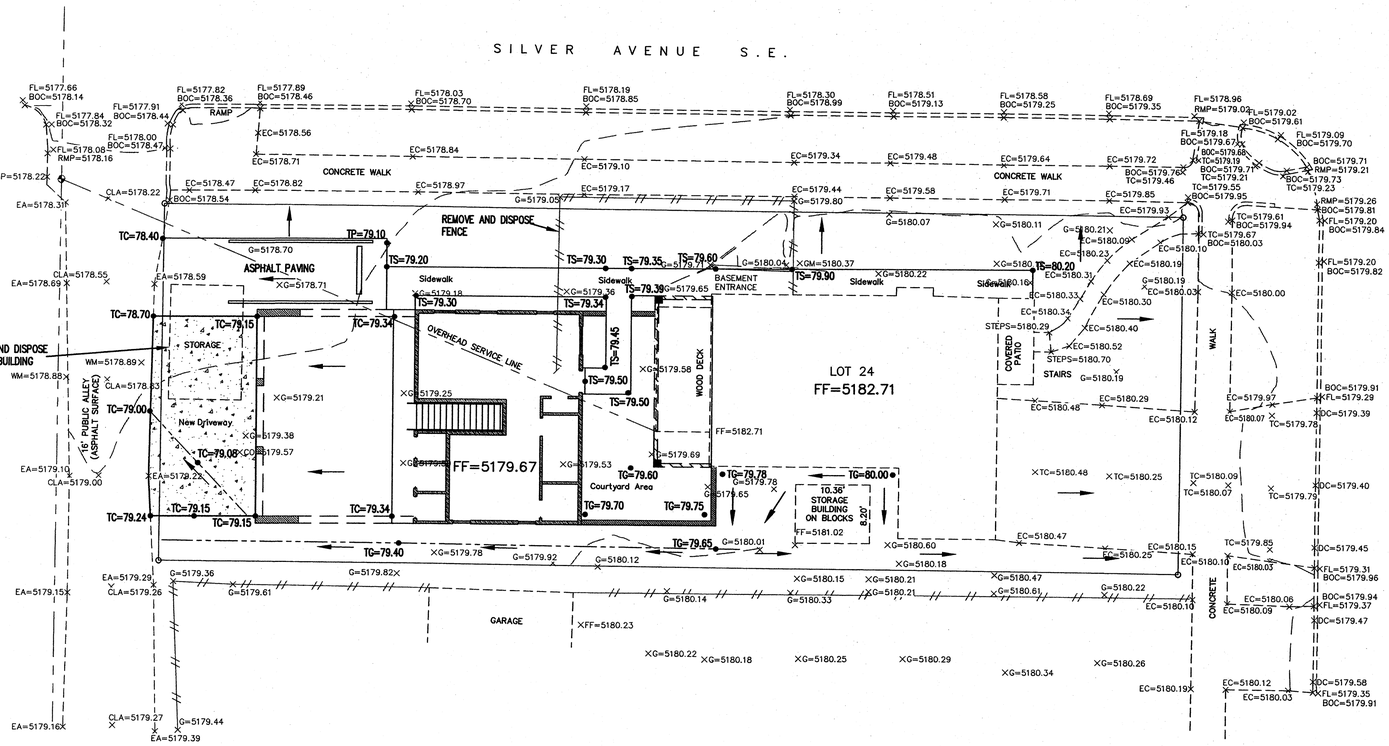

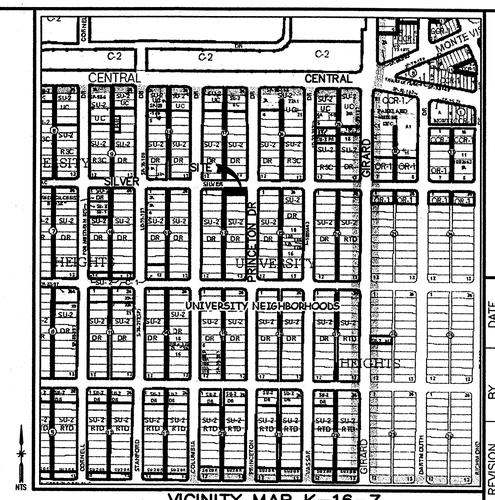

VICINITY MAP K-16-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOT 24, BLOCK 18, UNIVERSITY HEIGHTS

SITE AREA:0.1636 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0353H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD.

