CITY OF ALBUQUERQUE

August 19, 2010

David Soule, PE
Rio Grande Engineering
PO Box 67305
Albuquerque, NM 87122

Re: Yearwood Bldg Grading and Drainage Plan
Engineer's Stamp dated 8-13-10(K20-D58)

Dear Mr. Soule,

Based upon the information provided in your submittal dated 8-13-10, the above referenced plan is approved for Building Permit. Please include a copy of this plan in the permit sets prior to signoff by Hydrology.

Please submit an Engineering Certification of this plan in order to obtain a Certificate of Occupancy.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: file

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 01/28/2003rd)

PROJECT TITLE: ***Yearwood-341 Eubank NE*** ZONE MAP/DRG. FILE #: K20 / D058

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: ***Lot 5A, Atrisco grant northease***

CITY ADDRESS: ***341 Eubankd***

ENGINEERING FIRM:	Rio Grande Engineering	CONTACT:	David Soule, PE
ADDRESS:	PO Box 67305	PHONE:	(505)321-9099
CITY, STATE:	Alb	ZIP CODE:	87122
OWNER:	Jim Costa	CONTACT:	
ADDRESS:	341 Eubank NE	PHONE:	
CITY, STATE:	alb	ZIP CODE:	
ARCHITECT:	Rober Raynor	CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
SURVEYOR:	Geo Survco	CONTACT:	John Gallegos
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ___ DRAINAGE PLAN RESUBMITTAL
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- x 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 / FINANACIAL 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
- x 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
- x NO
- ___ COPY PROVIDED

HYDROLOGY SECTION
AUG 13 2010
RECEIVED

DATE SUBMITTED: 5/28/2010 BY: David Soule

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 sumbittal may be required based on the following:

1. **Conceptual Grading and Drainage Plans:** 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.

RIO GRANDE ENGINEERING OF NEW MEXICO, LLC

August 13, 2010

Mr. Bradley Bingham, PE
City Hydrologist
Planning Department
City of Albuquerque

RE: Grading and Drainage Plan
Yearwood(K20-D058)

Dear Bradley:

The purpose of this letter is to accompany the enclosed grading plan for the referenced project.

This plan has been modified to address your written comments dated June 4, 2010. The following is a summary of your comments with the annotation as to how the plans were modified to address the comments:

1. The new roof needs to drain into the parking lot then to the alley.

   The pitch on the roof is the same as existing. The existing gutter system will have downspouts at the corners of the building; therefore they will discharge to the site then flow into the alley.

2. Is there a new landscape area at the northeast corner?

   No, it is an existing one, no work will be performed in this area.

Should you have any questions regarding this resubmittal, please do not hesitate to call me.

Sincerely,

David Soule, PE

Enclosures

CITY OF ALBUQUERQUE

June 4, 2010

David Soule, P.E.
Rio Grande Engineering
PO Box 67305
Albuquerque, NM 87199

Re: Yearwood, 341 Eubank NE
Grading and Drainage Plan
Engineer's Stamp dated 05-26-10 (K20-D058)

Dear Mr. Soule,

Based upon the information provided in your submittal received 05-28-10, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. The new roof needs to drain into the parking lot, then to the alley.
2. Is there a new landscape area in the NE corner.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE, CFM.
City Hydrologist Planning Department.
Development and Building Services

C: File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

August 13, 2010

John H. Kirkpatrick, R.A.
PO Box 1743
Los Lunas, NM 87031

Re: Yearwood Performance, 341 Eubank Blvd NE, Traffic Circulation Layout
Architect's Stamp dated 08-13-10 (K20-D058)

Dear Mr. Kirkpatrick,

The TCL submittal received 08-13-10 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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: YEARWOOD PERFORMANCE ZONE MAP: K20/D058
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: L 24 REPLAT OF PORTION OF LOTS 13 & 14
CITY ADDRESS: 341 EUBANK NE BLOCK 24, ORTEGA VENTURA SUBD.
UPC. 102005752818942512

ENGINEERING FIRM: RIO GRANDE ENGINEERING CONTACT: DAVID S.
ADDRESS: 1606 CENTRAL AVE. SE Ste-B PHONE: 872-0999
CITY, STATE: ALBUQ. NM. ZIP CODE: 87106

OWNER: EBS ENTERPRISES INC. CONTACT: JIM COSTA
ADDRESS: P.O. BOX 30988 PHONE: 293-9190
CITY, STATE: ALBUQ. NM ZIP CODE: 87190

ARCHITECT: JOHN KIRKPATRICK CONTACT: Robert R.
ADDRESS: P.O. BOX 1743 PHONE: 321-3932
CITY, STATE: LOS LUNAS, NM. ZIP CODE: 87031

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

CONTRACTOR: COLLAT2 INC. CONTACT: ARLEN. C.
ADDRESS: P.O. BOX. 2010 PHONE: 898-6358
CITY, STATE: CORRALES, NM. ZIP CODE: 87048

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
- X TRAFFIC CIRCULATION LAYOUT
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ 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
- _____ SECTOR PLAN APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TEMP)
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ OTHER (SPECIFY)

RECEIVED
AUG 09 2010
HYDROLOGY SECTION

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

DATE SUBMITTED: 8/9/10 BY: _____

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 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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

* PLEASE CALL Robert RAYNER @ JOHN. K. office
321-3932 AFTER REVIEW.

CITY OF ALBUQUERQUE

June 4, 2010

David Soule, P.E.
Rio Grande Engineering
PO Box 67305
Albuquerque, NM 87199

Re: Yearwood, 341 Eubank NE
Grading and Drainage Plan
Engineer's Stamp dated 05-26-10 (K20-D058)

Dear Mr. Soule,

Based upon the information provided in your submittal received 05-28-10, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. The new roof needs to drain into the parking lot, then to the alley.
2. Is there a new landscape area in the NE corner.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE, CFM.
City Hydrologist Planning Department.
Development and Building Services

C: File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 01/28/2003rd)

PROJECT TITLE: *Yearwood-341 Eubank NE*
DRB #: _____ EPC #: _____
ZONE MAP/DRG. FILE #: K20/D058
WORK ORDER #: _____

LEGAL DESCRIPTION: *Lot 5A, Atrisco grant northease*
CITY ADDRESS: *341 Eubank NE*

ENGINEERING FIRM: Rio Grande Engineering — CONTACT: David Soule, PE
ADDRESS: PO Box 67305 — PHONE: (505)321-9099
CITY, STATE: Alb — ZIP CODE: 87122

OWNER: Jim Costa — CONTACT: _____
ADDRESS: 341 Eubank NE — PHONE: _____
CITY, STATE: alb — ZIP CODE: _____

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

SURVEYOR: Geo Survco — CONTACT: John Gallegos
ADDRESS: _____ — PHONE: _____
CITY, STATE: _____ — ZIP CODE: _____

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

CHECK TYPE OF SUBMITTAL:

- x DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL GRADING & DRAINAGE PLAN
- x GRADING PLAN
- _____ EROSION CONTROL PLAN
- _____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ ENGINEERS CERTIFICATION (TCL)
- _____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
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- _____ FOUNDATION PERMIT APPROVAL
- x BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM.)
- _____ CERTIFICATE OF OCCUPANCY (TEMP.)
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ OTHER (SPECIFY)

RECEIVED
MAY 28 2010
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- _____ YES
- x NO
- _____ COPY PROVIDED

$50.00

DATE SUBMITTED: 5/28/2010 BY: David Soule

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a dranage submittal.
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3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

DRAINAGE REPORT

For

Yearwood
341 Eubank Boulevard NE

Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 67305
Albuquerque, New Mexico 87193

May 2010

David Soule P.E. No. 14522

TABLE OF CONTENTS

PURPOSE

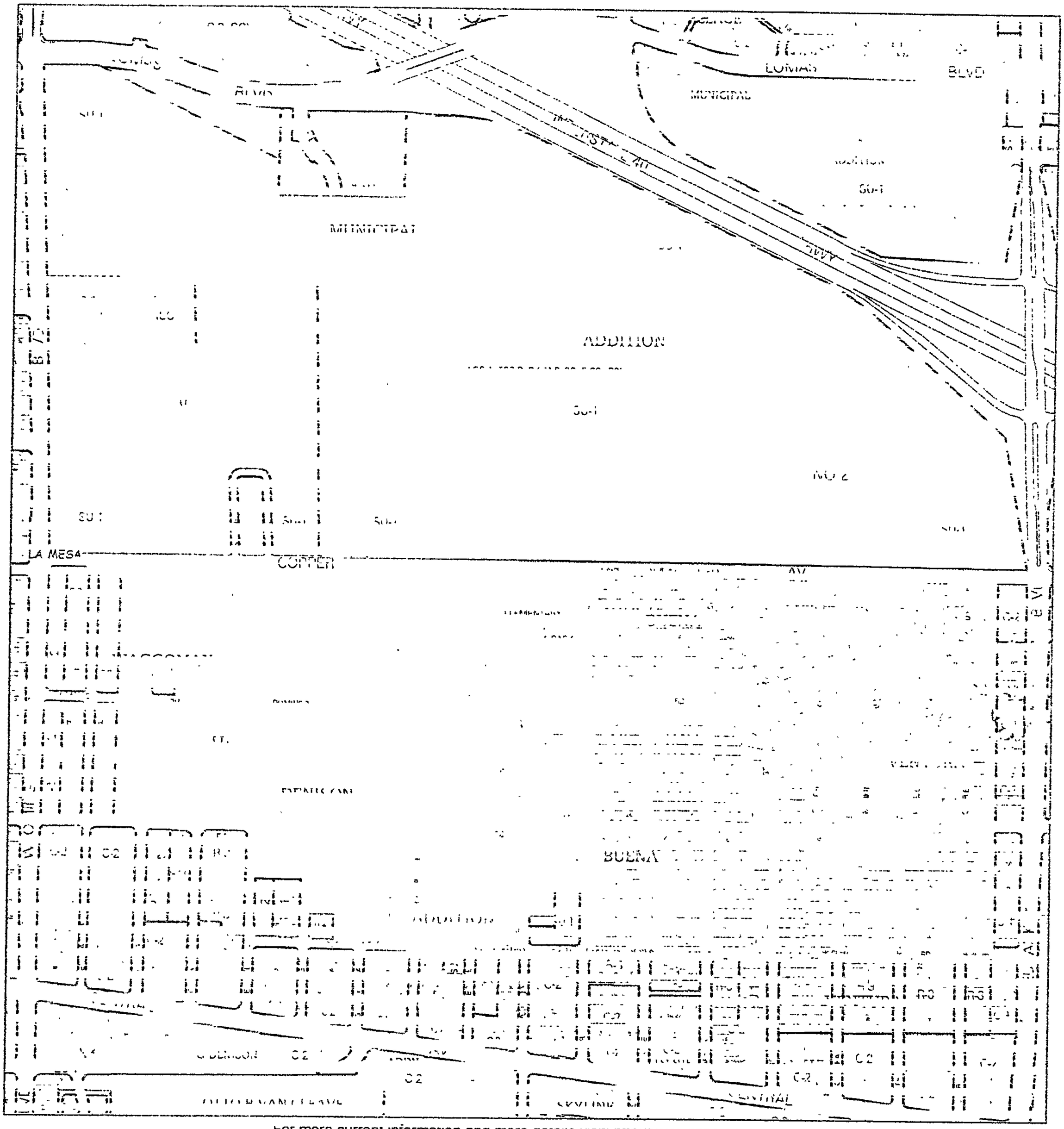
The purpose of this report is to provide the Drainage Management Plan for an approximately 1,600 square foot addition to an existing building located at 341 Eubank NE. This site is on the west side of Eubank just south of Copper. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A, is a .55-acre parcel of land located on the west side of Eubank just south of Copper in north east Albuquerque. The legal description of this site is lot A5A, Atrisco grant northeast. As shown on FIRM map35013C0358F, the entire property is located within Flood Zone X. This site is currently developed with a 6,000 square foot building and parking lot. The site is surrounded by fully developed free discharging parcels. Based on the site location and the adjacent drainage infrastructure this development should continue to drain to the public alley adjacent to the site on the west and match existing conditions as closely as possible.

EXISTING CONDITIONS

The site is currently developed. Based upon the original drainage plan on file, prepared in the 1970's, this site had a retention pond located adjacent to the Alley, west of the existing building. At the time of survey and site inspection this pond did not exist. At the time of this analysis the site discharges 2.35 cfs to the alley at the properties mid point of its western boundary. The site is not impacted by any offsite flows, and is surrounded by developed properties that free discharge to the existing public Alley. The discharge leaves the site and drains to the north draining to the Copper roadway. There appears to be ponding within low spots of the alley. But the general grades allow the flow to convey all the way to Copper.


LOMAS
BLVD
MUNICIPAL
ADDITION
LA MESA
CORTLAND
BUENA
For more current information and more details visit: http://www.cabq.gov/gis
Albuquerque Geographic Information System
Zone Atlas Page:
Selected Symbols
SECTOR PLANS
Design Overlay Zones
City Historic Zones
H-1 Buffer Zone
2 Mile Airport Zone
Airport Noise Contours
Wall Overlay Zone

PROPOSED CONDITIONS

The proposed improvements consist of a 1,600 square addition to an existing 6000 sf building. In addition to the building a landscape area and additional parking is being constructed. The site will be graded such that the entire site will discharge directly to the alley. The existing parking lot will remain and extended to the alley. A concrete valley gutter is being added due to the minimal slope available. The landscape areas will act as a water harvesting pond and retain all waters that fall on it. As shown in appendix A, the site will discharge 2.39 cfs to the alley and the harvesting pond will hold the entire 100-year, 10-day volume of 128 cubic feet. Minor grading within the alley is being proposed to re-establish the inverted crown and assure positive flow to the north.

SUMMARY AND RECOMMENDATIONS

This project is an addition to an existing building within a completely developed area of northeast Albuquerque. The site currently discharges 2.35 cfs to the alley. The proposed drainage plan will continue this existing pattern, while increasing the flow by .04 cfs. The landscape areas will be used to harvest the storm water that falls within them. The proposed increase is minimal and shall be mitigated by improving the flow line within the earthen alley and will not have an impact on existing drainage patterns. The surrounding properties free discharge in the same patterns as proposed in this report. The work area encompasses less than 1/2 acre, a NPDES permit / SWPPP should not be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY

Weighted E Method

Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr.			10-day
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)
EXISTING	23766.00	0.546	0%	0	10%	0.055	10%	0.05456	80%	0.436	1.887	0.086	2.35	0.144
PROPOSED	22826.00	0.524	0%	0	4%	0.021	3%	0.01572	93%	0.487	2.037	0.089	2.39	0.154
LS POND	940.00	0.022	0%	0	50%	0.011	50%	0.01079	0%	0.000	1.625	0.003	0.08	0.003
Increase	0.00	0.00											0.04	0.14

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm

Ea= 0.53 Qa= 1.56
Eb= 0.78 Qb= 2.28
Ec= 1.13 Qc= 3.14
Ed= 2.12 Qd= 4.7

Existing Condition
DISCHARGE TO ALLEY 2.35 cfs

Developed Conditons
SITE DISCHARGE TO ALLEY 2.39 cfs

Change 0.04 cfs Increase

Pond calculations
depressed landscape 128 cubic feet

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

Eubank / Copper

DATE: ~ 5-25-10

CONFERENCE RECAP

ZONE ATLAS PAGE NO: K20 / D058
DRAINAGE FILE: _____ 341 Eubank NE
ZONING:
DRB:
SUBJECT: Yearwood Split & Custom bldg addition
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: _____

APPROVAL REQUESTED:

ATTENDANCE: _____

FINDINGS:

ponding not required.
discharge roof flows near north property line
so flow is on other side of apparent
low spot in alley.

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 (PRINT): Curtis A. Cherne

SIGNED:
NAME (PRINT):

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

DRAINAGE REPORT

For

Yearwood

341 Eubank Boulevard NE

Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 67305
Albuquerque, New Mexico 87193

May 2010

David Soule P.E. No. 14522

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PURPOSE

The purpose of this report is to provide the Drainage Management Plan for an approximately 1,600 square foot addition to an existing building located at 341 Eubank NE. This site is on the west side of Eubank just south of Copper. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

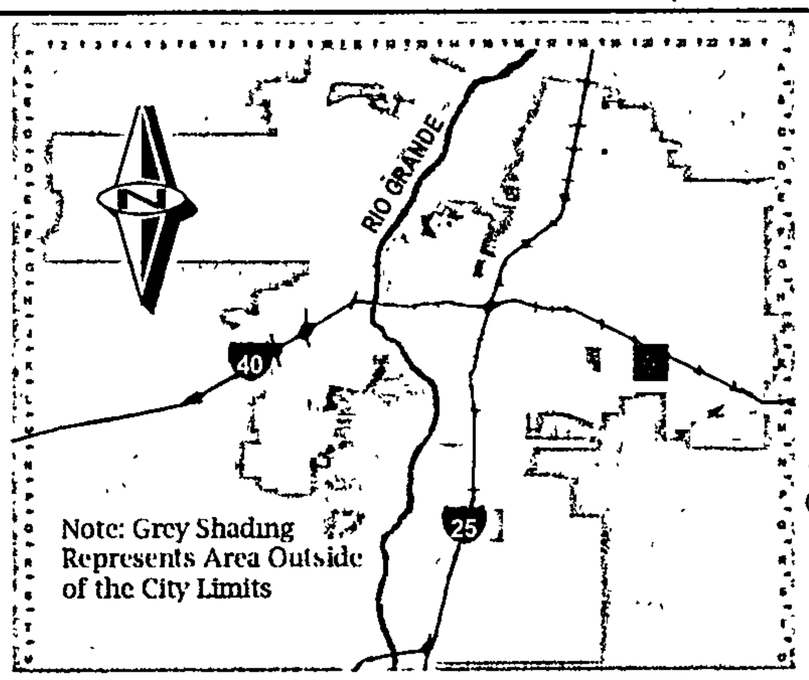
The subject of this report, as shown on the Exhibit A, is a .55-acre parcel of land located on the west side of Eubank just south of Copper in north east Albuquerque. The legal description of this site is lot A5A, Atrisco grant northeast. As shown on FIRM map35013C0358F, the entire property is located within Flood Zone X. This site is currently developed with a 6,000 square foot building and parking lot. The site is surrounded by fully developed free discharging parcels. Based on the site location and the adjacent drainage infrastructure this development should continue to drain to the public alley adjacent to the site on the west and match existing conditions as closely as possible.

EXISTING CONDITIONS

The site is currently developed. Based upon the original drainage plan on file, prepared in the 1970's, this site had a retention pond located adjacent to the Alley, west of the existing building. At the time of survey and site inspection this pond did not exist. At the time of this analysis the site discharges 2.35 cfs to the alley at the properties mid point of its western boundary. The site is not impacted by any offsite flows, and is surrounded by developed properties that free discharge to the existing public Alley. The discharge leaves the site and drains to the north draining to the Copper roadway. There appears to be ponding within low spots of the alley. But the general grades allow the flow to convey all the way to Copper.

Albuquerque Geographic Information System

Map amended through: 2/4/2010



Zone Atlas Page:

K-20-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

PROPOSED CONDITIONS

The proposed improvements consist of a 1,600 square addition to an existing 6000 sf building. In addition to the building a landscape area and additional parking is being constructed. The site will be graded such that the entire site will discharge directly to the alley. The existing parking lot will remain and extended to the alley. A concrete valley gutter is being added due to the minimal slope available. The landscape areas will act as a water harvesting pond and retain all waters that fall on it. As shown in appendix A, the site will discharge 2.39 cfs to the alley and the harvesting pond will hold the entire 100-year, 10-day volume of 128 cubic feet. Minor grading within the alley is being proposed to re-establish the inverted crown and assure positive flow to the north.

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This project is an addition to an existing building within a completely developed area of northeast Albuquerque. The site currently discharges 2.35 cfs to the alley. The proposed drainage plan will continue this existing pattern, while increasing the flow by .04 cfs. The landscape areas will be used to harvest the storm water that falls within them. The proposed increase is minimal and shall be mitigated by improving the flow line within the earthen alley and will not have an impact on existing drainage patterns. The surrounding properties free discharge in the same patterns as proposed in this report. The work area encompasses less than 1/2 acre, a NPDES permit / SWPPP should not be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY

Weighted E Method

Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr.			10-day
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Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

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Ea= 0.53	Qa= 1.56
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Existing Condition

DISCHARGE TO ALLEY 2.35 cfs

Developed Conditons

SITE DISCHARGE TO ALLEY 2.39 cfs

Change 0.04 cfs Increase

Pond calculations

depressed landscape 128 cubic feet