# CITY OF ALBUQUERQU

September 22, 2016

David Thompson, P.E. Thompson Engineering Consultants, Inc. PO Box 65760 Albuquerque, New Mexico 87193

Midtown Storage Units-Phase 1 Re:

4339 Cutler Ave NE

Request for Permanent C.O. - Accepted Engineer's Stamp dated: 4-19-16 (H17D105)

Certification dated: 9-21-16

Dear Mr. Thompson,

Based on the Certification received 9/21/2016 and photos received, is acceptable for permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3986 or Totten Elliott at 924-3982.

PO Box 1293

Albuquerque

New Mexico 87103 Abiel Carrillo, P.E.

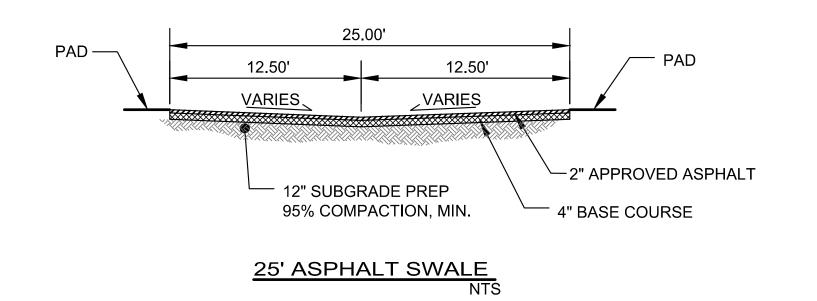
Principal Engineer, Planning Department Development and Review Services

www.cabq.gov

TE/AC

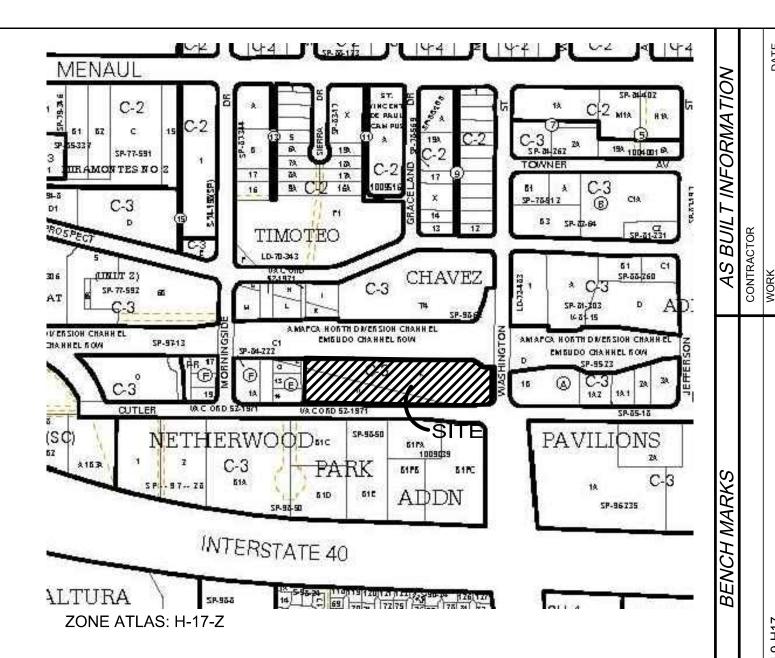
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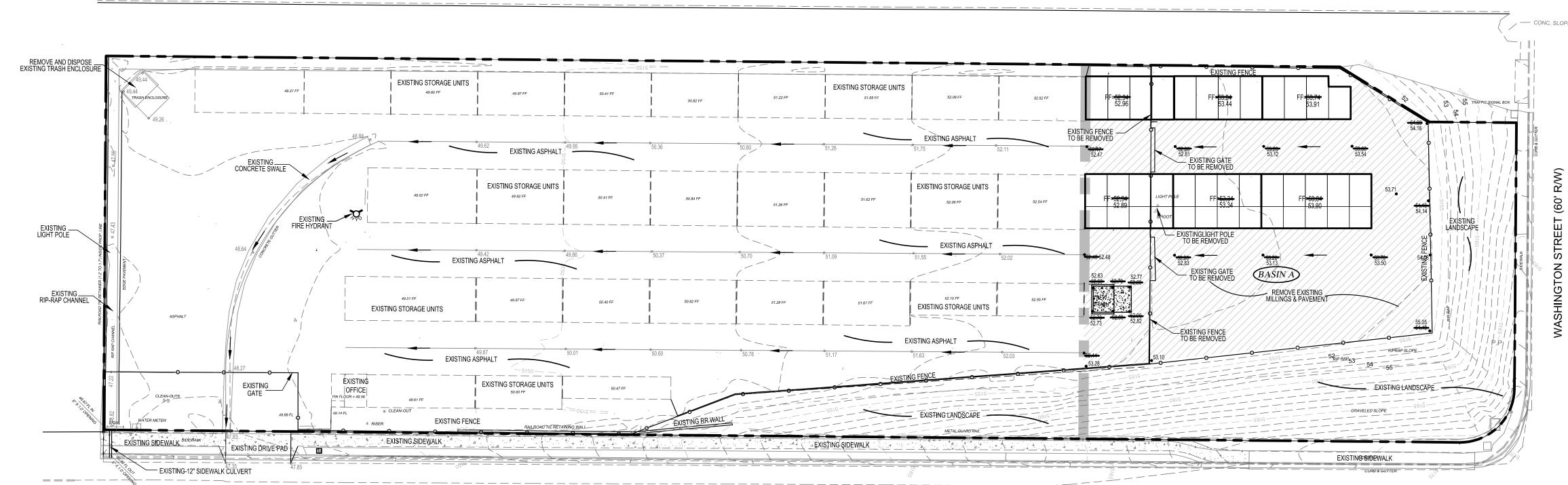
Cordova, Camille; Miranda, Rachel; Sandoval, Darlene M.; Blocker, Lois C: email,



