

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(Rev. 12/05)

PROJECT TITLE: Cornucopia Greenhouse ZONE MAP/DRG. FILE # L12/0011
 DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract 14 B - A-1-A-1-, MRGCD Map 42
 CITY ADDRESS: 2200 Bridge Street, SW Albuquerque, NM 87105

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: John MacKenzie
 ADDRESS: PO BOX 90606 PHONE: (505) 828-2200
 CITY, STATE: Albuquerque, NM ZIP CODE: 87111

OWNER: Cornucopia Adult Day Services CONTACT: Michele Bishop-Couch
 ADDRESS: 2200 Bridge Street, SW PHONE: (505) 877-1310
 CITY, STATE: Albuquerque, NM ZIP CODE: 87105

ARCHITECT: Mullen-Heller CONTACT: Jeremy Sanchez
 ADDRESS: 924 Park Ave. PHONE: (505) 268-4144
 CITY, STATE: Albuquerque, NM ZIP CODE: 87102

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

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

TYPE OF SUBMITTAL:
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT (DRB SITE PLAN)
☐ OTHER

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

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

RECEIVED
NOV 08 2012

SUBMITTED BY: John MacKenzie DATE: 11/8/12

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



November 9, 2012

Mark Goodwin, P.E.
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, New Mexico 87199

Re: Cornucopia Center / Greenhouse – 2002 Bridge St., SW
Final Certification of Occupancy
Engineer's Stamp Date 11/08/2012 (L12/D011)

Dear Mr. Soule,

PO Box 1293

Based on the Certification received 11/08/2012, the site is approved for a release of a Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3695.

Albuquerque

NM 87103

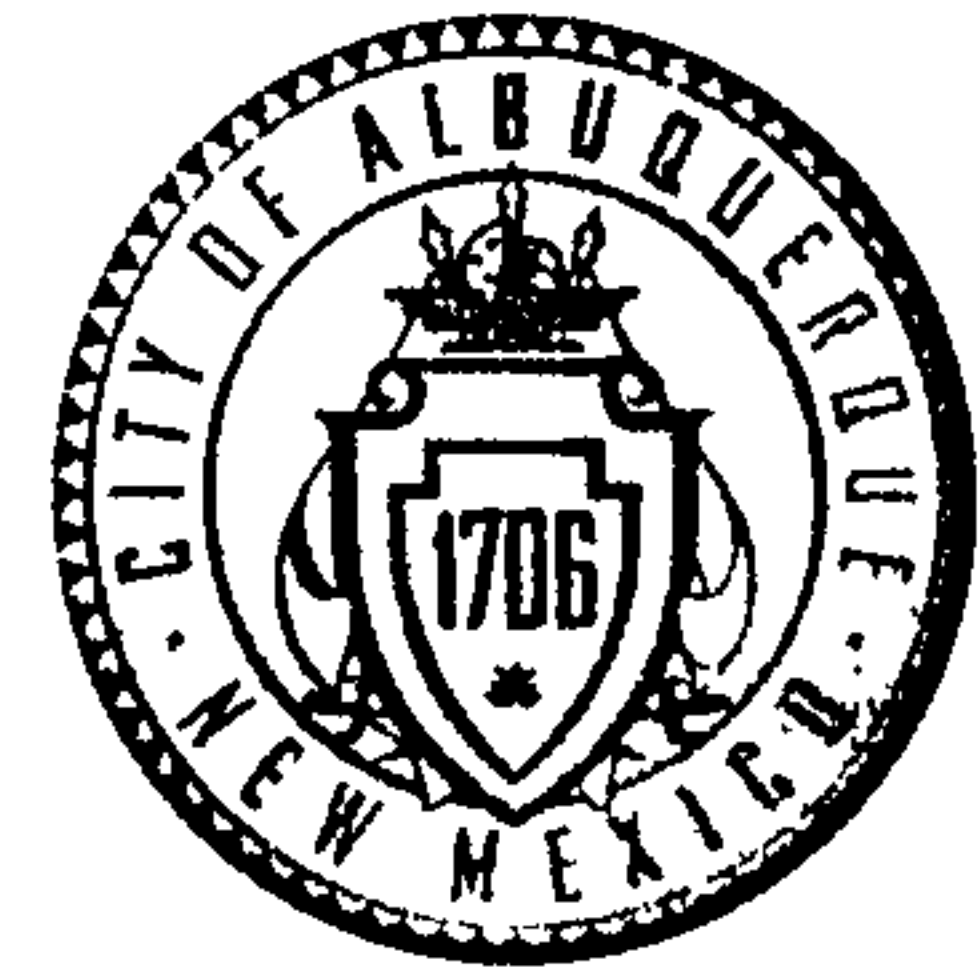
www.cabq.gov

Sincerely,

Shahab Biazar, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: CO Clerk—Katrina Sigala
e-mail

CITY OF ALBUQUERQUE



94
14
14
14
14

**Planning Department
Transportation Development Services Section**

December 10, 2012

Michele M. Mullen, R.A.
Mullen Heller Architecture PC
924 Park Avenue SW, Ste. B
Albuquerque, NM 87102

Re: **Certification for Permanent Building Certificate of Occupancy (C.O.)**
Cornucopia Adult Day Services, [L-12/D011]
2002 Bridge Blvd. SW
Architect's Stamp Dated 12/03/12

Dear Ms. Mullen:

Based upon the information provided in your submittal received 12-07-12, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact me at (505)924-3630.

Sincerely,

Milo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

Engineer
Hydrology file
CO Clerk

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

December 3, 2012

Ms. Kristal Metro, PE.
Traffic Engineer – Transportation Development
Development and Building Services
Planning Department
City of Albuquerque
600 2nd Street NW.
Albuquerque, NM 87102

Re: **Permanent Certificate of Occupancy for
Cornucopia Adult Day Services
Non-Commercial Use Greenhouse
Address: 2002 Bridge Boulevard SW, Albuquerque, NM 87105**

Dear Kristal:

I, Michele Mullen, NMRA of Mullen Heller Architecture P.C., hereby certify that this project is in substantial compliance with and in accordance with the design intent of the Traffic Circulation Layout site plan (TCL) approved July 20, 2012 with modification approved by COA Zoning Department that eliminated the need for 5 new parking spaces for the greenhouse. The Site Plan therefore reflects the elimination of 3 parking spaces on the north side of the east parking lot along Bridge Blvd. SW. I further certify that I have personally visited the project site on November 16, 2012 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Engineer's Certification (TCL) for Permanent Certificate of Occupancy.

