

WHEN RECORDED, MAIL TO:
Utah Department of Transportation
Right of Way, Fourth Floor
Box 148420
Salt Lake City, UT 84114-8240

ENTRY NO. 01087381

03/02/2018 04:27:46 PM B: 2452 P: 1378
Agreement PAGE 1/8
MARY ANN TRUSSELL, SUMMIT COUNTY RECORDER
FEE 24.00 BY UTAH DEPARTMENT OF TRANSPORTATION



UTAH DEPARTMENT OF TRANSPORTATION DRAINAGE AGREEMENT

Summit County

Tax ID No. VEPNS-1
~~PCA-S-00-BB~~

This Drainage Agreement made and entered into this 1 day of MARCH
2018 between Utah Department of Transportation ("Department") and
~~Redus Park City, LLC~~ ("Permittee"), who owns the property described in Exhibit A.

STORIED DEER VALLEY, LLC

RECITALS

The Permittee (property owner) desires to construct a drainage system and a drainage connection within the Department Right of Way subject to the requirements and conditions described in the Permit.

Department's Policy 08A-06 requires the Permittee to sign the Drainage Agreement as part of the permitting process for a drainage connection.

The parties agree as follows:

(1) COMPLIANCE: Permittee must comply with the conditions in the permit and applicable state and federal statutes, regulations and rules. The Department may perform inspection of Permittee's drainage system to monitor compliance with the Permit and with state and federal statutes, regulations, and rules. Permittee grants the Department access to the Permittee's property for inspection or to perform any repairs to prevent damage to the Department's Right of Way. The Department's inspection does not relieve the Permittee of its responsibilities in meeting the Permit conditions. The Permittee is responsible for the Department's inspection costs. Permittee's responsibilities include:

- a) Permittee is responsible for repairing and restoring any portion of the Department Right of Way and drainage systems located therein that may be damaged as a result of making the drainage connection or as the result of any subsequent drainage originating from the Permittee's property.
- b) Permittee must not increase its drainage discharge into the Department's drainage system without the written permission of the Department.
- c) A bonded contractor must apply for the required permit to install drainage systems in the Department Right of Way prior to the commencement of any such work.
- d) The Permittee is responsible to obtain environmental clearances, permits, or other approvals from any other local, state or federal agency that may have regulatory jurisdiction or oversight.

(2) **MAINTENANCE:** Permittee's drainage system must at all times be maintained, repaired, constructed, and operated by and at the expense of the Permittee. The drainage system will be serviced without access from any interstate highway or ramp. The Department may notify the Permittee of any maintenance requirements if the Permittee fails to maintain the drainage system. The Department reserves the right, without relieving the Permittee of its obligations, to reconstruct or make repairs to the drainage system, as it may consider necessary, and the Permittee must reimburse the Department for its cost if the Permittee fails to comply with the Department's written notification and complete the required maintenance.

(3) **FUTURE IMPACTS:** The Department has the right to change its drainage system for any future transportation project. If the Department's drainage system is reconstructed or modified, the Department reserves the right to hold the Permittee responsible for the cost to reconnect to the Department's drainage system. The Department is not responsible for any costs the Permittee incurs due to the drainage system being reconstructed or modified.

(4) **LIABILITY:** Pursuant to R930-7-6(2)(b), the Permittee is required to guarantee satisfactory performance under this Permit. The Department may proceed against Permittee to recover all expenses incurred by the Department, its employees, or contractors in repairing the sections of roadway damaged by the Permittee or its drainage system, including the failure to restore the Right of Way to Department standards. The Permittee will be liable for all costs the Department incurs under this agreement.

The Permittee will indemnify, defend, and hold harmless the Department, its employees, and the State of Utah from responsibility for any damage or liability arising from Permittee's construction, maintenance, repair, or any other related operation of the drainage system pursuant to the Permit issued under this agreement.

