City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 31, 2002

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: CLIFFORD WEST CHURCH (K-10/D37)
(8570 Saul Bell Rd) (AKA: Fellowship Missionary Baptist Church)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 7/25/2001
ENGINEERS CERTIFICATION DATED 8/28/2002 Rev. 9/25/2002

Dear Diane:

Based upon the information provided in your Engineers Certification submittal dated 9/25/2002, the above referenced site is approved for a Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin

Teresa A. Martin
Hydrology Plan Checker
Development & Bldg. Ser. Division

C: Certificate of Occupancy Clerk, COA
drainage file
approval file

ISSUED
PER BRAD'S
INSTRUCTIONS.

Brad L. Bingham

11/07/02 11:34 AM

To: Teresa A. Martin/PWD/CABQ@COA
cc:
Subject: Clifford West Church

Per my visual inspection of the final improvements required, this Site is in substantial compliance of the approved plans submitted by Mark Goodwin & Assoc and Thompson Engineering Consultants.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 23, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). Revised DRAINAGE REPORT, Revised GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT, AND BUILDING PERMIT APPROVALS. ENGINEER'S STAMP DATED JULY 12, 2001.

Dear Ms. Hoelzer:

Based on the information provided on your July 12, 2001 submittal, the above referenced project is approved for Site Development Plan for Building Permit, and for Grading and Building Permits.

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

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Clifford West Church ZONE ATLAS#: K 10 / D 37

DRB#: EPC# WORK ORDER#:

LEGAL DESCRIPTION: Lot 10, 11, 12, Block 2, Clifford West Business Park Unit 1

CITY ADDRESS:

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:		CONTACT:	
ADDRESS:		PHONE:	
ARCHITECT:	Paul and Associates	CONTACT:	Chad Young
ADDRESS:	5620 Bullard Rd.#128, Tyler, Texas 75703	PHONE:	903-581-8322 x 102
SURVEYOR:	ALS	CONTACT:	TIM ALDRICH
ADDRESS:	4109 MONTGOMERY BLVD.	PHONE:	884-1990
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT (Revised Supplemental information 7-12-01)
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN (revised 7-12-01)
- ___ EROSION CONTROL
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER
- ___ EASEMENT VACATION

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APRROVAL
- ___ PRELIMINARY PLAT APRROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATION OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER
- ___ RELEASE OF FINANCIAL GUARANTY
- ___ TRAFFIC CIRCULATION LAYOUT

PRE-DESIGN MEETING:

- ___ YES
- X NO
- ___ COPY PROVIDED

RECEIVED
JUL 12 2001
HYDROLOGY SECTION

DATE SUBMITTED: JULY 12, 2001

BY: Diane Hoelzer

DIANE HOELZER, PE

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

July 12, 2001

Mr. John Murray, PE
Hydrology Reviewer
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Request Site Development Plan for Building Permit Approval, Building Permit Approval, Grading Permit Approval for Clifford West Church Revised Grading and Drainage Plan, Engineers Stamp 7-12-01 (K10/D37)

Dear Mr. Murray;

In response to comments received through the building permit review process and DRB, there have been revisions to the Site Plan that required a revision to the original grading and drainage plan. The basic drainage plan concept remains unchanged. The grading plan was revised in response to elimination of parking area at the east end of the site, elimination of the driveway around the church building on the north and west side and minor shifts in the building location and driveway entrance roads.

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\clifford.chu\hyd_1.ltr

CLIFFORD WEST CHURCH

Supplemental Drainage Information:

AHYMO Printouts

Orifice and Parking Area Pond Volume Calculations

HEC-2 outfall Channel Calculations

July 12, 2001

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

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e-mail: dmg@swcp.com

PROJECT CLIFFORD WEST CHURCH
SUBJECT HYDROCALCS.
BY DLH DATE 3-5-01
CHECKED _____ DATE _____
SHEET 1 OF 5

SUBASIN 1

$Q = C \cdot a \cdot \sqrt{2gh}$

$0.63 = 0.6(a) \cdot \sqrt{64.4(36.5 - 30.25)}$

$a = 0.5234\ SF = .228^{\phi'} \quad 2.75^{\phi''}$

$a = .052517\ SF$ (use design)

Q OUT	Stor.	Elev.
0	0	30.25
0.28	.0009	31.50
0.33	.00118	32.0
0.42	.00173	33.0
0.49	.00228	34.0
0.55	.0028	35.0
.606	.05479	36.0
0.63	.09886	36.5

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Consulting Engineers

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PROJECT Clifford West Church
SUBJECT Ponding Area Calcs
BY DLH DATE 7-12-01
CHECKED _____ DATE _____
SHEET 2 OF 5

SB 1 Revise Ponding Area

35.0 - 36.0

$\frac{0.85+0}{2}$ (24)(60) = 612 CF

$\left[\frac{0.85+0}{2}(50) + \frac{.25+0}{2}(17.2)\right] \div 2(30) = 351.00$

$\frac{0.85+0}{2}(60) + \frac{0.25+0}{2}(27.8)\right] \div 2(30) = 434.63$

1397.62 CF = 0.03209AF
= .00229AF
= .034385AF

36.0 - 36.5

$\frac{0.5+0.3}{2}$ (24)(60) = 576 CF

0.25 (70)(30) = 525 CF

0.25 (75)(30) = 562.5 CF

1663.5 CF = .038189 AF

swale estmate

12.4 CF (50)(10)(0.2) = 100 CF = .0022956 AF

TOTAL = .07257 AF @ 36.5

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e-mail: dmg@swcp.com

PROJECT
SUBJECT
BY DATE
CHECKED DATE

Qallow (Lot 10) = 0.63cfs
Qallow (Lot 11+12) = 2.05cfs

Lot 10 A = 34785 SF = 0.7986Ac

Lot 11 A = 56074 SF = 1.2873 Ac
Lot 12 A = 56943 SF = 1.3072 Ac
} 113017 SF
2.5945 Ac.

Lot 10 Pervious Area

325'x9'	2925
20'x8'	160
(95'x10')½	475
50'x4'	200
18'x40'	720
30'x3'	90
87'x16'	1392
20'x30'	600
185'x2'	370
25'x20'	500
	7432 21%

TOTAL 147,802
Pervious 18762

Lot 11 +12 Pervious Area = 11330

40'x8'	320	300x9 2700
40'x7'	280	10%
40'x8'	320	
40'x5'	200	460'x2'
20'x15	300	300'x2'
20x5'	100	
(20x10)½	100	
42x25'	1050	
80'x5'	400	
110'x7'	770	
80'x5'	400	
45'x24'	1080	
20'x15'	300	
½(35x20')	350	
40x10'	400	
40'x8'	320	
40x8	320	
20x15	300	
40x9	360	
40x8	320	
40x8	320	
40'x8	320	

Chad Young Paul & Assoc Tyler Jones PE's

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

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PROJECT Clifford West Church
SUBJECT Hydrology - Area Calcs
BY DLH DATE 2-9-01
CHECKED _____ DATE _____
SHEET 4 OF 5

SB 2

OUTFLOW	STORAGE	ELEVATION
0	0	27.0
0.63	.03946	27.5
1.25	.07891	28.0
2.05	.220741	28.5

27'-28'

$\frac{1.2+6.4}{2}(20) = 76$ CF

$\frac{6.4+13.5}{2}(22) = 219$ CF

$\frac{8.8+14.08}{2}(40) = 457.6$ CF

$\frac{3.2+1.6}{2}(40) = 96.2$ CF

$\frac{23+64.05}{2}(23) = 1001$ CF

$\frac{18+22.6}{2}(20) = 406.2$ CF

$\frac{38.25+14}{2}(20) = 522.5$ CF

$\frac{9+1.56}{2}(20) = 105.6$ CF

$\frac{23+7.15}{2}(30) = 452.2$ CF

$5+3.1(25) = 101.25$ CF

3437.55 CF

= .07891 AF

ORIFICE CALCS.

$Q = C \cdot a \cdot \sqrt{2gh}$

$2.05 cfs = 0.6(a)\sqrt{2(32.2)1.25}$

Area = 0.38085q.ft.

0.76" x 0.5' OPENING

28'-28.5

$\frac{6+16.5}{2}(20) = 225$

$\frac{16.5+27}{2}(20) = 435$

$11.5(40) = 460$

$\frac{12+16}{2}(40) = 560$

$\frac{32+61.5}{2}(23) = 1075.2$

$11.5(20) = 230$

$\frac{45+28}{2}(20) = 730$

$\frac{24+7.5}{2}(20) = 315$

$22(30)5 = 330$

4360.2 CF

$\frac{8.75+17.5}{2}(42) = 551.2$

$\frac{17.5+15}{2}(40) = 650$

$\frac{16.7+7.5}{2}(22) = 266.2$

$8(20) = 160$

$\frac{3+8}{2}(22) = 121$

$6(12) = 72$

1820.4 CF

6180.6 CF

= .141887 AF

TOTAL = .220797

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

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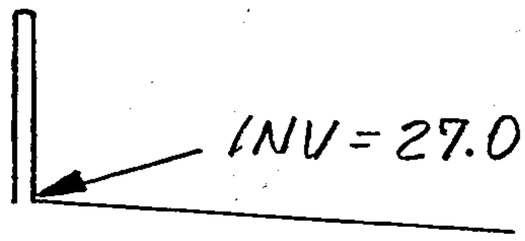
PROJECT Clifford West Church
SUBJECT Hydrology Calcs
BY DLH DATE 2-9-01
CHECKED _____ DATE _____
SHEET 5 OF 5

SB 2 continued

$Q = c \cdot a \cdot \sqrt{2gh}$

$2.05\ CFS = 0.60(a)\sqrt{2(32.2)\ 1.14875}$



area = 0.3842 SF $= \pi R^2$

Radius = 4.275"

Diameter = 8.55"

$\pi R^2 = .3987$

$2\pi R = 2.23838$

$Q = 1.\frac{486}{.015}(.3987)(.3166).01^{1/2}$

SUMMARY TABLE

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =07/11/2001
INPUT FILE = C_CHURCH.DAT USER NO.= M_GOODWN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
START										TIME= .00
RAINFALL TYPE= 1										RAIN6= 2.200
COMPUTE NM HYD	100.SB1	-	1	.00138	3.47	.124	1.68355	1.499	3.928	PER IMP= 78.00
ROUTE RESERVOIR	POND.100	1	3	.00138	.63	.124	1.68333	2.098	.709	AC-FT= .069
COMPUTE NM HYD	100.SB2	-	1	.00393	9.86	.353	1.68355	1.499	3.916	PER IMP= 78.00
ROUTE RESERVOIR	POND.100	1	3	.00393	1.99	.353	1.68348	2.065	.792	AC-FT= .211
FINISH										