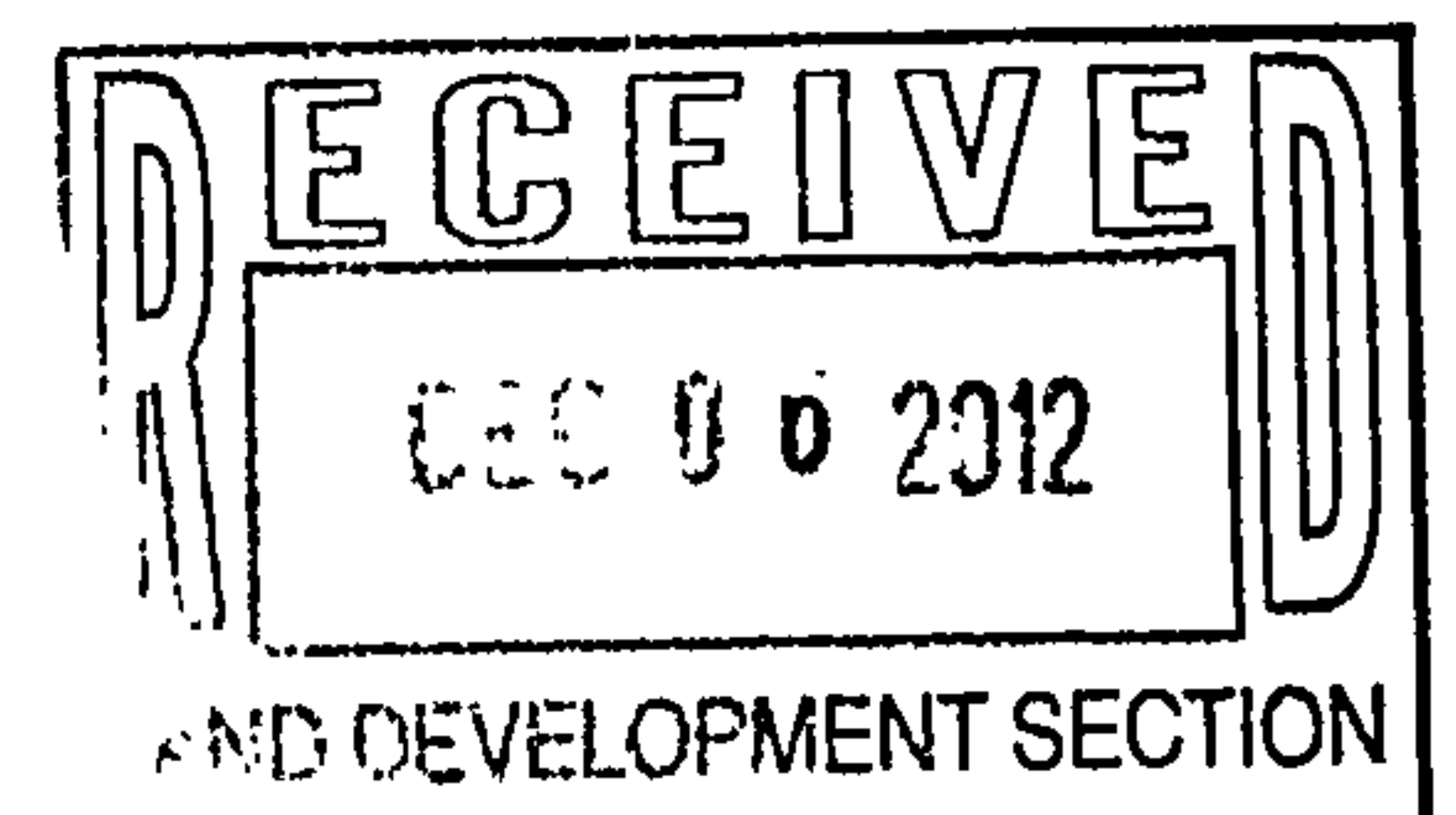
The record information presented herein is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Please feel free to contact me if you have any questions.

Sincerely,
Mullen Heller Architecture PC

Michele Mullen, AIA

Attachment: TCL Approved Site Plan with revisions.



DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Cornucopia Adult Day Services ZONE MAP/DRG. FILE #: L-12-7 Doll
DRB #: _____ EPC#: _____ WORK ORDER#: N/A

LEGAL DESCRIPTION: Tract 148A1A1A2 of M.R.G.C.D. Map No. 42
CITY ADDRESS: 2002 Bridge Boulevard SE., Albuquerque, NM 87105

ENGINEERING FIRM: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

OWNER: Cornucopia Adult Day Services
ADDRESS: 2002 Bridge Boulevard SE.
CITY, STATE: Albuquerque, NM

CONTACT: _____
PHONE: 505-877-1310
ZIP CODE: 87105

ARCHITECT: Mullen Heller Architecture P.C.
ADDRESS: 924 Park Avenue SW, Suite B
CITY, STATE: Albuquerque, NM

CONTACT: Michele Mullen
PHONE: 505-268-4144
ZIP CODE: 87102

SURVEYOR: Cartesian Surveys, Inc.
ADDRESS: P.o. Box 44414
CITY, STATE: Rio Rancho, NM

CONTACT: Will Plotner Jr.
PHONE: 505-891-0844
ZIP CODE: 87174

CONTRACTOR: Insight Construction
ADDRESS: P.o. Box 6653
CITY, STATE: Albuquerque, NM

CONTACT: Damian Chimenti
PHONE: 505-888-7927
ZIP CODE: 87197

CHECK TYPE OF SUBMITTAL:

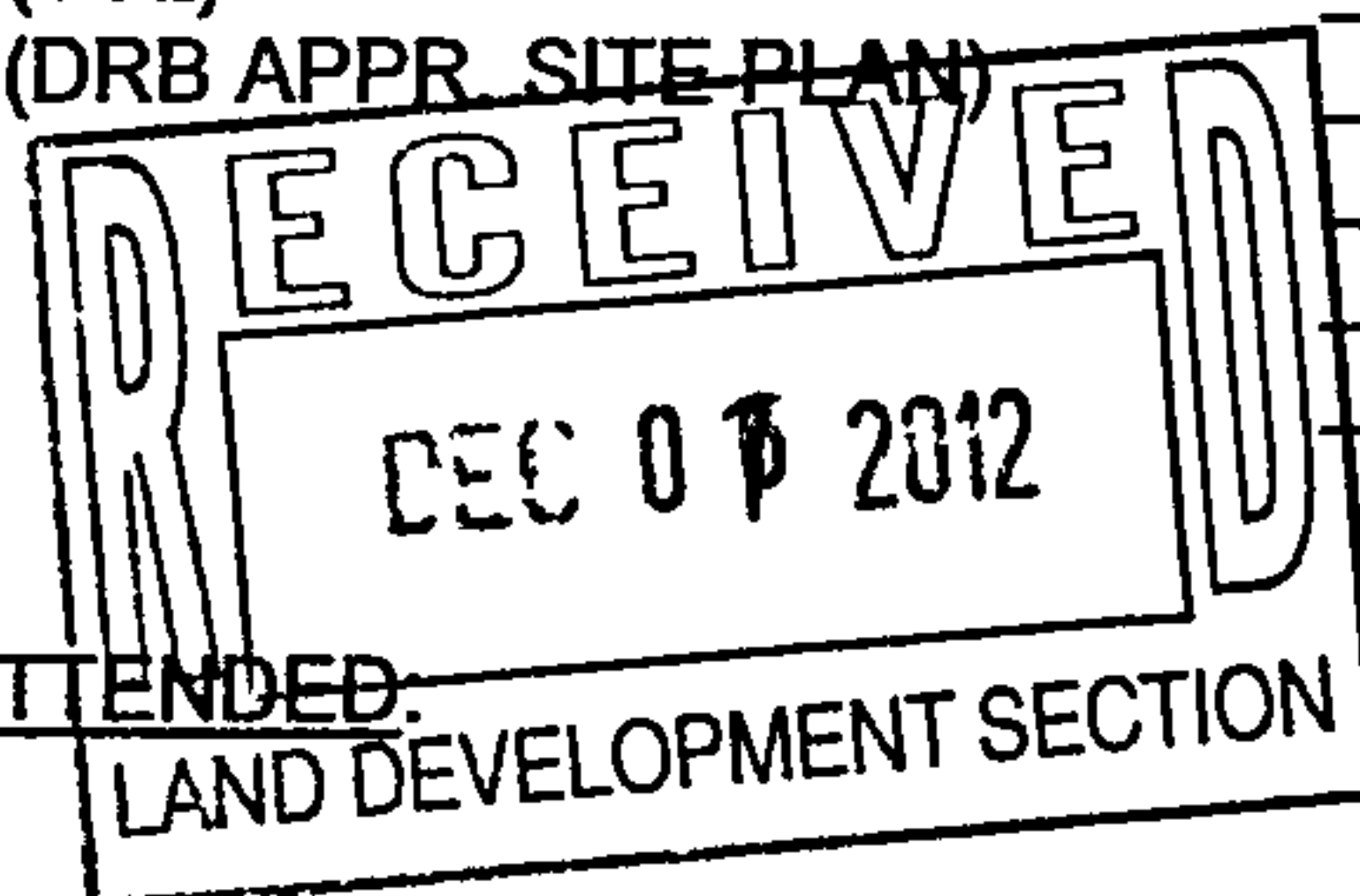
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☒ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR 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.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: December 3, 2012

BY: Michele Mullen



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:

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3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

TRANSMITTAL LETTER

PROJECT: Cornucopia Adult Day Services
2002 Bridge Boulevard SE.
Albuquerque, New Mexico 87105

Project No.: 12-12

Date: December 04, 2012

TO: City of Albuquerque – Transportation Development
Planning Department
Development & Building Services Division
600 2nd Street, NW.
Albuquerque, NM 87102

ATTN: Kristal Metro – Traffic Engineer

CC: File

Phone #: (505) 924-3991

SIGNED: Michele Mullen

WE TRANSMIT:

- ☒ HEREWITH
☐ UNDER SEPARATE COVER
☐ IN ACCORDANCE WITH
YOUR REQUEST

FOR YOUR:

- ☐ APPROVAL
☒ REVIEW AND COMMENT
☐ RECORD
☐ USE

THE FOLLOWING:

- ☐ DRAWINGS
☐ LETTER(S)
☐ SHOP DRAWINGS
☒ OTHER – **TCL Cert. Submittal**

VIA:

- ☐ REGULAR MAIL
☐ FEDERAL EXPRESS
☐ FAX
☒ HAND PICKUP/DELIVERY

COPIES	DATE	DESCRIPTION
<u>1 copy</u>	<u>11/02/2012</u>	<u>TCL -As Build for Permanent Certificate of Occupancy</u>

REMARKS



Mullen Heller Architecture PC

924 Park Avenue SW Suite B Albuquerque NM 87102
505 268 4144 [p] 505 268 4244 [f]

16-14-12

Hydrology wanted to perform a site visit before approving the CO. However, there were no cars available for the site visit.

I was told by the CO clerk that Hydrology was the last section to grant a CO, so I wrote the acceptance letter.

Anta Chen

**CITY OF ALBUQUERQUE
PLANNING DEPARTMENT**

**HYDROLOGY DEVELOPMENT SECTION
DEVELOPMENT REVIEW BOARD MEMO**

DRB PROJECT NO: 1001568

AGENDA ITEM NO: 6

SUBJECT:

Sketch Plat

ENGINEERING COMMENTS:

Proposed lots may have to be larger to accommodate onsite ponding.

A grading and drainage plan is required for preliminary plat approval.

