

CITY OF ALBUQUERQUE

- File -



JUNE 5, 2005: AMENDMENT - CHANGE TO READ "PERMANENT Hydrology"

June 2, 2005

Mr. Wallace L. Bingham, P.E.
BINGHAM ENGINEERING
6344 Belcher Ave. NE
Albuquerque, NM 87109

Re: VISTA SQUARE
10200 Golf Course Rd. NW
Approval of "PERMANENT" Certificate of Occupancy (C.O.)
Engineer's Stamp dated 06/16/2004 (B-12/D1A1)
Certification dated 06/02/2005

P.O. Box 1293

Dear Monte:

Albuquerque

Based upon the information provided in your submittal received 06/02/2005, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

New Mexico 87103

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

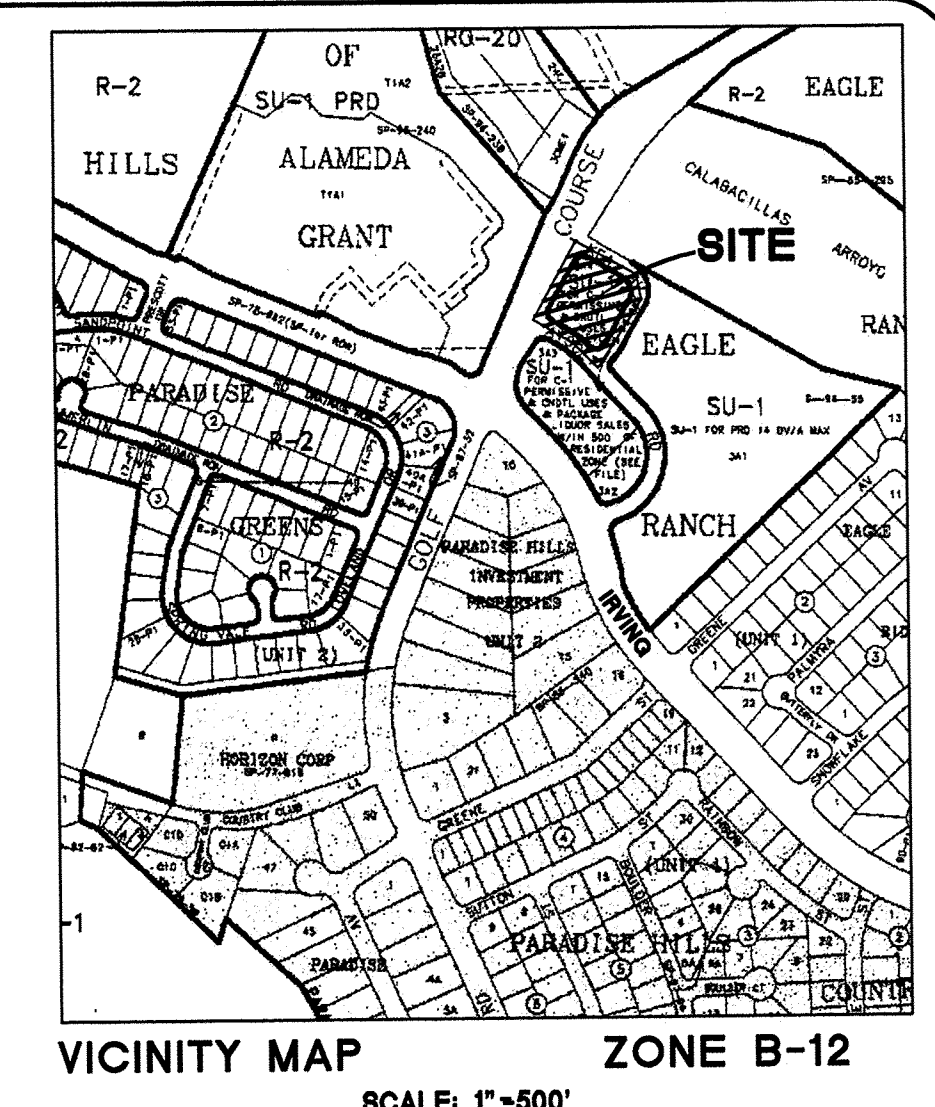
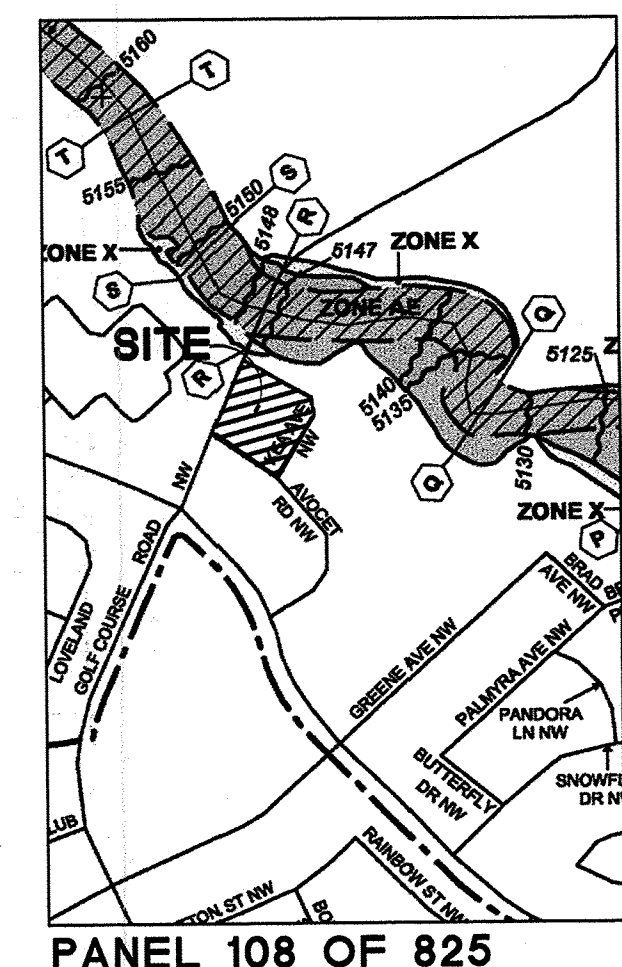
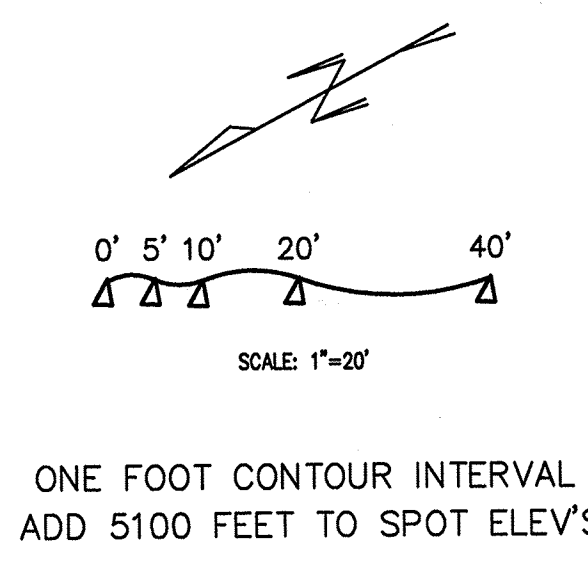
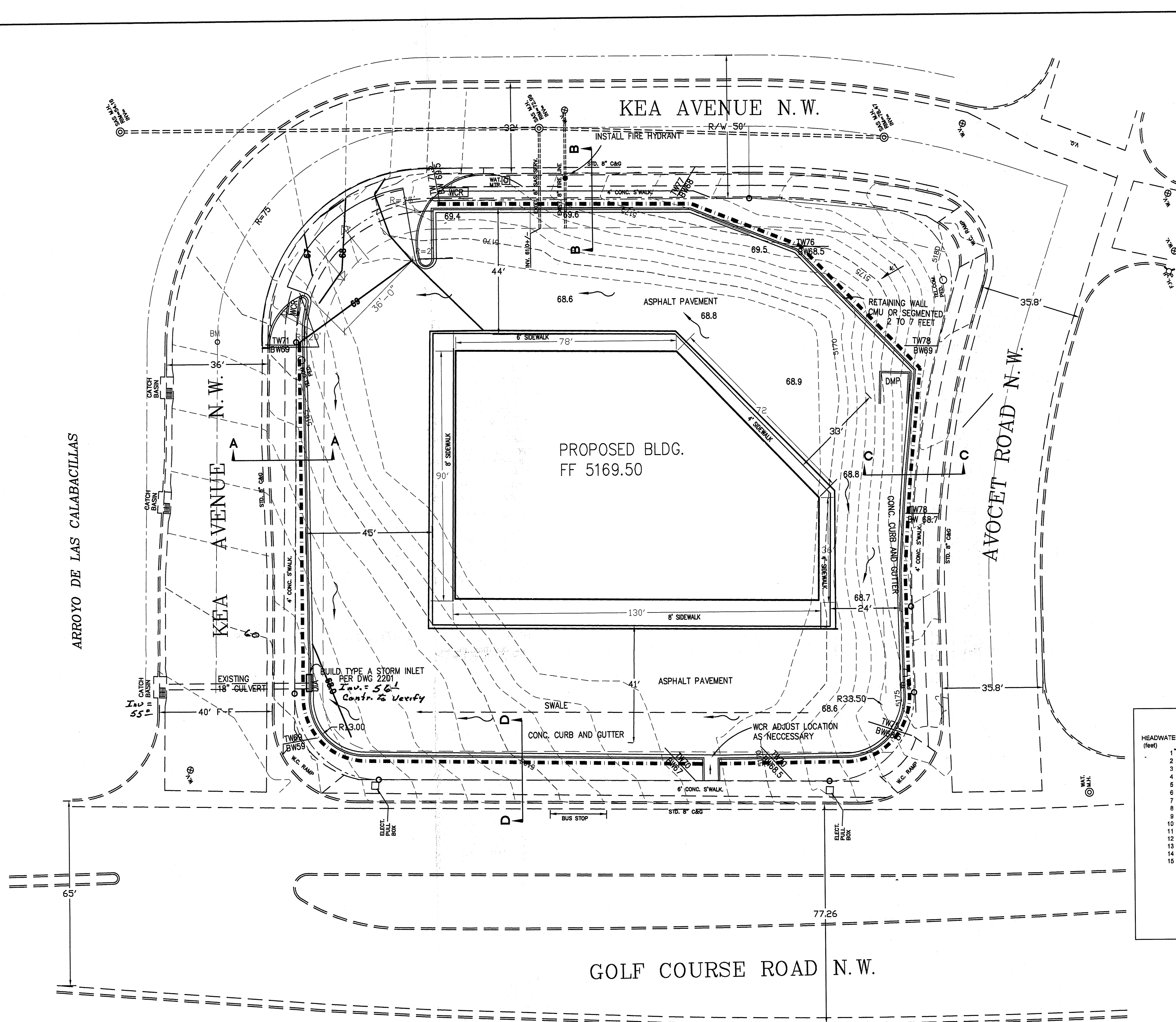
www.cabq.gov

