

# **DRAINAGE LETTER**

## **ROLLING THUNDER BUSINESS PARK, FILING 1B**

**A REPLAT OF LOT 11, ROLLING THUNDER BUSINESS PARK**

### **EL PASO COUNTY**

April 2, 2021

Prepared for

Ruckus Development

Oliver E. Watts, Consulting Engineer, Inc.  
Colorado Springs, Colorado

**OLIVER E. WATTS, PE-LS**  
OLIVER E. WATTS, CONSULTING ENGINEER, INC.  
CIVIL ENGINEERING AND SURVEYING  
614 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907  
(719) 593-0173  
fax (719) 265-9660  
[olliewatts@aol.com](mailto:olliewatts@aol.com)  
Celebrating over 42 years in business

April 2, 2021

El Paso County Planning and Community Development  
2880 International Circle  
Colorado Springs, CO 80910

ATTN: *Jennifer Irvine, P.E.*

SUBJECT: Drainage Letter  
Rolling Thunder Business Park, Filing 1B

Transmitted herewith for your review and approval is the drainage plan and report for The Rolling Thunder Business Park, Filing No. 1B in El Paso County. This report will accompany the filing plat submittal for the Replat of Lot 11, Rolling Thunder Business Park. Please contact me if I may provide any further information.

Oliver E. Watts, Consulting Engineer, Inc.

BY: \_\_\_\_\_  
Oliver E. Watts, President

Encl:  
Drainage Report 4 pages  
Computations, 4 pages  
FEMA Panel No. 08041C0535 G  
SCS Soils Map and Interpretation Sheet  
Backup Information, 9 sheets  
Drainage Plan, Historic, Dwg 20-5509-08  
Drainage Plan, Developed, Dwg 20-5509-04

**1. ENGINEER'S STATEMENT:**

The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the County for drainage reports and said report is in conformity with the applicable master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.

Oliver E. Watts, Consulting Engineer, Inc.

---

Oliver E. Watts      Colo. PE-LS No. 9853

**2. OWNERS / DEVELOPER'S STATEMENT:**

I the owner / developer have read and will comply with all of the requirements specified in this drainage report and plan.

Ruckus Investments, LLC

By: \_\_\_\_\_  
Jeffry Wesson  
2041 Meadowbrook Parkway  
Colorado Springs, CO 80951-4732  
660-8990

**3. EL PASO COUNTY:**

Filed in accordance with the requirements of the El Paso Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and the Engineering Criteria Manual, as amended.

---

Jennifer Irvine, P.E.,  
County Engineer / ECM Administrator

---

date

Conditions:

#### **4. LOCATION AND DESCRIPTION:**

The Rolling Thunder Business Park, Filing No. 1B is located north of the intersection of Maltese Point and Rolling Thunder Way, and south of Woodmen Road, as shown on the enclosed site plan. It is a replat of Lot 11, Rolling Thunder Subdivision, and a subdivision of a portion of the NE1/4 of Section 11, Township 13 South, Range 65 West of the 6<sup>th</sup> P.M. in El Paso County, Colorado. The total size of the subdivision is 2.00 acres. Two lots are proposed: Lot 1 (1.09 ac.) Lot 2 (0.91 ac.) will each be developed with a commercial building.

#### **5. FLOOD PLAIN STATEMENT:**

This subdivision is not within the limits of a designated flood plain or flood hazard area, as identified on FEMA panel no. 08041C0545 G, dated December 7, 2018, a copy of which is enclosed for reference.

#### **6. DESCRIPTION OF RUNOFF:**

##### **A: Existing Conditions:**

As stated above, this Site was previously platted as Lot 11 in the Rolling Thunder Business Park in 2008. At that time a drainage report was submitted and approved by El Paso County, Colorado. This lot has been zoned for industrial or commercial uses since that time, and runoff was computed on that basis. The lot was rough graded and an erosion control pond, known as the "Fire House Pond" was constructed as shown on the enclosed existing conditions drainage plan, occupying approximately 3000 square feet to a depth of four feet. The historic runoff for the original ground range land condition is computed to be 0.3 cfs / 2.4 cfs) 5-year / 100- year runoffs). The outfall to the pond is a private 8 foot grated inlet and 24" RCP running westerly to a manhole, where a 30" RCP from the Lot 10 pond combines and runs south in a 36" RCP across Rolling Thunder Way.