EXISTING DRAINAGE CONDITIONS:

CURRENTLY THE LOT HAS A HOME AND TWO STORAGE BUILDINGS. THE LOT DRAINS TO PRINCETON DRIVE, SILVER AVENUE, AND THE ALLEY IN THE BACK. THE LOT CURRENTLY HAS FREE DISCHARGE TO THE SURROUNDING STREETS. THE EXISTING PEAK RUNOFF TO THE SURROUNDING STREETS IS 0.59 CFS.

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SETION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 2 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.35 INCHES. UNDER EXISTING CONDITIONS THE LOTS INCLUDE LAND TREATMENTS A, B, AND C.

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100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
LOT	0.1636	0.00	27.30	27.40	45.30	1.48	0.02	881	0.02	988	0.59
TOTAL RUNOFF	0.16						0.02	881	0.02	988	0.59
1.1681											
LOT	0.1636	0.00	18.70	18.70	62.60	1.68	0.02	1,000	0.03	1,149	0.65
TOTAL RUNOFF	0.16						0.02	1000	0.03	1149	0.65
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E_I (in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q_{PI} (cfs)					
									ZONE =	2	
WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$									$P_{6\text{-HR}}$ (in.) =	2.35	
$V_{6\text{-HR}}$ (acre-ft) = (WEIGHTED E)(AREA)/12									$P_{24\text{-HR}}$ (in.) =	2.75	
V_{10DAY} (acre-ft) = $V_{6\text{-HR}} + (A_D)(P_{10DAY} - P_{6\text{-HR}})/12$									P_{10DAY} (in.) =	3.95	
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$											

LEGEND

FF=70.20	FINISHED FLOOR ELEVATION
TS=73.00	TOP OF SIDEWALK
TC=73.00	TOP OF CONCRETE
TP=73.00	TOP OF PAVEMENT
TG=73.00	TOP OF GROUND
	EXIST. MAJOR CONTOURS
	EXIST. MINOR CONTOURS
	FLOW DIRECTION
	PROPOSED EASEMENT
	PROPOSED SWALE
	BOUNDARY
	PROPOSED EARTHEN BERM
	PROPOSED BASIN BOUNDARY
ONSITE	DRAINAGE BASIN
	PROPOSED CONTOURS

RECEIVED
MAR 24 2015
LAND DEVELOPMENT SECTION

10' 5' 0 10'
SCALE: 1" = 10'

Thompson Engineering Consultants, Inc.
tdcnm@yahoo.com
P.O. BOX 65760
ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199
FAX: (505) 830-9248

NO.	REVISION	BY	DATE

PROJECT:
DATE:
HORIZ. SCALE:
VERT. SCALE:
DRAWN BY: DEM
CHECKED BY:
APPROVED BY:
FILE:

LICENSED PROFESSIONAL ENGINEER 9677

LOT 24, BLOCK 18
UNIVERSITY HEIGHTS
201 PRINCETON DR. S.E.