RESOLUTION/COMMENTS:

SIGNED:

Curtis Cherne
Hydrology Section
City Engineer Designee
AMAFCA Designee
924-3986

DATE: 11-14-12

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: Cornucopia Greenhouse : MAP/DRG. FILE # L12/D011
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract 14B-A-1-A-1-A-2, MRGCD Map 42
CITY ADDRESS: 2002 Bridge St. SW

ENGINEERING FIRM: Mark Goodwin & Assoc.
ADDRESS: PO Box 90606
CITY, STATE: Albuquerque, NM

CONTACT: John Mackenzie
PHONE: 828-2200
ZIP CODE: 87199

OWNER: Cornucopia Adult Day Services
ADDRESS: same as site
CITY, STATE: _____

CONTACT: Michele Bishop-Couch
PHONE: _____
ZIP CODE: _____

ARCHITECT: Mullen-Heller
ADDRESS: _____
CITY, STATE: _____

CONTACT: Jeremy Sanchez
PHONE: 268-4144
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. FOR BLDG. PERMIT APPROVAL
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☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY) _____

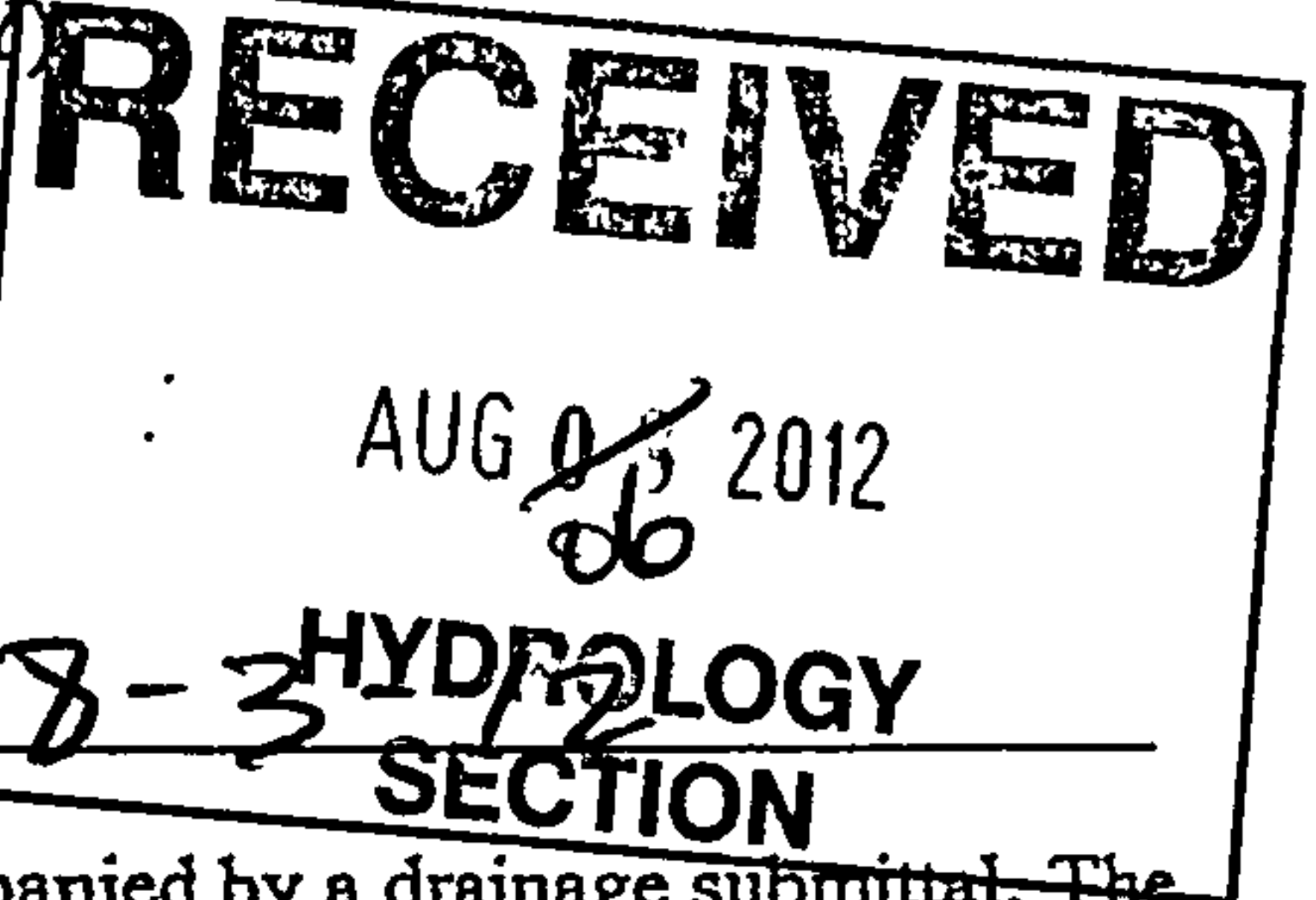
WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
☐ NO
☒ COPY PROVIDED

SUBMITTED BY: John Mackenzie DATE: 8-3-12

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Olson, Greg R.

From: Olson, Greg R.
Sent: Wednesday, August 08, 2012 11:14 AM
To: Mark Goodwin (Mark@goodwinengineers.com)
Cc: John MacKenzie (John@goodwinengineers.com); Olson, Greg R.
Subject: L12/D011 Cornucopia Greenhouse G&D Plan
Attachments: L12D011-ConucopiaGreenhouse-FIRMette-Primo.pdf

Mark,

This client has paid for "FasTrax" permit processing, so I'd like to move it quickly. I understand that John is on Vacation this week, and you are covering for him.

Issues on the current (8/3/12 stamp) project submittal are:

1. Pond volume reported is about 3 times the actual volume of the pond shown.
I've discussed the site with Curtis Cherne, and he feels that we can waive the 2.75 cfs/ac criteria, since the site improvements with the pond (even the smaller volume) is going to be an improvement to the existing condition of sheet flow discharging to the adjacent parcels, south and west of the site.
 - a. Please correct the pond volume calcs.
 - b. Add language to the G&D plan that points out that the pond will mitigate off-site impacts to the adjoining property (similar to last paragraph of John's letter).
2. Note on the grading plan says to fine grade to drain "EAST" but flow arrows point west, toward pond.
3. Erosion Control Notes indicate that the site "**does lie within a 100 year Flood Zone.**"
This site is actually in an area designated "Zone X, protected by a levee," which does not require flood insurance.
The plan should include a copy of the applicable FIRM map area indicating the site location and flood zone.

Please call me at your earliest convenience. I am pat time, so if you miss me at the office, please try my cell.