The Permittee will not hold the Department liable for damages resulting from any back-up or flow into the Permittee's drainage system or property. The Permittee accepts all risks associated with the connection to the Department's drainage system. The Permittee is responsible for all liability resulting from the discharge of pollutants into the Department's drainage system from its property or drainage system.

(5) **CANCELLATION OF PERMIT:** Any failure on the part of Permittee to comply with the terms and conditions set forth in the Permit or this Agreement may result in cancellation of the Permit. Failure of the Permittee to pay any sum of money for costs incurred by the Department in association with inspection, reconstruction, repair, or maintenance of the drainage system may also result in cancellation of the Permit. Non-compliance with either the Permit or Agreement may result in the Department removing the drainage system and restoring the highway and Right of Way at the sole expense of the Permittee. The Department will notify the Permittee in writing prior to any cancellation, setting forth the violations, and will provide the Permittee a reasonable time to correct the violations to the satisfaction of the Department. The Department may order the Permittee to remove its drainage system if the violations are not corrected.

(6) **SUCCESSORS AND ASSIGNS:** All covenants, obligations and agreements will be binding upon the parties, their successors and assigns and run with the land as described in Exhibit A until the drainage connection is removed from the Department's Right of Way.

(7) **MISCELLANEOUS:**

- a) Each party agrees to undertake and perform all further acts that are reasonably necessary to carry out the intent and purpose of the Agreement at the request of the other party.
- b) This Agreement does not create any type of agency relationship, joint venture, or partnership between the Department and Permittee.
- c) The failure of either party to insist upon strict compliance of any of the terms and conditions, or failure or delay by either party to exercise any rights or remedies provided in this Agreement, or by law, will not release either party from any obligations arising under this Agreement.

d) This Agreement shall be deemed to be made under and shall be governed by the laws of the State of Utah in all respects. Each person signing this Agreement warrants that the person has full legal capacity, power and authority to execute this Agreement for and on behalf of the respective party and to bind such party.

e) If any portion of this Agreement is held to be invalid or unenforceable for any reason by a court of competent jurisdiction, such invalidity or unenforceability shall not affect any other provision, and this Agreement shall be construed as if such invalid or unenforceable provision had never been included.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

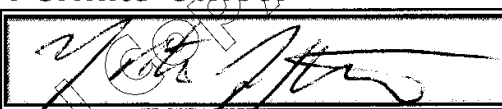
CURRENT PROPERTY OWNER/PERMITTEE	
Name Printed: Douglas Ogilvy	Signature: 

JEFF BUTTERWORTH
 State of Utah) MARK ENDERLE
 County of Summit)

On this 1st day of March, in the year 2018, the owner of the property personally appeared before me as the signer of this agreement, who duly acknowledged to me that he/she executed this agreement pursuant to the authority delegated to him/her as the current property owner of said property. Witness my hand and official seal.

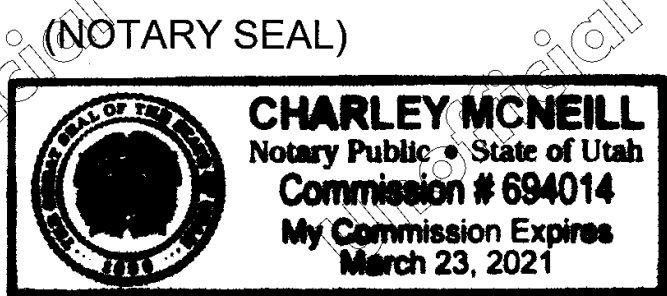



 Notary Public

UTAH DEPARTMENT OF TRANSPORTATION – Region Permits Officer	
Name Printed: <u>Nathan Stephens</u>	Signature: 

State of Utah)
 County of Salt Lake)

On this 1 day of January, in the year 2018, the owner of the property personally appeared before me as the signer of this agreement, who duly acknowledged to me that he/she executed this agreement pursuant to the authority delegated to him/her as the current property owner of said property. Witness my hand and official seal.




