



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 27, 1999

James Topmiller, P.E.
Bohannon-Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

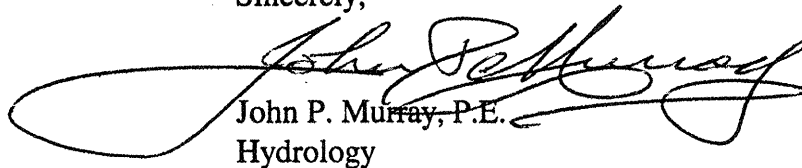
***RE: PRESBYTERIAN HOSPITAL - MAIN CAMPUS (K15-D5). ENGINEER'S
CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL.
ENGINEER'S STAMP DATED JULY 23, 1999.***

Dear Mr. Topmiller:

Based on the information provided on your July 28, 1999 submittal, the above referenced project is approved for Certificate of Occupancy.

If I can be of further assistance, please feel free to call me at 924-3984.

Sincerely,


John P. Murray, P.E.
Hydrology

c: ✓ File



CITY OF
Albuquerque

Public Works Department

February 21, 1997

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

Pierce Runnels
Bohannon Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

**RE: PRESBYTERIAN HOSPITAL (K15-D5). DRAINAGE REPORT FOR FINAL PLAT
AND BUILDING PERMIT APPROVALS. ENGINEER'S STAMP DATED 2-13-97.**

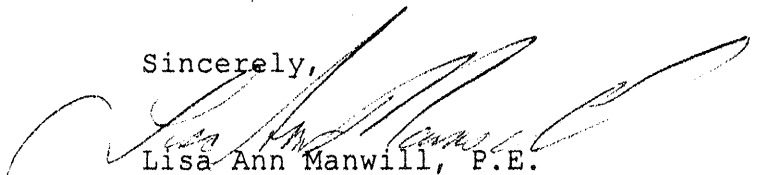
Dear Mr. Runnels:

Based on the information provided on your February 14, 1997
submittal, City Hydrology has the following comments:

1. Show new storm drain pipe that drains the proposed Professional Building roof. Also, are you installing new lateral for the catch basins at Oak and Silver?
2. Provide an infrastructure list and a copy of the plat.
3. Your grading and drainage plans have notes regarding work in Cedar Street that are not complete. Add the correct City Project Number.
4. The flow arrows on your "PROPOSED CONDITIONS/BASIN" Drawing are confusing. It appears that the flow arrows make a circle of sorts.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

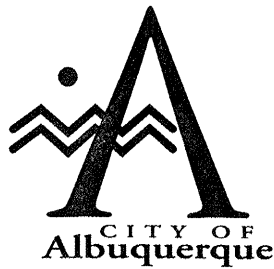


Lisa Ann Manwill, P.E.
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!





May 29, 1996

Martin J. Chávez, Mayor

Pierce Runnels
Bohannon Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

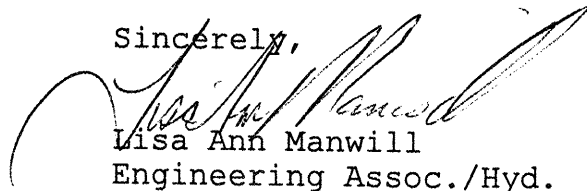
**RE: PRESBYTERIAN HOSPITAL (K15-D5) CONCEPTUAL GRADING AND
DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT
APPROVAL. ENGINEER'S STAMP DATED 5-6-96.**

Dear Mr. Runnels:

Based on the information provided on your May 7, 1996 submittal,
the above referenced project is approved for Site Development
Plan for Building Permit.

If I can be of further assistance, please feel free to contact me
at 768-3622.

Sincerely,

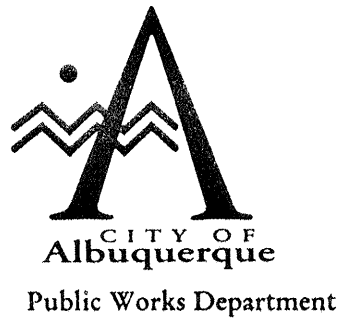


Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

Good for You, Albuquerque!





Martin J. Chávez, Mayor

Robert E. Gurulé, Director

March 28, 1997

James Topmiller
Bohannon-Huston, Inc.
7500 Jefferson NE
Albuquerque, New Mexico 87109

RE: REVISED DRAINAGE PLAN FOR PRESBYTERIAN HOSPITAL (K15-D5)
REVISION DATED 3/13/97 & STAMPED RECEIVED 3/19/97

Dear Mr. Topmiller:

Based on the information provided on your March 19, 1997 resubmittal, the above referenced site is approved for Final Plat, Foundation Plan, and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy and Financial Guarantee release the following must be submitted:

1. Engineer Certification per the DPM checklist.
2. Copy of the letter of acceptance for the Work Order items.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
Terri Martin
File

Sincerely

Bernie J. Montoya
Bernie J. Montoya CE
Engineering Associate

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103



1. PURPOSE

The purpose of this report is to provide a Drainage Management Plan for the proposed development of a new 8-story professional office building/parking structure on a portion of the Presbyterian Hospital main campus. the main campus is located in southeast Albuquerque, and is bounded by Central Avenue, Sycamore Street, Lead Avenue and Oak Street. The proposed building is located at the northeast corner of Cedar Street and Silver Avenue. In conjunction with the proposed building construction, the main hospital entry will be re-configured and re-graded. Cedar Street will be modified from Silver Avenue to north of Central Avenue, under a separate City Work Order project, and many of the parking areas will be upgraded.

This report and the Grading and Drainage Plans are submitted for Hydrology Division review for the purpose of obtaining final plat and building permit approval.

2. EXISTING CONDITIONS

Please refer to the Existing Conditions Photographs and the Existing Conditions/Basin Map the plates section of this report. The site is not within any identified F.E.M.A. floodplain, according tot he latest maps. The site is in precipitation Zone 2 (Section 22.2, DPM) for hydrologic analyses. The site is identified on the SCS Soil Survey Map in the Appendices.

The entire main campus is currently fully developed and is approximately 90% impervious. The existing areas north of Silver Avenue and east of Cedar Street primarily flow west and north. This is the area most affected by this project. The northern portion of this area drains to Spruce Street and Cedar Street, which convey the flows directly to Central Avenue. The southern portion drains to Cedar Street and the Private Drive (formerly Gold Avenue), and continues west to the low point in the main entry area. This runoff (approximately 31.4 cfs) primarily flows across the entry area to the emergency room road, through the parking areas and onto Central Avenue. A portion of this flow is intercepted at the Cedar Street/Private Road intersection by

existing inlets, and directed into the existing manhole (96" storm drain line) in Cedar Street. due to the poor condition of the pavement in the area of the intersection, the amount of flow actually intercepted is relatively small.