Thanks,

Greg

924-3994 (cell: 307-0580)

Bernalillo County
Incorporated Areas
350001

1480000 FT

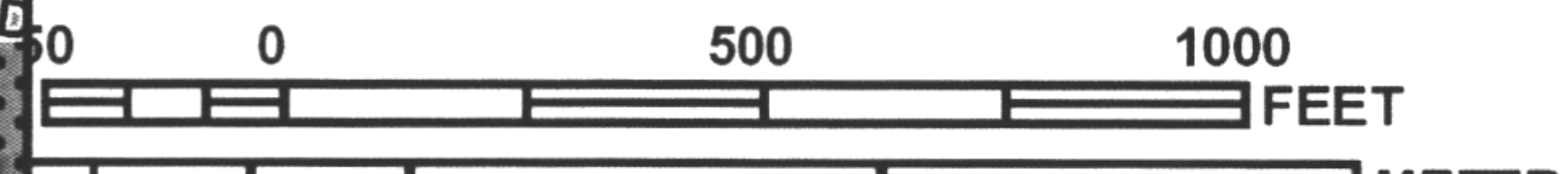
ZONE AH
(EL 4943)

35° 03' 45"
106° 41' 15"

Bernalillo County
Unincorporated Areas
350001



MAP SCALE 1" = 500'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0333G

FIRM

FLOOD INSURANCE RATE MAP
BERNALILLO COUNTY,
NEW MEXICO
AND INCORPORATED AREAS

PANEL 333 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ALBUQUERQUE, CITY OF	350002	0333	G
BERNALILLO COUNTY UNINCORPORATED AREAS	350001	0333	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
35001C0333G

MAP REVISED
SEPTEMBER 26, 2008

Federal Emergency Management Agency

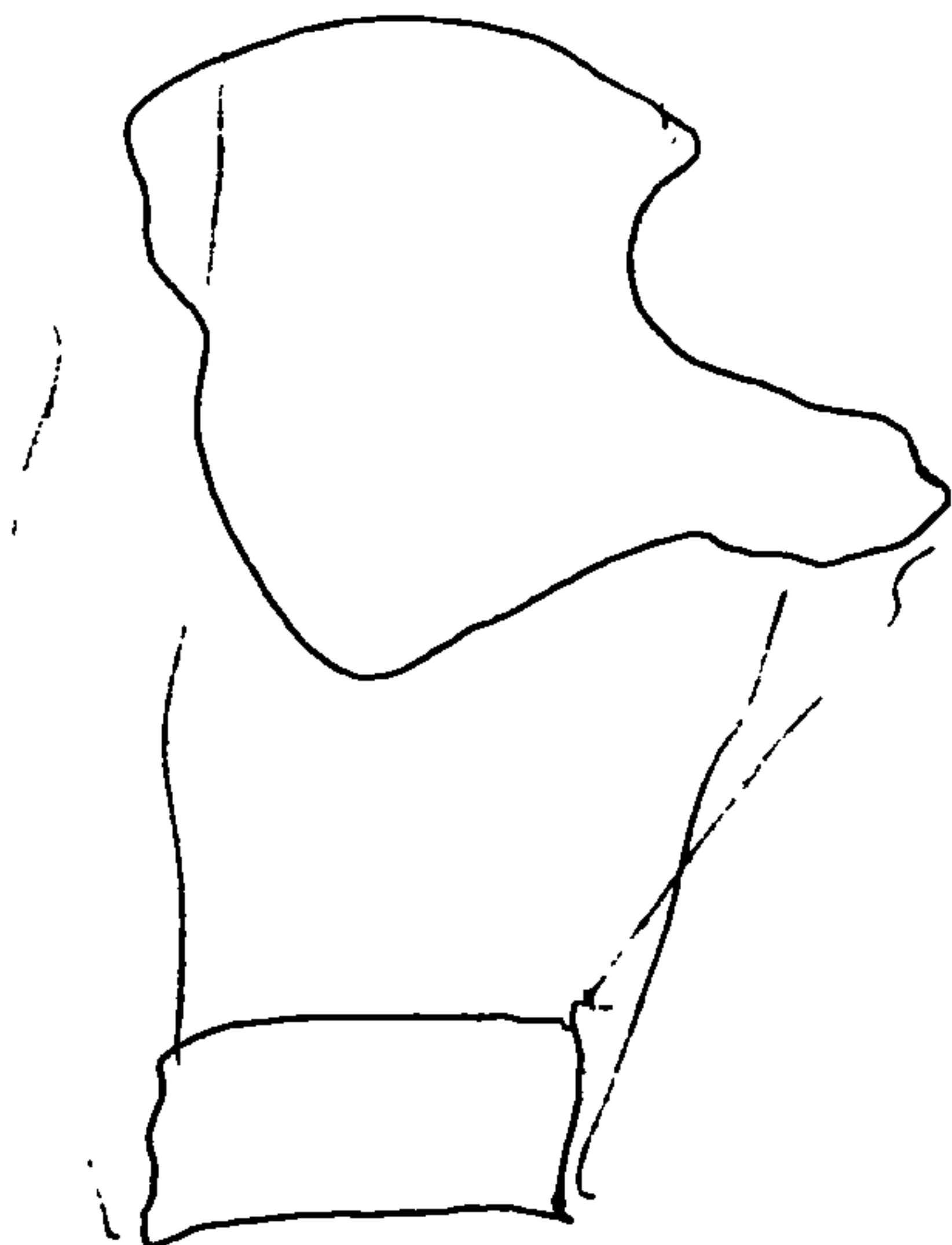
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

CORNUCOPIA POND VOLUME CALCULATION

Area of Bottom (SF)	Area of Top (SF)	Average Area (SF) Pyramid (A1+A2+√A1A2)	Incremental Pond Depth (Ft.)	Incremental Volume (CF)* <i>Div. by 3</i>	Incremental Volume (AF)	Pond Bottom Elevation (E1)	Pond Top Elevation (E2)	Cumulative 100- Yr Volume Provided (AF)
280	456	1093	0.5	546 <i>182</i>	0.0125	4943.5	4944.0	
456	672	1682	0.5	840 <i>280</i>	0.0193	4944.0	4944.5	0.0318

162 CF

Storage Volume=1/3(EL2-EL1)(AREA TOP + AREA BOTTOM + (SQ. RT. AREA 1 x AREA2))





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

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539

~ 2012 ACEC/NM Award Winner for Engineering Excellence ~
~ 2008 ACEC/NM Award Winner for Engineering Excellence ~

August 3, 2012

Mr. Greg Olson, PE
City of Albuquerque Hydrology
PO Box 1293
Albuquerque, NM 87103

Re: Grading and Drainage Plan for Cornucopia Adult Services (L12/D011)

Dear Mr. Olson:

This letter is to brief you on our submittal of the grading and drainage for this site.

