

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



Richard J. Berry, Mayor

July 7, 2016

Mr. Richard Dourte
RHD Engineering LLC
4305 Purple Sage Ave. NW
Albuquerque, NM, 87120

RE: **Copper Ave Townhomes
Grading & Drainage Plan
Engineer's Stamp Date 5-26-16 (File:K17D111)**

Dear Mr. Dourte:

Based upon the information provided in your submittal received 5-26-2016, the above referenced Grading and Drainage Plan is conceptually approved for Development Review Board action for Platting action (lot line adjustments).

PO Box 1293

Please be aware that the approval for Grading/Building Permit will require a separate submittal with the additional detail that would be expected on a construction grading plan.

Albuquerque

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

New Mexico 87103

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

www.cabq.gov

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Copper Ave...Townhouse Condos Building Permit #: _____ City Drainage #: _____
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Lots 11,12,13 College View Business Addn
City Address: 3821 Copper Ave. NE

Engineering Firm: RHD Engineering, LLC Contact: Richard Dourte
Address: 4305 Purple Sage Ave. NW Alb. NM, 87120
Phone#: 505-288-1621 Fax#: _____ E-mail: rhdenengineering@outlook.com

Owner: Rahim Kassam Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: rahim.kassam@gmail.com

Architect: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: The Survey Office Contact: Gary Maple
Address: 333 Lomas NE, Alb. NM 87102
Phone#: 505-998-0303 Fax#: _____ E-mail: maple@thesurveyoffice.com

Contractor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☐ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE 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
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED: ☒ Yes ☐ No ☒ Copy Provided reference the report
DATE SUBMITTED: _____ 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
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Drainage Report

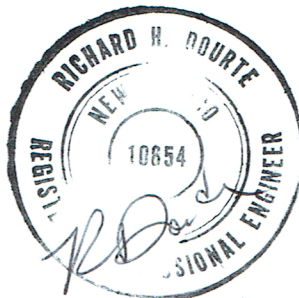
For

Copper Ave. Town Houses
Albuquerque, New Mexico

Prepared by

RHD Engineering, LLC
Albuquerque, New Mexico

May 2016



5-26-16

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Introduction:

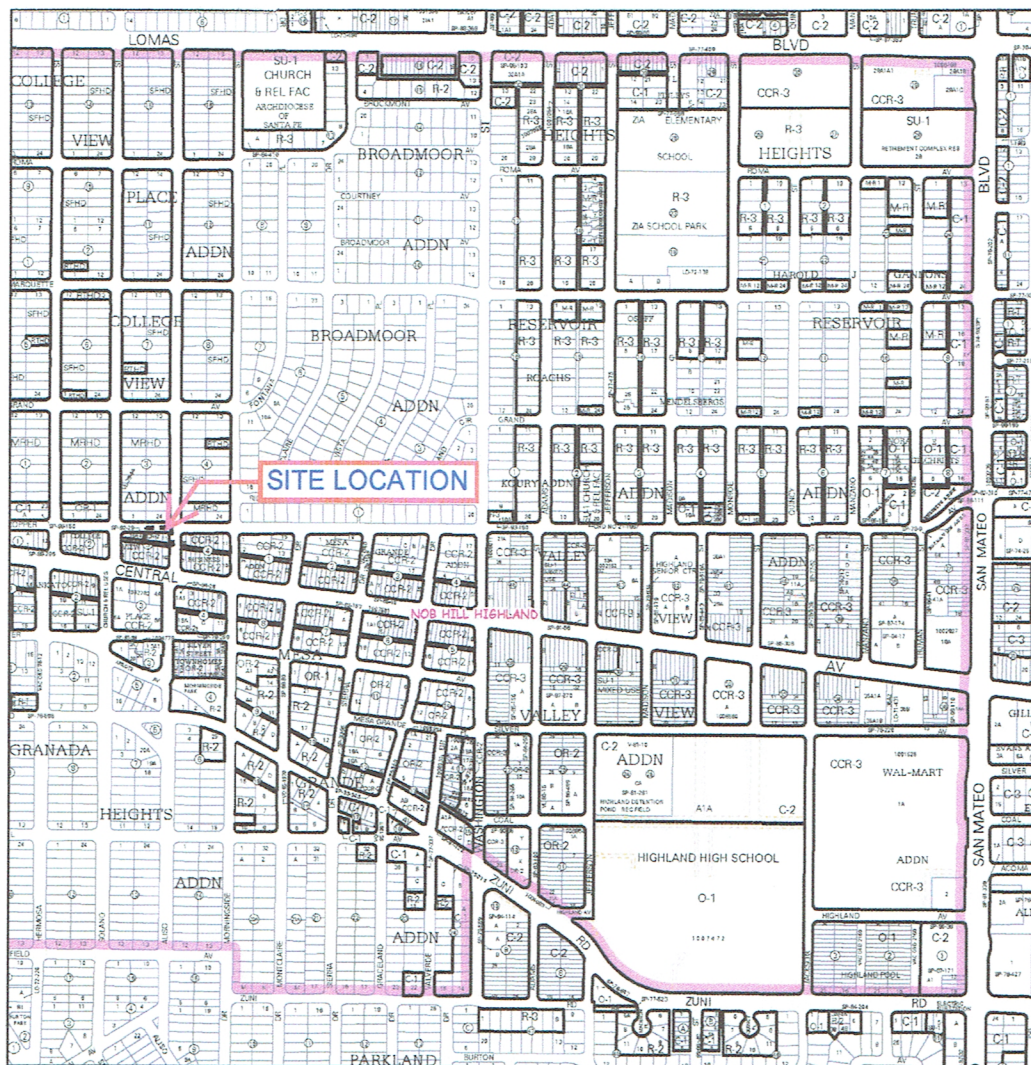
The legal description for this site is lots 11-A, 12-A, 13-A of the College View Business Addition. These lots are located on the southwest corner of Copper ave and Aliso dr. The entire site is 0.1628 acres in size. This site is located in a zone x flood zone, (FM35001C0353H) however Copper ave does contain a flood zone, the flood zone is contained within the street. Three townhouses with four units is proposed to be constructed on this site.

A predesign meeting with Mr. Carrillo was held to discuss the drainage pattern for this site:

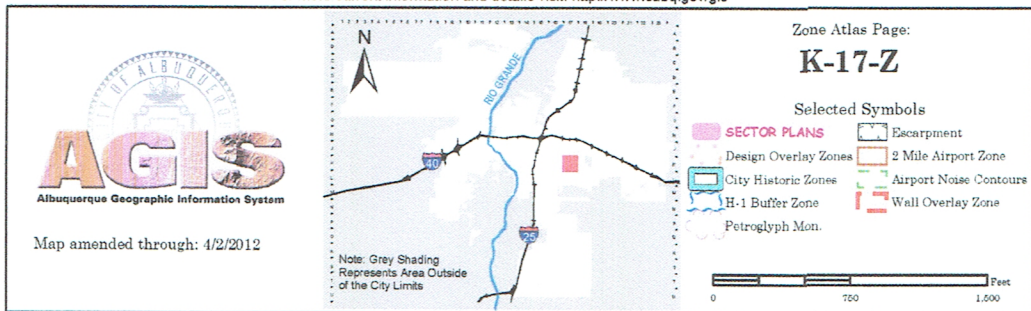
- 1- The site was to drain to Copper ave.
- 2- The landscaping area to the east of this site was to contain the 100 yr, 6hr event.
- 3- This site is mostly building, complying with the Nob Hill Sector Plan. These buildings will need to drain to the north. The small landscaping area to the north will pond some of the first flush flows to the extent practical. This landscaping area will create non-continuous drainage for developed storm water.

Existing Conditions:

Presently, this site is hard packed earth and flows in a south westerly direction.



For more current information and details visit: <http://www.cabq.gov/gis>



Proposed Conditions:

The proposed conditions are to comply with the issues discussed at the predesign meeting with Mr. Carrillo, as follows:

- 1- The site was to drain to Copper ave.
- 2- The landscaping area to the east of this site was to contain the 100 yr, 6hr event.
- 3- This site is mostly building, complying with the Nob Hill Sector Plan. These buildings will need to drain to the north. The small landscaping area to the north will pond some of the first flush flows to the extent practical. This landscaping area will create non-continious drainage for developed storm water.

Summary:

The additional flows generated by this site is only $0.74 \text{ cfs} - 0.51 \text{ cfs} = 0.23 \text{ cfs}$, and only $1204 \text{ cf} - 668 \text{ cf} = 536 \text{ cf}$ for the 100yr, 6hr rain fall event.

APPENDIX A

Drainage Calculations for Site

Zone 2 (100yr, 6hr)

Land Treatment	Peak discharge	Excess Precipitation
Type A -	1.56 cfs/ac	0.53 inches
Type B -	2.28 cfs/ac	0.78 inches
Type C -	3.14 cfs/ac	1.13 inches
Type D -	4.70 cfs/ac	2.12 inches

Existing Conditions for Site

Type C 0.1628ac = 7,092sf

Peak Flow generated

0.1628 ac x 3.14 cfs/ac = 0.51cfs

Excess Precipitation

7,092sf x 1.13 in/12 = 668 cf

Proposed Conditions for site

Peak Flow generated

0.1530 ac x 4.70 cfs = .72 cfs

0.0098 ac x 2.28 cfs = .02 cfs

Total = .74 cfs

Excess Precipitation

6665 sf x 2.12 in/12 = 1,177 cf

427 sf x .78 in/12 = 27 cf

Total = 1,204 cf

The Landscaping area on East side of building:

Area = 590sf

Volume needed to be retained

$$590\text{sf} \times 1.13\text{in}/12 = 56\text{cf}$$

Capacity for the area east of building

$$\text{Area} = 55\text{ft} \times 10\text{ft} = 550\text{sf}$$

$$\text{Depth} = 0.25\text{ft}$$

$$\text{Volume} = 550\text{sf} \times 0.25\text{ft}/2 = 69\text{cf}$$

Thus the capacity is greater than the volume required.

The Landscaping area on North side of building:

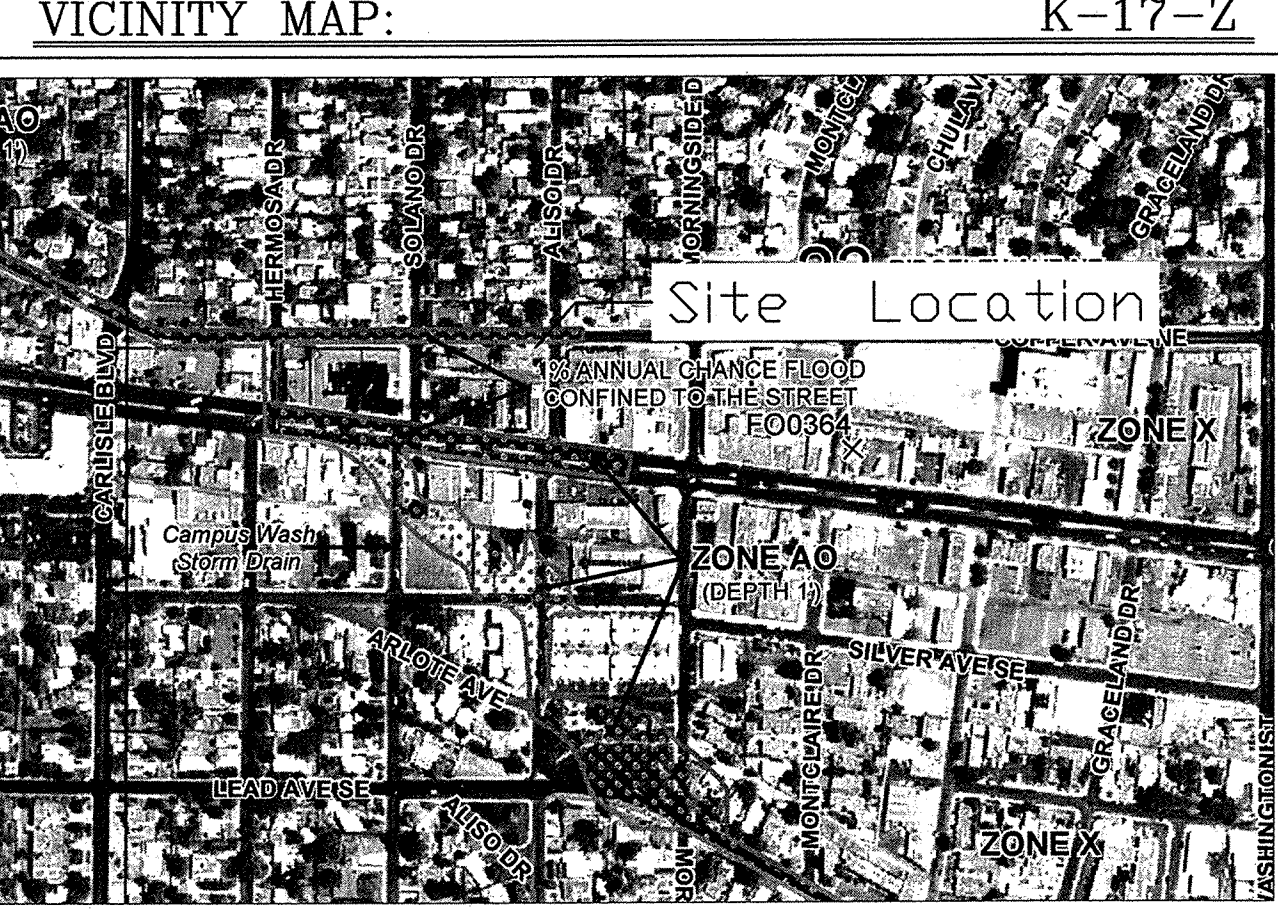
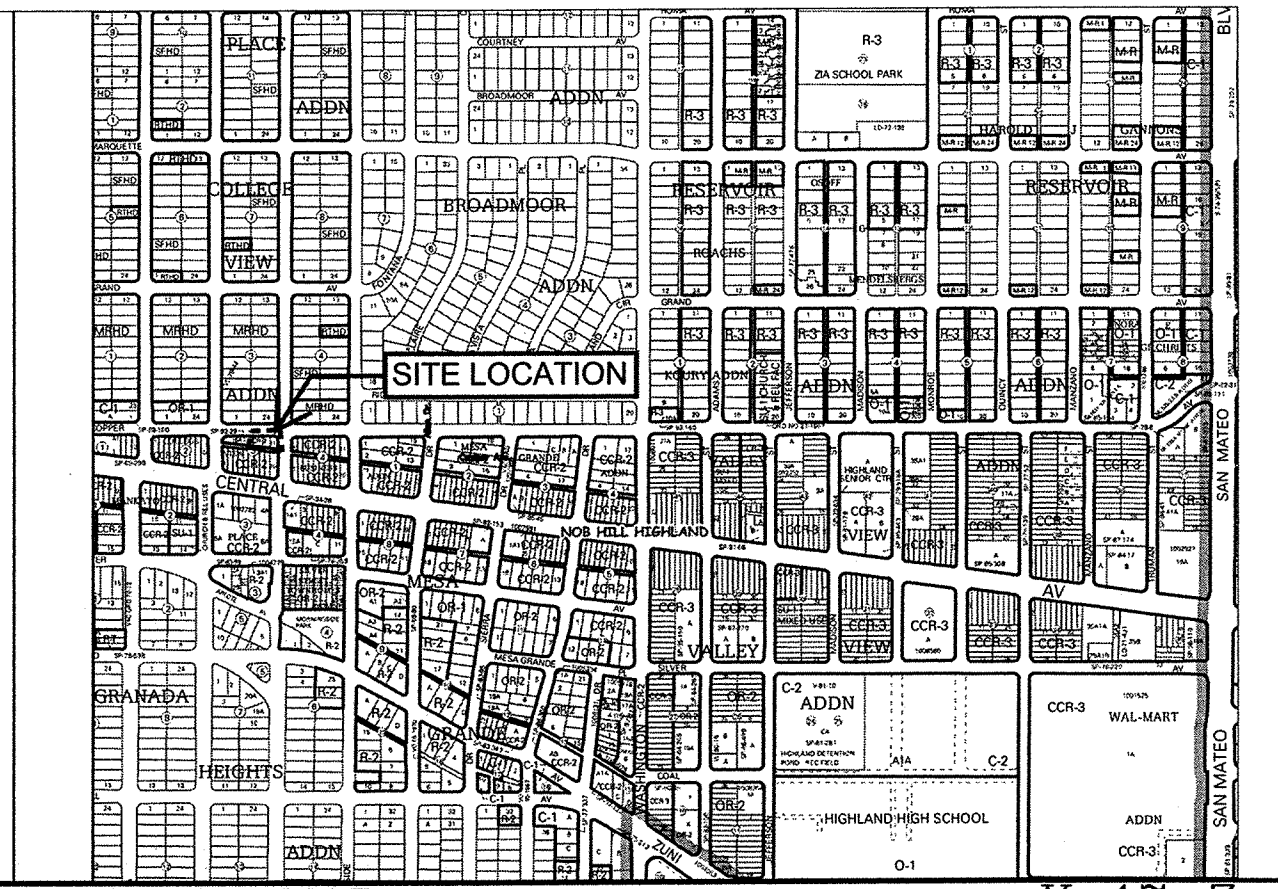
$$\text{Area} = 254\text{sf}$$

$$\text{Depth} = 0.2\text{ft}$$

$$\text{Volume} = 254\text{sf} \times 0.2\text{ft}/2 = 25.4\text{cf}$$

CAUTION:
EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.

- EROSION CONTROL NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
 2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
 3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
 4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



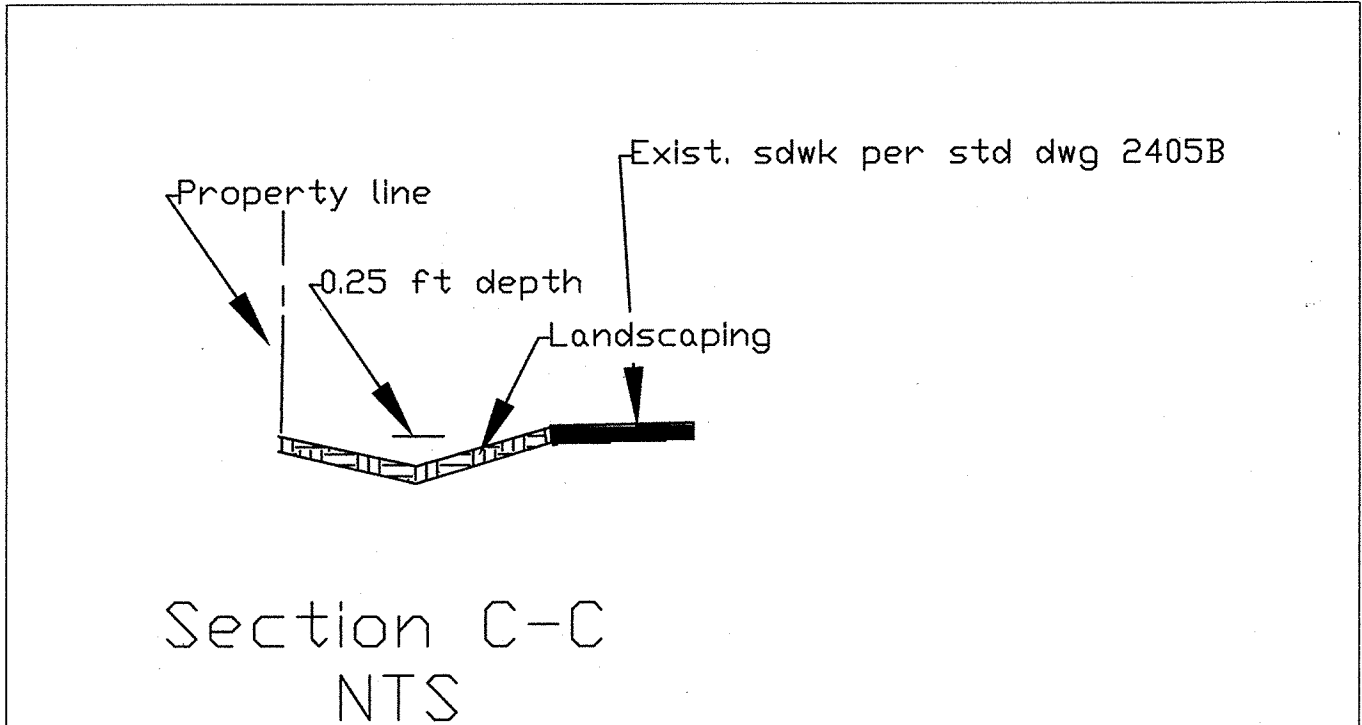
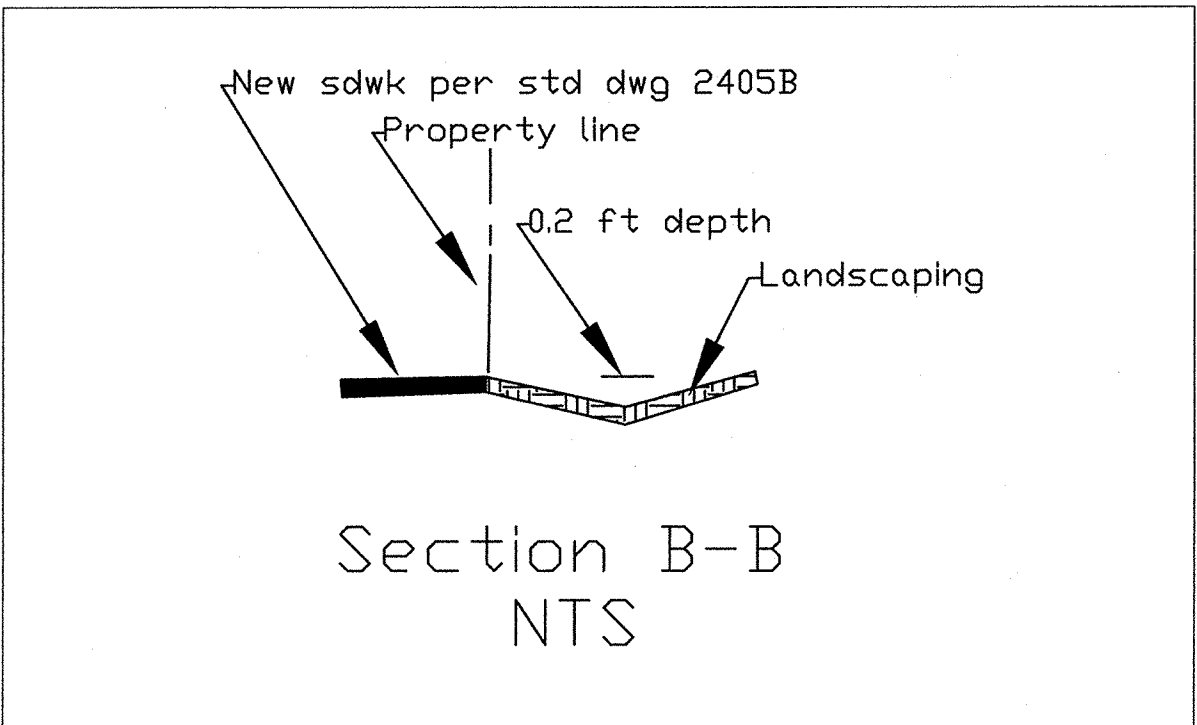
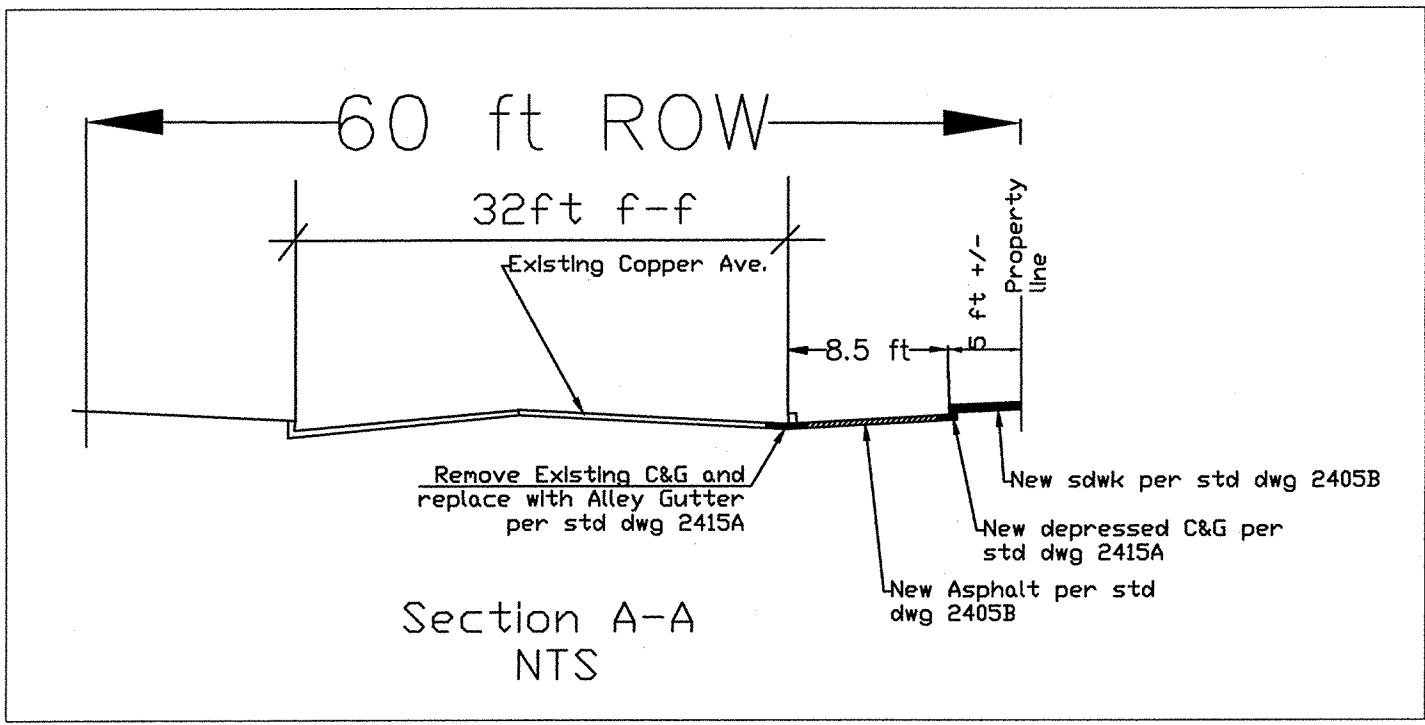
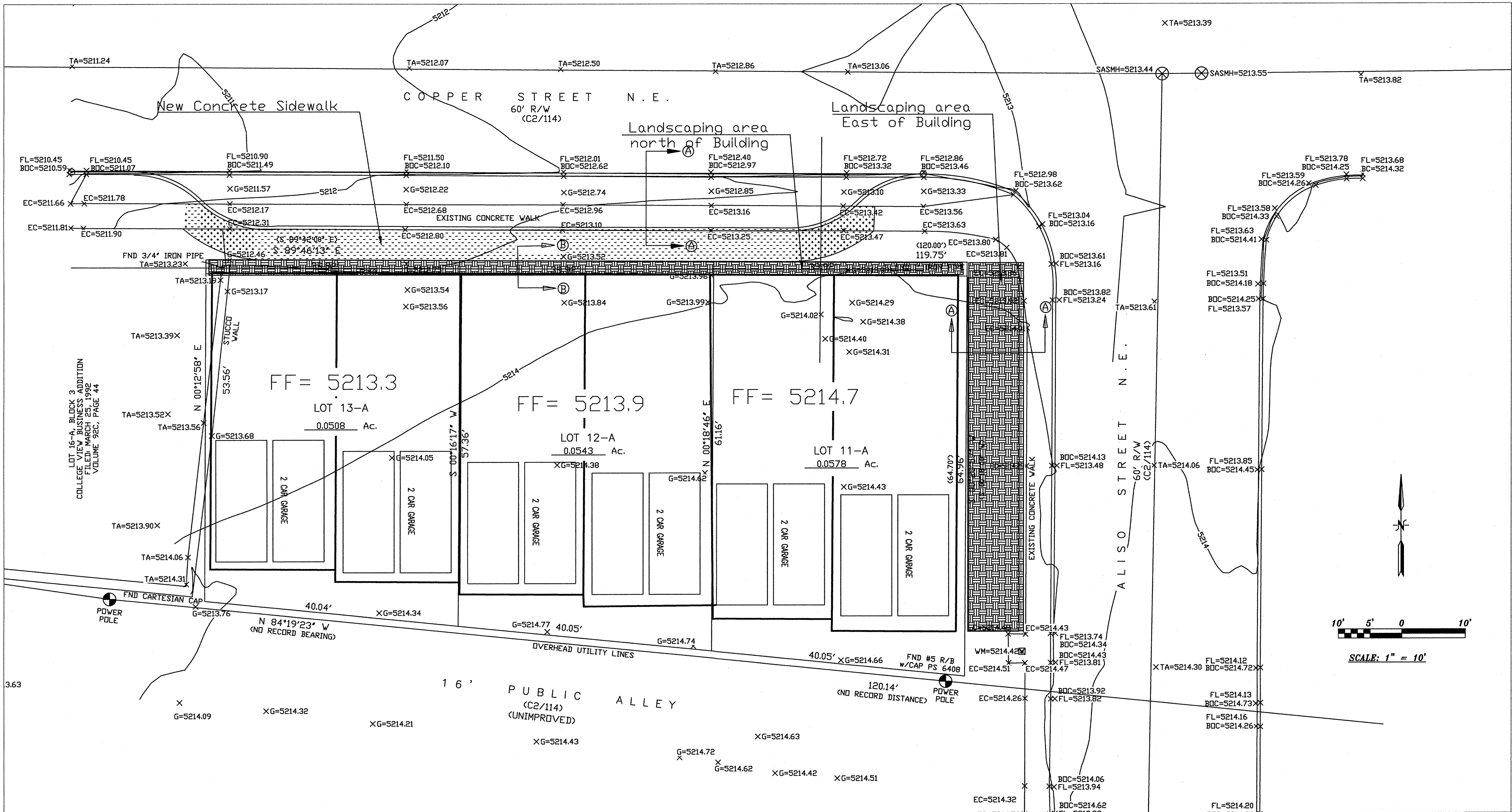
VICINITY MAP: K-17-Z

FIRM MAP: 35001C0353H

LEGAL DESCRIPTION:
Lots 11, 12 and 13, College View Business Addition
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTES:
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

LEGEND	
	PROPOSED SPOT ELEVATION
	TOP OF WALL ELEVATION
	BOTTOM OF WALL ELEVATION
	EXISTING CONTOUR
	EXISTING INDEX CONTOUR
	PROPOSED CONTOUR
	PROPOSED INDEX CONTOUR
	LOT LINE
	CENTERLINE
	RIGHT-OF-WAY
	PROPOSED RETAINING WALL
	PROPOSED ROCK FACE WALL
	EXISTING CURB AND GUTTER
	PROPOSED EDGE OF CONCRETE
	PROPOSED FLOWLINE
	EXISTING WALL
	PROPOSED BASIN BOUNDARY



	ENGINEER'S SEAL	Title: Copper Ave. Townhouse Condos	DRAWN BY
		GRADING AND DRAINAGE PLAN	DATE
		RSD Engineering, LLC 4305 Purple Sage Ave. NW ALBUQUERQUE, NM 87120 (505) 288-1621	SHEET # X of X
Richard Dourte P.E. #10854			JOB #