CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

June 28, 2016

Mr. Philip W. Clark, P.E.
Clark Consulting Engineers
19 Ryan Rd.
Edgewood, NM 87015

RE: **A-Tech Security**
Grading & Drainage Plan
Engineer's Stamp Date 5-25-2016 (File: D17D104)

Dear Mr. Clark:

Based upon the information provided in your submittal received 5-26-2016, the above referenced Grading and Drainage Plan is approved for Building Permit. Please attach a copy of this approved plan in the construction sets when submitting for a building permit.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

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

Orig: Drainage file

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 1/2016)

Project Title: A-TECH SECURITY Building Permit #: _____ Hydrology File #: D17

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: LOT 16A(1), INTERSTATE INDUSTRIAL TRACT, UNIT 5

City Address: 4616 HAWKINS NE

Applicant: CLARK CONSULTING ENGINEERS Contact: Philip Clark

Address: 19 Ryan Road Edgewood, NM 87015

Phone#: 281.2444 Fax#: _____ E-mail: CCEalbq@aol.com

Other Contact: JIM CLARK MASTERWORKS ARCHITECT Contact: JIM

Address: _____

Phone#: 242.1866 Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ AS-BUILT CERTIFICATION

____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ DRAINAGE MASTER PLAN
X DRAINAGE REPORT
____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ NEIGHBORHOOD IMPACT ASSESMENT (NIA)

____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ GRADING/ESC PERMIT APPROVAL

____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL

____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR

____ **PRE-DESIGN MEETING?**

____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: X Yes ____ No

DATE SUBMITTED: 5/26/16 By: PWC

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ____ FEE RECEIVED: _____

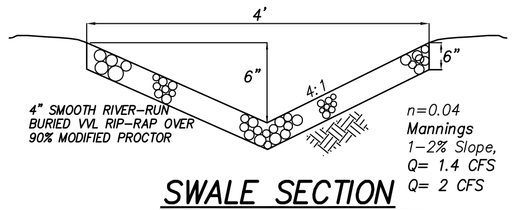
SUBJECT PROPERTY IS NOT ADJACENT TO A FLOOD HAZARD ZONE.

FIRM MAP

PANEL # 137 H

TOPO SURVEY LEGEND

BOC	=	BACK OF CURB
TA	=	TOP OF ASPHALT
CLR	=	CENTERLINE OF ROAD
CLA	=	CENTERLINE OF ASPHALT
EC	=	EDGE OF CONCRETE
FL	=	FLOW LINE
WV	=	WATER VALVE
WM	=	WATER METER
NRSASMH	=	NORTH RIM OF SANITARY SEWER MANHOLE
NRSSMH	=	NORTH RIM OF STORM SEWER MANHOLE
PHV	=	PHONE VAULT
FH	=	FIRE HYDRANT
G	=	GROUND



SWALE SECTION

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO SIGNIFICANT EARTHWORK, NOR MAJOR DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK NMPE #10265

CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=QPEAK x AREA.."Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA
P100 = 2.35 Inches, Zone 2 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

EXISTING CONDITIONS

TOTAL AREA = 0.6 ACRES, WHERE EXCESS PRECIP. 'W' =1.13 In. [0.52]
PEAK DISCHARGE, Q100 = 1.8 CFS [1], WHERE UNIT PEAK DISCHARGE 'W' = 3.1CFS/AC. [1.7]
THEREFORE: VOLUME 100 = 2461 CF [1133]

DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

	AREA	LAND TREATM'T	Q Peak	E
UNDEVELOPED	--- Ac.	A	1.56[0.38]	0.53[0.13]
LANDSCAPING	0.04 Ac.(7%)	B	2.28[0.95]	0.78[0.28]
GRAVEL & COMPACTED SOIL	0.05 Ac.(8%)	C	3.14[1.71]	1.13[0.52]
ROOF - PAVEMENT	0.51 Ac.(85%)	D	4.70[3.14]	2.12[1.34]
	0.60 Ac.			

THEREFORE: $E_{Weighted}$ = 1.94 In.[x.x] &
Q100 = 2.65 CFS VOLUME 100 = 4225 CF
Q10 = 1.7 CFS VOLUME 10 = xxx CF

RECOMMEND : ROUTE DEVELOPED RUNOFF THROUGH SOFT LANDSCAPING

FIRST FLUSH: ((EPA WATER QUALITY)..TABLE 2 "WATER QUAL. STORM EVENT.."), 85% IMPERVIOUS
THEREFORE: 0.34" X 0.51 AC./12 X 43560 SF
VOL. RETENTION = 629 C.F.

