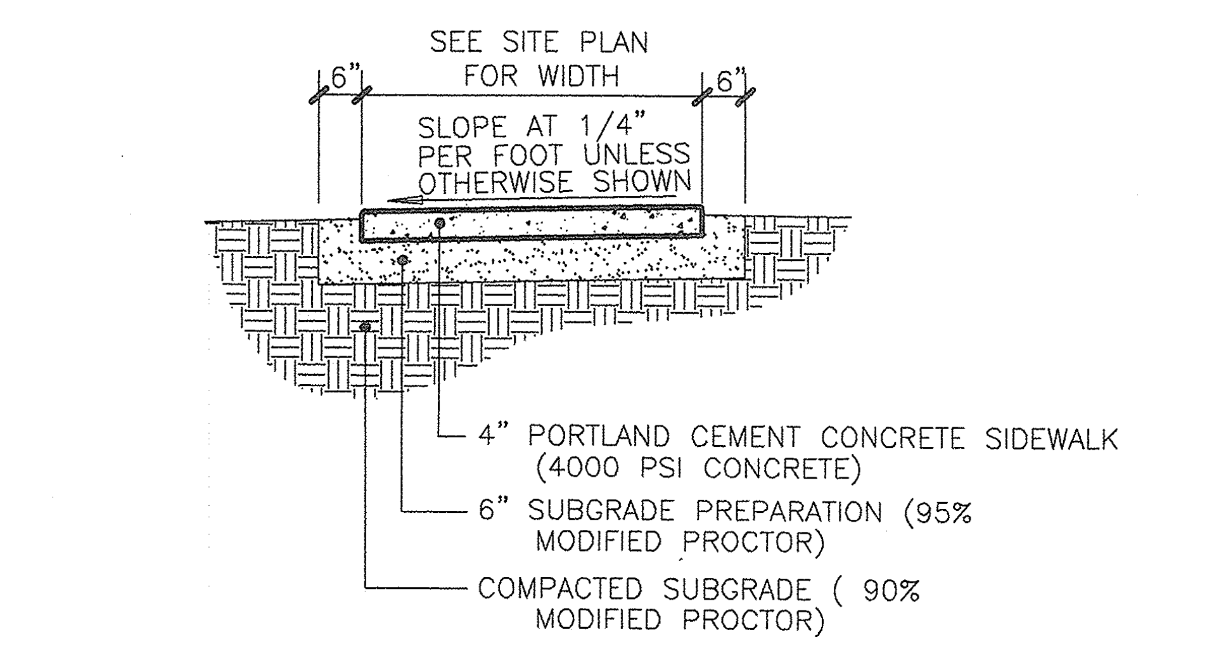
18" CURB AND GUTTER



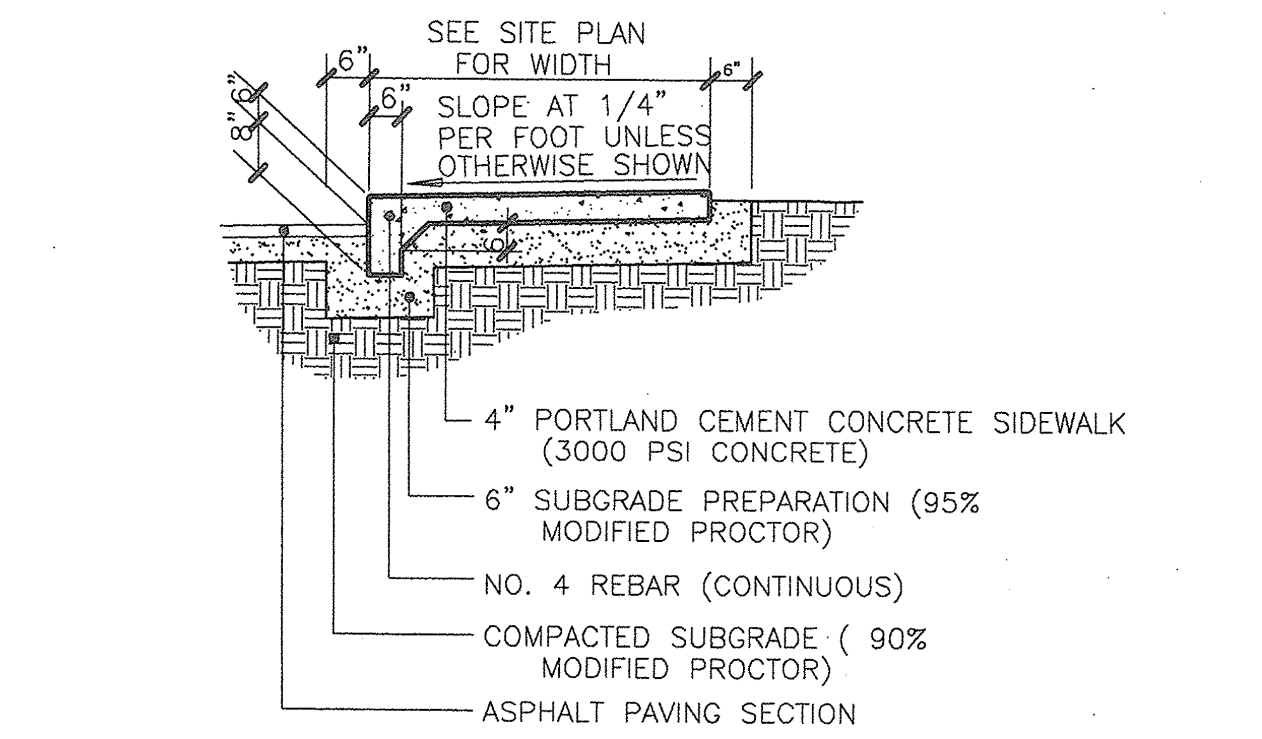
NOTES:

1. PROVIDE CONTRACTION JOINTS AT 6 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK, WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