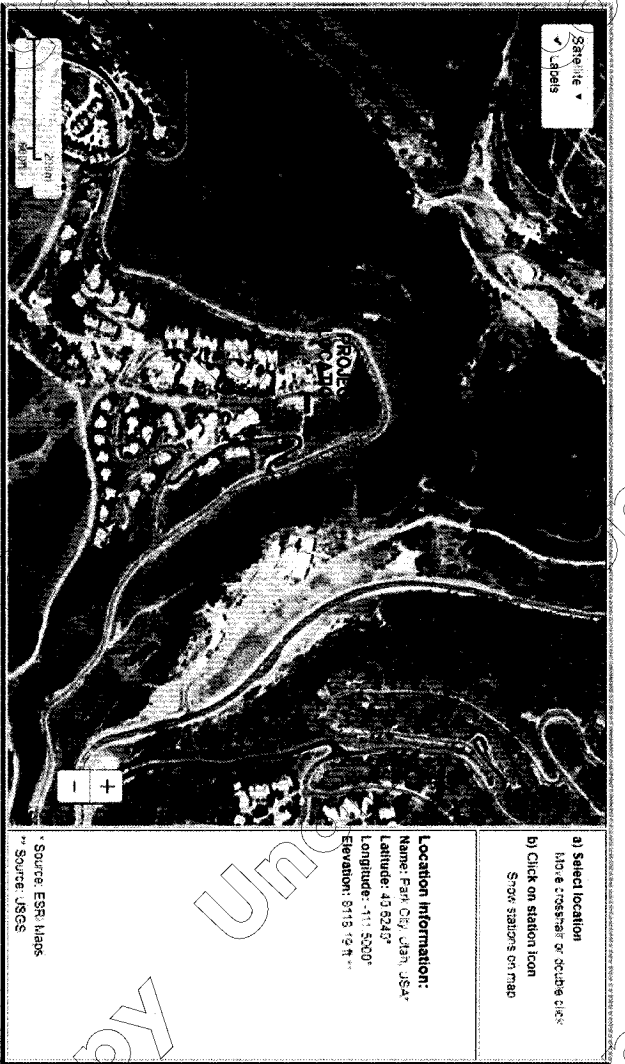

 Notary Public

EXHIBIT A (Legal Description of Permittee's Property)

Lot 1, Village at Empire Pass North Subdivision
according to the official plat recorded
January 23, 2018, as Entry No. 1085414
in the Summit County Recorder's Office

EXHIBIT B

(include drainage plan showing state route, mile post and location of all drainage systems and drainage calculations)