The total outflow to Central Avenue from these areas east of the main hospital (neglecting the intercepted amount) is approximately 61.2 cfs.

The areas of the main campus south of Silver Avenue primarily discharge to Lead Avenue.

3. PROPOSED CONDITIONS

Please refer to the Proposed Conditions Basin Map, the Grading / Drainage / Paving Plans, the Cedar St. Plan and Profile Sheets and the Site Plan in the Plates section of this report.

Proposed development consists of an 8-story professional office building/parking structure, the reconfiguration and re-grading of the main entry area, Cedar Street modifications (including a raised intersection at Cedar/Private Drive), demolition of the Zia Building, Spruce Apartments and a private residence, and the reconfiguration of several parking areas on the campus. The drainage management plan involves two important considerations:

1. The improvements do not increase the impervious area and, accordingly, do not increase the discharge from the site over historical conditions.
2. The amount of flow to the Cedar Street 96" storm drain is increased with a similar decrease in flow directly to Central Avenue. Since this project is at the downstream end of the system, this flow will be ahead of the peak in the 96" storm drain. By earlier introduction to the system, downstream conditions will be improved. This is recommended in the Albuquerque Master Drainage Study (AMDS) (Vol. II, p. 11). The AMDS shows additional capacity in the 96" storm drain even at peak flow (capacity = 538 cfs, Q100 = 490 cfs).

The Site Plan provides an overall view of the proposed improvements. The construction of the site improvements will be done in phases to maintain operation of the hospital and existing offices. The Grading/Drainage/Paving Plans and the Cedar Street Plan and Profile Sheets show the private and public improvements, respectively, at a scale of 1" = 20'. The Cedar Street construction will be part of a separate City of Albuquerque public work order project.

By re-grading the main entry area and creating a raised intersection at Cedar Street/Private Drive, much of the flow which is currently conveyed to Central Avenue, through the main entry area, will be intercepted and introduced (via connector pipes to the Cedar/Private Drive manhole) into the 96" storm drain in Cedar Street. As shown on the Proposed Conditions/Basin Map, approximately 25.2 cfs will be intercepted by catch basins CB1, CB2, CB3 and CB4, at the Cedar/Private Drive intersection. This will reduce the outflow to Central Avenue from 61.2 cfs to 36.0 cfs, reducing the street flow in Central.

The area occupied by the new building will discharge to a private storm drain line along the eastern side of the building which connects to catch basin CB2. Currently, this area drains to existing inlets at analysis point CB5. By implementing this change, the runoff in this private driveway will be lessened. A portion of the building will also drain to a catch basin located in Silver Avenue.

Two sidewalk culverts are proposed for the project. One is located at the southeast quadrant of Central Avenue/Cedar Street, and the other is located on the east side of Spruce Street, between Lead Avenue and Silver Avenue. Hydraulic calculations are provided in the appendix.

Upon completion of the project, an engineer's certification will be provided, indicating compliance with the approved drainage report.

4. CONCLUSION

This drainage report provides a sound drainage management plan for the proposed development at Presbyterian Hospital, and works to improve the existing runoff conditions. **With this submittal, we request approval for Building Permit and Final Plat.**

**CATCH BASIN CAPACITY SUMMARY
PRESBYTERIAN HOSPITAL SITE IMPROVEMENTS**

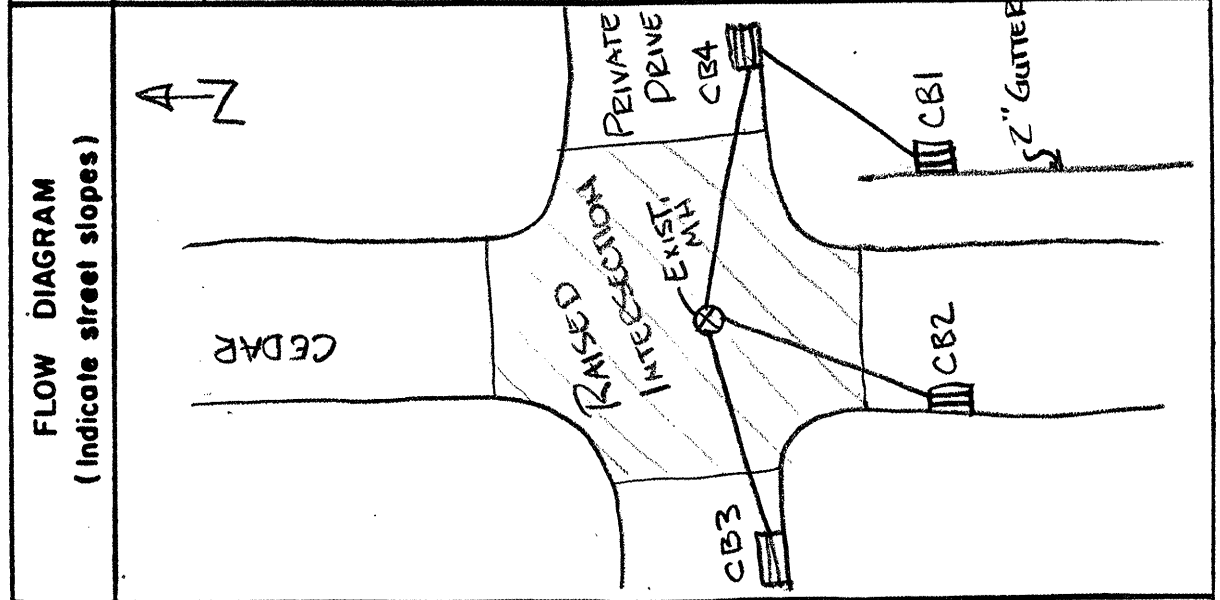
CATCH BASIN #	TYPE	# GRATES	HEAD, MAX FT.	OPEN AREA, SQ. FT.	PERIMETER, FT.	WEIR Q, CFS	ORIFICE Q, CFS	CAPACITY, CFS	PEAK FLOW CFS
CB1	D	1	0.5	4.56	6.04	5.72	15.5	5.72	3.8
CB2	A	1	0.5	4.56	6.04	5.72	15.5	5.72	3.1
CB3	A	1	0.7	4.56	6.04	9.48	18.4	9.48	2.8
CB4	A	2	0.75	9.12	9	15.7	38	15.7	15.5