OUTPUT FILE

```
      AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
           RUN DATE (MON/DAY/YR) = 07/11/2001
           START TIME (HR:MIN:SEC) = 15:57:50      USER NO.= M_GOODWN.I01
           INPUT FILE = C_CHURCH.DAT

START                TIME=0.0
*****    CHURCH IN THE CLIFFORD WEST BUSINESS PARK
*****    LOT 10, 11, 12, BLOCK 2
*****    100-YEAR 6-HOUR STORM EVENT
*****    FILE: C_CHURCH.DAT  JULY 12, 2001 BY:DLH
RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.90 IN RAIN SIX=2.20 IN
                     RAIN DAY=0.0 IN DT=0.0333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                DT =     .033300 HOURS       END TIME =     5.994000 HOURS
                   .0000   .0013   .0027   .0041   .0055   .0069   .0084
                   .0099   .0115   .0131   .0147   .0164   .0181   .0199
                   .0217   .0236   .0255   .0275   .0296   .0317   .0339
                   .0362   .0386   .0411   .0437   .0464   .0492   .0522
                   .0553   .0586   .0621   .0673   .0729   .0789   .0913
                   .1196   .1634   .2264   .3124   .4256   .5701   .7500
                   .9698  1.1808  1.2673  1.3402  1.4049  1.4637  1.5178
                  1.5681  1.6150  1.6590  1.7004  1.7395  1.7764  1.8113
                  1.8444  1.8758  1.9056  1.9338  1.9607  1.9678  1.9733
                  1.9786  1.9836  1.9884  1.9930  1.9974  2.0016  2.0056
                  2.0095  2.0133  2.0170  2.0205  2.0240  2.0273  2.0306
                  2.0337  2.0368  2.0398  2.0428  2.0456  2.0484  2.0512
                  2.0538  2.0565  2.0590  2.0615  2.0640  2.0664  2.0688
                  2.0712  2.0735  2.0757  2.0779  2.0801  2.0823  2.0844
                  2.0865  2.0885  2.0906  2.0925  2.0945  2.0965  2.0984
                  2.1003  2.1021  2.1039  2.1058  2.1076  2.1093  2.1111
```

```
                    .49          0.00228          34.0
                    .55          0.00280          35.0
                    .606         0.03718          36.0
                    .63          0.07537          36.5

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

   TIME       INFLOW     ELEV       VOLUME     OUTFLOW
   (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

     .00         .00      30.25        .000        .00
     .80         .00      30.25        .000        .00
    1.60        2.44      36.11        .045        .61
    2.40         .14      36.30        .060        .62
    3.20         .02      35.61        .024        .58
    4.00         .01      30.32        .000        .02
    4.80         .01      30.32        .000        .01
    5.59         .02      30.33        .000        .02
    6.39         .00      30.26        .000        .00
PEAK DISCHARGE =          .626 CFS - PEAK OCCURS AT HOUR    2.10
MAXIMUM WATER SURFACE ELEVATION =       36.416
MAXIMUM STORAGE =          .0690 AC-FT      INCREMENTAL TIME=     .033300HRS

*****
***** SUB BASIN 2 EAST
***** Q (allowable) = 2.05 cfs
*****
COMPUTE NM HYD       ID=1 HYD NO=100.SB2 AREA=0.00393401 SQ MI
                     PER A=0 PER B=22 PER C=0 PER D=78
                     TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   12.115    CFS   UNIT VOLUME =    .9984       B =   526.28      P60 = 1.9000
    AREA =       .003069 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


    K =   .130761HR    TP =   .133300HR    K/TP RATIO =   .980950     SHAPE CONSTANT, N =  3.599930
    UNIT PEAK =   2.1267    CFS   UNIT VOLUME =    .9938       B =   327.55      P60 = 1.9000
    AREA =       .000865 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=1 CODE=1

                                  HYDROGRAPH FROM AREA 100.SB2


    RUNOFF VOLUME =     1.68355 INCHES      =        .3532 ACRE-FEET
    PEAK DISCHARGE RATE =       9.86 CFS  AT   1.499 HOURS    BASIN AREA =   .0039 SQ. MI.
```

*****
***** ONSITE PARKING LOT PONDING AREA
*****
ROUTE RESERVOIR ID=3 HYD=POND.100 INFLOW=1 CODE=24

OUTFLOW (CFS)	STORAGE (AC FT)	ELEV (FT)
0	0.00	27.0
0.63	0.03946	27.5
1.25	0.07891	28.0
2.05	0.22079	28.5

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	27.00	.000	.00
.80	.00	27.00	.000	.00
1.60	6.93	28.24	.148	1.64
2.40	.40	28.36	.182	1.83
3.20	.07	28.04	.090	1.31
4.00	.04	27.43	.034	.54
4.80	.04	27.17	.013	.21
5.59	.05	27.08	.007	.11
6.39	.00	27.05	.004	.06
7.19	.00	27.02	.001	.02
7.99	.00	27.01	.000	.01
8.79	.00	27.00	.000	.00

PEAK DISCHARGE = 1.993 CFS - PEAK OCCURS AT HOUR 2.06
MAXIMUM WATER SURFACE ELEVATION = 28.465
MAXIMUM STORAGE = .2108 AC-FT INCREMENTAL TIME= .033300HRS

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 15:57:51

```
1*************************************************
 *  WATER SURFACE PROFILES                       *
 *  VERSION OF SEPTEMBER 1988                    *
 *  ERROR: 01,02                                 *
 *  UPDATED:  4 APRIL    1989                    *
 *  RUN DATE     3/ 5/ 1   TIME   14:56:51       *
 *************************************************

                                        X     X  XXXXXXX   XXXXX              XXXXX
                                        X     X  X        X     X            X     X
                                        X     X  X        X                        X
                                        XXXXXXX  XXXX     X          XXXXX    XXXXX
                                        X     X  X        X                  X
                                        X     X  X        X     X            X
                                        X     X  XXXXXXX   XXXXX             XXXXXXX

THIS RUN EXECUTED  3/ 5/ 1    14:56:51
 ************************************************
   HEC2 RELEASE DATED SEP 88 UPDATED APR  1989
   ERROR CORR -  01,02
   MODIFICATION -
 ************************************************

 T1          CLIFFORD WEST BUSINESS PARK
 T2          CHURCH CHANNEL OUTFALL
 T3          100-YEAR / 6-HOUR DESIGN STORM

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         2         0         1       .020        0         0         0         0         0

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      38        43         1         2        26         4        68         3

 NC     .017      .017      .017       .1        .3
 QT        1      2.05
 X1        1         5         0     101.2         0         0         0         0         0         0
 GR     0.54       100      0.04     100.1         0     100.6      0.04     101.1       .54     101.2

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 1

 CCHV=      .100 CEHV=      .300
 *SECNO 1.000
 2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
      1.00      .42       .42       .51       .00       .77       .35       .00       .00       .54
        2.        0.        2.        0.        0.        0.        0.        0.        0.       .54
```

```
 *************************************
 *  U.S. ARMY CORPS OF ENGINEERS     *
 *  THE HYDROLOGIC ENGINEERING CENTER*
 *  609 SECOND STREET, SUITE D       *
 *  DAVIS, CALIFORNIA 95616-4687     *
 *  (916) 756-1104, (916) 551-1748   *
 *************************************
```

.00	.00	4.77	.00	.000	.017	.000	.000	.00	100.02
.019828	0.	0.	0.	0	14	5	.00	1.15	101.18

THIS RUN EXECUTED 3/ 5/ 1 14:56:51

****

HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02

MODIFICATION -

****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR / 6-HOUR DE

SUMMARY PRINTOUT

SECNO	Q	CWSEL	CRIWS	VCH	TOPWID	FRCH	EG
1.000	2.05	.42	.51	4.77	1.15	1.38	.77

```
                2.1128  2.1145  2.1162  2.1179  2.1195  2.1211  2.1228
                2.1243  2.1259  2.1275  2.1290  2.1306  2.1321  2.1336
                2.1351  2.1365  2.1380  2.1394  2.1409  2.1423  2.1437
                2.1451  2.1465  2.1478  2.1492  2.1505  2.1519  2.1532
                2.1545  2.1558  2.1571  2.1584  2.1596  2.1609  2.1621
                2.1634  2.1646  2.1658  2.1670  2.1682  2.1694  2.1706
                2.1718  2.1730  2.1741  2.1753  2.1764  2.1776  2.1787
                2.1798  2.1809  2.1820  2.1831  2.1842  2.1853  2.1864
                2.1875  2.1885  2.1896  2.1906  2.1917  2.1927  2.1938
                2.1948  2.1958  2.1968  2.1978  2.1988  2.1998

***** **********************************
***** ****** DEVELOPED CONDITIONS ******
***** **********************************
*****
***** SUB BASIN 1 WEST
***** Q (allowable) = 0.63 cfs
*****
COMPUTE NM HYD      ID=1 HYD NO=100.SB1 AREA=0.00137935 SQ MI
                    PER A=0 PER B=22 PER C=0 PER D=78
                    TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   4.2477    CFS   UNIT VOLUME =    .9965       B =   526.28      P60 = 1.9000
    AREA =      .001076 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

    K =   .130761HR    TP =   .133300HR   K/TP RATIO =   .980950     SHAPE CONSTANT, N =  3.599930
    UNIT PEAK =   .74567    CFS   UNIT VOLUME =    .9822       B =   327.55      P60 = 1.9000
    AREA =      .000303 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD           ID=1 CODE=1

                                        HYDROGRAPH FROM AREA 100.SB1


    RUNOFF VOLUME =     1.68355 INCHES     =       .1239 ACRE-FEET
    PEAK DISCHARGE RATE =       3.47 CFS  AT   1.499 HOURS   BASIN AREA =   .0014 SQ. MI.


*****
***** ONSITE PARKING LOT PONDING AREA
***** Maximum Allowable Discharge = 0.63 cfs
ROUTE RESERVOIR     ID=3 HYD=POND.100 INFLOW=1 CODE=24
                    OUTFLOW (CFS) STORAGE (AC FT)  ELEV (FT)
                       0           0.00000         30.25
                      .28          0.00090         31.50
                      .33          0.00118         32.0
                      .42          0.00173         33.0
```

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Copy for this file K10/D37

April 25, 2002

David Thompson, PE
Thompson Engineering Consultants, Inc.
PO Box 15954
Rio Rancho, NM 87174

Re: Christian Apostolic Center Addendum to Grading and Drainage Plan
Engineer's Stamp Dated 4-24-02, (K10/D40)

Dear Mr. Thompson,

Based on the information submitted on 4-24-02, the modification to the outlet of the detention pond is approved for Building Permit.

Prior to Certificate of Occupancy release, an Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3984.

Sincerely,

Leslie Romero

Leslie Romero
Engineering Associate, PWD
Development and Building Services

c: Diane Hoelzer, PE w/attachments
Terri Martin, Hydrology
File (2)

K-10/D37

DRAINAGE INFORMATION SHEET

PROJECT TITLE: **CHRISTIAN APOSTOLIC CENTER** ATLAS/DRAINAGE FILE# **K10**

LEGAL DESCRIPTION: **Lots 6 & 7, Clifford West Business Park**

CITY ADDRESS: **Bluewater Road west of Unser Blvd.**

ENGINEERING FIRM: **THOMPSON ENG. CONS. INC.** CONTACT:**DAVE THOMPSON**

ADDRESS: **P.O. Box 15954, Rio Rancho, NM 87174** PHONE: **459-6933**

OWNER: **CHRISTIAN APOSTOLIC CENTER** CONTACT: **Floyd Duran**

ADDRESS: **122 Broadway SE, Abq, NM 87102** PHONE: **681-8208**

ARCHITECT: **Guadalupe Architects** CONTACT: **David Weatherman**

ADDRESS: **5961 Guadalupe Trail NW** PHONE: **343-9305**

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: **NA** CONTACT: **NA**

ADDRESS: **NA** PHONE: **NA**

PRE-DESIGN MEETING:

____ YES DRB NO.

__X__ NO EPC NO.

____ COPY OF CONFERENCE RECAP SHEET PROVIDED PROJECT NO._____

TYPE OF SUBMITTAL:

__XX__ DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

__XX__ GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEERS CERTIFICATION

____ FOUNDATION PERMIT

CHECK TYPE OF APPROVAL SOUGHT:

____ SECTOR PLAN APPROVAL

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

4/25/02

__XX__ ~~SITE DEVELOPMENT PLAN APPROVAL~~

____ FINAL PLAT APPROVAL

__XX__ BUILDING PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT

____ GRADING/PAVING PERMIT APPROVAL

____ OTHER _____(SPECIFY)

DATE SUBMITTED: 4-24-2002

BY: _____

REV. 10/85

RECEIVED
APR 2 : 2002
HYDROLOGY SECTION

THOMPSON Engineering Consultants, Inc.

April 24, 2002

Mr. Brad Bingham, P. E.
Hydrology Development Section
Plaza del Sol – 2nd Floor West
600 2nd Street NW
Albuquerque, NM 87102

RE: REVISIONS TO THE APOSTOLOC ASSEMBLY GRADING AND DRAINAGE PLAN

Dear Mr. Bingham:

Enclosed are the revisions to the Apostolic Assembly (AA) Grading and Drainage plan to accommodate flows from the Clifford West Church (CWC) site to the north. I obtained the information from the CWC Grading and Drainage plan and input their AHYMO model into the AA AHYMO model. The standpipe was modified to allow more flow out of the detention pond on the AA site. The total flow out of the pond is 4.24 cfs, which is equal to the allowable discharge from the two sites. This was accomplished by modifying the size and number of holes in the standpipe to 5-3" holes with one-foot intervals. The detention pond volume was increased from 0.2264 acre-feet to 0.2319 acre-feet. The 100-year water surface elevation was changed from 23.85 to 23.92, which allows for 1.08 feet of freeboard.

If you should have any questions please call me at 896-7996.

Sincerely,

David B. Thompson, P.E.
Enclosures

P.O. Box 15954 • Rio Rancho, NM 87174 • (505) 896-7996 • Fax (505) 896-6112

25.00

25.00

24.70

25

24

23

22

21

PLACE 6' HIGH CHAIN LINK
FENCE AROUND POND W/ 12' GATE

DETENTION POND
100 Yr VOLUME = 0.2319 AC-FT.
100 Yr. WSEL = 23.92
Qout = 4.24 CFS

INSTALL STAND PIPE
SEE DETAIL THIS SHEET

18" STORM DRAIN
2% SLOPE

20.0

TEMPORARY BENCH MARK
FOUND No. 5 REBAR
P.L.S. No. 7719
ELEVATION = 5123.88

NEW 4'ø MANHOLE
RIM=23.50
INV.=17.00

25.00 24.80

24.70

24.90

6" CURB & GUTTER

24.25

24.35

23.95

24.15

23.70

24.35

24.70

:B CUT

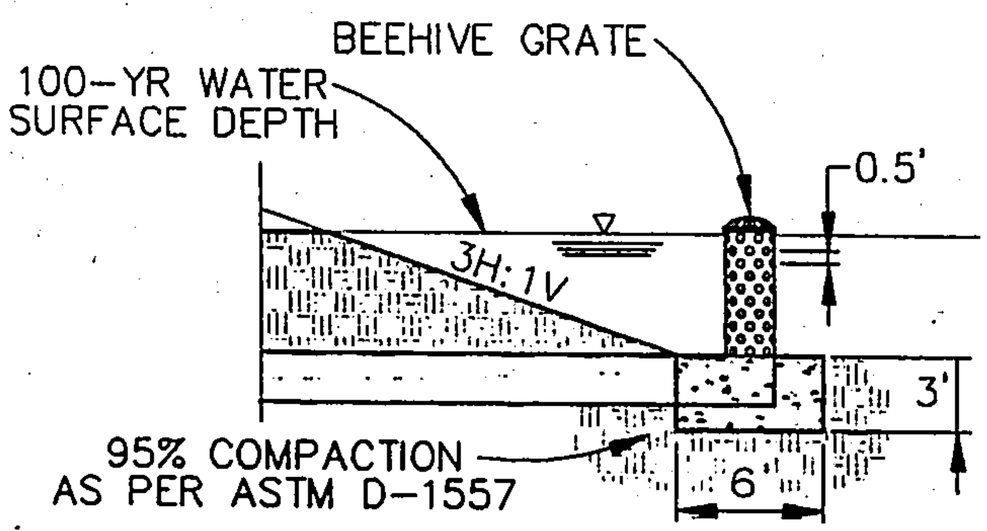
GUTTER

NDOWN

9677

4-24-07

* 5–3" HOLES, EACH ROW, 1' INTERVALS



OUTLET STAND PIPE

NOT TO SCALE

APOSTOLIC ASSEMBLY CHURCH
RATING CURVE FOR RISER PIPE

Area for 1 - 3" dia. Hole	0.03
Area for 3 - 3" dia. Holes	0.10
Area for 5 - 3" dia. Holes	0.17

HEAD (feet)	Q level 1	Q level 2	Q level 3	Q level 4	Q level 5	Q level 6	Q level 7	Q level 8	Q level 9	Q level 10	TOTAL Q
0.00											0.00
0.25	0.41										0.41
0.50	0.58										0.58
0.75	0.71										0.71
1.00	0.82										0.82
1.25	0.92	0.41									1.33
1.50	1.00	0.58									1.58
1.75	1.09	0.71									1.80
2.00	1.16	0.82									1.98
2.25	1.23	0.92	0.41								2.56
2.50	1.30	1.00	0.58								2.88
2.75	1.36	1.09	0.71								3.16
3.00	1.42	1.16	0.82								3.40
3.25	1.48	1.23	0.92	0.41							4.04
3.50	1.53	1.30	1.00	0.58							4.42
3.75	1.59	1.36	1.09	0.71							4.74
4.00	1.64	1.42	1.16	0.82							5.04

```
     AHYMO PROGRAM (AHYMO_97) -                                  - Version:  1997.02c
          RUN DATE (MON/DAY/YR) = 04/24/2002
          START TIME (HR:MIN:SEC) = 10:10:53     USER NO.= AHYMO-I-9702a01000K21-AH
          INPUT FILE = C:\Projects\APOSTO~1\AADHYD~1.TXT

*
*                         APOSTOLIC CHURCH
*                   HYDROLOGIC MODEL--DEVELOPED CONDITIONS
*                              4 MAY 2002
*
*
*******************************************************************************
*
*        HYDROLOGIC MODEL FOR BASIN 100
*        100-YEAR, 24-HOUR STORM:
*
*
*
*        PRECIPITATION:
*                 P60 =   1.87"
*                 P360 =  2.20"
*                 P1440 = 2.66"
*
*
*
*******************************************************************************
*
START                TIME=0.0 HR  PUNCH CODE=0
*
*     24-Hour rainfall distribution based on Montoyas Report
*
RAINFALL             TYPE=2   RAIN QUARTER=0.0 IN
                              RAIN ONE=1.77 IN  RAIN SIX=2.18 IN
                              RAIN DAY=2.75 IN  DT=0.05 HRS

                  COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                  DT =     .050000 HOURS       END TIME =    24.000000 HOURS
                     .0000   .0039   .0080   .0122   .0166   .0210   .0257
                     .0305   .0355   .0408   .0462   .0519   .0578   .0641
                     .0707   .0777   .0851   .0930   .1014   .1105   .1203
                     .1278   .1360   .1599   .2164   .3134   .4635   .6797
                     .9753  1.2084  1.3137  1.4016  1.4786  1.5475  1.6099
                    1.6668  1.7190  1.7671  1.8114  1.8524  1.8903  1.8996
                    1.9082  1.9163  1.9239  1.9312  1.9380  1.9446  1.9509
                    1.9569  1.9627  1.9683  1.9737  1.9789  1.9840  1.9889
                    1.9937  1.9984  2.0029  2.0073  2.0117  2.0159  2.0200
                    2.0241  2.0280  2.0319  2.0357  2.0394  2.0431  2.0467
                    2.0502  2.0537  2.0571  2.0604  2.0638  2.0670  2.0702
                    2.0734  2.0765  2.0796  2.0826  2.0856  2.0885  2.0914
                    2.0943  2.0971  2.0999  2.1027  2.1054  2.1081  2.1108
                    2.1135  2.1161  2.1187  2.1212  2.1238  2.1263  2.1287
                    2.1312  2.1336  2.1360  2.1384  2.1408  2.1431  2.1454
                    2.1477  2.1500  2.1523  2.1545  2.1567  2.1589  2.1611
                    2.1633  2.1654  2.1676  2.1697  2.1718  2.1739  2.1759
                    2.1780  2.1800  2.1824  2.1848  2.1872  2.1895  2.1919
                    2.1942  2.1966  2.1989  2.2013  2.2036  2.2059  2.2082
                    2.2105  2.2128  2.2151  2.2173  2.2196  2.2219  2.2241
                    2.2264  2.2286  2.2309  2.2331  2.2353  2.2375  2.2397
                    2.2419  2.2441  2.2463  2.2485  2.2506  2.2528  2.2550
                    2.2571  2.2593  2.2614  2.2635  2.2656  2.2678  2.2699
                    2.2720  2.2741  2.2762  2.2783  2.2803  2.2824  2.2845
                    2.2866  2.2886  2.2907  2.2927  2.2947  2.2968  2.2988
                    2.3008  2.3028  2.3049  2.3069  2.3089  2.3109  2.3128
                    2.3148  2.3168  2.3188  2.3207  2.3227  2.3247  2.3266
                    2.3286  2.3305  2.3324  2.3344  2.3363  2.3382  2.3401
                    2.3420  2.3439  2.3458  2.3477  2.3496  2.3515  2.3534
                    2.3553  2.3571  2.3590  2.3609  2.3627  2.3646  2.3664
                    2.3683  2.3701  2.3719  2.3738  2.3756  2.3774  2.3792
                    2.3810  2.3828  2.3846  2.3864  2.3882  2.3900  2.3918
                    2.3936  2.3953  2.3971  2.3989  2.4006  2.4024  2.4042
                    2.4059  2.4077  2.4094  2.4111  2.4129  2.4146  2.4163
                    2.4180  2.4198  2.4215  2.4232  2.4249  2.4266  2.4283
                    2.4300  2.4317  2.4334  2.4350  2.4367  2.4384  2.4401
                    2.4417  2.4434  2.4450  2.4467  2.4484  2.4500  2.4516
                    2.4533  2.4549  2.4566  2.4582  2.4598  2.4614  2.4631
                    2.4647  2.4663  2.4679  2.4695  2.4711  2.4727  2.4743
                    2.4759  2.4775  2.4791  2.4807  2.4822  2.4838  2.4854
                    2.4870  2.4885  2.4901  2.4916  2.4932  2.4947  2.4963
                    2.4978  2.4994  2.5009  2.5025  2.5040  2.5055  2.5071
                    2.5086  2.5101  2.5116  2.5131  2.5146  2.5162  2.5177
                    2.5192  2.5207  2.5222  2.5237  2.5252  2.5266  2.5281
                    2.5296  2.5311  2.5326  2.5340  2.5355  2.5370  2.5384
                    2.5399  2.5414  2.5428  2.5443  2.5457  2.5472  2.5486
```

```
2.5501  2.5515  2.5530  2.5544  2.5558  2.5573  2.5587
2.5601  2.5615  2.5630  2.5644  2.5658  2.5672  2.5686
2.5700  2.5714  2.5728  2.5742  2.5756  2.5770  2.5784
2.5798  2.5812  2.5826  2.5839  2.5853  2.5867  2.5881
2.5894  2.5908  2.5922  2.5935  2.5949  2.5963  2.5976
2.5990  2.6003  2.6017  2.6030  2.6044  2.6057  2.6071
2.6084  2.6097  2.6111  2.6124  2.6137  2.6151  2.6164
2.6177  2.6190  2.6203  2.6217  2.6230  2.6243  2.6256
2.6269  2.6282  2.6295  2.6308  2.6321  2.6334  2.6347
2.6360  2.6373  2.6386  2.6398  2.6411  2.6424  2.6437
2.6450  2.6462  2.6475  2.6488  2.6501  2.6513  2.6526
2.6539  2.6551  2.6564  2.6576  2.6589  2.6601  2.6614
2.6626  2.6639  2.6651  2.6664  2.6676  2.6689  2.6701
2.6713  2.6726  2.6738  2.6750  2.6762  2.6775  2.6787
2.6799  2.6811  2.6824  2.6836  2.6848  2.6860  2.6872
2.6884  2.6896  2.6908  2.6920  2.6932  2.6944  2.6956
2.6968  2.6980  2.6992  2.7004  2.7016  2.7028  2.7040
2.7052  2.7063  2.7075  2.7087  2.7099  2.7110  2.7122
2.7134  2.7146  2.7157  2.7169  2.7181  2.7192  2.7204
2.7215  2.7227  2.7239  2.7250  2.7262  2.7273  2.7285
2.7296  2.7308  2.7319  2.7330  2.7342  2.7353  2.7365
2.7376  2.7387  2.7399  2.7410  2.7421  2.7433  2.7444
2.7455  2.7466  2.7478  2.7489  2.7500
*
*
*S*************************************************************************
*
*S**********
*S BASIN 1000 - OFFSITE CLIFFORD WEST CHURCH
*S**********
*
*COMPUTE TIME TO PEAK USING UPLAND/LAG TIME
*
COMPUTE LT TP        LCODE=1 NK=1 ISLOPE=0
                                  LENGTH=600 FT  SLOPE=0.02   K=3

     Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

     SCS UPLAND METHOD FACTORS
                                LENGTH (FT)      SLOPE (FT/FT)      COMPOSITE K
     SHEET FLOW PORTION              .0            .000000            .0000
     SHALLOW FLOW PORTION            .0            .000000            .0000
     CHANNEL FLOW PORTION          600.0           .020000           3.0000
     TOTAL BASIN                   600.0           .020000           3.0000

     TIME OF CONCENTRATION (HRS)=   .0393     TIME TO PEAK (HRS)=   .0262     LAG TIME (HRS)=   .0295

     TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
     REVISED VALUES: TIME OF CONCENTRATION (HRS)=   .2000     TIME TO PEAK (HRS)=   .1333     LAG TIME
(HRS)=   .1500

*
COMPUTE NM HYD       ID=1  HYD NO=1000  DA=.00393401 SQ MI
                                 %A=0  %B=22  %C=0 %D=78
                                TP=0.0 HR
                                MASS RAINFALL=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   12.112    CFS   UNIT VOLUME =    .9983       B =   526.28      P60 = 1.7700
     AREA =      .003069 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

     K =   .132784HR    TP =   .133333HR    K/TP RATIO =   .995885     SHAPE CONSTANT, N =  3.545063
     UNIT PEAK =   2.1006    CFS   UNIT VOLUME =    .9947       B =   323.60      P60 = 1.7700
     AREA =      .000865 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=1 CODE=1

                                   HYDROGRAPH FROM AREA  1000.00

     RUNOFF VOLUME =     2.09300 INCHES     =        .4391 ACRE-FEET
     PEAK DISCHARGE RATE =       9.07 CFS  AT   1.500 HOURS   BASIN AREA =   .0039 SQ. MI.