As you know from the pre-design meeting held in your office on July 18th, this is a small site (0.84 ac) located on the southwest corner of the intersection of Bridge Blvd. and Pearl Street, within the incorporated area of the South Valley. The area is extremely flat and there are many small localized ponding areas both on and adjacent to the site. The site is currently occupied by an adult day-care facility that has existed there for many years. As you noted in your pre-design memo, the survey of existing conditions appears to indicate that runoff leaves the site via sheet flow off the site's southwest corner after the existing on-site pond capacities are exceeded.

A new greenhouse is to be located in the southwest corner of the property, which is also where most of the related changes to the site are to be made. Improvements consist of a new sidewalk from the existing facility to the greenhouse and a new ponding area proposed south of the greenhouse. The resulting increase of impervious area at the site with these improvements will be 2,148 SF. The balance of the site contains the existing day-care building and surrounding compacted surfaces that were considered to be Treatment "C". Existing impervious area was estimated at 40%, and that increase to 41% with the greenhouse.

AHYMO was used to determine that the site presently generates 3.03 cfs during the 100-year, 6-hour storm. Subsequently, another run was executed to simulate proposed conditions with the greenhouse being added, which increased site discharge to 3.05 cfs.

Allowable discharge for this site is 2.75 cfs per acre, or 2.31 cfs for this 0.84-acre site. The proposed pond designed for the southwest corner of the site will mitigate addition runoff generated by the greenhouse and some of the site's existing runoff. The pond will be depressed 12" into the ground and spill out to historical drainage paths once it's exceeded. Using the

reservoir route function on AHYMO, it was found that the post-development discharge from the pond was 1.99cfs. An attached pond capacity spreadsheet shows the pond will hold about 0.0318 AF, or 1,385 CF at elevation 4944.50, which will be a couple of inches lower than existing grades along the south boundary and the south end of the east boundary of the property.

On the plan proposed grading around the greenhouse will direct the contractor to adjust existing surfaces so that runoff in the southern and southwest portion of the site will drain to the new pond, thus mitigating off-site impacts to adjoining property. ✓

Please contact me if I can be of further assistance.

Sincerely,

MARK GOODWIN & ASSOCIATES, PA



John M. MacKenzie, PE

Senior Engineer

JMM/kb

ema. ted
mark Goodwin 8/9/12

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: 7-18-12

CONFERENCE RECAP

GRADING & DRAINAGE PRE-DESIGN

ZONE ATLAS PAGE No: L-12

DRAINAGE FILE: L12 / D011

ZONING: O-1

DRB:

SUBJECT: Cornucopia Center / Greenhouse addition

STREET ADDRESS (IF KNOWN): 2002 Bridge Blvd. SW (SW Corner of Bridge & Pear)

SUBDIVISION NAME: _____

APPROVAL REQUESTED: **GP for Building Permit**

ATTENDANCE: GREG OLSON (COA), JOHN MACKENZIE (DMG), MICHELE MULLEN (AIA)

FINDINGS:

1. Determine existing runoff conditions and historical discharge points & ponding locations. The topo survey provided seems to show existing sheet flow leaving the site onto private property to the south and west. Michele indicated that the flat, site grading historically ponds on-site and on the dirt shoulder along the east side of Pear Street.
2. Attempt to limit site discharge rates to 2.75 cfs per acre.
3. Also, the new MS4 Permit will require retention of the first 0.47' of rainfall on site.
4. We discussed possible "ponding" locations and minimal grading within the site and around the perimeter of the greenhouse pad. *(provide pad elevation for the Greenhouse)*
5. Due to its location adjacent to Bridge Blvd., we do not have Storm Drain System records for the area. *(Please provide the layout of adjacent public facilities if site runoff will discharge to Bridge Blvd.)*
6. Follow up with Transportation section to confirm any site paving requirements.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: _____
NAME GREG OLSON (505) 924-3994

SIGNED: _____
(PRINT) _____

****NOTE** PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.**

AHYMO PROGRAM (AHYMO_97) -

- Version: 1997.02d

RUN DATE (MON/DAY/YR) = 08/02/2012

START TIME (HR:MIN:SEC) = 14:05:30

USER NO.= AHYMO-I-9702dGoodwinM-AH

INPUT FILE = CORNUCOP.DAT

START TIME=0.0

***** CORNUCOPIA ADULT CARE FACILITY - AUGUST 2012

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=1.95 IN RAIN SIX=2.26 IN

RAIN DAY=2.66 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	.0014	.0028	.0042	.0057	.0072	.0088
.0103	.0119	.0136	.0153	.0170	.0188	.0207
.0226	.0245	.0265	.0286	.0308	.0330	.0353
.0377	.0402	.0427	.0454	.0482	.0512	.0543
.0575	.0610	.0646	.0699	.0757	.0818	.0945
.1236	.1686	.2332	.3215	.4377	.5859	.7706
.9962	1.2127	1.3015	1.3763	1.4427	1.5030	1.5586
1.6102	1.6584	1.7035	1.7460	1.7861	1.8240	1.8598
1.8938	1.9260	1.9565	1.9856	2.0131	2.0204	2.0261
2.0316	2.0367	2.0417	2.0464	2.0509	2.0552	2.0594
2.0634	2.0673	2.0711	2.0748	2.0783	2.0818	2.0851
2.0884	2.0916	2.0947	2.0977	2.1006	2.1035	2.1063
2.1091	2.1118	2.1145	2.1171	2.1196	2.1221	2.1246
2.1270	2.1293	2.1317	2.1340	2.1362	2.1384	2.1406
2.1428	2.1449	2.1470	2.1490	2.1511	2.1531	2.1550
2.1570	2.1589	2.1608	2.1627	2.1645	2.1663	2.1682
2.1699	2.1717	2.1734	2.1752	2.1769	2.1785	2.1802
2.1819	2.1835	2.1851	2.1867	2.1883	2.1898	2.1914
2.1929	2.1944	2.1960	2.1974	2.1989	2.2004	2.2018
2.2033	2.2047	2.2061	2.2075	2.2089	2.2103	2.2116
2.2130	2.2143	2.2157	2.2170	2.2183	2.2196	2.2209
2.2222	2.2234	2.2247	2.2259	2.2272	2.2284	2.2297
2.2309	2.2321	2.2333	2.2345	2.2356	2.2368	2.2380
2.2391	2.2403	2.2414	2.2426	2.2437	2.2448	2.2459
2.2470	2.2481	2.2492	2.2503	2.2514	2.2525	2.2535
2.2546	2.2557	2.2567	2.2577	2.2588	2.2598	