CATCH BASIN CALCULATION SHEET

Sht. of

PROJECT _____ CALCULATED BY _____
 DESIGN FREQUENCY _____ DATE _____

Sym.	Drain. Area	Q		Cap. of Street $\frac{1}{2}$ "d"	Gutter "d"	C.B.			Connector Pipe			V Depth
		Total	Inter.			No.	Size	Head	L	Dia.		
CB1	CB1	3.8	3.8	$h=0.5'$ (SUM P)		1	D					
CB2	CB2	3.1	3.1	$h=0.50$ (SUM P)		1	A					
CB3	CB3	2.8	2.8	$h=0.70$ (SUM P)		1	A					
CB4	CB4	15.5	15.5	$h=0.75$ (SUM P)		1	A-DOUBLE GRATE					



CONNECTOR PIPES

PIPE

SLOPE

MANNINGS Q, FULL, cfs

$$CB1: S = \frac{15.5 - 72.7}{38} = 7.37\%$$

28.5 cfs

$$CB2: S = \frac{71.94 - 66.47}{40} = 13.7\%$$

38.9 cfs

$$CB3: S = \frac{72.85 - 68.55}{47} = 9.15\%$$

31.8 cfs

$$CB4: S = \frac{74.20 - 68.97}{42} = 12.5\%$$

37.1 cfs

CHECK CAPACITIES

PIPE

MANNINGS Q, FULL

ACTUAL FLOW

CB1

28.5 cfs

3.8 cfs

✓

CB2

38.9 cfs

9.7 cfs

✓

CB3

31.8 cfs

2.8 cfs

✓

CB4

37.1 cfs

19.3 cfs

✓



BOHANNAN-HUSTON INC.

PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

CAPACITY OF SINGLE GRATE TYPE "A" IN SUMP: CB3

OVERFLOW FROM CEDAR/PRIVATE DRIVE IS NORTH ON CEDAR TO CENTRAL: $Q_{DESIGN} = Q_{100}$

ORIFICE EQUATION:

$$Q = 0.6 A_{NET} \sqrt{2gh}$$

$$h = 0.70' (CB3)$$

$$A_{NET} = \frac{35.5 \times 18.5}{144} = 4.56 \text{ SF}$$

$$Q = 0.6 (4.56) \sqrt{2 (32.2) (0.7)} \\ = \underline{\underline{18.4 \text{ CFS}}}$$

WEIR EQUATION:

$$Q = 2.68 P_{NET} h^{1.5}$$

$$P_{NET} = \frac{2(18.5) + 35.5}{12} = 6.04'$$

$$Q = 2.68 (6.04) (0.7)^{1.5} \\ = \underline{\underline{9.48 \text{ CFS}}}$$

CAPACITY = 9.48 CFS

IF $h = 0.50'$, CB1, CB2

$$Q = 15.5 \text{ CFS}$$

$$Q = 5.72 \text{ CFS}$$

CAPACITY W/ 6" HEAD = 5.72 CFS



BOHANNAN-HUSTON INC.

PROJECT NAME PRESBYTERIAN HOSP SHEET _____ OF _____
 PROJECT NO. _____ BY PR DATE 12/11/96
 SUBJECT _____ CH'D _____ DATE _____

CAPACITY OF DOUBLE GRATE TYPE "A" IN SUMP

CBA

ORIFICE EQ'N

$$Q = 0.6 A_{\text{NET}} \sqrt{2gh}$$

$$A_{\text{NET}} = 2(4.56) = 9.12 \text{ SF}$$

$$h = 0.75'$$

$$Q = 38.0 \text{ CFS}$$

WEIR EQUATION

$$Q = 2.68 P_{\text{NET}} h^{1.5}$$

$$P_{\text{NET}} = \frac{2(18.5) + 2(35.5)}{12} = 9.0'$$

$$Q = 15.7 \text{ CFS}$$

CAPACITY = 15.7 CFS



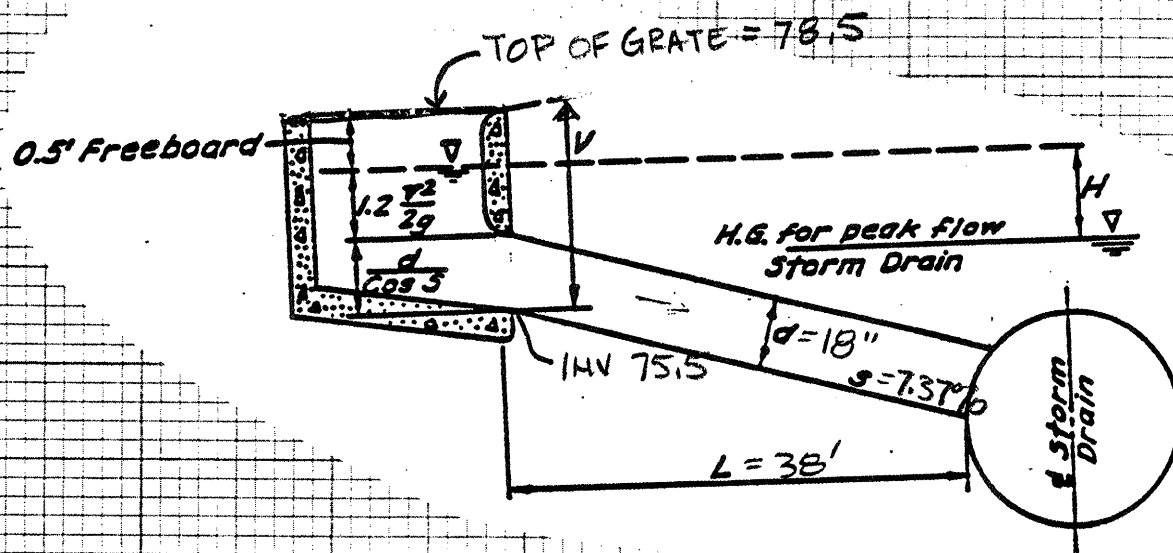
BOHANNAN-HUSTON INC.

PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

CBI
SINGLE TYPE D



$$Q = 3.8 \text{ CFS}$$

$$V = \frac{Q}{A} = 2.1 \text{ FPS}$$

$$1.2 \frac{V^2}{2g} = 0.09'$$

$$V_{\text{MIN}} = 0.5 + 0.09 + 1.5 = 2.09 \text{ FT}$$

V IS GRATE TO INVERT FOR TYPE D

$$\text{DEPTH PROVIDED} = 78.5 - 75.5 = 3 \text{ FT} \quad \text{OK} \quad \checkmark$$

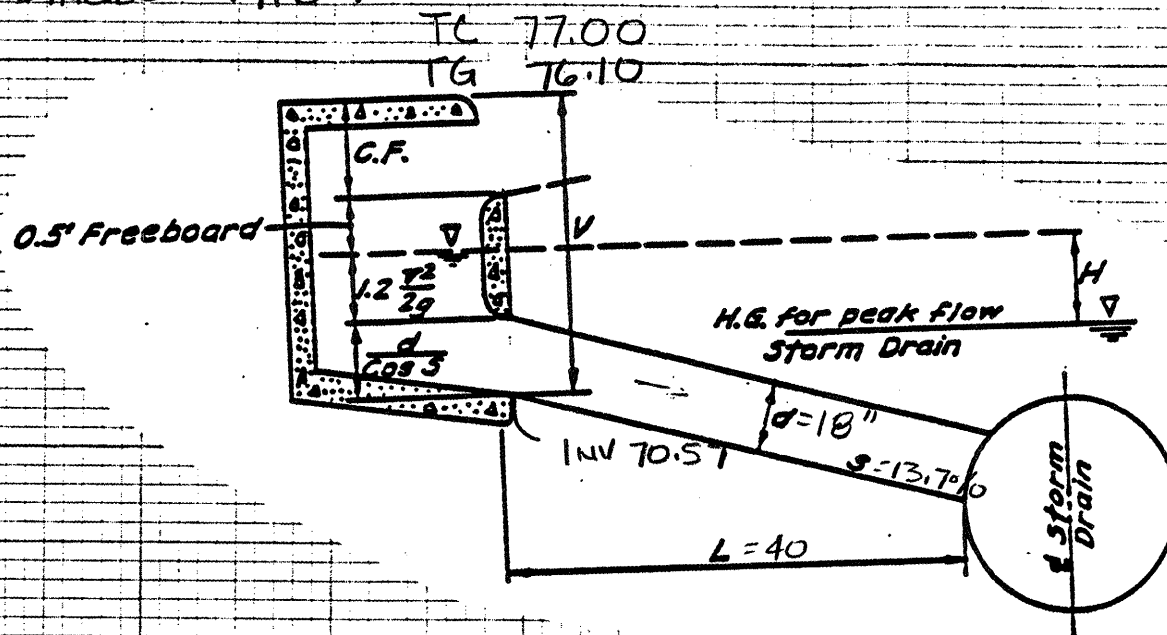


BOHANNAN-HUSTON INC.

PROJECT NAME _____ SHEET _____ OF _____
PROJECT NO. _____ BY _____ DATE _____
SUBJECT _____ CH'D _____ DATE _____

CB 2

SINGLE TYPE A



$$Q = 9.7 \text{ CFS}$$

$$V = \frac{Q}{A} = 5.5 \text{ FPS}$$

$$1.2 \frac{v^2}{2g} = 0.56'$$

$$V_{\text{MIN}} = 1.33 + 0.56 + 1.5 = 3.4 \text{ FT}$$

$$V_{\text{PROVIDED}} = 77.00 - 71.94 = 5.06 \text{ FT} \quad \checkmark$$



BOHANNAN-HUSTON INC.

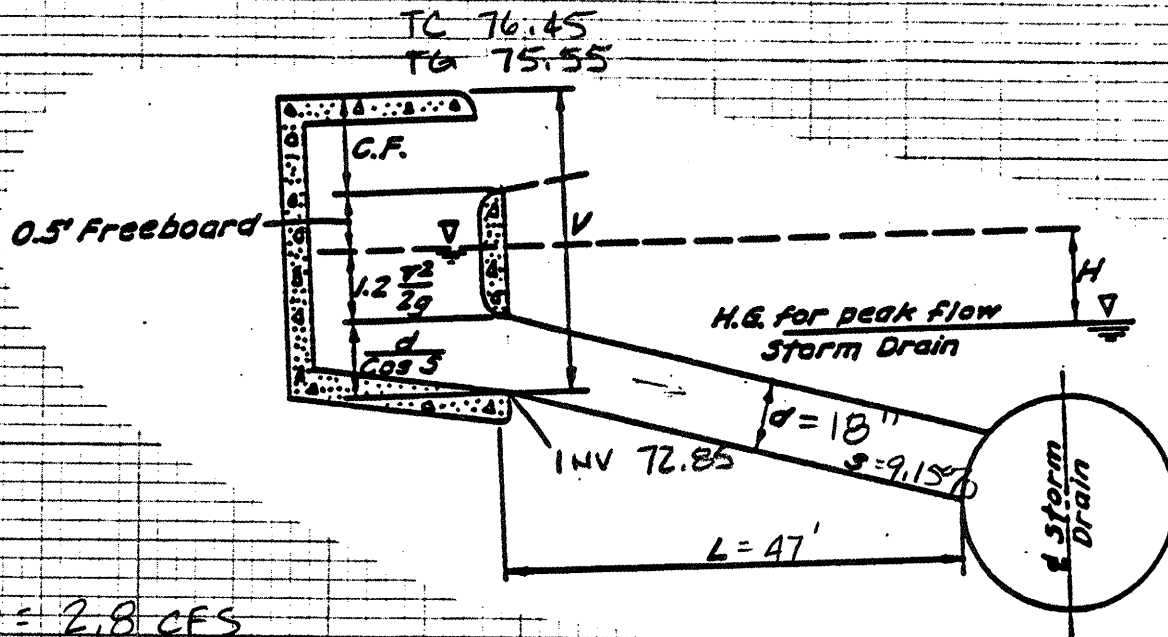
PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

CB 3

SINGLE TYPE A



$$Q = 2.8 \text{ CFS}$$

$$V = \frac{Q}{A} = 1.58 \text{ FPS}$$

$$1.2 \frac{V^2}{2g} = 0.05$$

$$V_{\text{MINI}} = 1.33 + 0.05 + 1.5$$
$$= 2.88 \text{ FT}$$

$$V_{\text{PROVIDED}} = 76.45 - 72.85 = 3.6 \text{ FT} \quad \checkmark$$



BOHANNAN-HUSTON INC.