*
```

```
*
*S ROUTE BASIN 1000 THRU DETENTION POND
*
ROUTE RESERVOIR          ID=2  HYD=1000.5  INFLOW ID=1  CODE=5
                                 OUTFLOW (CFS)  STORAGE (AC FT)        ELEV (FT)
                                          0                0                    0
                                       0.63          0.03946                   .5
                                       1.25          0.07891                    1
                                       2.05          0.22079                  1.5

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

     .00         .00        .00        .000        .00
     .25         .00        .00        .000        .00
     .50         .00        .00        .000        .00
     .75         .00        .00        .000        .00
    1.00         .09        .00        .000        .00
    1.25         .99        .08        .006        .10
    1.50        9.07       1.05        .093       1.33
    1.75        3.49       1.36        .180       1.82
    2.00        2.08       1.42        .197       1.92
    2.25         .62       1.37        .185       1.85
    2.50         .31       1.28        .157       1.69
    2.75         .18       1.18        .129       1.53
    3.00         .12       1.08        .102       1.38
    3.25         .09        .97        .077       1.22
    3.50         .08        .72        .057        .90
    3.75         .07        .54        .042        .67
    4.00         .07        .40        .032        .51
    4.25         .07        .30        .024        .38
    4.50         .07        .23        .018        .29
    4.75         .07        .18        .014        .23
    5.00         .07        .15        .012        .19
    5.25         .07        .12        .010        .15
    5.50         .07        .10        .008        .13
    5.75         .08        .09        .007        .11
    6.00         .08        .08        .007        .10
    6.25         .09        .08        .006        .10
    6.50         .09        .08        .006        .10
    6.75         .09        .08        .006        .10
    7.00         .09        .07        .006        .09
    7.25         .09        .07        .006        .09
    7.50         .09        .07        .006        .09
    7.75         .09        .07        .006        .09
    8.00         .08        .07        .006        .09
    8.25         .08        .07        .005        .09
    8.50         .08        .07        .005        .09
    8.75         .08        .07        .005        .08
    9.00         .08        .07        .005        .08
    9.25         .08        .07        .005        .08
    9.50         .08        .06        .005        .08
    9.75         .08        .06        .005        .08
   10.00         .08        .06        .005        .08
   10.25         .07        .06        .005        .08
   10.50         .07        .06        .005        .08
   10.75         .07        .06        .005        .08
   11.00         .07        .06        .005        .07
   11.25         .07        .06        .005        .07
   11.50         .07        .06        .005        .07
   11.75         .07        .06        .005        .07
   12.00         .07        .06        .004        .07
   12.25         .07        .06        .004        .07
   12.50         .07        .05        .004        .07
   12.75         .07        .05        .004        .07
   13.00         .07        .05        .004        .07
   13.25         .06        .05        .004        .07
   13.50         .06        .05        .004        .07
   13.75         .06        .05        .004        .07

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

   14.00         .06        .05        .004        .06
   14.25         .06        .05        .004        .06
   14.50         .06        .05        .004        .06
   14.75         .06        .05        .004        .06
   15.00         .06        .05        .004        .06
   15.25         .06        .05        .004        .06
   15.50         .06        .05        .004        .06
   15.75         .06        .05        .004        .06
   16.00         .06        .05        .004        .06
```

16.25	.06	.05	.004	.06
16.50	.06	.05	.004	.06
16.75	.06	.05	.004	.06
17.00	.06	.05	.004	.06
17.25	.06	.05	.004	.06
17.50	.05	.04	.004	.06
17.75	.05	.04	.003	.06
18.00	.05	.04	.003	.06
18.25	.05	.04	.003	.05
18.50	.05	.04	.003	.05
18.75	.05	.04	.003	.05
19.00	.05	.04	.003	.05
19.25	.05	.04	.003	.05
19.50	.05	.04	.003	.05
19.75	.05	.04	.003	.05
20.00	.05	.04	.003	.05
20.25	.05	.04	.003	.05
20.50	.05	.04	.003	.05
20.75	.05	.04	.003	.05
21.00	.05	.04	.003	.05
21.25	.05	.04	.003	.05
21.50	.05	.04	.003	.05
21.75	.05	.04	.003	.05
22.00	.05	.04	.003	.05
22.25	.05	.04	.003	.05
22.50	.05	.04	.003	.05
22.75	.05	.04	.003	.05
23.00	.05	.04	.003	.05
23.25	.05	.04	.003	.05
23.50	.05	.04	.003	.05
23.75	.05	.04	.003	.05
24.00	.04	.04	.003	.05
24.25	.01	.03	.002	.04
24.50	.00	.02	.002	.03
24.75	.00	.02	.001	.02
25.00	.00	.01	.001	.02
25.25	.00	.01	.001	.01
25.50	.00	.01	.001	.01
25.75	.00	.00	.000	.01
26.00	.00	.00	.000	.00

PEAK DISCHARGE = 1.917 CFS - PEAK OCCURS AT HOUR 2.05
MAXIMUM WATER SURFACE ELEVATION = 1.417
MAXIMUM STORAGE = .1972 AC-FT INCREMENTAL TIME= .050000HRS

```
*
PRINT HYD           ID=2 CODE=1
```

HYDROGRAPH FROM AREA 1000.50

RUNOFF VOLUME = 2.09292 INCHES = .4391 ACRE-FEET
PEAK DISCHARGE RATE = 1.92 CFS AT 2.050 HOURS BASIN AREA = .0039 SQ. MI.

```
*
*
*S**********
*S BASIN 100 - ONSITE
*S**********
*
*COMPUTE TIME TO PEAK USING UPLAND/LAG TIME
*
COMPUTE LT TP       LCODE=1 NK=1 ISLOPE=0
                              LENGTH=600 FT  SLOPE=0.02   K=3
```

Tc AND Tp COMPUTED BY UPLAND/LAG TIME PROCEDURE

SCS UPLAND METHOD FACTORS

	LENGTH (FT)	SLOPE (FT/FT)	COMPOSITE K
SHEET FLOW PORTION	.0	.000000	.0000
SHALLOW FLOW PORTION	.0	.000000	.0000
CHANNEL FLOW PORTION	600.0	.020000	3.0000
TOTAL BASIN	600.0	.020000	3.0000

TIME OF CONCENTRATION (HRS)= .0393 TIME TO PEAK (HRS)= .0262 LAG TIME (HRS)= .0295

TIME TO PEAK COMPUTED TO BE LESS THAN 0.133333 HOUR MINIMUM VALUE.
REVISED VALUES: TIME OF CONCENTRATION (HRS)= .2000 TIME TO PEAK (HRS)= .1333 LAG TIME (HRS)= .1500

```
*
COMPUTE NM HYD       ID=3  HYD NO=100  DA=.00430 SQ MI
                                 %A=0  %B=9  %C=9 %D=82
                                TP=0.0 HR
                                MASS RAINFALL=-1
     TIME TO PEAK (hrs)=   .1333

     K =   .072666HR    TP =   .133333HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   13.917    CFS   UNIT VOLUME =    .9983       B =   526.28      P60 = 1.7700
     AREA =      .003526 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000


     K =   .118775HR    TP =   .133333HR    K/TP RATIO =   .890811     SHAPE CONSTANT, N =  3.981133
     UNIT PEAK =   2.0545    CFS   UNIT VOLUME =    .9953       B =   353.91      P60 = 1.7700
     AREA =      .000774 SQ MI    IA =    .42500 INCHES    INF =   1.04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .050000

PRINT HYD            ID=3 CODE=1

                              PARTIAL HYDROGRAPH   100.00

     RUNOFF VOLUME =     2.19373 INCHES      =         .5031 ACRE-FEET
     PEAK DISCHARGE RATE =      10.35 CFS  AT   1.500 HOURS   BASIN AREA =    .0043 SQ. MI.


*
*S COMBINE BASIIN 1000.5 WITH 100
*
ADD HYD                        ID=4  HYD=100.5  ID I=3   ID II=2
PRINT HYD                      ID=4  CODE=1

                              PARTIAL HYDROGRAPH   100.50

     RUNOFF VOLUME =     2.14538 INCHES      =         .9421 ACRE-FEET
     PEAK DISCHARGE RATE =      11.68 CFS  AT   1.500 HOURS   BASIN AREA =    .0082 SQ. MI.


*
*
*S ROUTE BASIN 100.5 THRU DETENTION POND
*
ROUTE RESERVOIR          ID=6  HYD=100.9  INFLOW ID=4  CODE=5
                                  OUTFLOW (CFS)  STORAGE (AC FT)       ELEV (FT)
                                          0              0                  0
                                       0.71          0.0230                 1
                                       1.71          0.0788                 2
                                       2.94          0.1551                 3
                                       4.36          0.2390                 4

  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

    TIME       INFLOW     ELEV       VOLUME     OUTFLOW
    (HRS)      (CFS)      (FEET)     (AC-FT)    (CFS)

     .00         .00        .00        .000        .00
     .25         .00        .00        .000        .00
     .50         .00        .00        .000        .00
     .75         .00        .00        .000        .00
    1.00         .11        .01        .000        .01
    1.25        1.24        .30        .007        .21
    1.50       11.68       2.42        .111       2.23
    1.75        5.83       3.71        .215       3.95
    2.00        4.30       3.92        .232       4.24
    2.25        2.55       3.73        .216       3.97
    2.50        2.04       3.37        .186       3.46
    2.75        1.73       3.04        .158       2.99
    3.00        1.51       2.72        .134       2.60
    3.25        1.32       2.45        .113       2.26
    3.50        1.00       2.19        .093       1.95
    3.75         .76       1.92        .074       1.63
    4.00         .59       1.62        .058       1.33
    4.25         .46       1.37        .044       1.08
    4.50         .37       1.16        .032        .87
    4.75         .31        .99        .023        .71
    5.00         .26        .71        .016        .51
    5.25         .23        .54        .012        .38
    5.50         .21        .43        .010        .31
    5.75         .20        .37        .008        .26
    6.00         .20        .33        .007        .23
```

6.25	.20	.31	.007	.22
6.50	.20	.30	.007	.21
6.75	.20	.29	.007	.21
7.00	.20	.29	.007	.20
7.25	.19	.28	.006	.20
7.50	.19	.28	.006	.20
7.75	.19	.27	.006	.19
8.00	.19	.27	.006	.19
8.25	.18	.26	.006	.19
8.50	.18	.26	.006	.18
8.75	.18	.26	.006	.18
9.00	.18	.25	.006	.18
9.25	.17	.25	.006	.18
9.50	.17	.24	.006	.17
9.75	.17	.24	.006	.17
10.00	.17	.24	.005	.17
10.25	.16	.23	.005	.17
10.50	.16	.23	.005	.16
10.75	.16	.23	.005	.16
11.00	.16	.23	.005	.16
11.25	.16	.22	.005	.16
11.50	.15	.22	.005	.16
11.75	.15	.22	.005	.15
12.00	.15	.21	.005	.15
12.25	.15	.21	.005	.15
12.50	.15	.21	.005	.15
12.75	.14	.21	.005	.15
13.00	.14	.20	.005	.15
13.25	.14	.20	.005	.14
13.50	.14	.20	.005	.14
13.75	.14	.20	.005	.14