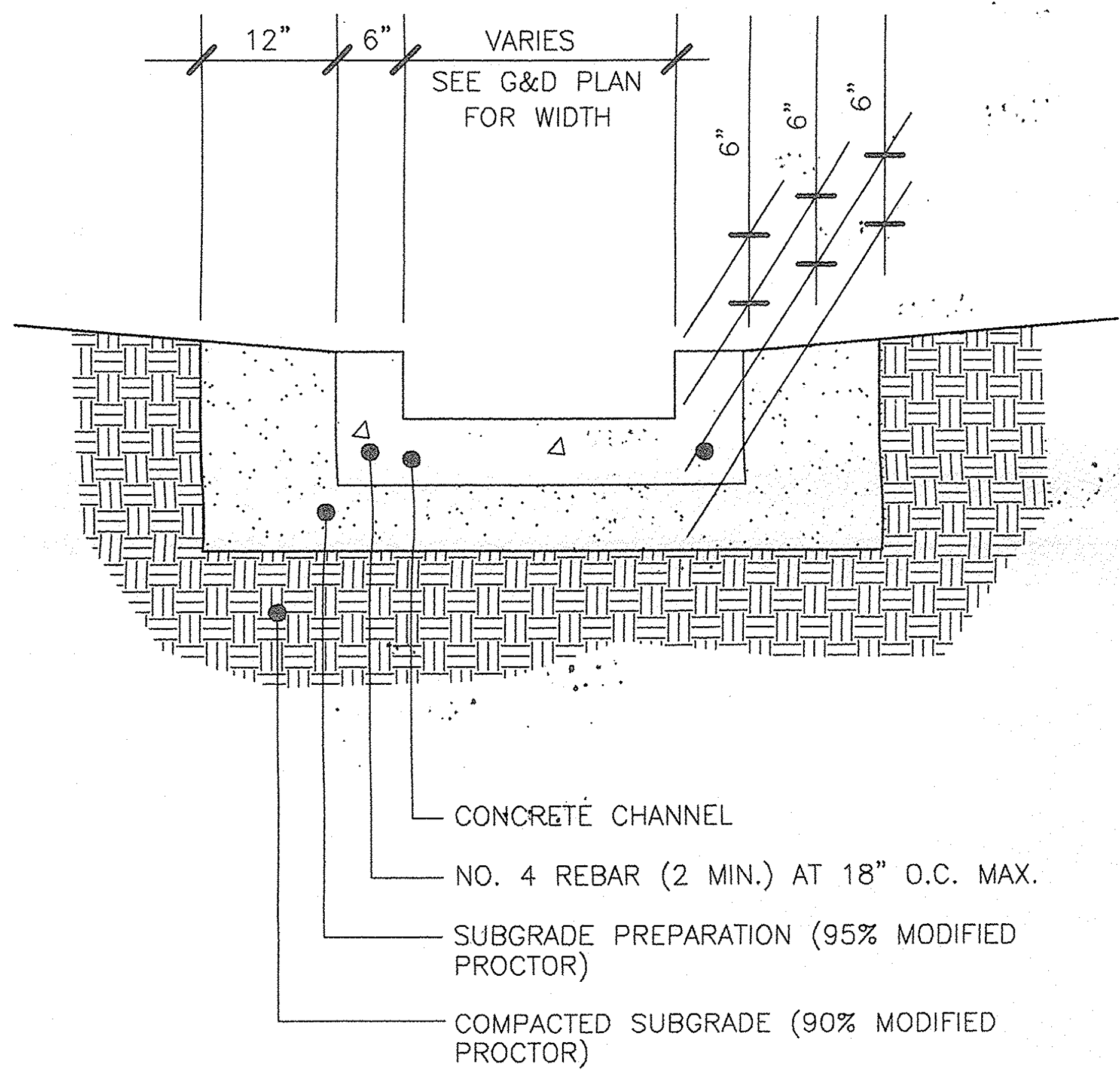
SIDEWALK



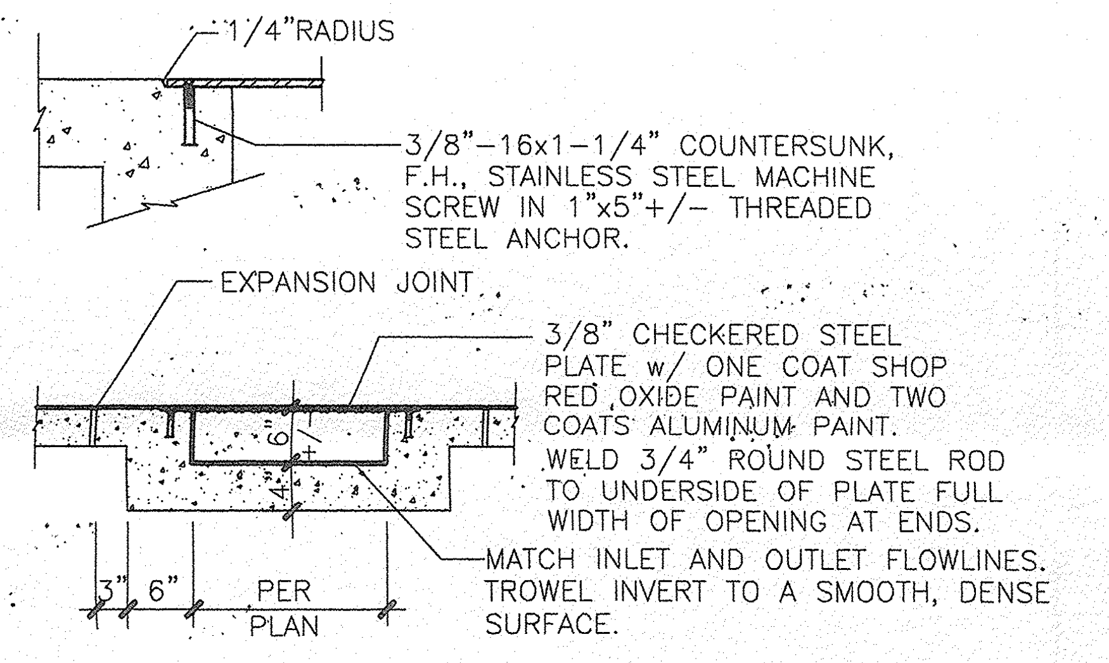
TURNDOWN SIDEWALK



CONCRETE CHANNEL



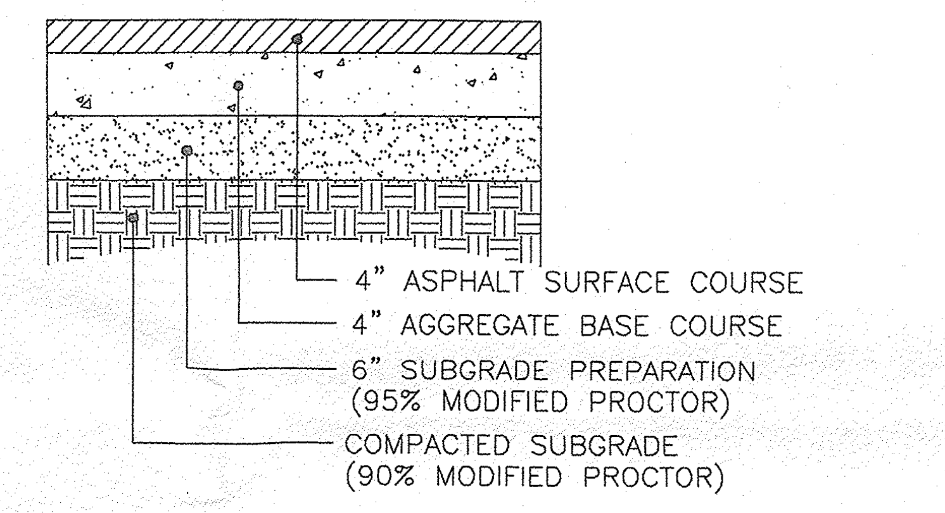
SIDEWALK CULVERT



NOTES:

1. AT INSTALLATIONS WHERE THE SIDEWALK PENETRATES A CURB FACE THE GUTTER SHALL BE POURED MONOLITHICALLY WITH SIDEWALK CULVERT.
2. THE MAXIMUM WIDTH OF CULVERT OPENING IS 24". AT MULTI-BARREL INSTALLATIONS THE BARRELS SHALL BE SEPERATED BY A 9" WIDE CONCRETE WALL.
3. VISIBLE SURFACES OF THE SIDEWALK CULVERT SHALL MATCH THE COLOR AND TEXTURE OF THE ADJACENT SIDEWALK.

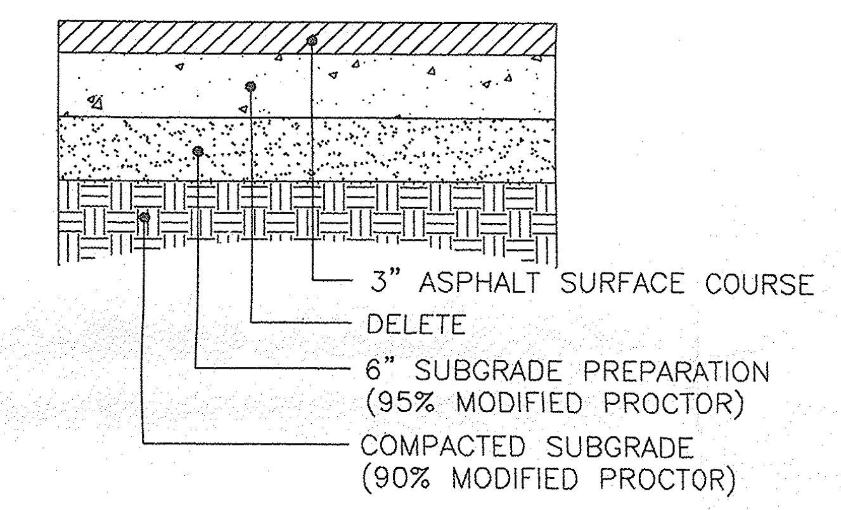
ASPHALT PAVEMENT (HEAVY DUTY)