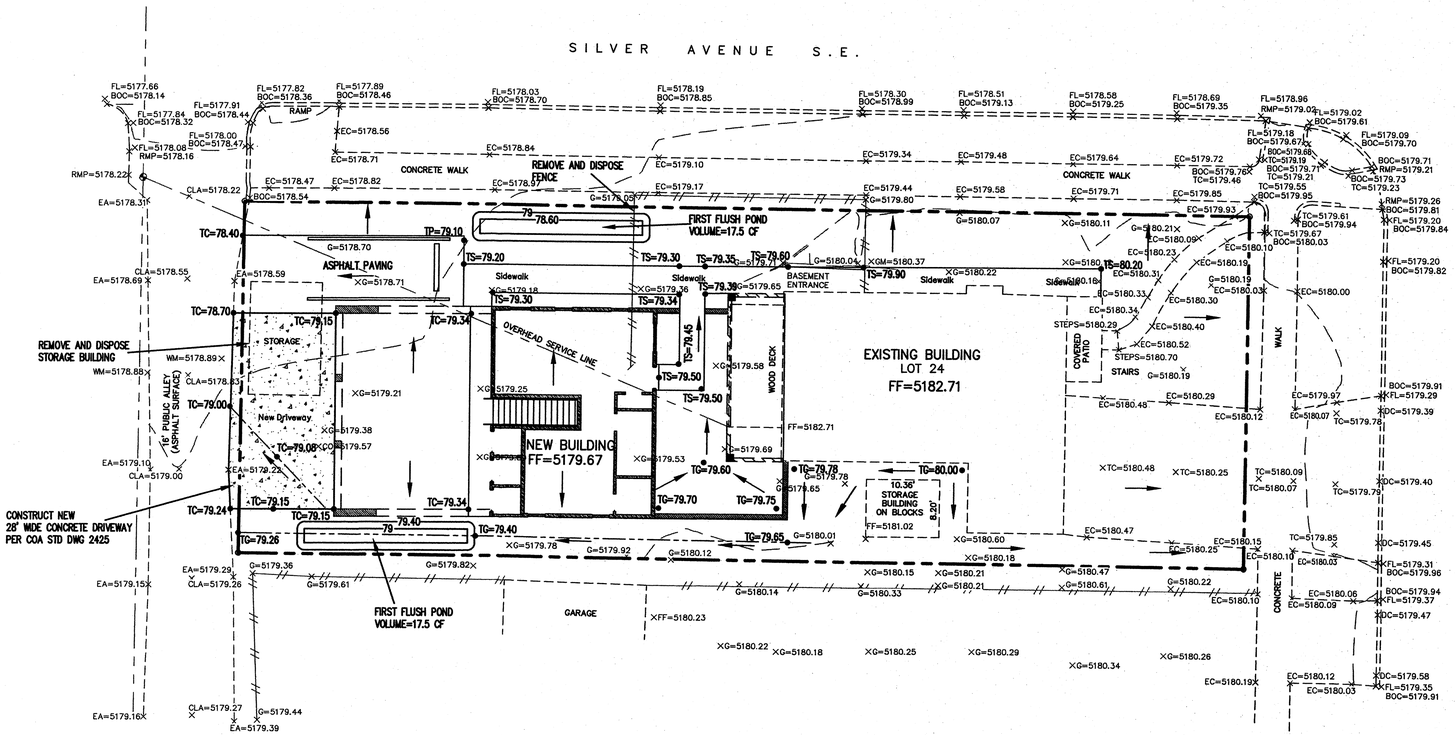
GRADING AND DRAINAGE PLAN

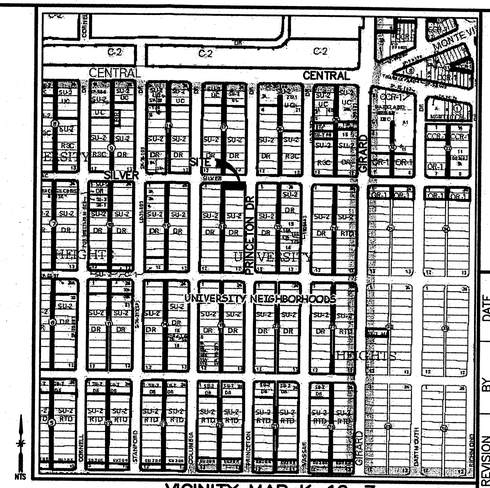
CITY/COUNTY REVIEW

DEPARTMENT	SIGN-OFF	DATE
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

FOR CITY/COUNTY USE ONLY

SHEET No.
1 of 1





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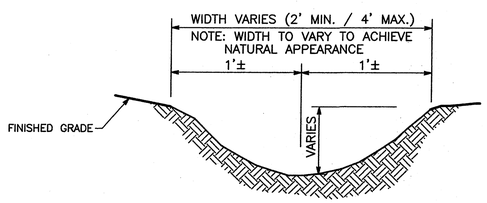