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
14.00	.14	.20	.004	.14
14.25	.13	.19	.004	.14
14.50	.13	.19	.004	.14
14.75	.13	.19	.004	.13
15.00	.13	.19	.004	.13
15.25	.13	.19	.004	.13
15.50	.13	.18	.004	.13
15.75	.13	.18	.004	.13
16.00	.13	.18	.004	.13
16.25	.12	.18	.004	.13
16.50	.12	.18	.004	.13
16.75	.12	.17	.004	.12
17.00	.12	.17	.004	.12
17.25	.12	.17	.004	.12
17.50	.12	.17	.004	.12
17.75	.12	.17	.004	.12
18.00	.12	.17	.004	.12
18.25	.12	.17	.004	.12
18.50	.12	.16	.004	.12
18.75	.11	.16	.004	.12
19.00	.11	.16	.004	.11
19.25	.11	.16	.004	.11
19.50	.11	.16	.004	.11
19.75	.11	.16	.004	.11
20.00	.11	.16	.004	.11
20.25	.11	.15	.004	.11
20.50	.11	.15	.004	.11
20.75	.11	.15	.003	.11
21.00	.11	.15	.003	.11
21.25	.10	.15	.003	.11
21.50	.10	.15	.003	.11
21.75	.10	.15	.003	.10
22.00	.10	.15	.003	.10
22.25	.10	.14	.003	.10
22.50	.10	.14	.003	.10
22.75	.10	.14	.003	.10
23.00	.10	.14	.003	.10
23.25	.10	.14	.003	.10
23.50	.10	.14	.003	.10
23.75	.10	.14	.003	.10
24.00	.10	.14	.003	.10
24.25	.05	.12	.003	.09
24.50	.03	.09	.002	.06
24.75	.02	.06	.001	.05
25.00	.02	.05	.001	.03
25.25	.01	.03	.001	.02
25.50	.01	.02	.001	.02
25.75	.01	.02	.000	.01
26.00	.00	.01	.000	.01

```
    26.25        .00        .01        .000        .01
    26.50        .00        .01        .000        .00
 PEAK DISCHARGE =          4.240 CFS - PEAK OCCURS AT HOUR    2.00
 MAXIMUM WATER SURFACE ELEVATION =          3.915
 MAXIMUM STORAGE =          .2319 AC-FT      INCREMENTAL TIME=     .050000HRS

*
PRINT HYD             ID=6 CODE=1

                                    PARTIAL HYDROGRAPH   100.90

    RUNOFF VOLUME =      2.14538 INCHES      =          .9421 ACRE-FEET
    PEAK DISCHARGE RATE =        4.24 CFS  AT   2.000 HOURS   BASIN AREA =    .0082 SQ. MI.


*
*
*
*
FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 10:10:53
```

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Public Works Department
Transportation Development Services Section

September 13, 2002

Ralph Walden, Reg. Architect
Paul & Associates Inc.
5820 Old Bollard Rd., Suite 128
Tyler, Tx. 75703

Re: Approval of Temporary Certificate of Occupancy (C.O.) for
Fellowship Missionary Baptist Church, [K-10 / D037]
8570 Saul Bell Rd. N.W.
Architect's Stamp Dated 09/13/02

Dear Mr. Walden:

Based on the information provided on your submittal dated September 13, 2002, the above referenced project is approved for a 30-day Temporary C.O. (Temp).

A Temp has been issued allowing the submittal of an exact copy of the acceptable, approved TCL (Traffic Circulation Layout [Site Plan]) and Letter of Certification (including the word "certify"), to be completed within this time period. Another copy closely similar to the TCL is acceptable however, more time will be required to verify the copy before issuing the Final C.O. If a DRB Site Plan, with a signature block and appropriate signatures, is part of the City approved field set, a copy of that plan is required.
Once the site is again Certified to be in substantial compliance, and the Cert, for Transportation, has been resubmitted for evaluation and is approved, a Permanent (Final) C.O. will be issued. The Cert includes a Letter of Certification and the stamped, signed TCL. Either plan and/or the letter needs to be stamped by the designer, signed and dated for that Certification.

In addition to the Cert required, issues to be resolved within this time period are as follows: 1) Removal of all barricading required to separate vehicles/pedestrians from incomplete areas, 2) removal of all construction fencing and all equipment and refuse/compactors, in the traffic/pedestrian circulation areas and 3) removal of all landscape material (gravel, bark, etc.) from parking stalls. From the time of this Temp, up to Certification for Final C.O., make sure material is contained in single stall or stalls needed to hold landscape material, keeping surrounding area clean of this material, to relieve liability.

Submit the Cert along with the fully completed Drainage and Transportation Information Sheet (enclosed) to front counter personnel or mail it in for log-in and evaluation by Transportation. If a local representative is assigned to submit the Cert, make sure he/she has enough information to *FULLY* complete the D & T Information Sheet ("surveyor" and "contractor" are not so critical).

If you have any questions, please call me at 924-3620.

Sincerely,

Mike Zamora, Commercial Plan Checker
Development and Building Services
Planning Department

c: Engineer
Hydrology file
Mike Zamora

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

PROJECT TITLE: FELLOWSHIP MISSIONARY BAPTIST CHURCH
DRB #: _____ EPC#: _____ ZONE MAP/DRG. FILE #: K-10/D37
WORK ORDER#: _____

LEGAL DESCRIPTION: LOT 10, 11, 12, BLOCK 2 CLIFFORD WEST BUSINESS PARK
CITY ADDRESS: 8520 SAN BELL RD NW

ENGINEERING FIRM: Mark Goodwin & Assoc's. CONTACT: Diane Holzer
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

OWNER: FELLOWSHIP MISSIONARY BAPTIST CHURCH CONTACT: _____
ADDRESS: PO Box 26327 PHONE: _____
CITY, STATE: ALBUQUERQUE, NM 87125 ZIP CODE: _____

ARCHITECT: RALPH WALDEN ? CONTACT: _____
ADDRESS: 5820 OLD BULLARD RD. STE 128 PHONE: _____
CITY, STATE: TYLER, TEXAS 75703 ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- X ENGINEERS CERTIFICATION (TCL)
- ____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:
- ____ SIA / FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D. APPROVAL
- ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM.)
- X CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
SEP 13 2002
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 9/13/02 BY: Michael A. Vahl

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

9/13/02 - Cldn 30+/- Phyllis; 9/16 - Sent Letter (dated 9/13) Need for Final, this time, but None ... Stated by Super 8' ... that is sufficient ... ✓ - logb

PAUL & ASSOCIATES, INC.

903-581-8322
1-800-847-0082

3620 OLD BULLARD RD., STE. 128 • TYLER, TEXAS 75703

09/13/2002

Mr. Mike Zamora
City of Albuquerque
PO Box 1293
Albuquerque, New Mexico 87103

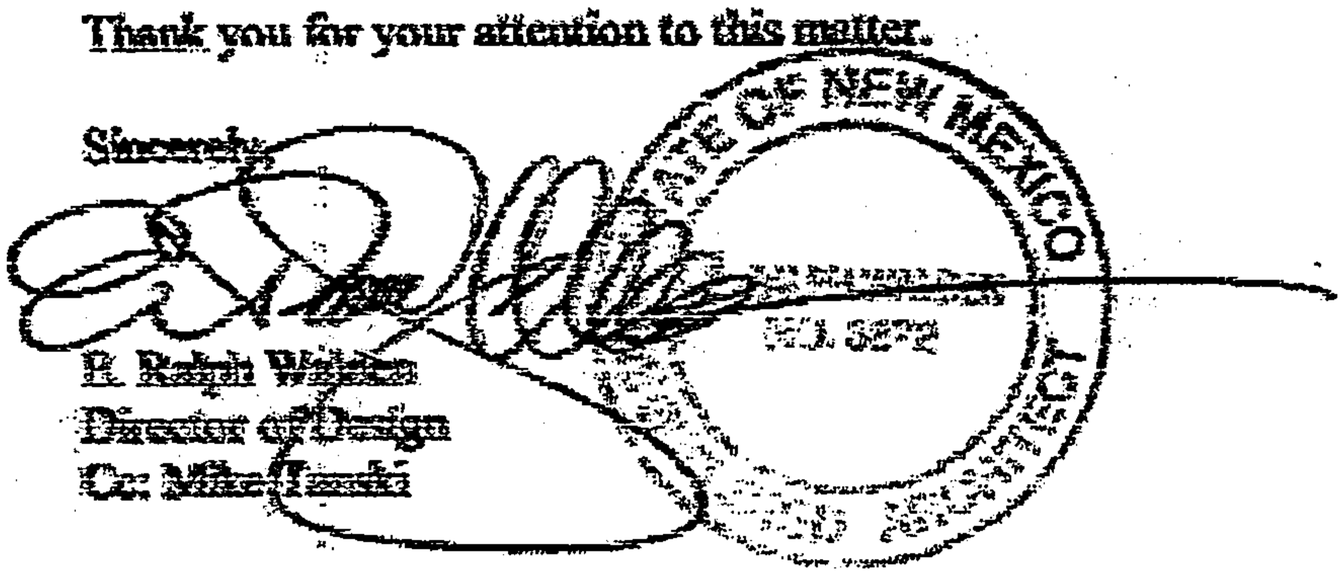
RE: Fellowship Missionary Baptist Church

Dear Mr. Zamora

This letter is to certify the site improvements indicated on our permit drawing C 1.01 6/28/01 have been carried out in the field in a manner consistent with this drawing. Therefore please accept this letter as a certification of these improvements.

Thank you for your attention to this matter.

Sincerely,



R. Ralph Walker
Director of Design
Cc: Mike Tondi

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 5, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). Supplemental Information (GRADING AND DRAINAGE PLAN) FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED APRIL 4, 2001. G&D Plan Itself Stamped MARCH 8, 2001.

Dear Ms. Hhelzer:

Thank you for furnishing the design calculations for the Pond Volumes shown on the Grading and Drainage Plan. This clears the way for the approval of the Building Permit itself. .

This letter supercedes C.O.A. letter dated 3/29/01 subject as above.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Clifford West Church ZONE ATLAS#: K 10 / D 37

DRB#: EPC# WORK ORDER#:

LEGAL DESCRIPTION: Lot 10, 11, 12, Block 2, Clifford West Business Park Unit 1

CITY ADDRESS:

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:		CONTACT:	
ADDRESS:		PHONE:	
ARCHITECT:	Paul and Associates	CONTACT:	Chad Young
ADDRESS:	5620 Bullard Rd.#128, Tyler, Texas 75703	PHONE:	903-581-8322 x 102
SURVEYOR:	ALS	CONTACT:	TIM ALDRICH
ADDRESS:	4109 MONTGOMERY BLVD.	PHONE:	884-1990
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

X DRAINAGE REPORT (Supplemental information)

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

____ GRADING PLAN

____ EROSION CONTROL

____ ENGINEER'S CERTIFICATION

____ OTHER

____ EASEMENT VACATION

PRE-DESIGN MEETING:

____ YES

X NO

____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APRROVAL

____ PRELIMINARY PLAT APRROVAL

____ S. DEV. PLAN FOR SUB'D APPROVAL

X S. DEV. PLAN FOR BLDG PERMIT APPROVAL

____ SECTOR PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ FOUNDATION PERMIT APPROVAL

____ BUILDING PERMIT APPROVAL

____ CERTIFICATION OF OCCUPANCY APPROVAL

____ GRADING PERMIT APPROVAL

____ PAVING PERMIT APPROVAL

____ S.A.D. DRAINAGE REPORT

____ DRAINAGE REQUIREMENTS

____ OTHER

____ RELEASE OF FINANCIAL GUARANTY

____ TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: APRIL 4, 2001

BY: Diane Hoelzer

DIANE HOELZER, PE

RECEIVED
APR 04 2001
HYDROLOGY SECTION

D. Mark Goodwin and Associates, P.A.
Consulting Engineers

P.O. Box 90606 ❖ Albuquerque, NM 87199
(505) 828-2200 ❖ (505) 797-9539 fax
e-mail: dmg@swcp.com

LETTER OF TRANSMITTAL

TO: **John Murray, PE**
Hydrolog
One Stop
Plaza Del Sol

DATE: April 4, 2001

RE: **CLIFFORD WEST CHURCH**
K10 / D37

We are sending:

Copies	Date	Description
1		Requested supplemental drainage information

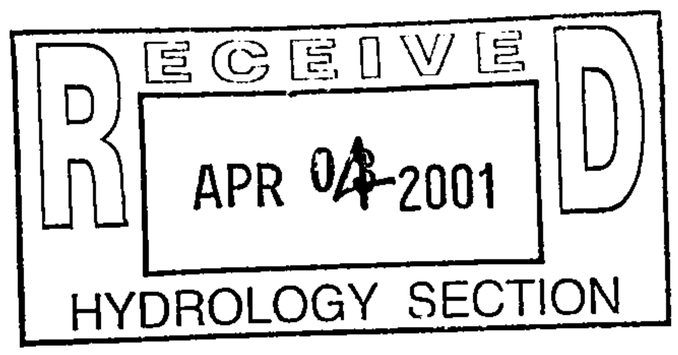
__X__ For your files _____ For your information

__X__ As you requested _____ For your comments

_____ Pre-Design Meeting

NOTES: Attached is the back up information for the Grading and Drainage Plan. Please call me if you have any questions or need additional information. Thanks,

Project Engineer _____
Diane Hoelzer, PE



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 29, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED MARCH 8, 2001.

Dear Ms, Hoelzer:

Based on the information provided on your March 8, 2001 submittal, the above referenced project is approved for SITE DEVELOPMENT PLAN for Building Permit (for DRB action). This G&D Plan should be labeled "Conceptual."

Prior to the issuance of the Building Permit, furnish the necessary data and details for the design of the proposed system, e.g., sizing of the ponds, etc.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

CLIFFORD WEST CHURCH

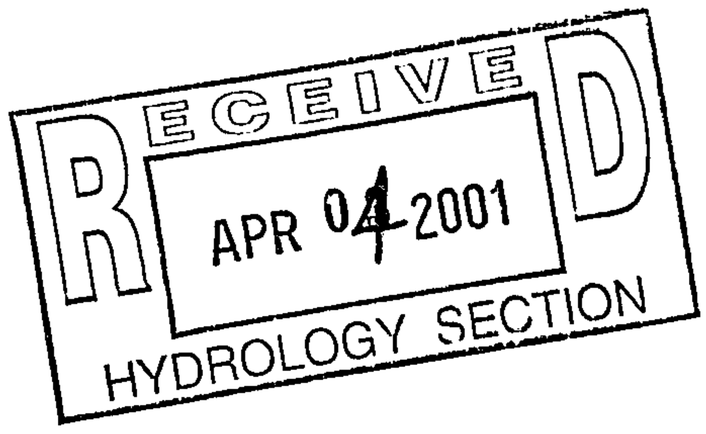
Supplemental Drainage Information:

AHYMO Input & Output

Orifice and Parking Area Pond Volume Calculations

HEC-2 Outfall channel Calculations

4-4-01



April 4, 2001

Mark Goodwin & Associates, PE

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =03/05/2001
INPUT FILE = c_church.dat USER NO.= M_GOODWN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
START										TIME= .00
RAINFALL TYPE= 1										RAIN6= 2.200
COMPUTE NM HYD	100.SB1	-	1	.00138	3.47	.124	1.68355	1.499	3.928	PER IMP= 78.00
ROUTE RESERVOIR	POND.100	1	3	.00138	.61	.124	1.68333	2.098	.696	AC-FT= .070
COMPUTE NM HYD	100.SB2	-	1	.00393	9.86	.353	1.68355	1.499	3.916	PER IMP= 78.00
ROUTE RESERVOIR	POND.100	1	3	.00393	1.99	.353	1.68348	2.065	.792	AC-FT= .211
FINISH										

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 03/05/2001
START TIME (HR:MIN:SEC) = 11:44:19 USER NO.= M_GOODWN.I01
INPUT FILE = c_church.dat

```
START              TIME=0.0
*****  CHURCH IN THE CLIFFORD WEST BUSINESS PARK
*****  LOT 10, 11, 12, BLOCK 2
*****  100-YEAR 6-HOUR STORM EVENT
*****  FILE: C_CHURCH.DAT  MARCH 5, 2001 BY:DLH
RAINFALL           TYPE=1 RAIN QUARTER=0.0 IN
     RAIN ONE=1.90 IN RAIN SIX=2.20 IN
     RAIN DAY=0.0 IN DT=0.0333 HR
```

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
DT = .033300 HOURS END TIME = 5.994000 HOURS

.0000	.0013	.0027	.0041	.0055	.0069	.0084
.0099	.0115	.0131	.0147	.0164	.0181	.0199
.0217	.0236	.0255	.0275	.0296	.0317	.0339
.0362	.0386	.0411	.0437	.0464	.0492	.0522
.0553	.0586	.0621	.0673	.0729	.0789	.0913
.1196	.1634	.2264	.3124	.4256	.5701	.7500
.9698	1.1808	1.2673	1.3402	1.4049	1.4637	1.5178
1.5681	1.6150	1.6590	1.7004	1.7395	1.7764	1.8113
1.8444	1.8758	1.9056	1.9338	1.9607	1.9678	1.9733
1.9786	1.9836	1.9884	1.9930	1.9974	2.0016	2.0056
2.0095	2.0133	2.0170	2.0205	2.0240	2.0273	2.0306
2.0337	2.0368	2.0398	2.0428	2.0456	2.0484	2.0512
2.0538	2.0565	2.0590	2.0615	2.0640	2.0664	2.0688
2.0712	2.0735	2.0757	2.0779	2.0801	2.0823	2.0844
2.0865	2.0885	2.0906	2.0925	2.0945	2.0965	2.0984
2.1003	2.1021	2.1039	2.1058	2.1076	2.1093	2.1111
2.1128	2.1145	2.1162	2.1179	2.1195	2.1211	2.1228
2.1243	2.1259	2.1275	2.1290	2.1306	2.1321	2.1336
2.1351	2.1365	2.1380	2.1394	2.1409	2.1423	2.1437
2.1451	2.1465	2.1478	2.1492	2.1505	2.1519	2.1532

```
                2.1545  2.1558  2.1571  2.1584  2.1596  2.1609  2.1621
                2.1634  2.1646  2.1658  2.1670  2.1682  2.1694  2.1706
                2.1718  2.1730  2.1741  2.1753  2.1764  2.1776  2.1787
                2.1798  2.1809  2.1820  2.1831  2.1842  2.1853  2.1864
                2.1875  2.1885  2.1896  2.1906  2.1917  2.1927  2.1938
                2.1948  2.1958  2.1968  2.1978  2.1988  2.1998

***** ***********************************
***** ****** DEVELOPED CONDITIONS ******
***** ***********************************
*****
***** SUB BASIN 1 WEST
***** Q (allowable) = 0.63 cfs
*****
COMPUTE NM HYD      ID=1 HYD NO=100.SB1 AREA=0.00137935 SQ MI
                    PER A=0 PER B=22 PER C=0 PER D=78
                    TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   4.2477    CFS   UNIT VOLUME =    .9965       B =   526.28      P60 = 1.9000
    AREA =      .001076 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


    K =   .130761HR    TP =   .133300HR    K/TP RATIO =   .980950     SHAPE CONSTANT, N =  3.599930
    UNIT PEAK =   .74567    CFS   UNIT VOLUME =    .9822       B =   327.55      P60 = 1.9000
    AREA =      .000303 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD           ID=1 CODE=1

                                HYDROGRAPH FROM AREA 100.SB1

    RUNOFF VOLUME =     1.68355 INCHES     =        .1239 ACRE-FEET
    PEAK DISCHARGE RATE =       3.47 CFS  AT   1.499 HOURS   BASIN AREA =   .0014 SQ. MI.


*****
***** ONSITE PARKING LOT PONDING AREA
***** Maximum Allowable Discharge = 0.63 cfs
ROUTE RESERVOIR     ID=3 HYD=POND.100 INFLOW=1 CODE=24
                    OUTFLOW (CFS)  STORAGE (AC FT)  ELEV (FT)
                        0            0.00000         30.25
                      .28            0.00090         31.50
                      .33            0.00118         32.0
                      .42            0.00173         33.0
                      .49            0.00228         34.0
                      .55            0.00280         35.0
                      .606           0.05479         36.0
```

```
                    .63          0.09886          36.5

 *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *

   TIME        INFLOW      ELEV       VOLUME     OUTFLOW
   (HRS)       (CFS)       (FEET)     (AC-FT)    (CFS)

     .00         .00       30.25        .000        .00
     .80         .00       30.25        .000        .00
    1.60        2.44       35.82        .045        .60
    2.40         .14       36.07        .061        .61
    3.20         .02       35.44        .026        .57
    4.00         .01       30.32        .000        .02
    4.80         .01       30.32        .000        .01
    5.59         .02       30.33        .000        .02
    6.39         .00       30.26        .000        .00
 PEAK DISCHARGE =          .614 CFS - PEAK OCCURS AT HOUR    2.10
 MAXIMUM WATER SURFACE ELEVATION =       36.169
 MAXIMUM STORAGE =          .0697 AC-FT      INCREMENTAL TIME=      .033300HRS

*****
***** SUB BASIN 2 EAST
***** Q (allowable) = 2.05 cfs
*****
COMPUTE NM HYD       ID=1 HYD NO=100.SB2 AREA=0.00393401 SQ MI
                     PER A=0 PER B=22 PER C=0 PER D=78
                     TP=0.1333 HR MASS RAINFALL=-1

    K =   .072649HR     TP =   .133300HR     K/TP RATIO =   .545000      SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   12.115     CFS    UNIT VOLUME =     .9984        B =   526.28       P60 = 1.9000
    AREA =       .003069 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300


    K =   .130761HR     TP =   .133300HR     K/TP RATIO =   .980950      SHAPE CONSTANT, N =  3.599930
    UNIT PEAK =   2.1267     CFS    UNIT VOLUME =     .9938        B =   327.55       P60 = 1.9000
    AREA =       .000865 SQ MI     IA =     .50000 INCHES     INF =    1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

PRINT HYD            ID=1 CODE=1

                                HYDROGRAPH FROM AREA 100.SB2


    RUNOFF VOLUME =      1.68355 INCHES      =          .3532 ACRE-FEET
    PEAK DISCHARGE RATE =        9.86 CFS  AT    1.499 HOURS    BASIN AREA =    .0039 SQ. MI.


*****
***** ONSITE PARKING LOT PONDING AREA
```

*****

ROUTE RESERVOIR ID=3 HYD=POND.100 INFLOW=1 CODE=24

OUTFLOW (CFS)	STORAGE (AC FT)	ELEV (FT)
0	0.00	27.0
0.63	0.03946	27.5
1.25	0.07891	28.0
2.05	0.22079	28.5

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	27.00	.000	.00
.80	.00	27.00	.000	.00
1.60	6.93	28.24	.148	1.64
2.40	.40	28.36	.182	1.83
3.20	.07	28.04	.090	1.31
4.00	.04	27.43	.034	.54
4.80	.04	27.17	.013	.21
5.59	.05	27.08	.007	.11
6.39	.00	27.05	.004	.06
7.19	.00	27.02	.001	.02
7.99	.00	27.01	.000	.01
8.79	.00	27.00	.000	.00

PEAK DISCHARGE = 1.993 CFS - PEAK OCCURS AT HOUR 2.06
MAXIMUM WATER SURFACE ELEVATION = 28.465
MAXIMUM STORAGE = .2108 AC-FT INCREMENTAL TIME= .033300HRS

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 11:44:19

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

PROJECT CLIFFORD WEST CHURCH
SUBJECT HYDROCALCS.
BY DLH DATE 3-5-01
CHECKED _____ DATE _____
SHEET 1 OF 5

SUBASIN 1

$Q = C \cdot a \cdot \sqrt{2gh}$

$0.63 = 0.6(a) \cdot \sqrt{64.4(36.5 - 30.25)}$

$a = 0.5234\ SF = .228^{\#'} \quad 2.75^{\#''}$

$a = .052517\ SF$ (use design)

Q OUT	Stor.	Elev.
0	0	30.25
0.28	.0009	31.50
0.33	.00118	32.0
0.42	.00173	33.0
0.49	.00228	34.0
0.55	.0028	35.0
.606	.05479	36.0
0.63	.09886	36.5

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PROJECT CLIFFORD WEST CHURCH
SUBJECT HYDRO CALCS
BY DLH DATE 3-5-01
CHECKED _____ DATE _____

VOLUME @ ELEV 36.0 SUBASIN 1

0.3+0/2 (15) = 2.25 SF
.39+.69/2 (15) = 8.10 SF
0.85+1.15/2 (15) = 15.0 SF
1.0+1.3/2 (15) = 17.25 SF
0.36+.06/2 (15) = 3.15 SF

14 LF = 72.45 CF
33 LF = 381.15 CF
40 LF = 645 CF
37 LF = 377.40 CF

.23+0/2 (22) = 2.53 SF
0.63+.85/2 (22) = 16.28 SF
0.49+0/2 (22) = 5.39 SF

45 LF = 423.23 CF
45 LF = 487.58 CF

2386.8 CF = 0.05479 AF

VOLUME @ ELEV 36.50

0.8+0.5/2 (15) = 9.75 SF
0.89+1.19/2 (15) = 15.6 SF
1.35+1.65/2 (15) = 22.50 SF
1.5+1.8/2 (15) = 24.75 SF
0.86+.56/2 (15) = 10.65 SF

14 LF = 177.45 CF
33 LF = 628.65 CF
40 LF = 945.00 CF
37 LF = 654.9 CF

0.73+0.5/2 (22) = 13.53 SF
1.13+1.35/2 (22) = 27.28 SF
.99+0.5/2 (22) = 16.39 SF

45 LF = 918 CF
45 LF = 982.58 CF

4306.6 CF = .098865 AF

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PROJECT _____
SUBJECT _____
BY _____ DATE _____
CHECKED _____ DATE _____

Qallow (Lot 10) = 0.63 cfs
Qallow (Lot 11+12) = 2.05 cfs

Lot 10 A = 34785 SF = 0.7986 Ac
Lot 11 A = 56074 SF = 1.2873 Ac
Lot 12 A = 56943 SF = 1.3072 Ac
⟩ 113017 SF
2.5945 Ac.

Lot 10 Pervious Area

325'x9'	2925
20'x8'	160
(95'x10') ½	475
50'x4'	200
18'x10'	720
30'x3'	90
87'x16'	1392
20'x30'	600
185'x2'	370
25'x20'	500
	7432 21%

TOTAL 147,802
Pervious 18762

Lot 11+12 Pervious Area = 11330

40'x8'	320	300x9 2700
40'x7'	280	10%
40'x8'	320	
40'x5'	200	460'x2'
20'x15	300	300'x2'
20'x5'	100	
(20x10)½	100	
42x25'	1050	
80'x5'	400	
110'x7'	770	
80'x5'	400	
45'x24'	1080	
20'x15'	300	
½(35x20')	350	
40'x10'	400	
40'x8'	320	
40x8	320	
20x15	300	
40x9	360	
40x8	320	
40x8	320	
40'x8	320	

Chad Young, Paul o Assoc Tyler, Texas Ph. n.

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

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(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

PROJECT Clifford West Church
SUBJECT Hydrology - Area Calcs
BY DLH DATE 2-9-01
CHECKED _____ DATE _____
SHEET 4 OF 5

SB 2

OUTFLOW	STORAGE	ELEVATION
0	0	27.0
0.63	.03946	27.5
1.25	.07891	28.0
2.05	.220741	28.5

27'-28'

$\frac{1.2+6.4}{2}(20) = 76$ CF

$\frac{6.4+13.5}{2}(22) = 219$ CF

$\frac{8.8+14.08}{2}(40) = 457.6$ CF

$\frac{3.2+1.6}{2}(40) = 96.2$ CF

$\frac{23+64.05}{2}(23) = 1001$ CF

$\frac{18+22.6}{2}(20) = 406.2$ CF

$\frac{38.25+14}{2}(20) = 522.5$ CF

$\frac{9+1.56}{2}(20) = 105.6$ CF

$\frac{23+7.15}{2}(30) = 452.2$ CF

$5+3.1(25) = 101.25$ CF

3437.55 CF

$= .07891$ AF

ORIFICE CALCS.

$Q = C \cdot a \cdot \sqrt{2gh}$

$2.05 cfs = 0.6(a)\sqrt{2(32.2)1.25}$

Area = 0.380 Sq. ft.

0.76" x 0.5' OPENING

28'-28.5

$\frac{6+16.5}{2}(20) = 225$

$\frac{16.5+27}{2}(20) = 435$

$11.5(40) = 460$

$\frac{12+16}{2}(40) = 560$

$\frac{32+61.5}{2}(23) = 1075.2$

$11.5(20) = 230$

$\frac{45+28}{2}(20) = 730$

$\frac{24+7.5}{2}(20) = 315$

$22(30)5 = 330$

4360.2 CF

$\frac{8.75+17.5}{2}(42) = 551.2$

$\frac{17.5+15}{2}(40) = 650$

$\frac{16.7+7.5}{2}(22) = 266.2$

$8(20) = 160$

$\frac{3+8}{2}(22) = 121$

$6(12) = 72$

1820.4 CF

6180.6 CF

$= .141887$ AF

TOTAL = .220797

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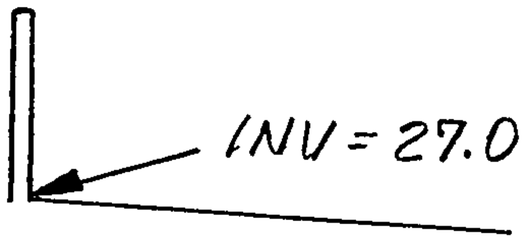
e-mail: dmg@swcp.com

PROJECT Clifford West Church
SUBJECT Hydrology Calcs
BY DCH DATE 2-9-01
CHECKED _____ DATE _____
SHEET 5 OF 5

SB 2 continued

$Q = c \cdot a \cdot \sqrt{2gh}$



$2.05\ CFS = 0.60(a)\sqrt{2(32.2)\ 1.1875}$

area = 0.3842 SF = πR^2

Radius = 4.275"

Diameter = 8.55"

$\pi R^2 = .3987$

$2\pi R = 2.23838$

$Q = 1.\frac{486}{.015}(.3987)(.3166).01^{1/2}$

```
1*****************************************************
 *  WATER SURFACE PROFILES                           *
 *  VERSION OF SEPTEMBER 1988                        *
 *  ERROR: 01,02                                     *
 *  UPDATED:  4 APRIL    1989                        *
 *  RUN DATE     3/ 5/ 1   TIME   14:56:51           *
 *****************************************************
```

```
*****************************************
*  U.S. ARMY CORPS OF ENGINEERS         *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*  609 SECOND STREET, SUITE D           *
*  DAVIS, CALIFORNIA 95616-4687         *
*  (916) 756-1104, (916) 551-1748       *
*****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                   X
X     X  X        X     X             X
X     X  XXXXXXX   XXXXX              XXXXXXX
```

```
THIS RUN EXECUTED  3/ 5/ 1    14:56:51
 ************************************************
   HEC2 RELEASE DATED SEP 88 UPDATED APR  1989
   ERROR CORR -  01,02
   MODIFICATION -
 ************************************************

 T1          CLIFFORD WEST BUSINESS PARK
 T2          CHURCH CHANNEL OUTFALL
 T3          100-YEAR / 6-HOUR DESIGN STORM

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         2         0         1       .020         0         0         0         0         0

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      38        43         1         2        26         4        68         3

 NC     .017      .017      .017       .1        .3
 QT        1      2.05
 X1        1         5         0     101.2         0         0         0         0         0         0
 GR     0.54       100      0.04     100.1         0     100.6      0.04     101.1       .54     101.2

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 1

 CCHV=      .100 CEHV=      .300
 *SECNO 1.000
 2096 WSEL NOT GIVEN, AVG OF MAX, MIN USED
      1.00      .42       .42       .51       .00       .77       .35       .00       .00       .54
        2.        0.        2.        0.        0.        0.        0.        0.        0.       .54
```

.00	.00	4.77	.00	.000	.017	.000	.000	.00	100.02
.019828	0.	0.	0.	0	14	5	.00	1.15	101.18

THIS RUN EXECUTED 3/ 5/ 1 14:56:51

****

HEC2 RELEASE DATED SEP 88 UPDATED APR 1989

ERROR CORR - 01,02

MODIFICATION -

****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR / 6-HOUR DE

SUMMARY PRINTOUT

SECNO	Q	CWSEL	CRIWS	VCH	TOPWID	FRCH	EG
1.000	2.05	.42	.51	4.77	1.15	1.38	.77

INTER

OFFICE

MEMO

To: File

From: Richard Dourte

Subject: Mike Zamora issued perm TCL CO's following projects.

Date: November 4, 2002

Drainage file no.	Description	Date Received	Date Approved
C12/D5A	Quanz Auto Car Care	10-28-02	10-31-02
C13/D12	NM Sports and Wellness	11-01-02	11-01-02
C17/D113	Mechenbier Office/Warehouse	10-29-02	11-04-02
C19/D11D6	Wells Fargo Bank	10-29-02	10-29-02
E12/D2	Texaco Xpress Lube	10-31-02	10-31-02
E12/D14	Riverside Plaza, Tract 6, Bld L-1	10-24-02	10-25-02
E-12/D15A	Bosque School Gymnasium	10-31-02	11-01-02
F13/D14	Shephard of the Valley Pres. Church Renov. & Addn.	10-24-02	10-31-02
F17/D78	Lexus of Albuquerque	10-24-02	10-28-02
F21/D43	Casa Pacifica Condominiums	10-15-02	10-22-02
H11/D66	Sonic Drive In	10-23-02	10-23-02
J19/D39	Garcia Honda Renovation and Addition	10-18-02	10-18-02
K10/D37	Fellowship Missionary Baptist Church	09-25-02	09-25-02
L14/D1C	Roses Southwest Paper	10-23-02	10-28-02
L18/D66	Obee's Soup Salad Subs	10-31-02	10-31-02
M15/D24	Hilton Garden Inn	10-17-02	10-17-02

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/1/2002)

PROJECT TITLE: Fellowship Missionary Baptist Church ZONE MAP/DRG. FILE #: K10/D37 K9 K10
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Clifford West Business Park Lots 10A, Block 2
CITY ADDRESS: 8550 Saul Bell Rd

ENGINEERING FIRM: Work Godwin + Associates.
ADDRESS: P.O. Box 30601
CITY, STATE: Albuquerque, NM 87119
CONTACT: Diane Hoelzer
PHONE: (505) 828 2200
ZIP CODE: 87119

OWNER: Fellowship Missionary Baptist Church
ADDRESS: 8550 Saul Bell Rd. NW.
CITY, STATE: Albuquerque, NM
CONTACT: Willey Burrell
PHONE: (505) 242-8928
ZIP CODE: 87121

ARCHITECT: Ralph Walden
ADDRESS: 160 Langford Rd.
CITY, STATE: Blythewood, SC.
CONTACT: Ralph Walden
PHONE: (803) 333-2610
ZIP CODE: 29016

SURVEYOR: Surveys Southwest LTD.
ADDRESS: 333 Lomas NE.
CITY, STATE: Albuquerque, NM
CONTACT: Dan
PHONE: (505) 998-0303
ZIP CODE: 87102

CONTRACTOR: Paul + Associates, Inc.
ADDRESS: 3900 Old Bullard Rd.
CITY, STATE: Tyler, Texas
CONTACT: Mike Tansil
PHONE: (903) 509-3953
ZIP CODE: 75701

CHECK TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- X TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEERS CERTIFICATION (TCL)
- ____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUBD. APPROVAL
- ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- X CERTIFICATE OF OCCUPANCY (PERM.)
- ____ CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
SEP 25 2002
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 9/25/02 BY: Mike Tansil

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. *Conceptual Grading and Drainage Plan:* Required for approval of Site Development Plans greater than five
2. *Drainage Plans:* Required for building permits, grading permits, paving permits and site plans less than five (5)
3. *Drainage Report:* Required for subdivisions containing more than ten (10) lots or containing five (5) acres or

9/25/02 - Old mail to Phyllis.; Sent letter dated 9/25 - V - Copied

PAUL & ASSOCIATES, INC.

903-581-8322
1-800-847-0082

5620 OLD BULLARD RD., STE. 128 • TYLER, TEXAS 75703

September 20, 2002

Mr. Mike Zomorra
City of Albuquerque
P. O. Box 1293
Albuquerque, New Mexico 87103

Re: Fellowship Missionary Baptist Church

Dear Mr. Zomorra:

This letter is to certify the site improvements indicated on our permit drawing C 1.01 6/28/01 have been carried out in the field in a manner consistent with this drawing. Therefore, please accept this letter as a certification of these improvements.

Thank you for your attention to this matter.

Sincerely,

E. Ralph Walden
Director of Design

ERW/bg

cc: Mike Tanski

STATE OF NEW MEXICO
E RALPH WALDEN
NO. 3872
REGISTERED ARCHITECT

RECEIVED
SEP 25 2002
HYDROLOGY SECTION

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 26, 2002

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: CLIFFORD WEST CHURCH (K-10/D37)
(8570 Saul Bell Rd) (AKA: Fellowship Missionary Baptist Church)
CERTIFICATE OF OCCUPANCY APPROVAL-*Temporary Extension*
ENGINEERS CERTIFICATION DATED 8/28/2002

Dear Ms. Hoelzer:

Based on the information provided in your submittal dated September 26, 2002, the above referenced project is approved for an **Extension of TEMPORARY** Certificate of Occupancy.

An Extension of the Temporary Certificate of Occupancy has been issued for another 30 days, allowing the following outstanding drainage issues to be completed within this time scope.

Upon completion of all of the above outstanding drainage issues, final certification will need to be resubmitted for issuance of a Permanent Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development and Building Services Division
BLB

c: Certificate of Occupancy Clerk, COA
Drainage file
Approval file

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

September 25, 2002

Ms. Teresa Martin
Hydrology Plan Checker
Development and Building Services Division
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Clifford West Church
Engineers Stamp 9-25-02 (K10/D37)

Dear Mr. Martin

In response to your letter dated August 30, 2002 the swale in the access road has been graded but the improvements associated with the property to the south is still pending. We are requesting extension of a temporary C.O. until such time as these drainage improvements are complete as I or my clients have no control over the adjacent property owners time to complete. I have also discuss this with Brad Bingham in City Hydrology.

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\clifford.chu\hyd_2.ltr

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV.1/11/2002)

PROJECT TITLE: Clifford West Church ZONE ATLAS#: K10 / D37

DRB#: 1000918 EPC# _____ WORKORDER#: _____

LEGAL DESCRIPTION: Lots 10, 11, 12, Block 2, Clifford West Business Park, Unit 1

CITY ADDRESS: _____

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Diane Hoelzer, PE
ADDRESS:	PO Box 90606, ABQ, NM 87199	PHONE:	828-2200
OWNER:	Fellowship Missionary Baptist Church	CONTACT:	Burrell
ADDRESS:	8570 Saul Bell Road, ABQ, NM 87121	PHONE:	321-8315
ARCHITECT:	Paul & Associates	CONTACT:	Chad Young
ADDRESS:	5620 Bullard # 128, Tyler, Texas 75703	PHONE:	903-581-8322 x 102
SURVEYOR:	Southwest Surveying Co. Inc.	CONTACT:	
ADDRESS:	333 Lomas Blvd. NE, ABQ, NM, 87102	PHONE:	998-0303
CONTRACTOR:	Custom Grading & Cambro Construction Inc.	CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERTIFICATION (TCL)
- ____ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANCIAL GUARANTY RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- ____ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- X CERTIFICATE OF OCCUPANCY (TEMP)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
SEP 25 2002
HYDROLOGY SECTION

DATE SUBMITTED: September 25, 2002

BY: Diane Hoelzer

Diane Hoelzer, PE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of to the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5).
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 30, 2002

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: CLIFFORD WEST CHURCH (K-10/D37)
(8570 Saul Bell Rd) (AKA: Fellowship Missionary Baptist Church)
CERTIFICATE OF OCCUPANCY APPROVAL-*Temporary*
ENGINEERS CERTIFICATION DATED 8/28/2002

Dear Ms. Hoelzer:

Based on the information provided in your submittal dated August 29, 2002, the above referenced project is approved for a **TEMPORARY** Certificate of Occupancy.

A Temporary Certificate of Occupancy has been issued for 30 days, allowing the following outstanding drainage issues to be completed within this time scope.

Upon a site inspection it was noted that the channel and outlet on the adjacent property to the South must be constructed. Also, the swale in the emergency access road must be completed.

Upon completion of all of the above outstanding drainage issues, final certification will need to be resubmitted for issuance of a Permanent Certificate of Occupancy.

If I can be of further assistance, please feel free to contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Development and Building Services Division
BrB

c: Certificate of Occupancy Clerk, COA
Drainage file
Approval file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV.1/11/2002)

PROJECT TITLE: Clifford West Church ZONE ATLAS#: K10 / D37

DRB#: 1000918 EPC# _____ WORKORDER#: _____

LEGAL DESCRIPTION: Lots 10, 11, 12, Block 2, Clifford West Business Park, Unit 1

CITY ADDRESS: 8590 Saul Bell Rd

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Diane Hoelzer, PE
ADDRESS:	PO Box 90606, ABQ, NM 87199	PHONE:	828-2200
OWNER:	Fellowship Missionary Baptist Church	CONTACT:	Burrell
ADDRESS:	8570 Saul Bell Road, ABQ, NM 87121	PHONE:	321-8315
ARCHITECT:	Paul & Associates	CONTACT:	Chad Young
ADDRESS:	5620 Bullard # 128, Tyler, Texas 75703	PHONE:	903-581-8322 x 102
SURVEYOR:	Southwest Surveying Co. Inc.	CONTACT:	
ADDRESS:	333 Lomas Blvd. NE, ABQ, NM, 87102	PHONE:	998-0303
CONTRACTOR:	Custom Grading & Cambro Construction Inc.	CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERTIFICATION (TCL)
- ____ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANCIAL GUARANTY RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- ____ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- X CERTIFICATE OF OCCUPANCY (PERM)
- X CERTIFICATE OF OCCUPANCY (TEMP)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED
AUG 29 2002
HYDROLOGY SECTION

DATE SUBMITTED: August 28, 2002

BY: Diane Hoelzer

Diane Hoelzer, PE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of to the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5).
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

f:\\forms\draininf.tbl

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 15, 2002

David Gatterman
BJM Development Consultant
4409 Karrol Road SW
Albuquerque New Mexico 87119

(AKA: CLIFFORD WEST CHURCH)

RE: Grading and Drainage Plan for Fellowship Missionary Baptist Church Parking Lot (K10-D37) Dated August 5, 2002

Dear Mr. Gatterman:

The above referenced drainage plan received August 7, 2002 is approve for grading and paving.
Upon completion of the project please certify the project per the DPM.
If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Fellowship Missionary Baptist Church ZONE MAP/DRG. FILE #: K10-D37
DRB #: _____ EPC#: _____ WORK ORDER#: _____
LEGAL DESCRIPTION: Lot 10-A Block 2 Clifford West Business Park Unit 1
CITY ADDRESS: 8550 Saul Bell Rd N.W.

ENGINEERING FIRM: BJM Development Consultant — CONTACT: Bernie J. Montoya
ADDRESS: 4409 Karol Rd SW — PHONE: 877-4941
CITY, STATE: Albuquerque, New Mexico 87121 — ZIP CODE: 87121

OWNER: Fellowship Missionary Baptist Church — CONTACT: Pastor Dunn
ADDRESS: ~~515~~ 515 Ash S.E. — PHONE: 242-8428
CITY, STATE: _____ — ZIP CODE: 87106

ARCHITECT: _____ — CONTACT: _____
ADDRESS: _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

SURVEYOR: _____ — CONTACT: _____
ADDRESS _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

CONTRACTOR: _____ — CONTACT: _____
ADDRESS: _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____/ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____V GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION
- ____ CLOMR/LOMR
- ____ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____/ YES Verbal with Carlos Montoya
- ____ NO
- ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:
- ____ SIA / FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D. APPROVAL
- ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____/ CERTIFICATE OF OCCUPANCY APPROVAL
- ____V GRADING PERMIT APPROVAL
- ____V PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

DATE SUBMITTED: 8/7/2002 BY: Bernie J Montoya

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

RECEIVED
AUG 07 2002
HYDROLOGY SECTION

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 10, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). Revised DRAINAGE REPORT, Revised GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT, AND BUILDING PERMIT APPROVALS. ENGINEER'S STAMP DATED JULY 12, 2001. G & D PLAN Restamped JULY 25. 2001 FOR FIRE MARSHALL'S REQUIREMENTS.

Dear Ms. Hoelzer:

Based on the information provided on your July 27, 2001 submittal, the above referenced project is approved for Site Development Plan for Building Permit, and for Grading and Building Permits.

Please attach a copy of this approved plan - with July 25, 2001 Stamp Date - to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

July 26, 2001

Mr. John Murray, PE
Hydrology Reviewer
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: Request Site Development Plan for Building Permit Approval, Building Permit Approval, Grading Permit Approval for Clifford West Church Revised Grading and Drainage Plan, Engineers Stamp 7-25-01 (K10/D37)

Dear Mr. Murray;

In response to comments received from the Fire Marshall on Monday I made some minor changes to the emergency access road along the east side of the property. I revised the turning radius's and the width changed from an 18' width to a 20' width. The grading and drainage plan concept remains the same.

Please call me if you have any questions.

Sincerely,

MARK GOODWIN & ASSOCIATES, P.A.

Diane Hoelzer, PE
Senior Engineer

DLH/dlh
f:\\clifford.chu\hyd_2.ltr

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 23, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). Revised DRAINAGE REPORT, Revised GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT, AND BUILDING PERMIT APPROVALS. ENGINEER'S STAMP DATED JULY 12, 2001.

Dear Ms. Hoelzer:

Based on the information provided on your July 12, 2001 submittal, the above referenced project is approved for Site Development Plan for Building Permit, and for Grading and Building Permits.

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

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
File

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 29, 2001

Diane Hoelzer, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

RE: CLIFFORD WEST CHURCH, Clifford West Business Park Unit 1 (K10-D37). GRADING AND DRAINAGE PLAN FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED MARCH 8, 2001.

Dear Ms, Hoelzer:

Based on the information provided on your March 8, 2001 submittal, the above referenced project is approved for SITE DEVELOPMENT PLAN for Building Permit (for DRB action). This G&D Plan should be labeled "Conceptual."

Prior to the issuance of the Building Permit, furnish the necessary data and details for the design of the proposed system, e.g., sizing of the ponds, etc.

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

Sincerely,

John P. Murray, P.E.
Hydrology

c: Terri Martin
√ File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Clifford West Church ZONE ATLAS#: K 10/D37

DRB#: EPC# WORK ORDER#:

LEGAL DESCRIPTION: Lot 10, 11, 12, Block 2, Clifford West Business Park Unit 1

CITY ADDRESS:

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:		CONTACT:	
ADDRESS:		PHONE:	
ARCHITECT:	Paul and Associates	CONTACT:	Chad Young
ADDRESS:	5620 Bullard Rd.#128, Tyler, Texas 75703	PHONE:	903-581-8322 x 102
SURVEYOR:	ALS	CONTACT:	TIM ALDRICH
ADDRESS:	4109 MONTGOMERY BLVD.	PHONE:	884-1990
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- X DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ____ EROSION CONTROL
- ____ ENGINEER'S CERTIFICATION
- ____ OTHER
- ____ EASEMENT VACATION

PRE-DESIGN MEETING:

- ____ YES
- X NO
- ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SKETCH PLAT APRROVAL
- ____ PRELIMINARY PLAT APRROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. PLAN FOR BLDG PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ CERTIFICATION OF OCCUPANCY APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ S.A.D. DRAINAGE REPORT
- ____ DRAINAGE REQUIREMENTS
- ____ OTHER
- ____ RELEASE OF FINANCIAL GUARANTY
- ____ TRAFFIC CIRCULATION LAYOUT

DATE SUBMITTED: MARCH 8, 2001

BY: Diane Hoelzer

DIANE HOELZER, PE

RECEIVED
MAR 03 2001
HYDROLOGY SECTION