### 100-YEAR HYDROLOGIC CALCULATIONS

	LAND TREATMENT WEIGHTED			100-YEAR PRECIPITATION							
BASIN	AREA	Α	В	С	D	] E	V (6-hr)	V (6-hr)	V(24-hr)	V(24-hr)	Q
#	(acre)	(%)	(%)	(%)	(%)	(in)	(acre-ft)	(cu-ft)	(acre-ft)	(cu-ft)	(cfs)
EXISTING CONDITIONS											
BASIN A	0.7800	0.00	0.00	46.70	53.30	1.66	0.11	4,694	0.12	5,297	3.10
TOTAL RUNOFF	0.78						0.11	4,694	0.12	5,297	3.10
PROPOSED CONDITIONS											
BASIN A	0.7800	0.00	0.00	46.70	53.30	1.66	0.11	4,694	0.12	5,297	3.10
TOTAL RUNOFF	0.78						0.11	4,694	0.12	5,297	3.10
EXCESS PRECIP.		0.53	0.78	1.13	2.12	E⊢(in)					
PEAK DISCHARGE		1.56	2.28	3.14	4.7	Q <sub>Pi</sub> (cfs)					
									ZONE =	2	
WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$					$P_{6-HR}$ (in.) = 2.35						





 $V_{6-HR}$  (acre-ft) = (WEIGHTED E)(AREA)/12  $V_{10DAY}$  (acre-ft) =  $V_{6-HR}$  + (A<sub>D</sub>)(P<sub>10DAY</sub> - P<sub>6-HR</sub>)/12

 $Q(cfs) = (Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$ 

EXIST. MAJOR CONTOURS
EXIST. MINOR CONTOURS
BASIN BOUNDARY

BASIN NUMBER

PROPOSED SWALE
PROPOSED SPOT ELEVATIONS

EXISTING SPOT ELEVATIONS
PROPOSED FLOW DIRECTION
EXISTING CURB & GUTTER
PROPERTY BOUNDARY
(THIS IS NOT A BOUNDARY SUF

PROPOSED PAVEMENT

SEE ASPHALT SWALE THIS SHEET

LEGEND

# ENGINEER'S SEAL FIGURERS SEAL

### DRAINAGE DI AI

EX. 10" WL

DRAINAGE PLAN:
LEGAL DESCRIPTION: A PORTION OF TRACT K, TIMETEO CHAVEZ ADDITION

### SITE AREA: 0.78 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0351H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD. DIRECTLY NORTH OF THE SITE IS THE EMBUDO CHANNEL WHICH INDICATES A FLOOD HAZARD ZONE A.

### EXISTING DRAINAGE CONDITIONS:

CURRENTLY THE TRACT HAS STORAGE UNITS AND AN OFFICE ON SITE. THE PROPERTY DRAINS FROM EAST TO WEST TO CUTLER AVENUE. THE TRACT CURRENTLY HAS FREE DISCHARGE TO CUTLER AVENUE. THE ENTIRE SITE WAS DEVELOPED IN 2005 AS A STORAGE UNIT COMPLEX. THIS PLAN INVOLVES THE DEVELOPMENT OF THE EASTERN PART OF THE TRACT, WHICH CURRENTLY HAS MILLINGS AND LANDSCAPING. THE EXISTING PEAK RUNOFF UNDER CURRENT CONDITIONS OF THE AREA TO BE DEVELOPED IS 3.10 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 C AND D.

### DEVELOPED DRAINAGE CONDITIONS:

THIS PROJECT INVOLVES THE ADDITION OF STORAGE UNITS TO THE EAST OF THE EXISTING BUILDINGS. THE AREA TO BE DEVELOPED HAS MILLINGS AND THEREFORE IS TREATED AS LAND TREATMENT D. SO, AFTER THE ADDITION OF STORAGE UNITS AND PAVING THERE WILL BE NO INCREASE IN RUNOFF FROM EXISTING CONDITIONS. THE TOTAL RUNOFF FROM THE AREA AFTER DEVELOPMENT IS 3.10 CFS, WHICH IS THE SAME UNDER EXISTING CONDITIONS.

IN 2005, WHEN THE SITE WAS DEVELOPED, THERE WAS NO REQUIREMENT TO RETAIN THE FIRST FLUSH ON SITE. THE LANDSCAPED AREAS OF THE SITE ARE ALONG THE SLOPING AREAS TO THE EAST AND SOUTH OF THE PAVEMENT. THERE ARE NO AREAS AVAILABLE TO CONTAIN THE FIRST FLUSH IN THE LANDSCAPED AREAS. PLUS, AS STATED EARLIER, SINCE THE AREA TO BE DEVELOPED CURRENTLY HAS MILLINGS, THERE IS NO IMPACT TO DOWNSTREAM FACILITIES WITH THE DEVELOPMENT OF THE ADDITIONAL BUILDINGS AND PAVING. THEREFORE, WE REQUEST A VARIANCE TO CONTAIN THE FIRST FLUSH FOR THIS EXPANSION.

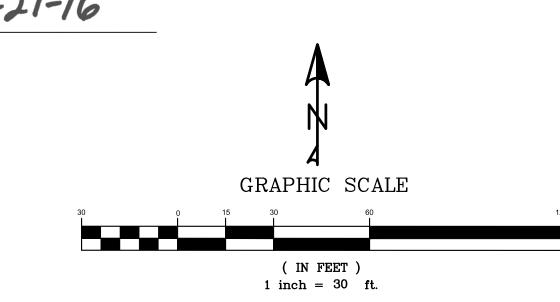
### DRAINAGE CERTIFICATION

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 4-19-16. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY MIKE SHOOK, NMPS 13240. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 9-20-16 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.

 $P_{24-HR}$  (in.) = 2.75

 $P_{10DAY}$  (in.) = 3.95

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.



CUTLER AVENUE (60' R/W)

$T_{ m hompson}$ $E_{ m ngineering}$		DEM	Tan
C onsultants, Inc.	DATE	SNED BY	KED BV
P.O. BOX 65760 PHONE: (505) 271-2199 ALBUQUERQUE, NM 87193 FAX: (505) 830-9428	NO.	DESIGN	CHEC

## MIDTOWN SELF STORAGE EXPANSION GRADING AND DRAINAGE PLAN

			1	MO /DAV/VD	MO /DAV/VD
DESIGN REVIEW COMMITTEE	CITY ENGINE	ER APPROVAL	I .	MO./DAY/YR.	MO./DAY/YR.
ity Project No.		Zone Map N	lo.	Sheet (	Of
XXXX		H-17-Z		2	2