Sincerely,

Arlene V. Portillo

Arlene V. Portillo
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

C: Phyllis Villanueva
File

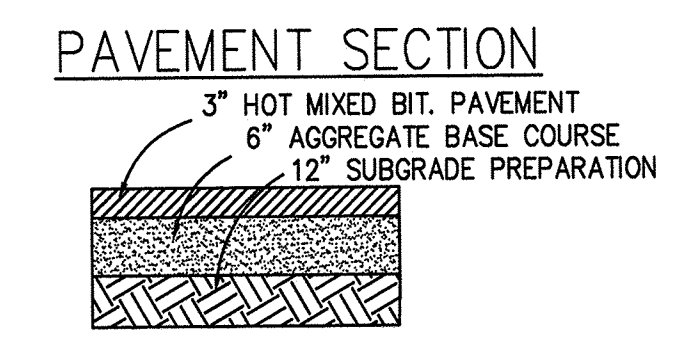


HYDROLOGY
AREA 1.015 Ac.
ZONE 1
DESIGN STORM: 100YR-6Hr
EXISTING CONDITIONS: THE LOT DRAINS TO THE STREET ON THE NORTH SIDE AND COLLECTS IN THE STORM DRAIN THAT DRAINS TO THE CALABACILLAS ARROYO. EXISTING LAND TREATMENT 100% C
PROPOSED CONDITIONS: THE STORM DRAIN EXTENSION THAT REACHES INTO THE PROPERTY WILL BE CONNECTED TO A STORM INLET WHERE THE RUNOFF WILL BE DIRECTED. PROPOSED LAND TREATMENT 8.5% B, 91.5% D
EXISTING Q: 1.015*2.87 = 2.91 CFS
PROPOSED Q: 0.085*1.015*2.03 + 0.915*1.015*4.37 = 3.95 CFS
CAPACITY OF TYPE A STORM INLET:
 $Q = CLH^{3/2}$
 $Q = 2.7*10.5*0.6^{3/2}$
 $Q = 25.5$ cfs
CAPACITY OF 18" CONNECTING PIPE:
 $Q = 25$ cfs AT 10 FEET HEAD (SEE CHART BELOW)

NOTE:
THE CONSTRUCTION SHALL BE ACCORDING TO THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTIONS.

HEADWATER (feet)	CULVERT CAPACITIES (cfs) (INLET CONTROL)										CONC. SQUARE EDGE W/HEAVY WALL									
	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"
1	0.80	2.12	2.99	3.55	4.05	4.53	4.97	5.38	5.76	6.15	6.52	6.87	7.23	7.53	7.83	8.13	8.43	8.73	9.03	9.33
2	1.27	4.05	5.59	6.80	7.89	8.89	9.89	10.89	11.89	12.89	13.89	14.89	15.89	16.89	17.89	18.89	19.89	20.89	21.89	22.89
3	1.61	6.02	8.24	10.37	12.30	14.13	15.86	17.59	19.32	21.05	22.78	24.51	26.24	27.97	29.70	31.43	33.16	34.89	36.62	38.35
4	1.88	7.19	10.35	13.51	16.67	19.83	22.99	26.15	29.31	32.47	35.63	38.79	41.95	45.11	48.27	51.43	54.59	57.75	60.91	64.07
5	2.13	8.19	12.35	16.51	20.67	24.83	28.99	33.15	37.31	41.47	45.63	49.79	53.95	58.11	62.27	66.43	70.59	74.75	78.91	83.07
6	2.34	9.09	13.81	18.53	23.25	27.97	32.69	37.41	42.13	46.85	51.57	56.29	61.01	65.73	70.45	75.17	79.89	84.61	89.33	94.05
7	2.54	9.81	15.13	20.45	25.77	31.09	36.41	41.73	47.05	52.37	57.69	63.01	68.33	73.65	78.97	84.29	89.61	94.93	100.25	105.57
8	2.72	10.68	16.51	22.43	28.35	34.27	40.19	46.11	52.03	57.95	63.87	69.79	75.71	81.63	87.55	93.47	99.39	105.31	111.23	117.15
9	2.89	11.36	17.65	24.13	30.61	37.09	43.57	50.05	56.53	63.01	69.49	75.97	82.45	88.93	95.41	101.89	108.37	114.85	121.33	127.81
10	3.05	12.02	18.81	25.79	32.77	39.75	46.73	53.71	60.69	67.67	74.65	81.63	88.61	95.59	102.57	109.55	116.53	123.51	130.49	137.47
11	3.21	12.65	19.81	27.13	34.51	41.89	49.27	56.65	64.03	71.41	78.79	86.17	93.55	100.93	108.31	115.69	123.07	130.45	137.83	145.21
12	3.36	13.25	20.81	28.53	36.31	44.09	51.87	59.65	67.43	75.21	82.99	90.77	98.55	106.33	114.11	121.89	129.67	137.45	145.23	153.01
13	3.50	13.82	21.81	29.93	38.11	46.29	54.47	62.65	70.83	79.01	87.19	95.37	103.55	111.73	119.91	128.09	136.27	144.45	152.63	160.81
14	3.64	14.37	22.81	31.33	39.91	48.49	57.07	65.65	74.23	82.81	91.39	99.97	108.55	117.13	125.71	134.29	142.87	151.45	160.03	168.61
15	3.77	14.90	23.81	32.85	41.83	50.81	59.79	68.77	77.75	86.73	95.71	104.69	113.67	122.65	131.63	140.61	149.59	158.57	167.55	176.53