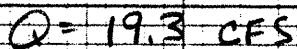
PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

DOUBLE TYPE A

TC 77.80
TG 76.90



$$\frac{1.2 \text{ V}^2}{2g} = 2.2 \text{ FT}$$

$$V_{MIN} = 1.33 + 2.2 + 1.5$$
$$= 5.03 \text{ FT}$$

$$V_{\text{PROVIDED}} = 77.8 - 72.6 = 5.2 \text{ FT} \quad \checkmark$$



BOHANNAN-HUSTON INC.

PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

SIDEWALK CHANNEL-TRACT 9 (SC2)

$Q = 5.3 \text{ CFS}$

$\text{SLOPE} = 2.0\%$ (SEE ATTACHED RATING CURVE)

$d = 0.40'$

$V = 6.9 \text{ FPS}$

IN ORDER TO PROVIDE SUFFICIENT HEAD ($H=1.10'$), FOR WEIR,
THE PAVEMENT & CURB & GUTTER WILL BE WARPED
TO PROVIDE A 12" CURB AT THE CHANNEL INFLOW,
LIKE SECTION B-B IN THE SCI ANALYSIS ON THE
PREVIOUS PAGE.



BOHANNAN-HUSTON INC.

PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. _____ BY _____ DATE _____

SUBJECT _____ CH'D _____ DATE _____

SIDEWALK CULVERT/PRESBYTERIAN HOSPITAL

SIDEWALK CULVERTS- NORTH VISITOR'S LOT & TRACT 9

MANNING'S N = .0130

SLOPE = .0200

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.50	3	1.00	0.01	5	2.01	0.50
2	0.01	0.04	4	2.00	0.04			

WSEL (FT)	DEPTH INC	FLOW AREA (SQ FT)	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOP WID
0.02	0.01	0.0	0.0	0.6	0.5	0.63
0.03	0.02	0.0	0.0	1.3	0.8	1.26
0.04	0.03	0.0	0.0	1.9	1.0	1.88
0.05	0.04	0.0	0.1	2.0	1.3	1.99
0.06	0.05	0.1	0.1	2.0	1.7	1.99
0.07	0.06	0.1	0.2	2.0	2.0	1.99
0.08	0.07	0.1	0.2	2.1	2.3	1.99
0.09	0.08	0.1	0.3	2.1	2.5	1.99
0.10	0.09	0.1	0.4	2.1	2.7	1.99
0.11	0.10	0.2	0.5	2.1	3.0	1.99
0.12	0.11	0.2	0.6	2.1	3.2	1.99
0.13	0.12	0.2	0.7	2.2	3.4	1.99
0.14	0.13	0.2	0.8	2.2	3.6	1.99
0.15	0.14	0.2	0.9	2.2	3.8	1.99
0.16	0.15	0.3	1.1	2.2	3.9	2.00
0.17	0.16	0.3	1.2	2.2	4.1	2.00
0.18	0.17	0.3	1.3	2.3	4.3	2.00
0.19	0.18	0.3	1.4	2.3	4.4	2.00
0.20	0.19	0.3	1.6	2.3	4.6	2.00
0.21	0.20	0.4	1.7	2.3	4.7	2.00
0.22	0.21	0.4	1.9	2.3	4.9	2.00
0.23	0.22	0.4	2.0	2.4	5.0	2.00
0.24	0.23	0.4	2.2	2.4	5.1	2.00
0.25	0.24	0.4	2.4	2.4	5.3	2.00
0.26	0.25	0.5	2.5	2.4	5.4	2.00
0.27	0.26	0.5	2.7	2.4	5.5	2.00
0.28	0.27	0.5	2.9	2.5	5.6	2.00
0.29	0.28	0.5	3.0	2.5	5.7	2.00
0.30	0.29	0.5	3.2	2.5	5.9	2.00
0.31	0.30	0.6	3.4	2.5	6.0	2.00
0.32	0.31	0.6	3.6	2.5	6.1	2.00
0.33	0.32	0.6	3.8	2.6	6.2	2.00
0.34	0.33	0.6	3.9	2.6	6.3	2.00
0.35	0.34	0.6	4.1	2.6	6.4	2.00
0.36	0.35	0.7	4.3	2.6	6.5	2.00
0.37	0.36	0.7	4.5	2.6	6.6	2.00
0.38	0.37	0.7	4.7	2.7	6.7	2.00
0.39	0.38	0.7	4.9	2.7	6.8	2.01
0.40	0.39	0.7	5.1	2.7	6.9	2.01
0.41	0.40	0.8	5.3	2.7	6.9	2.01
0.42	0.41	0.8	5.5	2.7	7.0	2.01
0.43	0.42	0.8	5.7	2.8	7.1	2.01
0.44	0.43	0.8	6.0	2.8	7.2	2.01
0.45	0.44	0.8	6.2	2.8	7.3	2.01
0.46	0.45	0.9	6.4	2.8	7.4	2.01
0.47	0.46	0.9	6.6	2.8	7.4	2.01
0.48	0.47	0.9	6.8	2.9	7.5	2.01
0.49	0.48	0.9	7.0	2.9	7.6	2.01
0.50	0.49	0.9	7.3	2.9	7.7	2.01

Q=5.3CFS
@S=2.070
d=0.4'

SIDEWALK CULVERT/PRESBYTERIAN HOSPITAL

ROB CHANNEL FROM NORTH VISITORS' LOT TO SIDEWALK
CULVERT

MANNING'S N = .0130

SLOPE = .1060

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.50	3	1.00	0.01	5	2.01	0.50
2	0.01	0.04	4	2.00	0.04			