NW HARVEST AREA: (127 SF + 383 SF)/2 X 0.6' DEPTH = 153 CF
NE HARVEST AREA: (376 SF + 770 SF)/2 X 0.6' DEPTH = 344 CF
THEN: BALANCE RETAINED IN DEPRESSED LANDSCAPE AREAS (BUFFERS)

GRADING & DRAINAGE PLAN

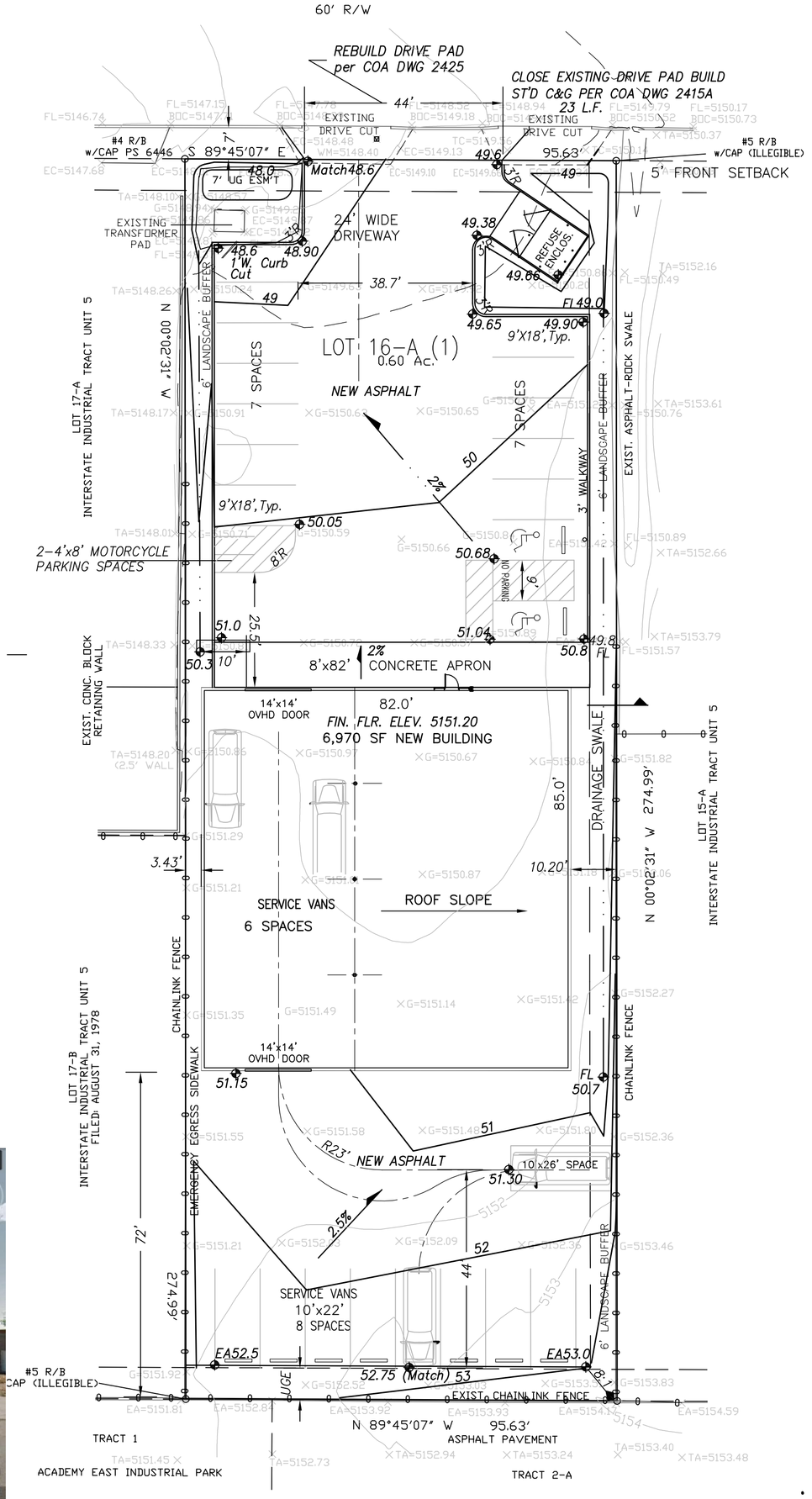
THE INDUSTRIAL PROJECT IS LOCATED IN THE INTERSTATE INDUSTRIAL TRACT AREA OF ALBUQUERQUE APPROXIMATELY 6 MILES NORTH OF THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING IMPROVEMENTS: INCLUDING EXISTING FLATWORK.
2. PROPOSED IMPROVEMENTS: 6970 SF BUILDING STRUCTURE, NEW CONCRETE DRIVEPAD, NEW GRADE ELEVATIONS, ASPHALT PARKING, FLATWORK AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE SOUTH BY INDUSTRIAL USE TO THE EAST AND WEST ALSO BY INDUSTRIAL USERS. HAWKINS STREET ON THE NORTH IS PAVED WITH CURB, GUTTER, AND MAINTAINED BY THE CITY OF ALBUQUERQUE. THE SITE CURRENTLY DRAINS AT 1-2% FROM SOUTH TO NORTH.