NOTES:

1. ASPHALT MIX DESIGN TO USE CITY OF ALBUQUERQUE AGGREGATE CLASS 'SP-IV' AND HAVE A MARSHALL STABILITY GREATER THAN 1800 LBS.
2. ASPHALT CONCRETE COURSES GREATER THAN 3" IN THICKNESS SHALL BE PLACED WITH MULTIPLE LIFTS. MINIMUM LIFT THICKNESS 1 1/2".

ASPHALT PAVEMENT (LIGHT DUTY)



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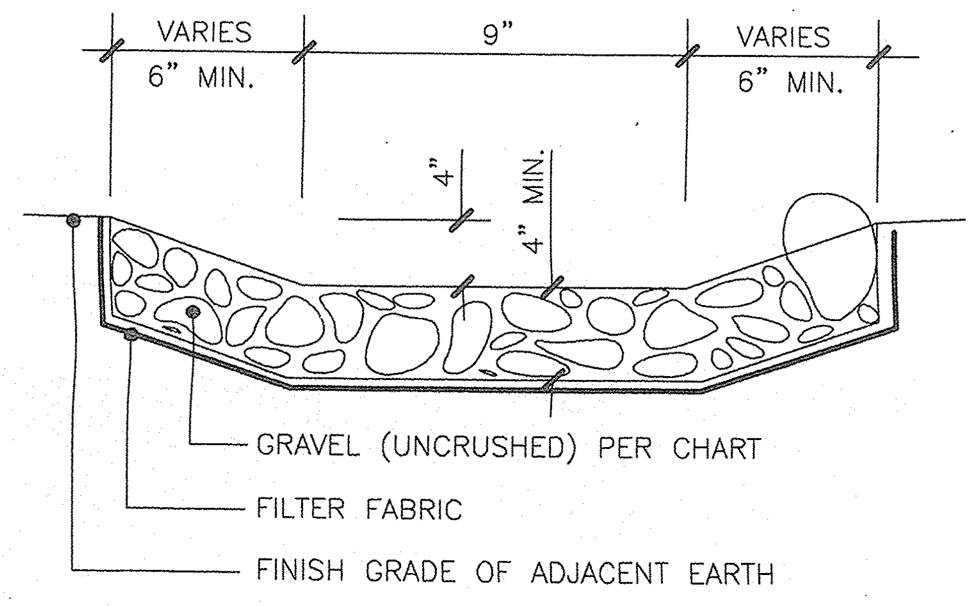
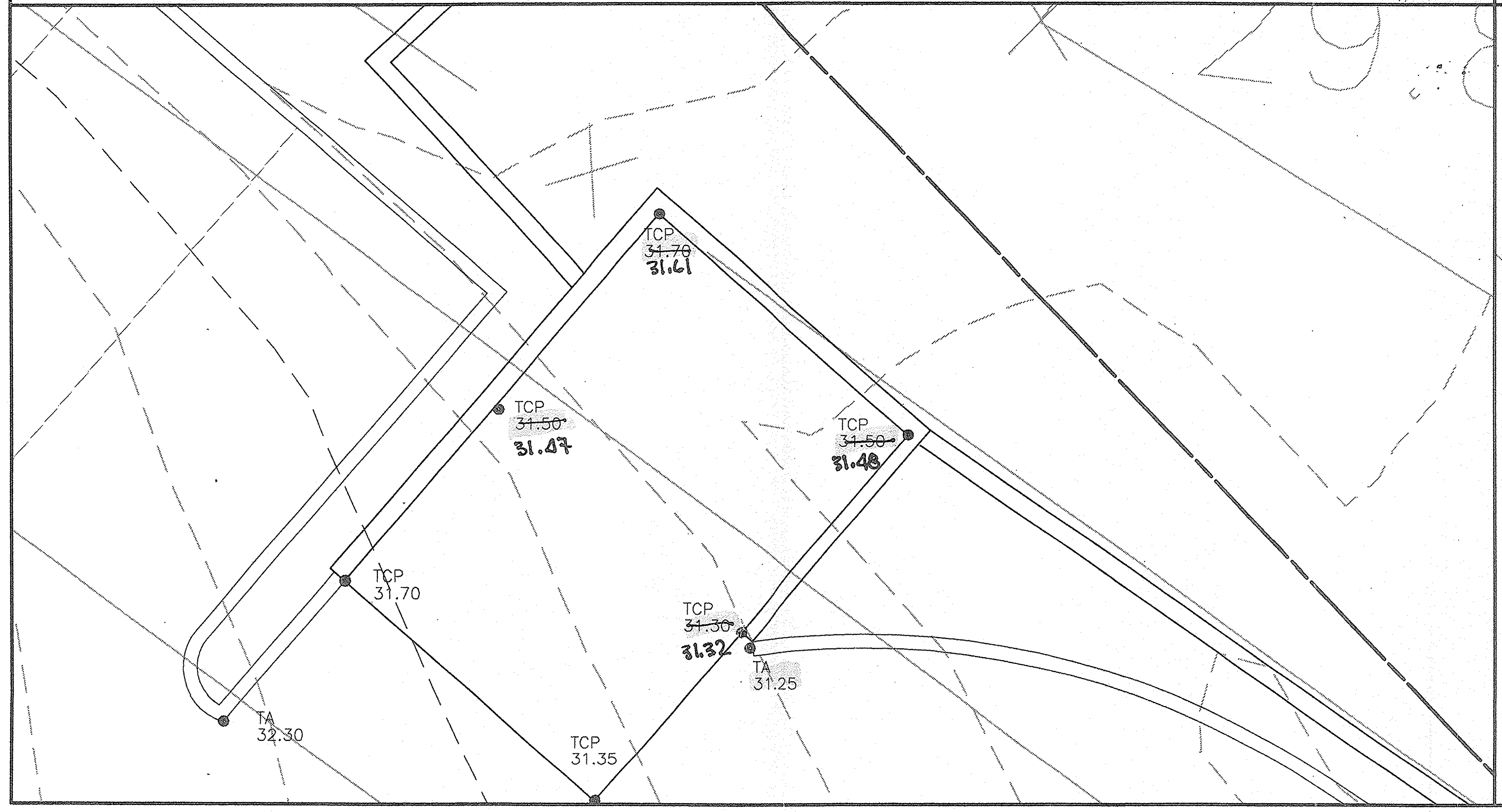
DRY STREAM