WSEL (FT)	DEPTH INC	FLOW AREA (SQ FT)	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOP WID
0.02	0.01	0.0	0.0	0.6	1.1	0.63
0.03	0.02	0.0	0.0	1.3	1.7	1.26
0.04	0.03	0.0	0.1	1.9	2.3	1.88
0.05	0.04	0.0	0.1	2.0	3.1	1.99
0.06	0.05	0.1	0.3	2.0	3.9	1.99
0.07	0.06	0.1	0.4	2.0	4.6	1.99
0.08	0.07	0.1	0.6	2.1	5.2	1.99
0.09	0.08	0.1	0.7	2.1	5.8	1.99
0.10	0.09	0.1	0.9	2.1	6.3	1.99
0.11	0.10	0.2	1.1	2.1	6.8	1.99
0.12	0.11	0.2	1.4	2.1	7.3	1.99
0.13	0.12	0.2	1.6	2.2	7.8	1.99
0.14	0.13	0.2	1.9	2.2	8.2	1.99
0.15	0.14	0.2	2.1	2.2	8.6	1.99
0.16	0.15	0.3	2.4	2.2	9.1	2.00
0.17	0.16	0.3	2.7	2.2	9.4	2.00
0.18	0.17	0.3	3.0	2.3	9.8	2.00
0.19	0.18	0.3	3.3	2.3	10.2	2.00
0.20	0.19	0.3	3.7	2.3	10.5	2.00
0.21	0.20	0.4	4.0	2.3	10.9	2.00
0.22	0.21	0.4	4.3	2.3	11.2	2.00
0.23	0.22	0.4	4.7	2.4	11.5	2.00
0.24	0.23	0.4	5.0	2.4	11.8	2.00
0.25	0.24	0.4	5.4	2.4	12.1	2.00
0.26	0.25	0.5	5.8	2.4	12.4	2.00
0.27	0.26	0.5	6.2	2.4	12.7	2.00
0.28	0.27	0.5	6.6	2.5	13.0	2.00
0.29	0.28	0.5	7.0	2.5	13.2	2.00
0.30	0.29	0.5	7.4	2.5	13.5	2.00
0.31	0.30	0.6	7.8	2.5	13.7	2.00
0.32	0.31	0.6	8.2	2.5	14.0	2.00
0.33	0.32	0.6	8.6	2.6	14.2	2.00
0.34	0.33	0.6	9.1	2.6	14.5	2.00
0.35	0.34	0.6	9.5	2.6	14.7	2.00
0.36	0.35	0.7	10.0	2.6	14.9	2.00
0.37	0.36	0.7	10.4	2.6	15.1	2.00
0.38	0.37	0.7	10.9	2.7	15.4	2.00
0.39	0.38	0.7	11.3	2.7	15.6	2.01
0.40	0.39	0.7	11.8	2.7	15.8	2.01
0.41	0.40	0.8	12.3	2.7	16.0	2.01
0.42	0.41	0.8	12.7	2.7	16.2	2.01
0.43	0.42	0.8	13.2	2.8	16.4	2.01
0.44	0.43	0.8	13.7	2.8	16.6	2.01
0.45	0.44	0.8	14.2	2.8	16.7	2.01
0.46	0.45	0.9	14.7	2.8	16.9	2.01
0.47	0.46	0.9	15.2	2.8	17.1	2.01
0.48	0.47	0.9	15.7	2.9	17.3	2.01
0.49	0.48	0.9	16.2	2.9	17.5	2.01
0.50	0.49	0.9	16.7	2.9	17.6	2.01

Q = 5.3 cfs
@ S = 10.6%
d = 0.24'

FOR CONTINUATION SEE SHEET C204

TRACT 8

TRACT 9

NOTE: ALL WORK IN CEDAR ST. FROM BACK OF CURB TO BACK OF CURB IS TO BE COMPLETED AS PART OF A SEPARATE CONTRACT. AS PART OF CITY OF ALBUQUERQUE WORK ORDER PROJECT NO. 5645. 31 INFORMATION PROVIDED HEREIN WHICH SHOWS WORK BETWEEN THE CURBS ON CEDAR ST. IS PROVIDED "FOR INFORMATION ONLY."

LEGEND

[illegible]

KEYED NOTES: DRAINAGE / GRADING / PAVING

- 1 BUILD 6" PCC CURB & CURB TYPE "B" SEE MAJOR SITE SIGNAGE DETAIL, SHT C209
- 2 PROPOSED SITE SIGNAGE: "TYPE "B" SEE MAJOR SITE SIGNAGE DETAIL, SHT C209
- 3 BUILD SIDEWALK CURB-AT PLY C.C.A., STD. DWG. 22-06
- 4 BUILD STD. CURB & COUNTER PIER C.C.A., STD. DWG. 24-15
- 5 BUILD PCC SIDEWALK
- 6 BUILD CONCRETE, V.A. 1" COUNTER WITH C.C.A., STD. DWG. 24-20
- 7 BUILD ASPHALT PAVEMENT, SEE DETAIL, SHT C208
- 8 NOT USED
- 9 BUILD CHAIN LINK FENCE, REUSE EXISTING IF POSSIBLE
- 10 BUILD ROLLING GATE "N" CHAIN LINK FENCE
- 11 BUILD SCREEN WALL "N" AT DETAIL, SHT C209
- 12 BUILD WOOD FENCE TO MATCH EXISTING WOOD FENCE ON NORTH SIDE OF LEAD AVE. BETWEEN CLAD & BRIDGE. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
- 13 NEW ISLAND TO INCORPORATE WATER HARVESTING DETAIL, SHT C210
- 14 EDGE OF ASPHALT, "N" CURB AND COUNTER THIS SIDE
- 15 NEW LIGHT (TYP.) SITE SPECIFIC PLANS
- 16 MATCH EXISTING SIDEWALK
- 17 EXISTING RETAINING WALL TO BE REMOVED. SEE SITE DEMOLITION PLANS
- 18 WATER BLOCK

DRAINAGE CERTIFICATION

AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN IN LOCATIONS WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE NEW ELEVATION IS LISTED. ELEVATIONS WERE PROVIDED BY ALB. SURVEYING CO., PROFESSIONAL LAND SURVEYOR

I, JAMES R. TOPMILLER, OF BOHANNAN-HUSTON INC., A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE DRAINAGE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED DRAINAGE PLAN TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JAMES R. TOPMILLER, P.E.
N.M.P.E. No. 9354

DATE 7/23/99

(17) EXISTING RETAINING WALL TO BE REMOVED. SEE SITE DEMOLITION PLANS

(18) WATER BLOCK

BHI PROJECT NO. C96107A2413
 FILENAME: BHI-MAIN\96107A.COP\DESIGN\ACAD\C205.dwg
 XREFS: C000.DWG, CONTOURS.DWG, UTILITY.DWG