***** -----

***** DETERMINE RUNOFF W/EXISTING CONDITIONS ON 0.84 ACRE SITE

***** SITE CONSISTS OF EXISTING BUILDING, CANOPIES & PAVEMENT

***** ESTIMATED 40% IMPERVIOUS (0.34 AC) & 60% TYPE C (0.5 AC)

COMPUTE NM HYD ID=1 HYD NO=100.1 AREA=0.0013 SQ MI

PER A=0 PER B=0 PER C=60 PER D=40

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
CONSTANT, N = 7.106420

UNIT PEAK = 2.0530 CFS UNIT VOLUME = .9941 B = 526.28
P60 = 1.9500

AREA = .000520 SQ MI IA = .10000 INCHES INF = .04000 INCHES
PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033300

K = .106769HR TP = .133300HR K/TP RATIO = .800969 SHAPE
CONSTANT, N = 4.472154

UNIT PEAK = 2.2558 CFS UNIT VOLUME = .9945 B = 385.50
P60 = 1.9500

AREA = .000780 SQ MI IA = .35000 INCHES INF = .83000 INCHES
PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD

ID=1 CODE=24

PARTIAL HYDROGRAPH 100.10

TIME	TIME	FLOW	TIME	FLOW	TIME	FLOW
	FLOW		FLOW			
HRS	HRS	CFS	HRS	CFS	HRS	CFS
	CFS		CFS			
	.000	.0	1.332	.6	2.664	.0
3.996	.0	5.328	.0			
	.666	.0	1.998	.6	3.330	.0
4.662	.0	5.994	.0			

RUNOFF VOLUME = 1.44765 INCHES = .1004 ACRE-FEET
PEAK DISCHARGE RATE = 3.03 CFS AT 1.499 HOURS BASIN AREA = .0013 SQ. MI.

***** PROPOSED ON-SITE CONDITIONS W/ NEW GREENHOUSE & SIDEWALK
***** INCREASE IN IMPERVIOUS AREA IS 2,196 SF (0.05 AC)
COMPUTE NM HYD ID=2 HYD NO=100.2 AREA=0.0013 SQ MI
PER A=0 PER B=0 PER C=59 PER D=41
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
CONSTANT, N = 7.106420
UNIT PEAK = 2.1043 CFS UNIT VOLUME = .9941 B = 526.28
P60 = 1.9500
AREA = .000533 SQ MI IA = .10000 INCHES INF = .04000 INCHES
PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033300
K = .106769HR TP = .133300HR K/TP RATIO = .800969 SHAPE
CONSTANT, N = 4.472154
UNIT PEAK = 2.2182 CFS UNIT VOLUME = .9945 B = 385.50
P60 = 1.9500
AREA = .000767 SQ MI IA = .35000 INCHES INF = .83000 INCHES
PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.033300

PRINT HYD

ID=2 CODE=24

PARTIAL HYDROGRAPH 100.20

TIME	TIME	FLOW	TIME	FLOW	TIME	FLOW
	FLOW		FLOW			
HRS	HRS	CFS	HRS	CFS	HRS	CFS
	CFS		CFS			
	.000	.0	1.332	.6	2.664	.0
3.996	.0	5.328	.0			
	.666	.0	1.998	.6	3.330	.0
4.662	.0	5.994	.0			

RUNOFF VOLUME = 1.45729 INCHES = .1010 ACRE-FEET
PEAK DISCHARGE RATE = 3.05 CFS AT 1.499 HOURS BASIN AREA = .0013 SQ. MI.

***** ROUTE RUNOFF THRU NEW ON-SITE PONDING AREA
ROUTE RESERVOIR ID=3 HYD NO=101.1 INFLOW ID=2 CODE=24
OUTFLOW(CFS) STORAGE(AC FT) ELEV(FT)
0.0 0.0 43.5
0.01 0.013 44.0
0.02 0.032 44.5
3.800 0.050 45.0

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	43.50	.000	.00
.80	.00	43.50	.000	.00
1.60	2.21	44.76	.041	1.95
2.40	.10	44.51	.033	.13
3.20	.01	44.50	.032	.02
4.00	.01	44.48	.031	.02
4.80	.01	44.46	.030	.02
5.59	.01	44.44	.030	.02
6.39	.00	44.42	.029	.02
7.19	.00	44.39	.028	.02
7.99	.00	44.36	.027	.02
8.79	.00	44.33	.026	.02
9.59	.00	44.30	.024	.02
10.39	.00	44.27	.023	.02
11.19	.00	44.25	.022	.01
11.99	.00	44.22	.021	.01
12.79	.00	44.20	.020	.01
13.59	.00	44.17	.020	.01
14.39	.00	44.15	.019	.01
15.18	.00	44.13	.018	.01
15.98	.00	44.11	.017	.01
16.78	.00	44.09	.016	.01
17.58	.00	44.07	.015	.01
18.38	.00	44.05	.015	.01
19.18	.00	44.03	.014	.01

PEAK DISCHARGE = 1.990 CFS - PEAK OCCURS AT HOUR 1.63
 MAXIMUM WATER SURFACE ELEVATION = 44.761
 MAXIMUM STORAGE = .0414 AC-FT INCREMENTAL TIME= .033300HRS

PRINT HYD ID=3 CODE=24

PARTIAL HYDROGRAPH 101.10

TIME	TIME	FLOW	TIME	FLOW	TIME	FLOW
HRS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	.0	3.996	.0	7.992	.0
11.988	.0	15.984	.0	.0	8.658	.0
.666	.0	16.650	.0	.0	9.324	.0
12.654	.0	17.316	.0	.0	9.990	.0
1.332	.0	17.982	.0	.0	10.656	.0
13.320	.0	18.648	.0	.0	11.322	.0
1.998	.7	19.314	.0	.0		
13.986	.0					
2.664	.1					
14.652	.0					
3.330	.0					
15.318	.0					

RUNOFF VOLUME = 1.26412 INCHES = .0876 ACRE-FEET
 PEAK DISCHARGE RATE = 1.99 CFS AT 1.632 HOURS BASIN AREA = .0013
 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 14:05:30

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development & Building Services



August 10, 2012

Mark Goodwin, P.E.
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, New Mexico 87199

Re: Cornucopia Center / Greenhouse–Grading & Drainage Plan (L12-D011)
2002 Bridge Blvd. SW P.E. Stamp dated: 8-8-12

Dear Mr. ^{Mark} Goodman,

Based upon the information provided in your submittal received August 8, 2012, the subject Grading and Drainage Plan is approved for Grading Permit and Building Permit. 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 of compliance with this Grading and Drainage plan is required per the DPM.