TYPICAL EARTHEN SWALE DETAIL

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (24-hr) (acre-ft)	V (24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
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TOTAL RUNOFF	0.16						0.02	881	0.02	988	0.59
PROPOSED CONDITIONS											
LOT	0.1636	0.00	18.70	18.70	62.60	1.68	0.02	1,000	0.03	1,149	0.65
TOTAL RUNOFF	0.16						0.02	1000	0.03	1149	0.65
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E_c (in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q_{pc} (cfs)					

ZONE = 2

P_{360} (in.) = 2.35

P_{1440} (in.) = 2.75

P_{6hr} (in.) = 3.95

WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$

V_{360} (acre-ft) = (WEIGHTED E)(AREA)/12

V_{1440} (acre-ft) = $V_{360} + (A_{cp})(P_{6hr} - P_{360})/12$

Q (cfs) = $(Q_A)(A_p) + (Q_B)(A_p) + (Q_C)(A_p) + (Q_D)(A_p)$

LEGEND

FL=5179.37	EXISTING FLOWLINE
BOC=5179.91	EXISTING BACK OF CURB
EC=5180.03	EXISTING EDGE OF CONCRETE
G=5180.29	EXISTING GROUND
EA=5178.59	EXISTING ASPHALT
FF=70.20	FINISHED FLOOR ELEVATION
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	PROPOSED SWALE
	BOUNDARY

RECEIVED
APR 17 2015
LAND DEVELOPMENT SECTION

10' 5' 0 10'
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Thompson Engineering Consultants, Inc.
tdzorn@yahoo.com
P.O. BOX 6573
ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199
FAX: (505) 830-9246

NO.	REVISION	BY	DATE

PROJECT:
DATE:
DRAWN BY: DEM
CHECKED BY:
APPROVED BY:
HORIZ. SCALE:
VERT. SCALE:
FILE:

REGISTERED PROFESSIONAL ENGINEER 9677 LICENSED

LOT 24, BLOCK 18
UNIVERSITY HEIGHTS
201 PRINCETON DR. S.E.

GRADING AND DRAINAGE PLAN

CITY/COUNTY REVIEW

DEPARTMENT	SIGN-OFF	DATE
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

FOR CITY/COUNTY USE ONLY

SHEET No.