Water quality storage exists on the "Southwest Pond" in lot 10, westerly of this lot, as shown on the drainage plan, and in the "Tank Pond" east of this site. These ponds are shown on the drainage plan for the Rolling Thunder Business Park enclosed in the backup material of this report. Therefore, a water quality pond is required for the development of this lot.

##### **B: Proposed Conditions:**

Those portions of the lot within the paved portions of Fire House View and Maltese Point will not be modified. The remainder of the lot (1.664 acre) will be developed as shown on the enclosed drainage plan, and runoff will be directed by the grading shown to a private water quality pond in the Southeast corner. The landscaped areas shown on the plan total 18,830 square feet, or 26.0% of Basin A. An impervious percentage of 75% was used for computation purposes.

A minor (private) storm sewer is provided along the north sides of the two main buildings to provide adequate drainage capacity and prevent winter ice problems. The existing pond has been relocated to allow for optimum use of the lot. A sand filter basin is proposed which requires a total bottom area of 699 square feet at a depth of two feet with 3:1 side slopes as shown on the enclosed SFB computation form. A pond bottom area of 741.3 square feet is provided as shown on the drainage plan, and the total pond storage is 2205 cubic feet. The total runoff from the lot will be 2.8 cfs / 5.8 CFS. A 6-foot curb outlet will discharge the 100 year runoff into the pond, a standard grated inlet at the two foot level will capture the 100-year runoff and a 12" HDPE will be routed to the existing grated inlet, which will end up being in the parking lot and will be capped. The existing RCP storm sewers described above are more than adequate to convey the 100-year runoff as shown in the enclosed computations.

**7. FEES:**

This Site has been previously platted; therefore fees are computed on the basis of a computed increase in impervious cover. The following is a summary of the computations:

Total developed area:	1.664 ac.
Landscaped area:	0.432 ac. 26.0%
Impervious area:	74%

Drainage Fees have been computed in accordance with the computations for the Rolling Thunder Business Park, which are enclosed in the attached back up material. The area involved is for basins D-3, D-7 and D-8 of that study with assumed an impervious area of 100%. Therefore, fees are not due for this replat.

MAJOR BASIN	SUB BASIN	AREA		BASIN		T <sub>c</sub> MIN	I in./hr.		SOIL GRP	DEV. TYPE	C		FLOW		RETURN PERIOD -years-	
		PLANIM READ	ACRES	LENGTH -FT.-	HEIGHT -FT.-								5-ry	100-yr		
													qp -CFS-	qp -CFS-		
EXISTING	A	COGO	1.664	300	4	29	2.4	1.1	B	R/L	0.08	0.35	0.3	2.4	5	100
DEVELOPED	A	COGO	1.664	300	3	17.1			B	75%	0.554	0.675				
				+130		+2.0										
						19.1	3.0	5.1					2.8	5.8	5	100

**HYDROLOGICAL COMPUTATION – BASIC DATA**  
 PROJ: FOLLING THUNDER BUSINESS PARK F 1B BY: O.E. WATTS  
 RATIONAL METHOD DATE: 4/2/21 2/23/21

**OLIVER E. WATTS, CONSULTING ENGINEER, INC.**  
 614 ELKTON DRIVE COLORADO SPRINGS, CO 80907

## STREET AND STORM SEWER CALCULATIONS

STREET	LOCATION	DISTANCE -ft.-	ELEVATION & SLOPE	TOTAL RUNOFF -cfs- 5-yr./100-yr	STREET FLOW / CAPACITY -cfs- 5-yr./100-yr	PIPE FLOW -cfs-	TYPE PIPE, CATCH BASIN & SLOPE %
PARKING	OUTFALL		77.0	2.8/5.8	5.8		6' CURB OUTLET d=0.46'
		6	3:1				
	POIND		75.0				
	GRATE		TOP=77.0 INV=75.5		5.8	5.8	FB GRATE h=0.4' ok
		33.27	6.64%			5.8	18" HDPE
	EXIST. O/L		73.29				hi=0.16V2=0.17' < 0.4

**STREET AND STORM SEWER CALCULATIONS**  
**PROJECT: ROLLING THUNDER BUS. PK #1b**  
**BY: O.E. WATTS**                      **DATE: 2/23/21**

**OLIVER E. WATTS, CONSULTING ENGINEER, INC.**  
 614 ELKTON DRIVE COLORADO SPRINGS, CO 80907

Page:2  
 Of  
 Pages:4