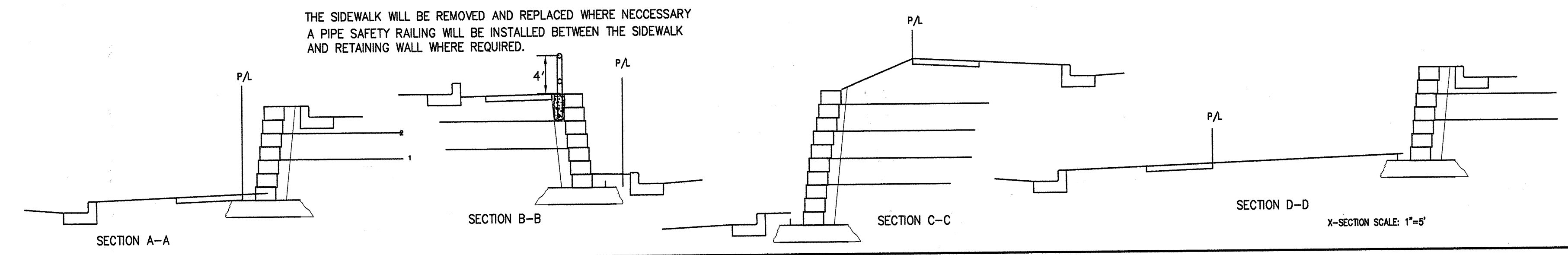
UNSUBMERGED EQUATION: Re: F.W. Bladell and F.T. Mavis
 $Q = H^{0.8}$
 $Q = 0.48(So^{0.4})^{0.05}(H^{0.1})^{1.8}D^{2.67}S^{0.5}$
 $Q = 0.84(H^{0.1})^{1.2}$
 $Q = 0.44(So^{0.4})^{0.05}(H^{0.1})^{1.8}D^{2.67}S^{0.5}$
SUBMERGED EQUATION: HDS No. 5 FHWA
 $HW = Q(Q^{0.75}S)^{0.5} / (2Y - S)$
 $C = 0.398$
 $Y = 0.6700$



NOTE:
RETAINING WALL SHOWN ON THIS PLAN INTENDED TO BE KEYSTONE RESTRAINED BLOCK. FIGURES BELOW ARE NOT AN ENGINEERING DESIGN.

THE SIDEWALK WILL BE REMOVED AND REPLACED WHERE NECESSARY A PIPE SAFETY RAILING WILL BE INSTALLED BETWEEN THE SIDEWALK AND RETAINING WALL WHERE REQUIRED.

SO-19 APPROVAL:	INSPECTOR NAME:	DATE:



VISTA SQUARE

GRADING AND DRAINAGE PLAN

BINGHAM ENGINEERING
ALBUQUERQUE, NEW MEXICO
505 797 4699

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