PS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹

Duration	2	5	10	25	50	75	100
1.57	2.00	2.74	3.41	4.50	5.53	6.72	8.14
1.76	2.26	2.93	3.58	4.59	5.58	6.77	8.19
1.90	2.42	3.11	3.75	4.76	5.75	6.94	8.36
2.00	2.57	3.27	3.91	4.92	5.91	7.10	8.52
2.08	2.69	3.39	4.03	5.04	6.03	7.22	8.64
2.14	2.79	3.49	4.13	5.14	6.13	7.32	8.74
2.19	2.88	3.58	4.22	5.23	6.22	7.41	8.83
2.24	2.96	3.66	4.29	5.30	6.29	7.48	8.91
2.28	3.03	3.73	4.35	5.36	6.35	7.54	8.97
2.32	3.09	3.79	4.40	5.41	6.40	7.59	9.02
2.36	3.14	3.84	4.45	5.46	6.45	7.64	9.07
2.40	3.19	3.89	4.50	5.51	6.50	7.69	9.12
2.44	3.24	3.94	4.55	5.56	6.55	7.74	9.17
2.48	3.29	3.99	4.60	5.61	6.60	7.79	9.22
2.52	3.34	4.04	4.65	5.66	6.65	7.84	9.27
2.56	3.39	4.09	4.70	5.71	6.70	7.89	9.32
2.60	3.44	4.14	4.75	5.76	6.75	7.94	9.37
2.64	3.49	4.19	4.80	5.81	6.80	7.99	9.42
2.68	3.54	4.24	4.85	5.86	6.85	8.04	9.47
2.72	3.59	4.29	4.90	5.91	6.90	8.09	9.52
2.76	3.64	4.34	4.95	5.96	6.95	8.14	9.57
2.80	3.69	4.39	5.00	6.01	7.00	8.19	9.62
2.84	3.74	4.44	5.05	6.06	7.05	8.24	9.67
2.88	3.79	4.49	5.10	6.11	7.10	8.29	9.72
2.92	3.84	4.54	5.15	6.16	7.15	8.34	9.77
2.96	3.89	4.59	5.20	6.21	7.20	8.39	9.82
3.00	3.94	4.64	5.25	6.26	7.25	8.44	9.87
3.04	3.99	4.69	5.30	6.31	7.30	8.49	9.92
3.08	4.04	4.74	5.35	6.36	7.35	8.54	9.97
3.12	4.09	4.79	5.40	6.41	7.40	8.59	10.02
3.16	4.14	4.84	5.45	6.46	7.45	8.64	10.07
3.20	4.19	4.89	5.50	6.51	7.50	8.69	10.12
3.24	4.24	4.94	5.55	6.56	7.55	8.74	10.17
3.28	4.29	4.99	5.60	6.61	7.60	8.79	10.22
3.32	4.34	5.04	5.65	6.66	7.65	8.84	10.27
3.36	4.39	5.09	5.70	6.71	7.70	8.89	10.32
3.40	4.44	5.14	5.75	6.76	7.75	8.94	10.37
3.44	4.49	5.19	5.80	6.81	7.80	8.99	10.42
3.48	4.54	5.24	5.85	6.86	7.85	9.04	10.47
3.52	4.59	5.29	5.90	6.91	7.90	9.09	10.52
3.56	4.64	5.34	5.95	6.96	7.95	9.14	10.57
3.60	4.69	5.39	6.00	7.01	8.00	9.19	10.62
3.64	4.74	5.44	6.05	7.06	8.05	9.24	10.67
3.68	4.79	5.49	6.10	7.11	8.10	9.29	10.72
3.72	4.84	5.54	6.15	7.16	8.15	9.34	10.77
3.76	4.89	5.59	6.20	7.21	8.20	9.39	10.82
3.80	4.94	5.64	6.25	7.26	8.25	9.44	10.87
3.84	4.99	5.69	6.30	7.31	8.30	9.49	10.92
3.88	5.04	5.74	6.35	7.36	8.35	9.54	10.97
3.92	5.09	5.79	6.40	7.41	8.40	9.59	11.02
3.96	5.14	5.84	6.45	7.46	8.45	9.64	11.07
4.00	5.19	5.89	6.50	7.51	8.50	9.69	11.12

LOT 2 DEVELOPMENT AREA FLOW RATE CALCULATIONS

METHOD OF ANALYSIS: RATIONAL METHOD

Q=CpCia STORM RETURN PERIOD: 10, 50 & 100 YEARS
 TIME OF CONCENTRATION: 10 MIN
 Q=RUNOFF FLOWRATE [CUBIC FEET/SEC]
 Qp=RUNOFF COEFFICIENT ADJUSTMENT FACTOR
 C=RUNOFF COEFFICIENT (PAVEMENTS & ROOFS)
 i=STORM INTENSITY [INCHES/HR]
 A=AREA [ACRES]

LOT 2 DEVELOPMENT 100 YEAR STORM
 ANALYSIS AREA (POST DEVELOPMENT AREA) = 0.62 ACRES
 C = RUNOFF COEFFICIENT = 0.90
 i = STORM INTENSITY = 4.21 IN/HR
 Q = CpCia = (1.20)(0.90)(4.21 IN/HR)(0.62 ACRES) = **2.82 CFS**