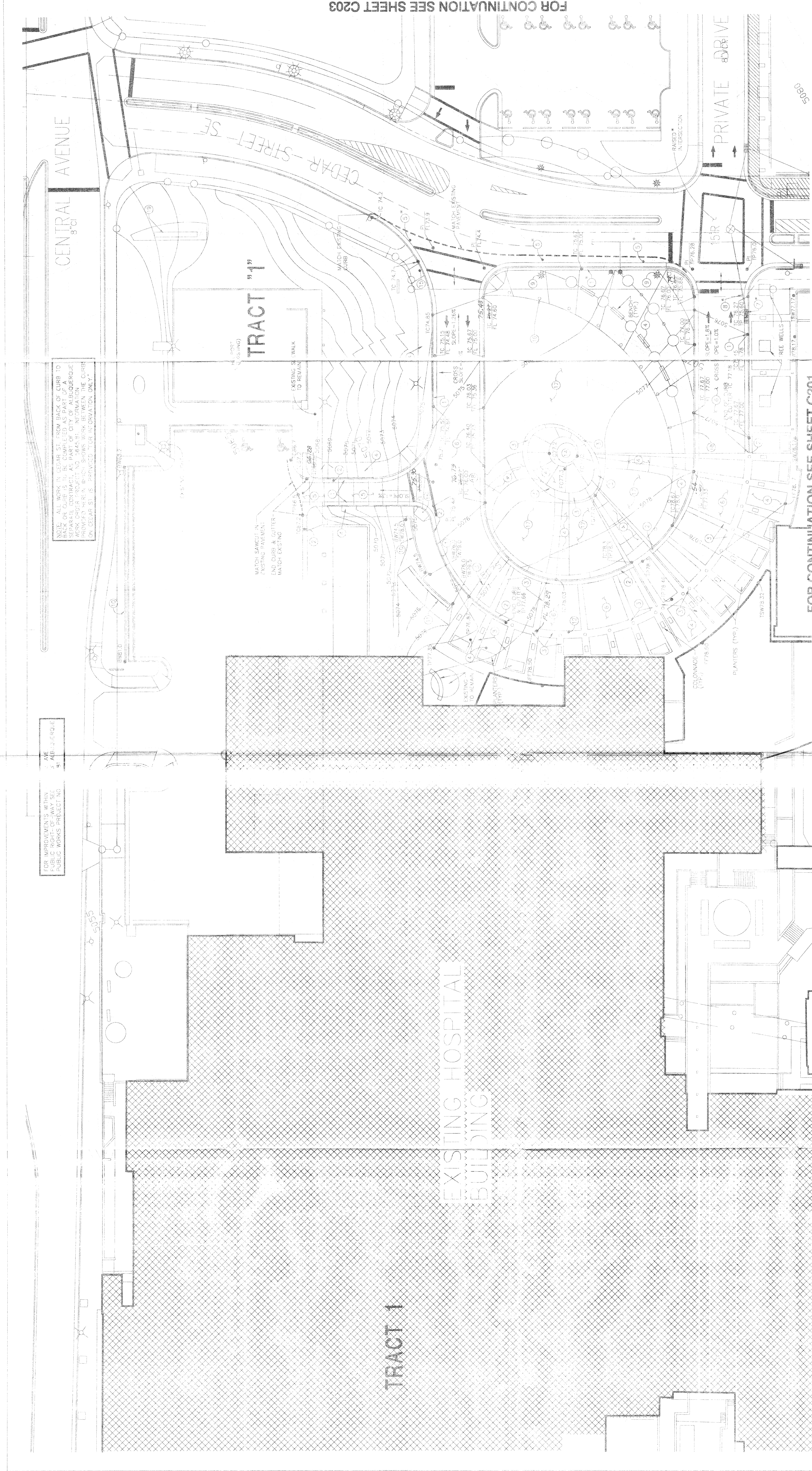
NOTE: FOR DEMOLITION INFORMATION, SEE DEMOLITION SHT SD105. FOR HORIZONTAL CONTROL, SEE SHT C105. FOR GRADING GENERAL NOTES SEE SHT C203

RECEIVED
JUL 28 1999
PHYSIOLOGY SECTION

A map showing the intersection of Central Avenue and 1st Street. The building is located at the corner of Central Avenue and 1st Street. The map includes a street grid and a compass rose.

KEY PLAN

C205
OF



FOR CONTINUATION SEE SHEET C201

FOR CONTINUATION SEE SHEET C202

SMPC
NBBJ
BOHANNAN-HUSTON INC.
111 SOUTH JACKSON STREET
SEATTLE, WASHINGTON 98104
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BOHANNAN-HUSTON INC.
111 SOUTH JACKSON STREET
SEATTLE, WASHINGTON 98104
(206) 223-5076 Fax (206) 627-2304

DATE: JUL 28 1999
TIME: 10:00 AM
PROJECT: 98021
DWN BY: POF
CHK BY: PR
DATE: 6/18/97
C202
OF

KEY PLAN

DRAINAGE CERTIFICATION

JAMES R. TOPMILLER, P.E., A REGISTERED PROFESSIONAL LAND SURVEYOR, HAS CONDUCTED A VISUAL INSPECTION OF THE PROJECT AND HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED DRAINAGE PLAN. TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JAMES R. TOPMILLER, P.E.
DATE: 7/23/99
N.M.P.E. NO. 9354

KEYED NOTES: C

1. BUILD STD CURB & GUTTER PER C.O.A. STD DWG. 2415
2. TRANSITION CURB & GUTTER PER C.O.A. STD DWG. 2415
3. BUILD PCC PAVEMENT, CO. AND STAMPED PATTERN
4. SEE DETAIL FOR PAVEMENT
5. BUILD PCC SIDEWALK
6. BUILD ASPHALT PAVEMENT
7. BUILD PCC PAVEMENT, CO. AND STAMPED PATTERN
8. BUILD TYPE "C" STORM INLET PER C.O.A. STD DWG. 2205
9. BUILD 18" RCP STORM DRAIN PER C.O.A. STD DWG. 2205
10. NEW LIGHT (TYP.). SEE SHT. C201
11. BUILD SCREEN WALL TYPE "A" PER C.O.A. STD DWG. 2205
12. INSTALL BICYCLE RACK
13. INSTALL ENTRANCE CANOPY
14. BUS SHELTER
15. SEE LANDSCAPING PLANS, SHT. C201
16. BUILD ACCESSIBLE RAMP, 1:12
17. CONTRACT BOLLARD (TYP.)
18. LANDSCAPE AREA (TYP.)

LEGEND

POWER POLE	MANHOLE (ELECTRIC)	CHILLED WATER RETURN	CASE VALVE
ANCHOR	MANHOLE (SANITARY)	STORM DRAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE
ANCHOR	MANHOLE (ELECTRIC)	WATER MAIN	WATER VALVE

[illegible]

	$^{\circ}\text{C}$	$^{\circ}\text{F}$
1	52.15	61.78
2	36.41	93.58
3	66.04	80.37
	$9.59^{\circ}\text{C} \pm 0.38^{\circ}\text{C}$	
	49.27°F	

TC

(A)

	$^{\circ}\text{C}$	$^{\circ}\text{F}$
1	60.25	
2	60.05	
3	60.85	
	$0.895^{\circ}\text{C} \pm 0.3^{\circ}\text{C}$	
	47.55°F	

TC

(B)

	$^{\circ}\text{C}$	$^{\circ}\text{F}$
1	67.25	
2	67.05	
3	67.85	
	$0.895^{\circ}\text{C} \pm 0.3^{\circ}\text{C}$	
	47.55°F	

TC

(C)

	$^{\circ}\text{C}$	$^{\circ}\text{F}$
1	67.07	60.78
2	67.07	60.78
3	67.07	60.78
	$0.895^{\circ}\text{C} \pm 0.3^{\circ}\text{C}$	
	47.55°F	

TC

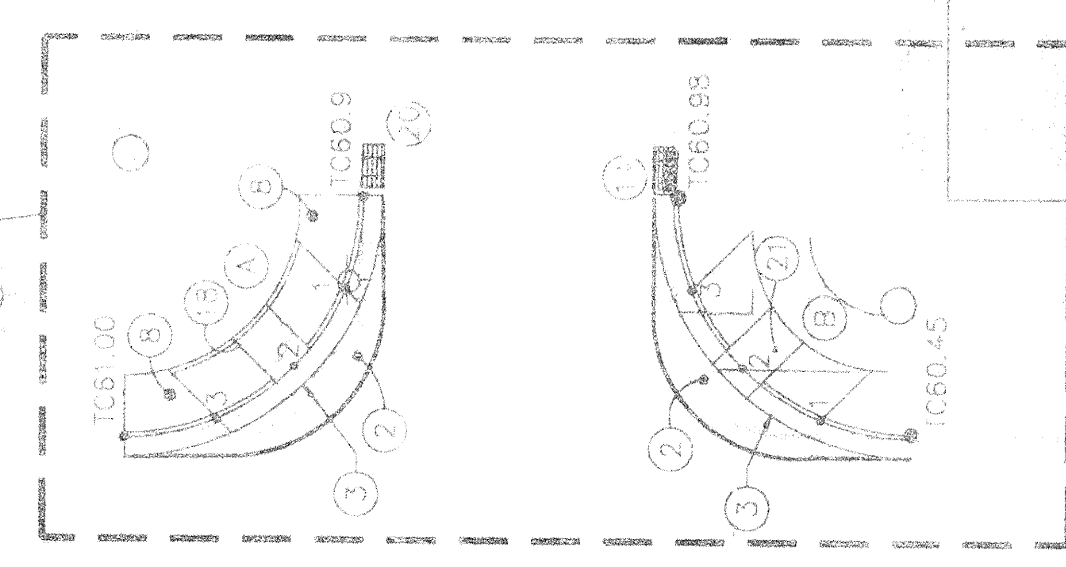
(D)

EXISTING HOSPITAL BUILDING TRACT

TRACT

FOR CONTINUATION SEE SHEET C204

WORK IN THIS AREA TO BE INCLUDED IN COA WORK ORDER PROJECT NO. 5645-81 SIDEWALK ONLY TO BE CONSTRUCTED WITH THIS PROJECT



LEGAL DESCRIPTION
TRACTS 1 THRU 8 PRESBYTERIAN HOSPITAL
MAIN CAMPUS - PHASE ONE

EXISTING LANDSCAPING NOTE

[illegible]

1. 3" HD 6" PCC CURB & GUTTER, PER DETAIL, SHT C276

3. 3-1/2" STANDARD CURB & GUTTER PER C.O.A. STD DWG 742-1
4. 4" RILD ENTRY, AS PER DETAIL, SHT C/208
5. 5" STORM DRAIN FROM SIDEWALK SEE SHT S/201
6. 6" RILD TO BE MOVED 3" WEST
7. 7-1/2" BACK TO BACK 6" CURB AND GUTTER, PER DETAIL SHT S/201
8. 8" RILD PCC SIDEWALK
9. 9" RILD DOUBLE GUTTER TYPE "C" STORM DRAIN INLET AS PER C.O.A. STD DWG 742-5
10. 10" RILD 18" RCP CLASS III
11. 11" RILD 24" RCP CLASS III
12. 12" "E" 6" DIA. STORM DRAIN MANHOLE CONSTRUCTION TO BE UNDER CITY OF ALBUQUERQUE PUBLIC WORKS PROJECT 5645 AS PER C.O.A. STD DWG 742-1
13. 13" RILD PCC VALEY GUTTER PER C.O.A. STD DWG 742-0
14. 14" RILD TYPE "A" DOUBLE GUTTER STORM DRAIN INLET AS PER C.O.A. STD DWG 742-01, CONNCTED TO EXISTING 18" STD. ADD/REP. AS PER C.O.A. STD DWG 742-01, INV. 550.24 TO 540.65

[illegible]

N.M.F.C., No. 9354

RECORDED AND INDEXED BY: TC637-245

[illegible]

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BOHANNAN-HUSTON INC.
ARCHITECTS
1000 1ST AVENUE, SUITE 1000
SEATTLE, WA 98101

SITE IMPROVEMENTS - MP 1617

CRADING / DRAINAGE / PAVING PLAN

REV. # DATE

PROJECT # 86021
DWG BY: POF
CHK BY: PR
DATE: 6/16/97

C201
OF

SMPC
JUL 28 1999
HYDROLOGY SECTION

NBBJ

KEY PLAN

1"=20'

20' 10' 0' 10' 20'

SEACAMER STREET SE
N 11TH STREET
N 10TH STREET
N 9TH STREET
N 8TH STREET
N 7TH STREET
N 6TH STREET
N 5TH STREET
N 4TH STREET
N 3RD STREET
N 2ND STREET
N 1ST STREET
N 0TH STREET
N -1ST STREET
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N -20TH STREET

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000'

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000'

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000'

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000'

10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000'

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10' 20' 30' 40' 50' 60' 70' 80' 90' 100' 110' 120' 130' 140' 150' 160' 170' 180' 190' 200' 210' 220' 230' 240' 250' 260' 270' 280' 290' 300' 310' 320' 330' 340' 350' 360' 370' 380' 390' 400' 410' 420' 430' 440' 450' 460' 470' 480' 490' 500' 510' 520' 530' 540' 550' 560' 570' 580' 590' 600' 610' 620' 630' 640' 650' 660' 670' 680' 690' 700' 710' 720' 730' 740' 750' 760' 770' 780' 790' 800' 810' 820' 830' 840' 850' 860' 870' 880' 890' 900' 910' 920' 930' 940' 950' 960' 970' 980' 990' 1000

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