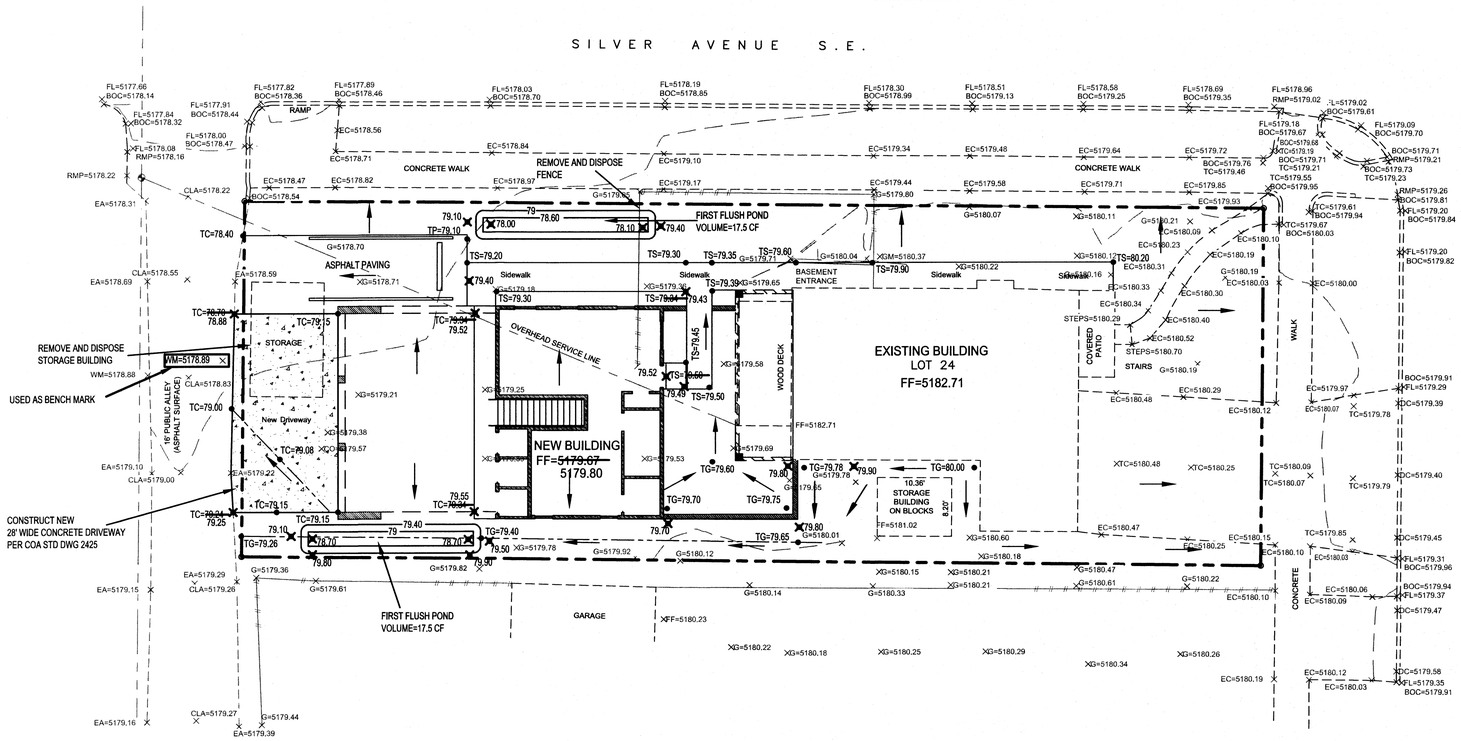
1 of 1

DRAINAGE CERTIFICATION

I, DAVID B. THOMPSON, NMPE 9677, OF THE FIRM THOMPSON ENGINEERING CONSULTANTS, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 4-17-15. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY CHRIS DEHLER, NMPS 7923. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 4-1-16 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 CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

DAVID B. THOMPSON , NMPE 9677 — DATE 4-5-16



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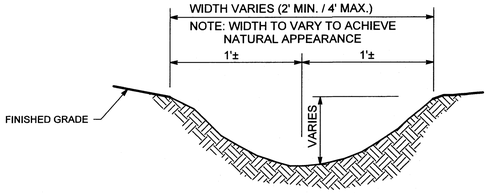

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PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q (cfs)					

WEIGHTED E (in) = (E1)(%A) + (E2)(%B) + (E3)(%C) + (E4)(%D) — ZONE = 2

V100-6hr (acre-ft) = (WEIGHTED E)(AREA)/12 — P100-6hr (in.) = 2.35

V100-6hr (acre-ft) = V2-6hr + (A3)(P100-6hr - P2-6hr)/12 — P100-6hr (in.) = 2.75

Q (cfs) = (Q1)(A1) + (Q2)(A2) + (Q3)(A3) + (Q4)(A4) — P100-6hr (in.) = 3.95

LEGEND

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DAVID B. THOMPSON 9677 REGISTERED PROFESSIONAL ENGINEER LICENSED IN NEW MEXICO

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