LOT 2 DEVELOPMENT 50 YEAR STORM
 ANALYSIS AREA (POST DEVELOPMENT AREA) = 0.62 ACRES
 C = RUNOFF COEFFICIENT = 0.90
 i = STORM INTENSITY = 5.12 IN/HR
 Q = CpCia = (1.25)(0.90)(5.12 IN/HR)(0.62 ACRES) = **3.52 CFS**

LOT 2 DEVELOPMENT 100 YEAR STORM
 ANALYSIS AREA (POST DEVELOPMENT AREA) = 0.62 ACRES
 C = RUNOFF COEFFICIENT = 0.90
 i = STORM INTENSITY = 5.12 IN/HR
 Q = CpCia = (1.25)(0.90)(5.12 IN/HR)(0.62 ACRES) = **3.52 CFS**

EXISTING STORMDRAIN FLOW RATE ANALYSIS

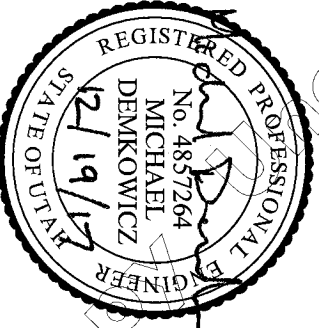
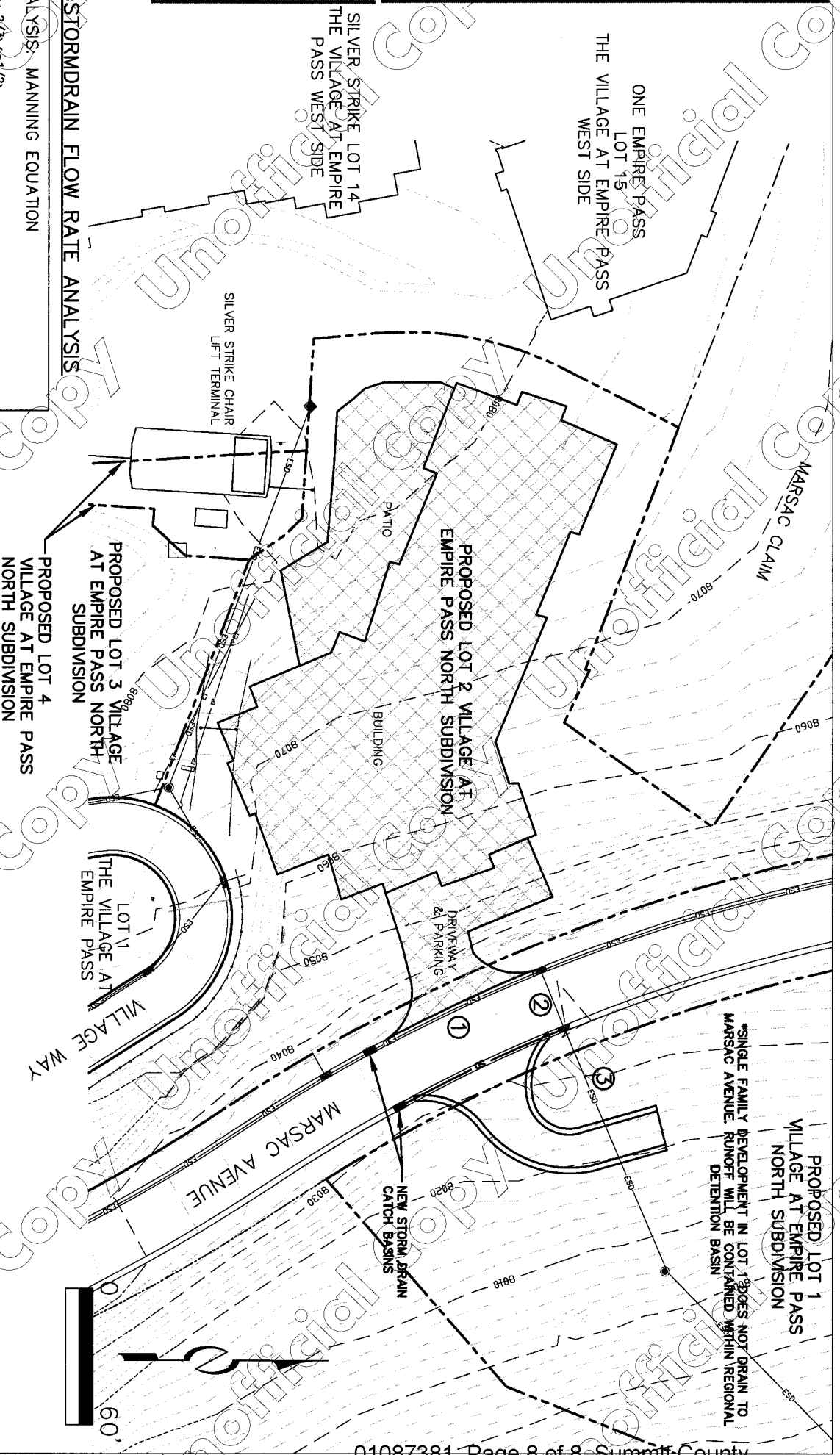
METHOD OF ANALYSIS: MANNING EQUATION