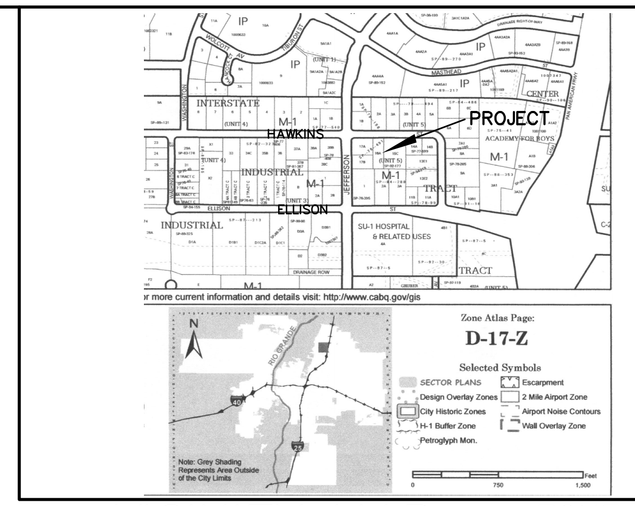
HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. SINCE HAWKINS STREET IS IMPROVED ONLY MINIMAL GRADING (DRIVEPAD RECONSTR-N) IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE THE TOTAL INCREASE OF DEVELOPED FLOW IS MINIMAL, AND CAPACITY EXISTS DOWNSTREAM. A MAJORITY OF DEVELOPED RUNOFF IS ROUTED TO/THRU PERMEABLE (SOFT) LANDSCAPE AREAS.

THE SITE IS NOT IMPACTED ADVERSELY BY ANY OFF-SITE DRAINAGE FLOWS.



EXIST. VIEW LOOKING SOUTH

Scale: 1" = 20'



VICINITY MAP

ZONE D-17

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 1986 W/ 9 UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. PAVED PARKING AREA SHALL DRAIN DIRECTLY TO NEW CURB CUT OR SDWK CULVERT
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1012, NATIVE SEED MIX.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

LEGEND

EXIST. SPOT ELEVATION	+24.0
EXIST. CONTOUR	10
NEW SPOT ELEVATION	◆ 24.0
NEW CONTOUR	12
NEW SWALE	
DRAINAGE DIRECTION, EXISTING	
NEW CONCRETE CURB (0.5' HEIGHT)	
NEW P.C.C., CONCRETE	
TOP OF CURB, EXISTING	TC
FLOWLINE	FL
EXISTING POWER POLE	o
FACE OF CURB/FACE OF CURB	F-F
WATER BLOCK	

PROJECT DATA

LEGAL DESCRIPTION

LOT 16A (1) INTERSTATE INDUSTRIAL TRACT UNIT 5
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

TOP OF REBAR/CAP AT THE PROJECT NORTHEAST CORNER MSL ELEVATION = 5150.50, AS TIED FROM COA 3-1/4" DIAMETER ALUM DISK SET IN TOP OF CURB, 13-E17, NAVD 88, 5141.04.

TOPOGRAPHIC DESIGN SURVEY

PROVIDED BY HARRIS SURVEYING, INC. UNDER THE DIRECTION OF TONY HARRIS, N.M.P.S. 11463, DATED AUGUST 2015.

5/25/16

PHILIP W. CLARK NEW MEXICO 10265 REGISTERED PROFESSIONAL ENGINEER

Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tele: (505) 281-2444 Cell: (505) 264-6042

DATE	REVISION

LOT 16-A (1) INTERSTATE INDUSTRIAL TRACT, UNIT 5
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
4616 HAWKINS ST. NE
A-TECH SECURITY

Grading & Drainage Plan

DESIGNED BY: PWC	DRAWN BY: CCE	JOB# Clark_A-TECH	1 OF 1
CHECKED BY: PWC	DATE: 5/2/16	FILE #: G/D	