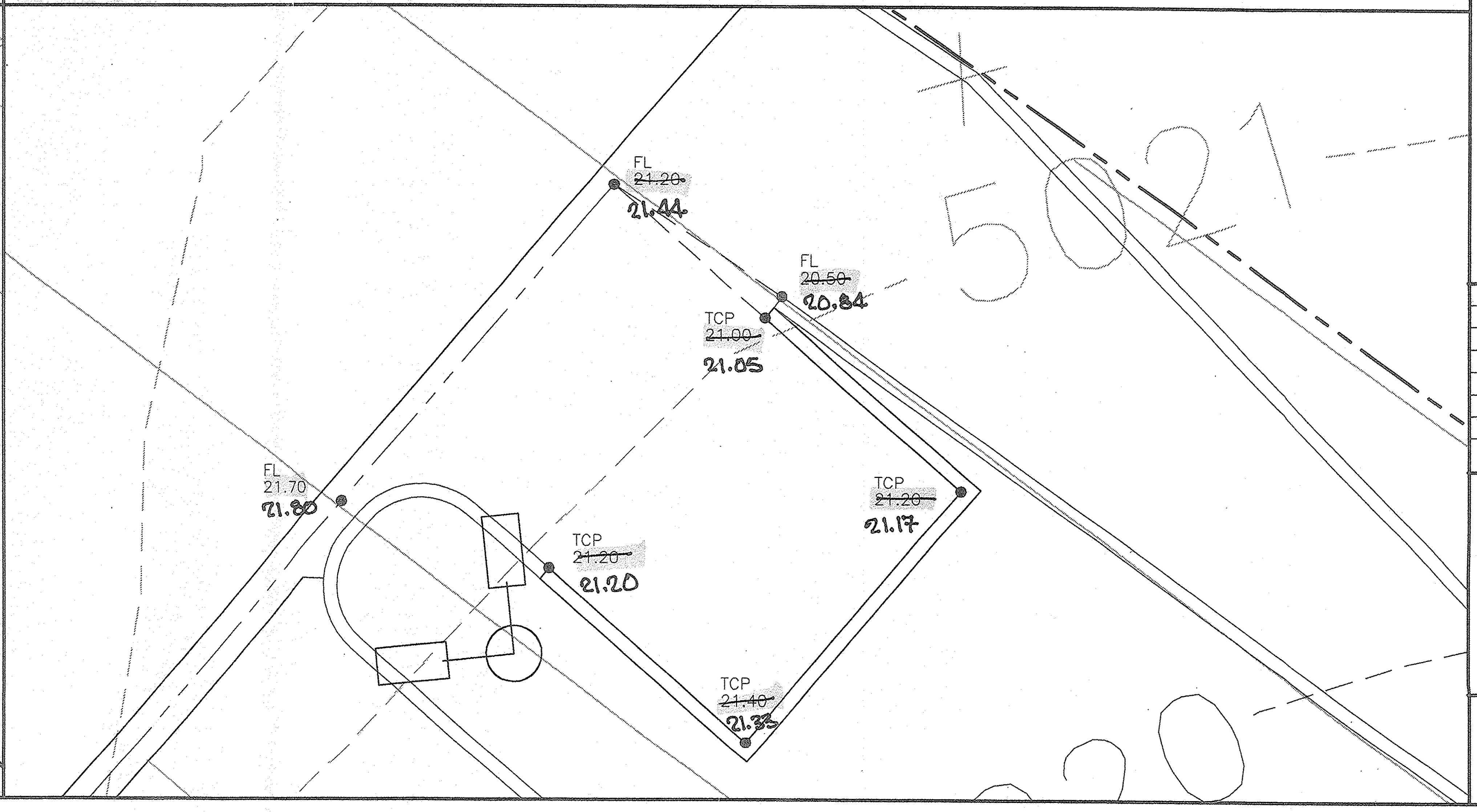


PERCENT BY VOL.	PERCENT BY VOL.
> 6"	0-5
3"-6"	40-60
1"-3"	10-30
3/8"-1"	10-15
< 3/8"	0-5

WEST REFUSE ENCLOSURE



EAST REFUSE ENCLOSURE



no.	date	remarks	by

REVISIONS

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SEP 03 2008
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JEAN J. BORDENAVE
04/11/06

project title
VISTA DEL BOSQUE
WESTSIDE DRIVE NW
ALBUQUERQUE, NM

sheet title
CIVIL SITE DETAILS

sheet date	design by	project no.
12/29/05	JJB	0408

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sheet 2 of 2