Q=(1.49/n)(A)(Rh^{2/3})(S^{1/2})
 Q=RUNOFF FLOWRATE [CUBIC FEET/SEC]
 n=MANNING ROUGHNESS COEFFICIENT (CONCRETE)=0.015
 A=AREA OF PIPE [SQ FT]=(πD²)/4
 P=WETTED PERIMETER [FT]=πD
 D=PIPE DIAMETER [FT]
 Rh=HYDRAULIC RADIUS [FT]=A/P
 S=SLOPE

① EXISTING 24" RCP, SLOPE=1.7%
 Q=(1.49/0.015)(3.14)(0.52^{2/3})(0.017^{1/2})
 Q=25.6 CFS

② EXISTING 24" RCP, SLOPE 1.8%
 Q=(1.49/0.015)(3.14)(0.52^{2/3})(0.018^{1/2})
 Q=26.4 CFS

③ EXISTING 18" RCP, SLOPE 20.0%
 Q=(1.49/0.015)(1.76)(0.382^{2/3})(0.20^{1/2})
 Q=41.0 CFS



LEGEND

LOT 2 DEVELOPMENT AREA
 A = 26892 SQ FT = 0.62 ACRES

① EXISTING 24" RCP, SLOPE=1.7%
 ② EXISTING 24" RCP, SLOPE=1.8%
 ③ EXISTING 18" RCP, SLOPE=20.0%
 — ESD — EXISTING STORM DRAIN
 — SD — PROPOSED STORM DRAIN

Marsac Engineering
 CONSULTING ENGINEERS, LAND PLANNERS, SURVEYORS
 323 West Street, P.O. Box 2681, Park City, Utah 84060-2681
 (435) 646-9167

STAFF:
 MICHAEL DEMKOWICZ
 JUAN CARASCOC

DATE: 12/19/17

FOR: UDOT
 JOB NO.: 12-2-16
 FILE: X:\Empire Pass\Rescue\VAEP-CIVIL.dwg

UDOT DRAINAGE AGREEMENT
 EXHIBIT B
 VILLAGE AT EMPIRE PASS NORTH SUB.
 LOT 2 - STORMWATER ANALYSIS

SHEET 1 OF 1

NOTES:

1. HATCHED LOT 2 DEVELOPMENT BUILDING, PATIO AND DRIVEWAY AREA SHOWN IS PER DESIGN AND CONCEPT BY HART HOWERTON "MARSAC PLANNING STUDY" DATED JANUARY 3, 2017 AND ALLIANCE ENGINEERING "UDOT CONDITIONAL ACCESS PERMIT" APPLICATION #80145.