Albuquerque's MS4 Permit became effective March 1st, 2012. Grading and Drainage Plans and Drainage Reports will have to comply with the requirements of the new permit (<http://www.cabq.gov/planning/landcoord/documents/EPA-NMS000101-FinalPermit.pdf>)

If you have any questions, you may contact me by email at grolson@cabq.gov, or telephone 505-924-3994.

Sincerely,

 8/10/12

Gregory R. Olson, P.E.
Senior Engineer

Orig: Drainage file L12/D011
c.pdf Addressee via Email Mark@GoodwinEngineers.com
Mike@MullinHeller.com

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: Cornucopia Greenhouse _____ ZONE MAP/DRG. FILE # L12/0011
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract 14 B - A-1-A-1-, MRGCD Map 42
CITY ADDRESS: 2200 Bridge Street, SW Albuquerque, NM 87105

ENGINEERING FIRM: Mark Goodwin & Associates, PA
ADDRESS: PO BOX 90606
CITY, STATE: Albuquerque, NM

CONTACT: John MacKenzie
PHONE: (505) 828-2200
ZIP CODE: 87111

OWNER: Cornucopia Adult Day Services
ADDRESS: 2200 Bridge Street, SW
CITY, STATE: Albuquerque, NM

CONTACT: Michele Bishop-Couch
PHONE: (505) 877-1310
ZIP CODE: 87105

ARCHITECT: Mullen-Heller
ADDRESS: 924 Park Ave.
CITY, STATE: Albuquerque, NM

CONTACT: Jeremy Sanchez
PHONE: (505) 268-4144
ZIP CODE: 87102

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT (DRB SITE PLAN)
☐ OTHER

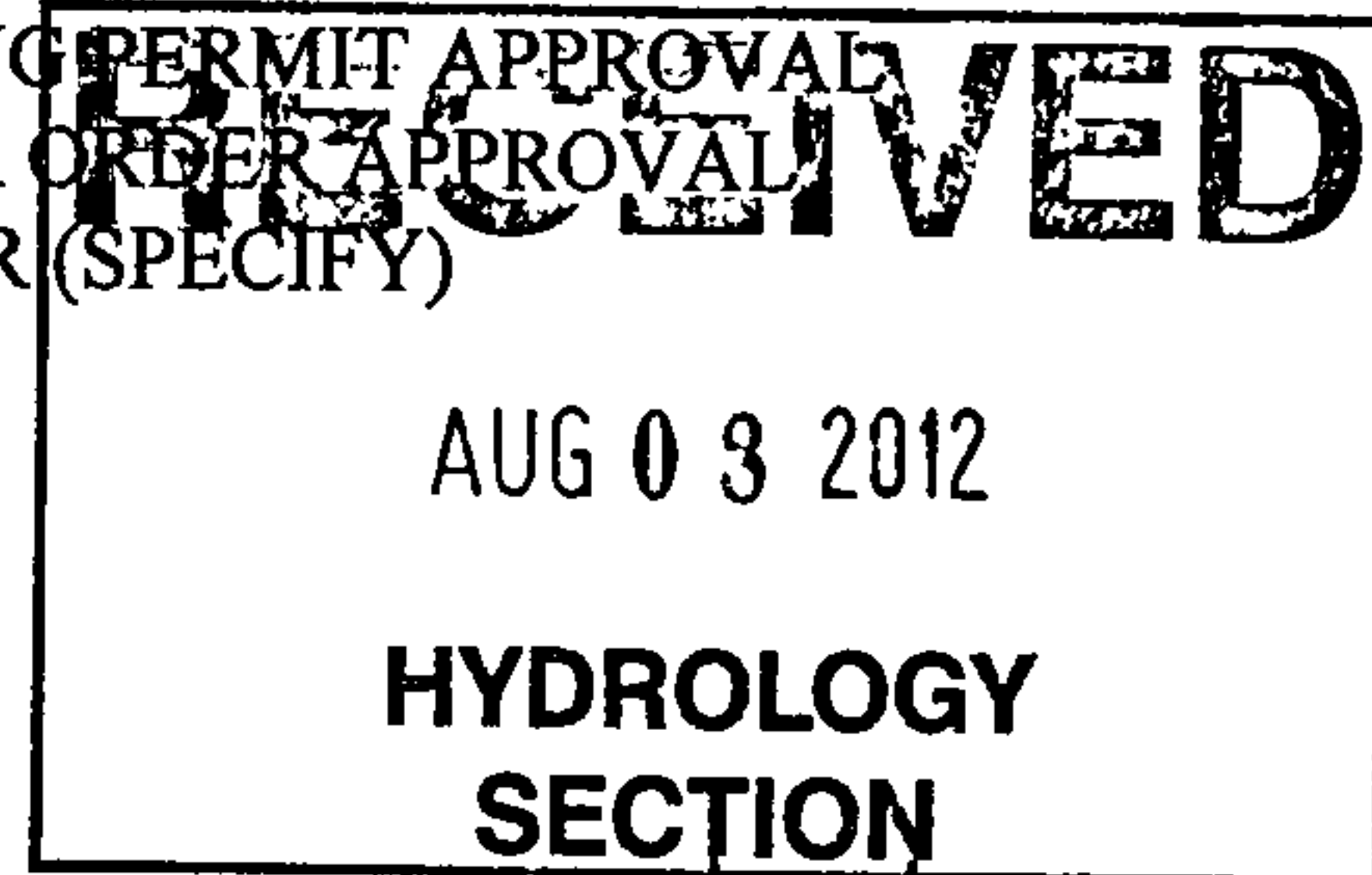
CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☒ YES
☐ NO
☒ COPY PROVIDED

SUBMITTED BY: Mark Goodwin DATE: 8/8/12



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



July 20, 2012

Michele Mullen, R.A.
Mullen Heller Architecture P.C.
924 Park Avenue SW. Suite B
Albuquerque, NM 87102

Re: Cornucopia Greenhouse, 2002 Bridge Blvd SW, Traffic Circulation Layout
Architect's Stamp dated 07-20-12 (L12-D011)

Dear Ms. Mullen,

The TCL submittal received 07-20-12 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation. **Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.**

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. Submit this TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

C: File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov