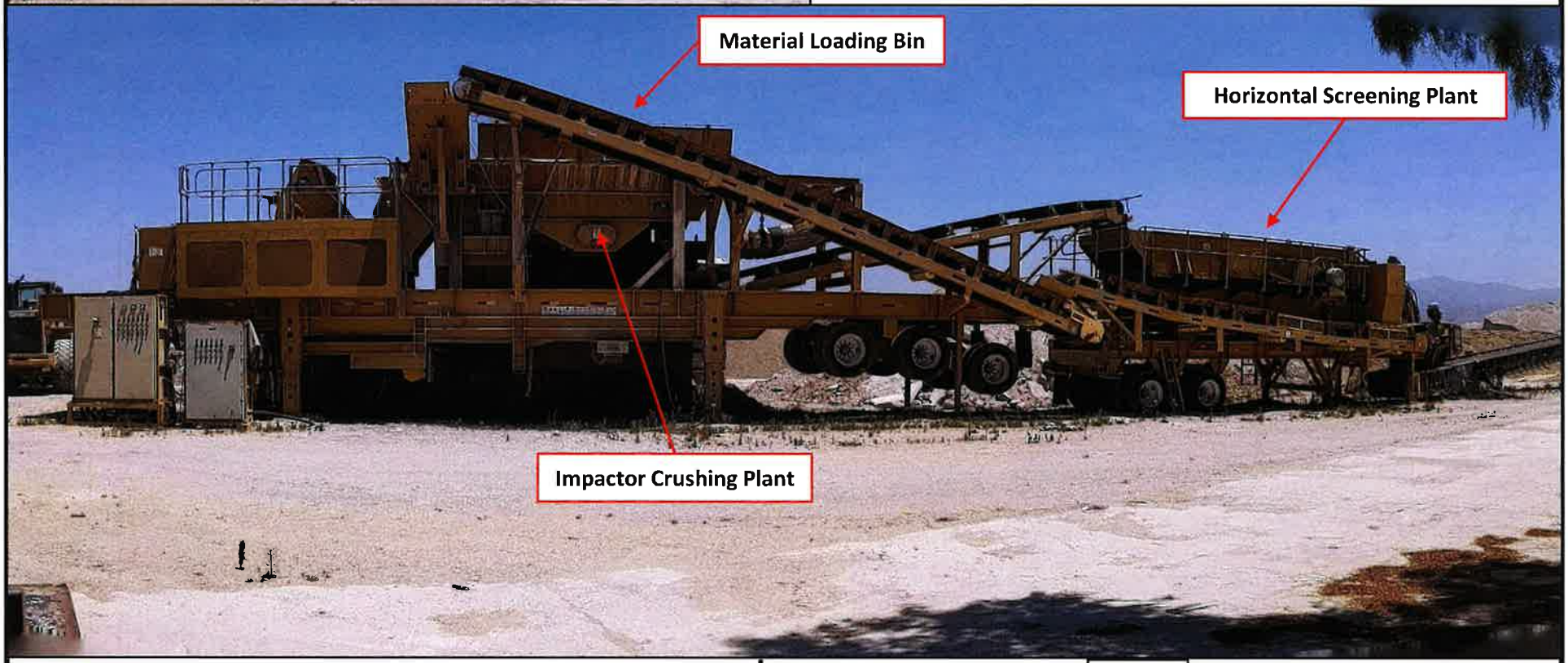


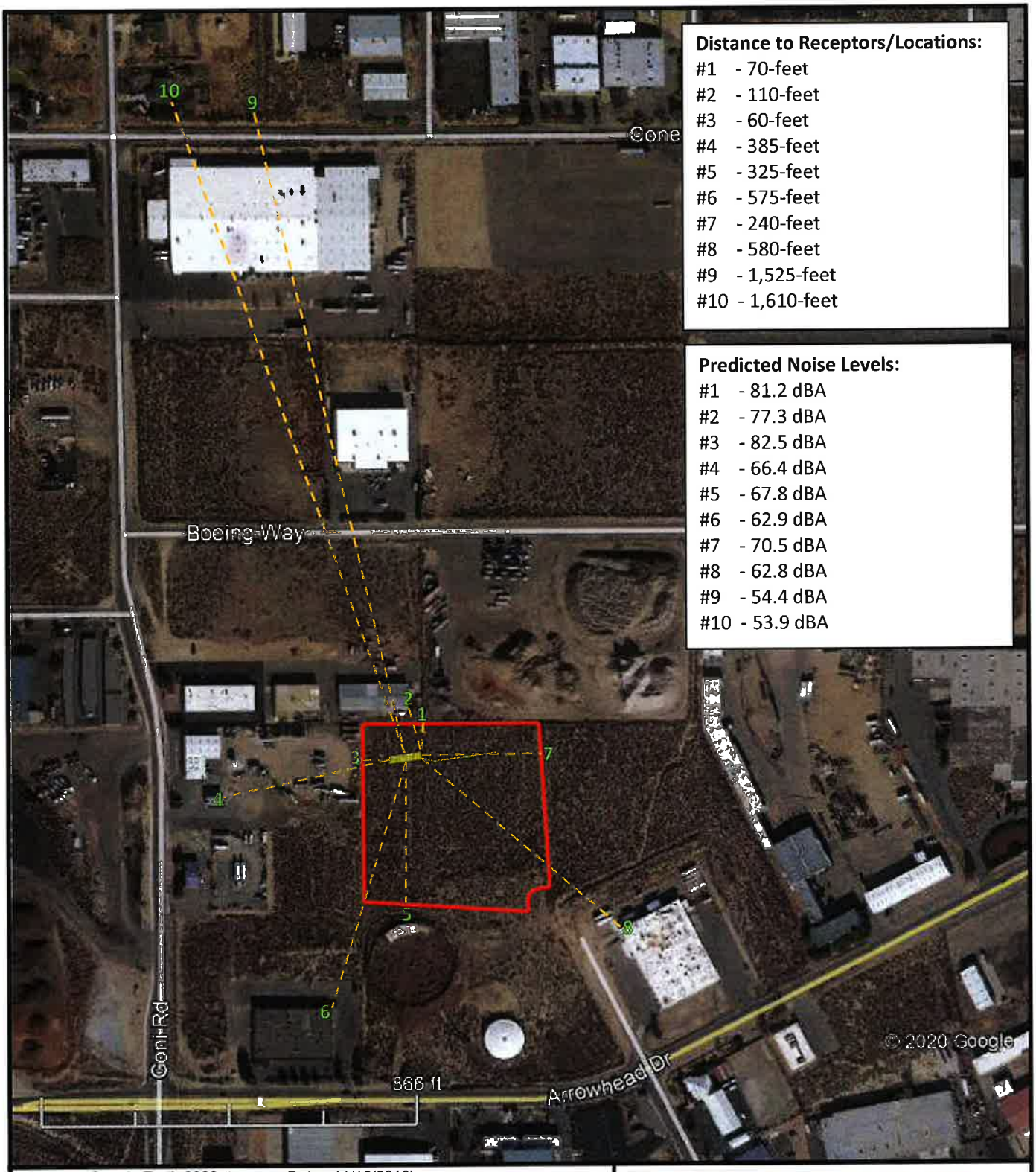
SESPE CONSULTING, INC.

FIGURE 1	CRUSHING EQUIPMENT PHOTOS Otay Mesa Facility R&K Ready Mix Concrete San Diego, California 92154		
PROJECT #:	RK01.20.01	DATE:	8/4/20
SCALE:	N/A	DRAWN BY:	GPS

Source: Google Earth 2020 (Imagery Date: 8/13/2018)

SESPE CONSULTING, INC.

FIGURE 2	NOISE MEASUREMENT MAP Otay Mesa Facility R&K Ready Mix Concrete San Diego, California 92154		
PROJECT #:	RK01.20.01	DATE:	8/4/20
SCALE:	As Shown	DRAWN BY:	GPS



Source: Google Earth 2020 (Imagery Date: 11/16/2018)

SESPE CONSULTING, INC.

Approximate Carson City Facility Boundaries

Approximate Crushing System Location

FIGURE 3

RELOCATED CRUSHER SITE
Proposed Carson City Facility
R&K Ready Mix Concrete
Carson City, Nevada 89706

PROJECT #:	RK01.20.01	DATE:	8/4/20
SCALE:	As Shown	DRAWN BY:	GPS

Measured Noise Level - Otay Mesa Facility

Crushing Plant Noise Measurements (Otay Mesa)

Location #	Measurement #	Measured Noise Levels			Reference Noise Levels		
		Measured L_{eq}	Measured L_{eq} (Combined)	Distance from Source (ft.)	Reference Distance (ft.) [A]	L_{eq} @ 100-feet [B]	L_{eq} @ 100-feet (Combined)
Location #1	#1	76.0	81.2	205	100	82.2	87.4
	#2	80.6				86.8	
	#3	83.8				90.0	
Location #2	#1	79.4	76.4	145	100	82.6	79.6
	#2	76.3				79.5	
	#3	61.9				65.1	
Location #3	#1	77.7	80.7	42	100	70.2	73.2
	#2	83.7				76.2	
	#3	77.9				70.4	
Location #4	#1	83.4	81.5	51	100	77.6	75.6
	#2	74.3				68.5	
	#3	82.4				76.6	
Location #5	#1	83.0	81.0	54	100	77.6	75.7
	#2	82.2				76.8	
	#3	72.1				66.7	
Location #6	#1	85.1	82.7	78	100	82.9	80.5
	#2	76.7				74.5	
Location #7	#1	79.0	78.2	96	100	78.6	77.8
	#2	77.1				76.7	
Location #8	#1	83.4	83.4	140	100	86.3	86.3
Location #9	#1	73.3	73.3	120	100	74.9	74.9
Location #10	#1	72.8	72.8	70	100	69.7	69.7
					Crushing Plant Noise Level (L_{eq}) - Statistical Average @ 100-feet [C]:		**78.1** dBA

See Figure 2 for the noise monitoring locations described above.

A - Distances (feet) estimated using Google Earth ™.

B - L_{eq}Calc = Selected_L_{eq} - 20*log(D/100). "Selected_L_{eq}" = reference noise level @ 100-feet. D = distance to location/receptor (feet).
Source: Federal Highway Administration's *Roadway Construction Noise Model* (FHWA, 2006).

C - A total of 22 noise measurements (3-minutes each) were collected at 10 locations surrounding the crushing equipment at the Otay Mesa facility (see attached meter output files).
Measurements were collected while the crushing equipment was operating at approximately full capacity and within line-of-sight of the noise source(s).
Noise measurements were then statistically combined/averaged to determine an average source noise level (81.4 dBA) at a reference distance of 100-feet.

Predicted Noise Levels - Carson City Facility

Crusher Equipment - Measured Reference Noise Level (Otay Mesa)		
Noise Source	**Reference Distance (feet)**	**L_{eq} (dBA)**
Crusher Equipment	100	78.1

Note: See previous calculations for more detail.

Crusher System - Predicted Noise Levels (Carson City)					
Location / Figure #	**Receptor Type / Land Use**	**Location Description**	**Direction**	**Approximate Distance Source to Location (feet) [A]**	**Predicted Noise Level @ Location (L_{eq} dBA) [B]**
1	Industrial	Property/Fence Line	North	70	81.2
2	Industrial	Receptor/Structure	North	110	77.3
3	Industrial	Property/Fence Line	West	60	82.5
4	Industrial	Receptor/Structure	West	385	66.4
5	Industrial	Property/Fence Line	South	325	67.8
6	Industrial	Receptor/Structure	South	575	62.9
7	Industrial	Property/Fence Line	East	240	70.5
8	Industrial	Receptor/Structure	East	580	62.8
9	Residential	Property/Fence Line	Northwest	1,525	54.4
10	Residential	Receptor/Structure	Northwest	1,610	53.9

See Figure 3 for the locations/receptors described above.

A - Distances (feet) estimated using Google Earth ™.

B - LeqCalc = Selected_Leq - 20*log(D/100). "Selected_Leq" = reference noise level @ 100-feet. D = distance to location/receptor (feet).
Source: Federal Highway Administration's *Roadway Construction Noise Model* (FHWA, 2006).

Otay Mesa Measurement - Location #1, Measurement #1

Start Time	09:26:11	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	76	76
Lmax	dB	87.6	87.6
Lmin	dB	66.9	66.8
Lpk	dB	97.2	97.2
TWA	dB	54	54
PTWA	dB	80.8	80.8
DOSE	%	0.02	0.02
PDOSE	%	11.99	11.92
SEL	dB	98.6	98.5
EXP	p2s	3	3

Otay Mesa Measurement - Location #1, Measurement #2

Start Time	09:30:02	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	80.6	80.6
Lmax	dB	85.1	85.1
Lmin	dB	78	78
Lpk	dB	106.7	106.7
TWA	dB	58.6	58.6
PTWA	dB	85.4	85.4
DOSE	%	0.07	0.07
PDOSE	%	34.81	34.62
SEL	dB	103.2	103.2
EXP	p2s	8	8

Otay Mesa Measurement - Location #1, Measurement #3

Start Time	09:50:22	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	83.8	83.8
Lmax	dB	87	86.9
Lmin	dB	81.2	81.2
Lpk	dB	104.6	104.6
TWA	dB	61.8	61.8
PTWA	dB	88.6	88.6
DOSE	%	0.15	0.15
PDOSE	%	72.76	72.35
SEL	dB	106.4	106.4
EXP	p2s	17	17

Otay Mesa Measurement - Location #2, Measurement #1

Start Time	09:18:25	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	79.4	79.3
Lmax	dB	89.9	89.8
Lmin	dB	67.8	67.8
Lpk	dB	100.2	100.1
TWA	dB	57.3	57.3
PTWA	dB	84.1	84.1
DOSE	%	0.05	0.05
PDOSE	%	25.83	25.68
SEL	dB	101.9	101.9
EXP	p2s	6	6

Otay Mesa Measurement - Location #2, Measurement #2

Start Time	09:45:59	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	76.3	76.3
Lmax	dB	86	86
Lmin	dB	66.2	66.2
Lpk	dB	95.3	95.3
TWA	dB	54.3	54.3
PTWA	dB	81.1	81.1
DOSE	%	0.03	0.03
PDOSE	%	12.9	12.83
SEL	dB	98.9	98.9
EXP	p2s	3	3

Otay Mesa Measurement - Location #2, Measurement #3

Start Time	10:07:48	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	61.9	61.8
Lmax	dB	70.8	70.8
Lmin	dB	59.3	59.3
Lpk	dB	98.1	98.1
TWA	dB	39.8	39.8
PTWA	dB	66.6	66.6
DOSE	%	0	0
PDOSE	%	0.46	0.46
SEL	dB	84.4	84.4
EXP	p2s	0	0

Otay Mesa Measurement - Location #3, Measurement #1

Start Time	09:14:22	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	77.7	77.7
Lmax	dB	87.5	87.4
Lmin	dB	73	73
Lpk	dB	105.1	105.1
TWA	dB	55.7	55.7
PTWA	dB	82.5	82.5
DOSE	%	0.04	0.04
PDOSE	%	17.77	17.67
SEL	dB	100.3	100.3
EXP	p2s	4	4

Otay Mesa Measurement - Location #3, Measurement #2

Start Time	09:33:41	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	83.7	83.6
Lmax	dB	87	87
Lmin	dB	81.1	81.1
Lpk	dB	109.1	109.1
TWA	dB	61.6	61.6
PTWA	dB	88.4	88.4
DOSE	%	0.15	0.14
PDOSE	%	69.67	69.28
SEL	dB	106.2	106.2
EXP	p2s	17	16

Otay Mesa Measurement - Location #3, Measurement #3

Start Time	10:03:46	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	77.9	77.9
Lmax	dB	86.6	86.6
Lmin	dB	76.8	76.8
Lpk	dB	103.3	103.3
TWA	dB	55.9	55.8
PTWA	dB	82.7	82.6
DOSE	%	0.04	0.04
PDOSE	%	18.49	18.38
SEL	dB	100.4	100.4
EXP	p2s	4	4

Otay Mesa Measurement - Location #4, Measurement #1

Start Time	09:06:55	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	83.4	83.3
Lmax	dB	89.6	89.5
Lmin	dB	78.6	78.6
Lpk	dB	106.9	106.9
TWA	dB	61.3	61.3
PTWA	dB	88.1	88.1
DOSE	%	0.14	0.14
PDOSE	%	65.23	64.85
SEL	dB	105.9	105.9
EXP	p2s	16	15

Otay Mesa Measurement - Location #4, Measurement #2

Start Time	09:37:50	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	74.3	74.3
Lmax	dB	82.9	82.9
Lmin	dB	69.6	69.6
Lpk	dB	100.5	100.5
TWA	dB	52.2	52.2
PTWA	dB	79	79
DOSE	%	0.02	0.02
PDOSE	%	8.03	7.99
SEL	dB	96.8	96.8
EXP	p2s	2	2

Otay Mesa Measurement - Location #4, Measurement #3

Start Time	09:54:29	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		08:56:47 27-Jul-2020
Post-Cal	Level	dB	114
	Date		10:11:45 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2
		Broadband	Broadband
Lavg	dB	82.4	82.3
Lmax	dB	84.6	84.5
Lmin	dB	79.1	79.1
Lpk	dB	102.7	102.7
TWA	dB	60.3	60.3
PTWA	dB	87.1	87.1
DOSE	%	0.11	0.11
PDOSE	%	51.82	51.52
SEL	dB	104.9	104.9
EXP	p2s	12	12

Otay Mesa Measurement - Location #5, Measurement #1

Start Time	09:09:54	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	83	83
Lmax	dB	90.9	90.8
Lmin	dB	76.4	76.4
Lpk	dB	107.1	107.1
TWA	dB	61	61
PTWA	dB	87.8	87.8
DOSE	%	1.26	1.25
PDOSE	%	604.87	599.23
SEL	dB	105.6	105.6
EXP	p2s	14	14

Otay Mesa Measurement - Location #5, Measurement #2

Start Time	09:38:26	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	82.2	82.2
Lmax	dB	84.7	84.7
Lmin	dB	80.4	80.4
Lpk	dB	104.8	104.8
TWA	dB	60.2	60.2
PTWA	dB	87	87
DOSE	%	1.05	1.04
PDOSE	%	501.88	497.18
SEL	dB	104.8	104.7
EXP	p2s	12	12

Otay Mesa Measurement - Location #5, Measurement #3

Start Time	09:55:20	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	72.1	72
Lmax	dB	73.4	73.4
Lmin	dB	71.2	71.2
Lpk	dB	89.9	89.8
TWA	dB	50	50
PTWA	dB	76.8	76.8
DOSE	%	0.1	0.1
PDOSE	%	48.3	47.87
SEL	dB	94.6	94.6
EXP	p2s	1	1

Otay Mesa Measurement - Location #6, Measurement #1

Start Time	09:14:04	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	85.1	85.1
Lmax	dB	87.3	87.3
Lmin	dB	83.5	83.4
Lpk	dB	106.5	106.5
TWA	dB	63.1	63
PTWA	dB	89.9	89.8
DOSE	%	2.03	2.01
PDOSE	%	974.74	965.8
SEL	dB	107.7	107.6
EXP	p2s	23	23

Otay Mesa Measurement - Location #6, Measurement #2

Start Time	09:58:44	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	76.7	76.7
Lmax	dB	78.4	78.3
Lmin	dB	75.4	75.4
Lpk	dB	94.5	94.5
TWA	dB	54.7	54.6
PTWA	dB	81.5	81.5
DOSE	%	0.29	0.29
PDOSE	%	141.25	139.92
SEL	dB	99.3	99.2
EXP	p2s	3	3

Otay Mesa Measurement - Location #7, Measurement #1

Start Time	09:23:14	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	79	79
Lmax	dB	81	81
Lmin	dB	77.3	77.2
Lpk	dB	100.6	100.6
TWA	dB	57	56.9
PTWA	dB	83.8	83.8
DOSE	%	0.5	0.49
PDOSE	%	239.54	237.3
SEL	dB	101.6	101.5
EXP	p2s	6	6

Otay Mesa Measurement - Location #7, Measurement #2

Start Time	09:34:34	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	77.1	77.1
Lmax	dB	79	78.9
Lmin	dB	75.2	75.1
Lpk	dB	99	99
TWA	dB	55.1	55
PTWA	dB	81.9	81.8
DOSE	%	0.32	0.32
PDOSE	%	154.22	152.84
SEL	dB	99.7	99.6
EXP	p2s	4	4

Otay Mesa Measurement - Location #8, Measurement #1

Start Time	09:18:48	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	83.4	83.4
Lmax	dB	85.7	85.6
Lmin	dB	81.2	81.2
Lpk	dB	107.4	107.4
TWA	dB	61.4	61.4
PTWA	dB	88.2	88.2
DOSE	%	1.38	1.37
PDOSE	%	662.6	656.52
SEL	dB	106	106
EXP	p2s	16	16

Otay Mesa Measurement - Location #9, Measurement #1

Start Time	09:42:41	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	73.3	73.3
Lmax	dB	74.8	74.8
Lmin	dB	72.4	72.3
Lpk	dB	96.4	96.4
TWA	dB	51.3	51.2
PTWA	dB	78.1	78.1
DOSE	%	0.13	0.13
PDOSE	%	64.49	63.89
SEL	dB	95.9	95.8
EXP	p2s	2	2

Otay Mesa Measurement - Location #10, Measurement #1

Start Time	09:46:01	27-Jul-2020
Run Length	0:03:00	11520

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	113.8
	Date		09:01:48 27-Jul-2020
Post-Cal	Level	dB	113.7
	Date		10:04:49 27-Jul-2020
ReCert	Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	3	3
Criterion Level	dB	80	80
Upper Limit Level	dB	140	140
Projected Time	Hrs	24	24
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1 Broadband	Meter 2 Broadband
Lavg	dB	72.8	72.8
Lmax	dB	77.9	77.9
Lmin	dB	70.5	70.5
Lpk	dB	93	93
TWA	dB	50.8	50.7
PTWA	dB	77.6	77.5
DOSE	%	0.12	0.12
PDOSE	%	57.08	56.56
SEL	dB	95.3	95.3
EXP	p2s	1	1

Certificate of Compliance and Calibration

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Calibrated for:

Mr. Graham Stephens
Sespe Consulting, Inc.
1565 Hotel Circle South
Suite 370
San Diego, CA 92108

Client#S-100
EDI Job#CR6035-1
ID# 103

Calibration Conclusion	
As Received:In Tolerance	☒
As Received:Out of Tolerance	☐
As Left: In Tolerance	☒
As Left: Out of Tolerance	☐

Manufacturer: 3M/Quest Technologies
Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN-HOUSE NIST TRACEABLE CERTIFICATION

As-Received Pre-Calibration Values: IN-TOLERANCE	ANSI S1.4-2014 Lower Talerance	Actual Value	ANSI S1.4-2014 Upper Tolerance	Compliance
Sound Pressure Level,114.0dB@1KHz	113.0	**114.2**	115.0	YES

As-Received Pre-Calibration Values: IN-TOLERANCE	ANSI S1.4-2014 Lower Tolerance	Actual Value	ANSI S1.4-2014 Upper Tolerance	Compliance
Sound Pressure Level,114.0dB@1KHz	113.0	**114.0**	115.0	YES

Acoustical Parameter Check (110 dB input)	ANSI S1.4 Lower Tolerance	Actual Value	ANSI S1.4 Upper Tolerance	Compliance
Fast Response dB	107.0	**109.9**	110.0	YES
Slow Rasponse dB	103.9	**105.9**	107.9	YES
Crest Factor dB	109.5	**110.0**	110.5	YES
Impulse Response	109.5	**110.0**	110.5	YES

Linearity Check	dB Input Level at 1000 Hz							
	130.0 dB	120.0 dB	110.0 dB	100.0 dB	90.0 dB	80.0 dB	70.0 dB	60.0 dB
Linearity Tolerance ±0.5 dB	130.0	120.0	110.0	100.0	90.0	80.0	70.0	59.9
Compliance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Electrical Linearity Check	dB Input Level at 1000 Hz				
	70.0 dB	60.0 dB	50.0 dB	40.0 dB	30.0 dB
Linearity Tolerance ±0.6 dB	70.0	60.0	50.0	40.0	30.2
Compliance	Yes	Yes	Yes	Yes	Yes

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Manufacturer: 3M/Quest Technologies
Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN-HOUSE NIST TRACEABLE CERTIFICATION

A-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	46.5	49.8	52.5	-50.5	± 3	Yes
31.5	57.6	60.6	61.5	-39.4	± 3	Yes
63	71.8	73.9	75.8	-26.2	± 2	Yes
125	82.4	83.7	85.4	-16.1	± 1.5	Yes
250	89.9	91.2	92.9	-8.6	± 1.5	Yes
500	95.3	96.7	98.3	-3.2	± 1.5	Yes
1K REF.	98.5	100.0	101.5	0	± 1.5	Yes
2K	99.2	101.4	103.2	1.2	± 2	Yes
4K	98.0	102.3	104.0	1	± 3	Yes
8K	93.9	97.1	103.9	-1.1	± 5	Yes
16K	—	93.7	98.4	-6.6	+5/-∞	Yes

C-weighted Frequency Response with 100 dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	90.8	93.7	96.8	-3.0	± 3	Yes
31.5	94.0	97.0	100.0	-3.0	± 3	Yes
63	97.2	99.0	101.2	-0.8	± 2	Yes
125	98.3	99.5	101.3	-0.2	± 1.5	Yes
250	98.5	99.7	101.5	0.0	± 1.5	Yes
500	98.5	99.8	101.5	0.0	± 1.5	Yes
1K REF.	98.5	99.9	101.5	0.0	± 1.5	Yes
2K	97.8	99.9	101.8	-0.2	± 2	Yes
4K	96.2	100.5	102.2	-0.8	± 3	Yes
8K	92.0	95.2	102.0	-3.0	± 5	Yes
16K	—	91.7	96.5	-8.5	+5/-∞	Yes

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Manufacturer: 3M/Quest Technologies
Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN-HOUSE NIST TRACEABLE CERTIFICATION

Z-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	97.0	99.1	103.0	0.0	± 3	Yes
31.5	97.0	99.4	103.0	0.0	± 3	Yes
63	98.0	99.7	102.0	0.0	± 2	Yes
125	98.5	99.7	101.5	0.0	± 1.5	Yes
250	98.5	99.8	101.5	0.0	± 1.5	Yes
500	98.5	99.8	101.5	0.0	± 1.5	Yes
1K REF.	98.5	99.9	101.5	0.0	± 1.5	Yes
2K	98.0	100.1	102.0	0.0	± 2	Yes
4K	97.0	101.2	103.0	0.0	± 3	Yes
8K	95.0	97.6	105.0	0.0	± 5	Yes
16K	—	98.1	105.0	0.0	+5/-∞	Yes

Flat-weighted Frequency Response with 100.0dB Input						
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB	Compliance
20	97.0	99.8	103.0	0.0	± 3	Yes
31.5	97.0	**99.7**	103.0	0.0	± 3	Yes
63	98.0	**99.8**	102.0	0.0	± 2	Yes
125	98.5	**99.7**	101.5	0.0	± 1.5	Yes
250	98.5	**99.8**	101.5	0.0	± 1.5	Yes
500	98.5	**99.9**	101.5	0.0	± 1.5	Yes
1K REF.	98.5	**99.9**	101.5	0.0	± 1.5	Yes
2K	98.0	**100.1**	102.0	0.0	± 2	Yes
4K	97.0	**101.3**	103.0	0.0	± 3	Yes
8K	95.0	**98.2**	105.0	0.0	± 5	Yes
16K	—	**100.2**	105.0	0.0	+5/-∞	Yes

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Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN HOUSE NIST TRACEABLE CERTIFICATION

OCTAVE BAND FILTER ROLL-OFF RESPONSE

Center Freq. Hz @ 110.0dB	Lower Band Limit	Limits dB 104.3/109.6	Upper Band Limit	Limits dB 104.3/109.6	Compliance
12	11.2Hz	106.1	14.1Hz	106.4	Yes
16	14.1Hz	106.2	17.8Hz	106.2	Yes
20	17.8Hz	106.8	22.4Hz	106.9	Yes
25	22.4Hz	106.6	28.2Hz	106.6	Yes
31.5	28.2Hz	106.4	35.5Hz	106.1	Yes
40	35.5Hz	106.5	44.7Hz	106.9	Yes
50	44.7Hz	106.8	56.2Hz	106.6	Yes
63	56.2Hz	106.8	70.8Hz	106.5	Yes
80	70.8Hz	106.5	89.1Hz	107.1	Yes
100	89.1Hz	106.5	112.0Hz	107.0	Yes
125	112.0Hz	106.3	141.0Hz	106.8	Yes
160	141.0Hz	106.5	178.0Hz	106.6	Yes
200	178.0Hz	106.9	224.0Hz	107.1	Yes
250	224.0Hz	106.9	282.0Hz	107.2	Yes
315	282.0Hz	106.7	355.0Hz	106.9	Yes
400	355.0Hz	106.6	447.0Hz	106.5	Yes
500	447.0Hz	106.9	562.0Hz	106.6	Yes
630	562.0Hz	106.5	708.0Hz	107.0	Yes
800	708.0Hz	106.2	891.0Hz	105.7	Yes
1,000	891.0Hz	106.7	1,122.0KHz	106.1	Yes
1,250	1,122.0KHz	106.6	1,413.0KHz	106.9	Yes
1,600	1,413.0KHz	106.5	1,778.0KHz	107.1	Yes
2,000	1,778.0KHz	106.5	2,239.0KHz	106.5	Yes
2,500	2,239.0KHz	106.9	2,818.0KHz	106.9	Yes
3,150	2,818.0KHz	106.5	3,548.0KHz	107.2	Yes
4,000	3,548.0KHz	106.5	4,467.0KHz	106.8	Yes
5,000	4,467.0KHz	106.5	5,623.0KHz	107.1	Yes
6,300	5,623.0KHz	106.4	7,079.0KHz	105.7	Yes
8,000	7,079.0KHz	106.9	8,913.0KHz	106.4	Yes
10,000	8,913.0KHz	106.6	11,220.0KHz	106.8	Yes
12,500	11,220.0KHz	106.3	14,130.0KHz	106.3	Yes
16,000	14,130.0KHz	106.4	17,780.0KHz	106.2	Yes

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Manufacturer: 3M/Quest Technologies
Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN-HOUSE NIST TRACEABLE CERTIFICATION

Center Freq. Hz @ 110.0dB	Lower Limits 109.7 dB	Data Found (dB)	Upper Limits 110.3dB	Deviation	Compliance
12.5	109.7 dB	110.0	110.3dB	0.0	YES
16	109.7 dB	110.0	110.3dB	0.0	YES
20	109.7 dB	110.0	110.3dB	0.0	YES
25	109.7 dB	109.9	110.3dB	-0.1	YES
31.5	109.7 dB	110.0	110.3dB	0.0	YES
40	109.7 dB	110.0	110.3dB	0.0	YES
50	109.7 dB	110.0	110.3dB	0.0	YES
63	109.7 dB	110.0	110.3dB	0.0	YES
80	109.7 dB	110.0	110.3dB	0.0	YES
100	109.7 dB	110.0	110.3dB	0.0	YES
125	109.7 dB	110.0	110.3dB	0.0	YES
160	109.7 dB	110.0	110.3dB	0.0	YES
200	109.7 dB	110.0	110.3dB	0.0	YES
250	109.7 dB	110.0	110.3dB	0.0	YES
315	109.7 dB	110.0	110.3dB	0.0	YES
400	109.7 dB	110.0	110.3dB	0.0	YES
500	109.7 dB	110.0	110.3dB	0.0	YES
630	109.7 dB	110.0	110.3dB	0.0	YES
800	109.7 dB	110.0	110.3dB	0.0	YES
1,000	109.7 dB	110.0	110.3dB	0.0	YES
1,250	109.7 dB	110.0	110.3dB	0.0	YES
1,600	109.7 dB	110.0	110.3dB	0.0	YES
2,000	109.7 dB	110.0	110.3dB	0.0	YES
2,500	109.7 dB	110.0	110.3dB	0.0	YES
3,150	109.7 dB	110.0	110.3dB	0.0	YES
4,000	109.7 dB	110.0	110.3dB	0.0	YES
5,000	109.7 dB	110.0	110.3dB	0.0	YES
6,300	109.7 dB	110.0	110.3dB	0.0	YES
8,000	109.7 dB	110.0	110.3dB	0.0	YES
10,000	109.7 dB	110.0	110.3dB	0.0	YES
12,500	109.7 dB	109.9	110.3dB	-0.1	YES
16,000	109.7 dB	109.9	110.3dB	-0.1	YES
20,000	109.7 dB	109.8	110.3dB	-0.2	YES

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Manufacturer: 3M/Quest Technologies
Model Number: SoundPro DL-1/3 Sound Level Meter Type-2
Serial No.: BIJ090010, w/Microphone QE7052 SN: No38771, Pre-Amp SN: 0910 4962
Calibration Date: 26-Mar-2020
Calibration Due Date: 26-Mar-2021
Calibrated By: John R. Johnson

IN-HOUSE NIST TRACEABLE CERTIFICATION

Peak Parameter Electrical Check	ANSI S1.4 Lower Tolerance	Actual Value	ANSI S1.4 Upper Tolerance	Compliance
Peak-C Response 110.0 dB - 31.5Hz	109.5	113.1	115.5	YES
Peak-C Response 110.0 dB - 500Hz	111.5	113.9	115.5	YES
Peak-C Response 110.0 dB - 8000Hz	110.4	114.7	116.4	YES

Broadband Noise Floor Check	Test Result (dB)	Upper Limit (dB)	Compliance
A-weight Noise Floor	17.4	22.0	Yes
C-weight Noise Floor	16.0	30.0	Yes
Z-weight Noise Floor	18.8	35.0	Yes
F-weight Noise Floor	20.3	40.0	Yes

Laboratory Conditions during Calibration

Atmospheric Pressure	827.3 hPa
Laboratory Air Temperature	22.4 Deg. C
Laboratory Air Humidity	26.2 %

Standards Used and Their Due Dates:

Measuring Amp	**B&K 2636**	**SN: 812847**	**Trace # CAS-355090-C1T2Z7-101**	**Due Date: 01/16/2021**
Piston Phone	**B&K 4228**	**SN: 1747024**	**Trace # CAS-355090-C1T2Z7-802**	**Due Date: 01/16/2021**
Calibrator	**B&K 4231**	**SN: 2122969**	**Trace # CAS-355090-C1T2Z7-801**	**Due Date: 01/16/2021**
Multimeter	**HP**	**SN: US36054035**	**Trace # 1-10796763933-1**	**Due Date: 01/14/2021**

Engineering Dynamics, Inc. does hereby certify that the above referenced SOUND LEVEL ANALYZER meets the requirements of the American National Standards Institute and is traceable to NIST.

Certification of this instrument is valid for 1-year from the calibration date listed above.

3925 S. Kalamath Street, Englewood, CO 80110 Voice: 303-761-4367 www.engdynamics.com

WOOD RODGERS

August 19, 2020

Community Development Department
Carson City
108 E. Proctor Street
Carson City, NV 89701

Re: Water Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address water impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 12-inch ACP public water main is located south of the project site within Arrowhead Drive. An 8-inch water main will be extended up Ryan Way to supply the project site. The R&K Ready Mixed Concrete project includes a 1,200 square foot office building and a 3,000 square foot shop to be serviced by the extended main. One water meter is proposed to service both buildings. Another meter and service will be utilized for the small landscape area. Additionally, a fire hydrant will be placed onsite so that it is located within 100 feet of the buildings.

The demand for the buildings and small landscape area is low based on similar uses. The process water and mixing water for the concrete production will be estimated and analyzed at final design.

The proposed water system will meet the requirements outlined in the *Carson City Development Standards*. A full water design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Water Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or jwilbrecht@woodrodgers.com.

Sincerely,

Jillian Wilbrecht, P.E.

PROFESSIONAL ENGINEER STATE OF NEVADA
JILLIAN G. WILBRECHT
Exp: 12/31/22
CIVIL
No. 22522
8/20/20

WOOD RODGERS

August 19, 2020

Community Development Department
Carson City
108 E. Proctor Street
Carson City, NV 89701

Re: Sewer Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address sewer impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 8-inch ACP public sanitary sewer main is located along the west property line. The R&K Ready Mixed Concrete project includes a 1,200 square foot office building and a 3,000 square foot shop that will connect to the existing public sewer system.

The peak daily flow is calculated using the sewage contributions for industrial areas as specified by the *Carson City Development Standards*. The *Standards* specify an average flow of 300 gallons/capita/day peak design flow rate with a 12 capita/acre population density. This results in a peak sewer flow rate of 0.025 cubic feet per second (15,900 gallons per day). The sewer flows will likely be less than the design code calculations based on the small building footprint for the site. The flows generated by this project are low, less than 200 fixture units, and it is assumed that the downstream system can handle the additional load.

The proposed private sanitary sewer system located within the project will meet the requirements outlined in the *Carson City Development Standards*. A full sewer design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Sewer Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or jwilbrecht@woodrodgers.com.

Sincerely,

Jillian Wilbrecht, P.E.

PRELIMINARY DRAINAGE REPORT

FOR

R&K READY MIXED CONCRETE

Prepared for:

R&K Ready Mixed Concrete, LLC
930 Tahoe Boulevard, Suite 802; PMB 526
Incline Village, NV 89451

August 2020

Prepared by:

Wood Rodgers Inc.
1361 Corporate Boulevard
Reno, Nevada 89502

Jillian Wilbrecht, P.E.

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS

TABLE OF CONTENTS

APPENDIX

INTRODUCTION

This report represents the Preliminary Drainage Report for the development of the proposed R&K Ready Mixed Concrete site. The purpose of this report is to address drainage issues that result from development of the existing property in accordance with the *Carson City Development Standards* and sound design and engineering practices. This report describes the existing drainage condition on and around the project site, details the proposed routing of storm water, quantifies the estimated onsite storm water flow to be generated from development, compares it to the existing condition, and defines the design measures proposed to mitigate increased runoff.

GENERAL LOCATION AND DEVELOPMENT DESCRIPTION

The proposed project site (APN 005-072-06) is approximately 4.4± acres in size and is located within Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way. A Vicinity Map is included in the appendix of this report for reference.

The project site is located within the Carson River Basin as delineated by the State of Nevada Division of Environmental Protection. There are currently no underground drainage facilities adjacent to the project site.

PROPERTY DESCRIPTION

The parcel is currently undeveloped land without any utilities or other improvements onsite. The property is covered in brush and native grasses. The site is generally flat, sloping from north to south at a less than 2% slope.

PROJECT DESCRIPTION

The R&K Ready Mixed Concrete project includes a 1,200 square foot office and a 3,000 square foot shop. The site will include equipment and materials for processing concrete. The site has approximately 3,200 square feet of landscaping and 76,300 square feet of paving for access roads, parking, and equipment pads.

EXISTING DRAINAGE DESCRIPTION

OFFSITE DRAINAGE DESCRIPTION

The current historic drainage pattern is characterized by shallow overland flow, generally flowing from north to south across minimally-sloping, natively-vegetated land. An existing drainage swale crosses the site along the western third of the property. This swale will be intercepted at the north edge of the property and conveyed west then south along the property lines. It will then be aligned to discharge into

the existing swale on the property south of the project site. No additional stormwater from the proposed project site will be discharged into the western swale. To size the re-routed channel, three cross-sections were taken of the existing channel and evaluated.

ONSITE DRAINAGE DESCRIPTION

Historic onsite drainage sheet flows from north to south as directed by the existing slope of the land. The site is devoid of any existing drainage infrastructure.

FLOODPLAIN INFORMATION

The entire site is designated as Zone Shaded X by FEMA. See the FEMA Firmette in the appendix of this report for an illustration of the area. The buildings will be elevated one foot above the existing ground for mitigation.

PROPOSED DRAINAGE FACILITIES & HYDROLOGY

GENERAL DESCRIPTION

In the proposed condition, the site will be graded to route all onsite runoff to the south or southeast area of the site, mimicking the existing condition. Stormwater routing consists of sheet flow from the paved areas, building roofs, and landscape areas to drainage swales. The drainage swale along the south side of the project site will act as a linear detention basin with outlet control in the southeast corner matching the existing 5-year flow condition. A copy of the Site Drainage Plan is included in the appendix for graphical representation.

HYDROLOGIC ANALYSIS

5-year and 100-year storm event runoff for the onsite and offsite areas was analyzed using the Rational Method, per Carson City drainage manual for sites less than 100 acres. Rational Method input includes rainfall frequency, runoff coefficients, and drainage areas. Rainfall input was generated from the NOAA Atlas 14 Point Precipitation Frequency Estimates at the site. A copy of the frequency table is included in the appendix of this report. Runoff coefficients (C-values) were estimated using standard C-value estimates published in the Truckee Meadows Regional Drainage Manual based on surface characteristics.

A Rational Method spreadsheet was used to calculate runoff from the design storm events. Copies of the spreadsheets are included in the appendix of this report. Calculations are included for the onsite 5-year and 100-year events for both the existing and proposed conditions.

Results from the calculations are summarized in the following table:

Basin & Condition	5-Year Flow Rate (cfs)	100-Year Flow Rate (cfs)
Existing (E-1)	1.0	6.5
Proposed (P-1 & P-2)	2.8	9.9

Development of the project site results in a 5-year runoff increase of 1.8 cubic feet per second (cfs). The impact of the proposed flow rates on the existing site has been evaluated and mitigated as described below.

Detention

A linear detention basin is proposed along the south side of the project site to handle stormwater. The detention basin has been designed to handle the additional flow generated from development of the site and is equipped with an outlet pipe that restricts the discharge to the downstream system to match the existing 5-year condition flow rate.

The existing and proposed flows on the site were evaluated. The existing condition has a 5-year storm event flow rate of 1.0 cfs and a proposed flow rate of 2.8 cfs resulting in an increase of 1.8 cfs. The minimum detention volume was calculated using the Rational Formula Method for the Truckee Meadows Redional Drainage Manual, which states the volume is equal to 60 times the time of concentration times the detained flow rate. The resulting minimum required detention volume is 1500 cubic feet (cf). A berm set at a level elevation along the south side of the project site will allow for sheet flow from the offsite areas to continue across the project site matching existing discharge conditions for storms larger than the 5-year.

Ryan Way Stormwater Crossing

An existing FEMA Regulatory Floodway open drainage channel is located on the parcel east of the project site. Currently, then open drainage channel flows across Ryan Way near the entrance of the proposed project site. As a part of the development of the project, Ryan Way will be paved up to the project site, therefore impacting the existing channel crossing. As the site will accommodate large vehicles for hauling concrete and associated materials, an underground crossing at this location is proposed. Based on information received from Carson City Public Works, the existing channel has a 100-year, 24-hour flow rate of 45 cfs. Additionally, some sheet flow west of the channel will be routed to the crossing. The underground crossing will handle the 100-year flow contribution.

Conclusion

The drainage facilities that will be constructed with the R&K Ready Mixed Concrete site have been designed in compliance with all drainage laws, Carson City Municipal Code, FEMA requirements and development standards. The proposed drainage facilities are adequately sized to ensure flow leaving the

site in the proposed condition is at or below existing condition levels and will therefore not impact downstream flow rates or storage requirements.

REFERENCES

Carson City Municipal Code, Title 18 Appendix – Carson City Development Standards, August 27, 2014.

Federal Emergency Management Agency, Flood Insurance Rate Map for Carson City, Nevada.

NOAA Atlas 14, Volume 1, Version 5. Downloaded August 18, 2020.

Truckee Meadows Regional Drainage Manual, April 30, 2009.

APPENDIX

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

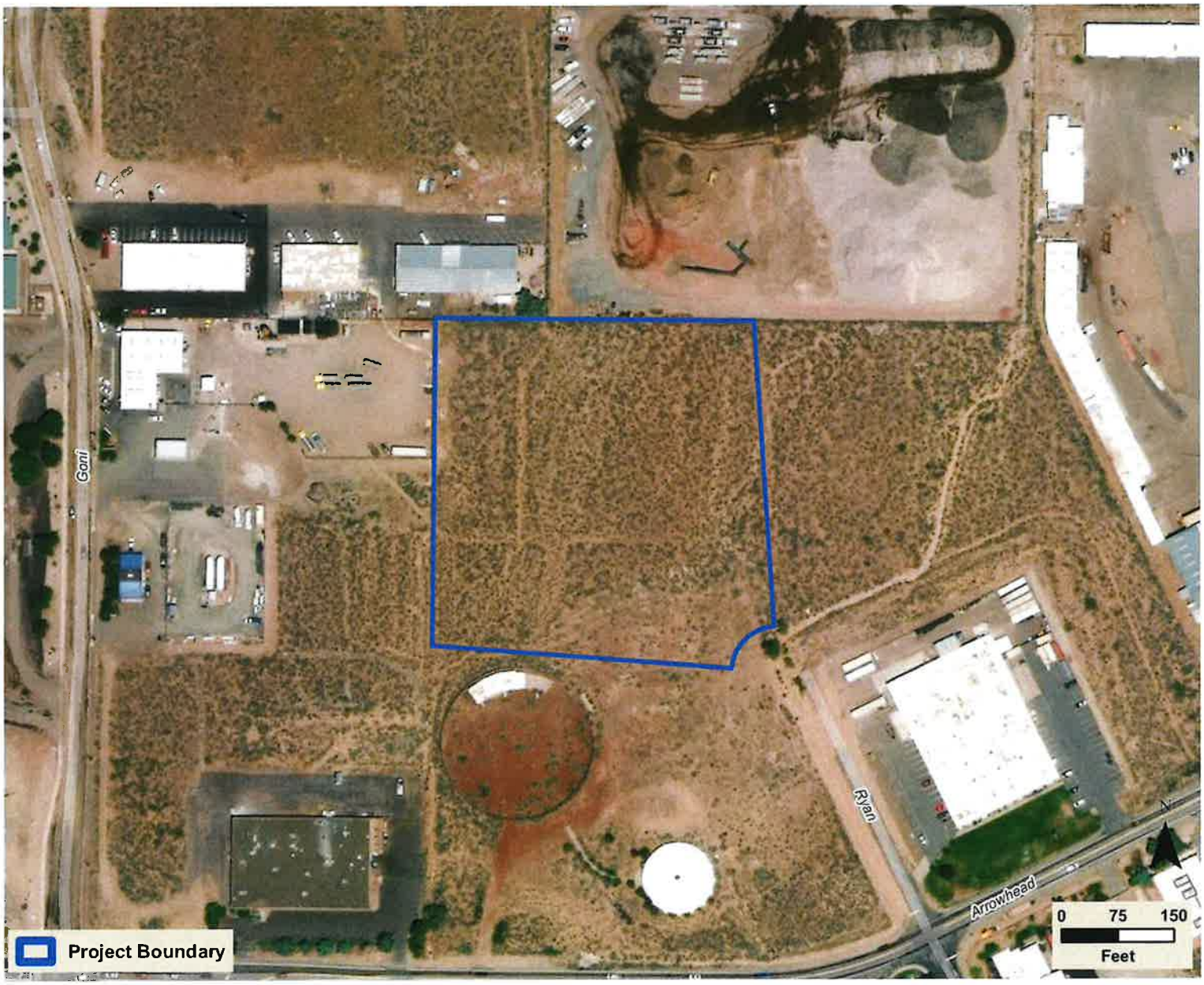


Fig. 1

Vicinity Map

R&K Ready Mixed Concrete

Carson City, NV

July 2020

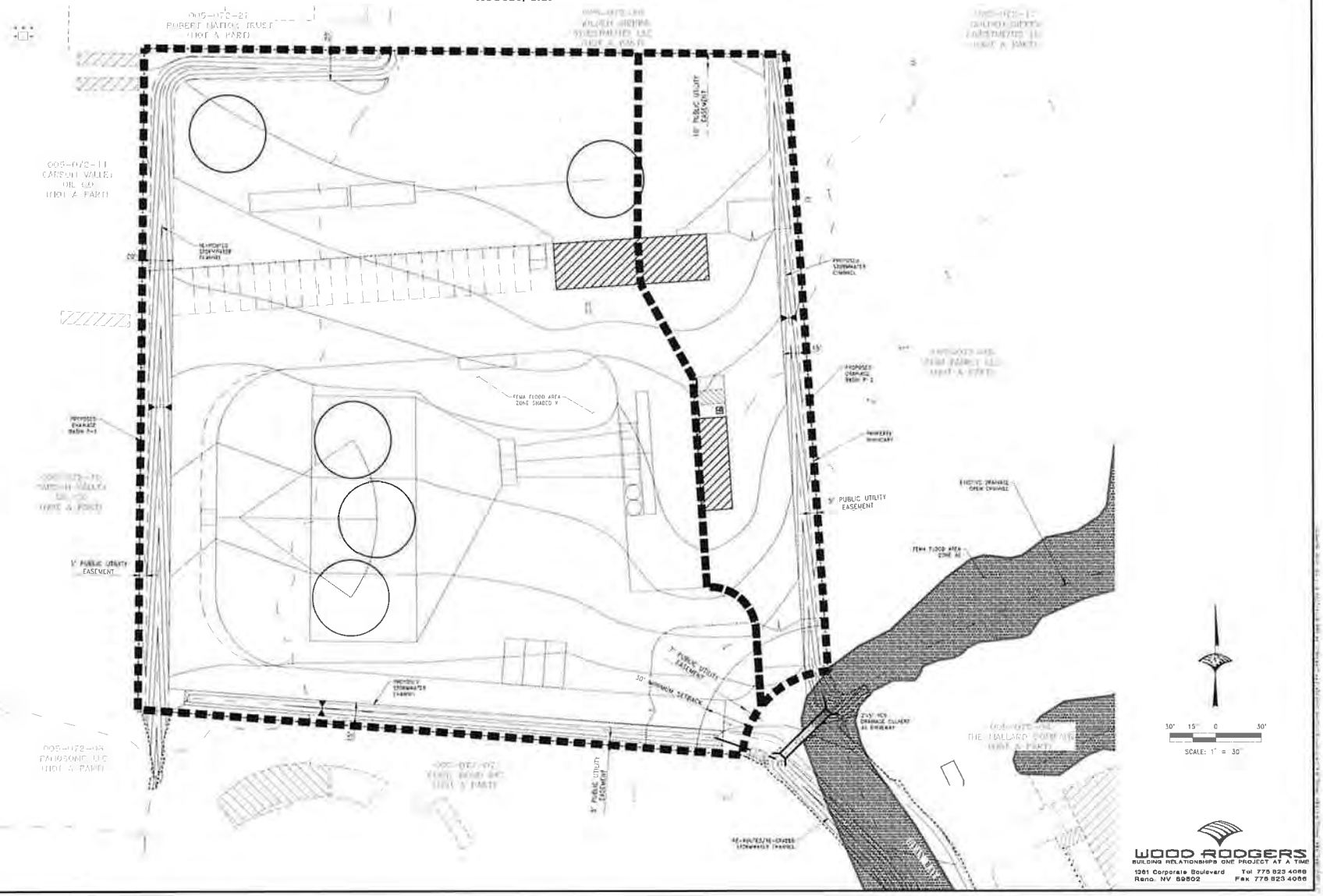
Prepared By: JW *Checked By: MC*

SITE DRAINAGE PLAN

R&K READY MIX CARSON CITY

R&K READY MIXED CONCRETE, LLC

CARSON CITY *AUGUST, 2020* **NEVADA**



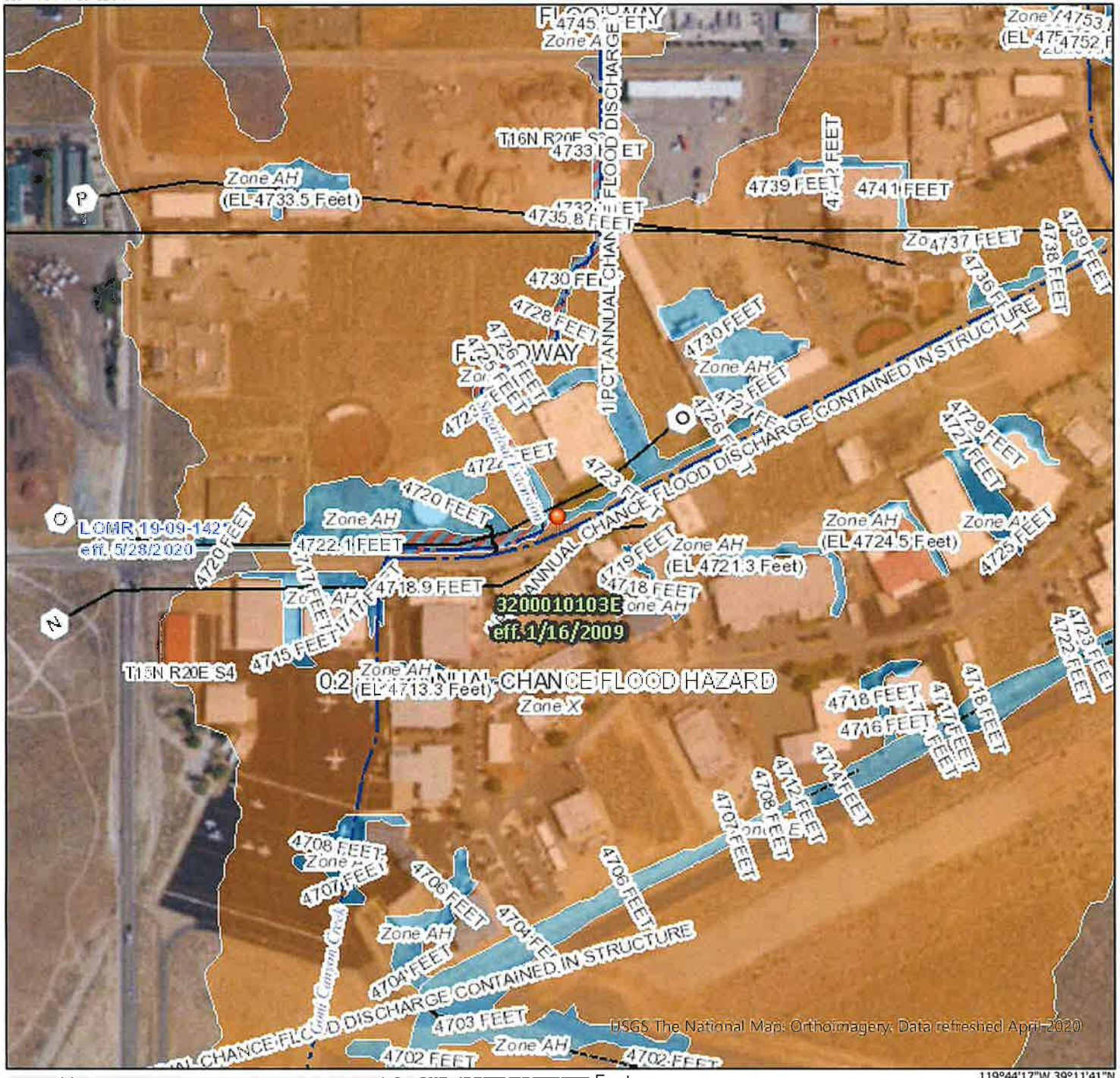
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard Tel 775 823 4066
Reno, NV 89502 Fax 775 823 4066

R&K READY MIX

National Flood Hazard Layer FIRMette

FEMA

119°44'54"W 39°12'9"N



119°44'17"W 39°11'41"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Are of 1% annual chance flood with averag depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone I

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zo

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximat point selected by the user and does not repres an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/19/2020 at 2:05 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOAA Atlas 14, Volume 1, Version 5
Location name: Carson City, Nevada, USA*
Latitude: 39.1998°, Longitude: -119.7442°
Elevation: 4727.78 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.20 (1.03-1.42)	1.49 (1.30-1.76)	1.98 (1.70-2.35)	2.46 (2.09-2.90)	3.24 (2.66-3.83)	3.94 (3.14-4.69)	4.78 (3.68-5.75)	5.78 (4.28-7.08)	7.37 (5.15-9.24)	8.82 (5.87-11.3)
10-min	0.912 (0.786-1.07)	1.13 (0.984-1.34)	1.51 (1.29-1.79)	1.87 (1.59-2.21)	2.46 (2.03-2.92)	2.99 (2.39-3.57)	3.64 (2.80-4.38)	4.40 (3.26-5.39)	5.61 (3.92-7.03)	6.71 (4.46-8.57)
15-min	0.752 (0.648-0.888)	0.936 (0.812-1.11)	1.25 (1.07-1.48)	1.55 (1.31-1.83)	2.03 (1.67-2.41)	2.48 (1.98-2.95)	3.00 (2.32-3.62)	3.64 (2.69-4.46)	4.64 (3.24-5.82)	5.55 (3.69-7.09)
30-min	0.506 (0.436-0.598)	0.630 (0.546-0.748)	0.842 (0.720-0.996)	1.04 (0.884-1.23)	1.37 (1.13-1.62)	1.67 (1.33-1.99)	2.02 (1.56-2.44)	2.45 (1.81-3.00)	3.12 (2.18-3.91)	3.73 (2.48-4.77)
60-min	0.313 (0.270-0.370)	0.390 (0.338-0.462)	0.520 (0.445-0.617)	0.645 (0.547-0.761)	0.847 (0.697-1.00)	1.03 (0.823-1.23)	1.25 (0.965-1.51)	1.51 (1.12-1.86)	1.93 (1.35-2.42)	2.31 (1.54-2.95)
2-hr	0.210 (0.187-0.241)	0.261 (0.232-0.299)	0.332 (0.293-0.380)	0.396 (0.345-0.452)	0.491 (0.417-0.562)	0.576 (0.478-0.667)	0.671 (0.542-0.787)	0.788 (0.616-0.938)	0.990 (0.739-1.22)	1.18 (0.848-1.49)
3-hr	0.167 (0.150-0.189)	0.209 (0.188-0.236)	0.262 (0.233-0.295)	0.305 (0.270-0.344)	0.366 (0.319-0.415)	0.419 (0.358-0.479)	0.478 (0.400-0.551)	0.553 (0.453-0.649)	0.676 (0.537-0.823)	0.794 (0.615-1.00)
6-hr	0.117 (0.105-0.131)	0.146 (0.131-0.164)	0.181 (0.162-0.202)	0.209 (0.185-0.234)	0.246 (0.216-0.277)	0.276 (0.238-0.312)	0.305 (0.259-0.350)	0.340 (0.283-0.394)	0.390 (0.316-0.460)	0.435 (0.345-0.521)
12-hr	0.077 (0.068-0.086)	0.096 (0.086-0.109)	0.121 (0.108-0.137)	0.141 (0.124-0.158)	0.167 (0.146-0.189)	0.187 (0.161-0.214)	0.208 (0.176-0.240)	0.229 (0.191-0.267)	0.258 (0.209-0.306)	0.280 (0.222-0.338)
24-hr	0.050 (0.045-0.056)	0.063 (0.057-0.070)	0.079 (0.072-0.088)	0.092 (0.084-0.102)	0.111 (0.100-0.123)	0.126 (0.112-0.139)	0.141 (0.124-0.157)	0.157 (0.137-0.175)	0.178 (0.154-0.201)	0.196 (0.166-0.223)
2-day	0.030 (0.027-0.034)	0.038 (0.034-0.042)	0.048 (0.043-0.054)	0.056 (0.050-0.063)	0.068 (0.060-0.076)	0.077 (0.068-0.087)	0.087 (0.076-0.099)	0.097 (0.084-0.111)	0.111 (0.094-0.129)	0.122 (0.102-0.144)
3-day	0.022 (0.020-0.025)	0.028 (0.025-0.031)	0.035 (0.032-0.040)	0.042 (0.037-0.047)	0.051 (0.045-0.057)	0.058 (0.051-0.066)	0.065 (0.057-0.075)	0.074 (0.063-0.084)	0.085 (0.071-0.098)	0.094 (0.078-0.110)
4-day	0.018 (0.016-0.020)	0.023 (0.020-0.026)	0.029 (0.026-0.033)	0.035 (0.031-0.039)	0.042 (0.037-0.048)	0.048 (0.042-0.055)	0.055 (0.047-0.063)	0.062 (0.053-0.071)	0.072 (0.060-0.083)	0.080 (0.066-0.093)
7-day	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.020 (0.017-0.022)	0.023 (0.021-0.026)	0.028 (0.025-0.032)	0.032 (0.028-0.037)	0.037 (0.032-0.042)	0.041 (0.035-0.047)	0.047 (0.040-0.055)	0.052 (0.043-0.061)
10-day	0.009 (0.008-0.011)	0.012 (0.010-0.013)	0.015 (0.014-0.017)	0.018 (0.016-0.021)	0.022 (0.019-0.025)	0.025 (0.022-0.028)	0.028 (0.024-0.032)	0.031 (0.027-0.036)	0.036 (0.030-0.041)	0.039 (0.033-0.046)
20-day	0.006 (0.005-0.006)	0.007 (0.007-0.008)	0.009 (0.008-0.011)	0.011 (0.010-0.012)	0.013 (0.012-0.015)	0.015 (0.013-0.017)	0.017 (0.015-0.019)	0.018 (0.016-0.021)	0.021 (0.018-0.024)	0.022 (0.019-0.026)
30-day	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.008)	0.008 (0.008-0.009)	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.013 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.013-0.018)	0.017 (0.014-0.019)
45-day	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.007)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.010 (0.008-0.011)	0.010 (0.009-0.012)	0.012 (0.010-0.013)	0.012 (0.011-0.014)
60-day	0.003 (0.003-0.003)	0.004 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.006)	0.007 (0.006-0.007)	0.007 (0.007-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.009 (0.008-0.011)	0.010 (0.009-0.011)

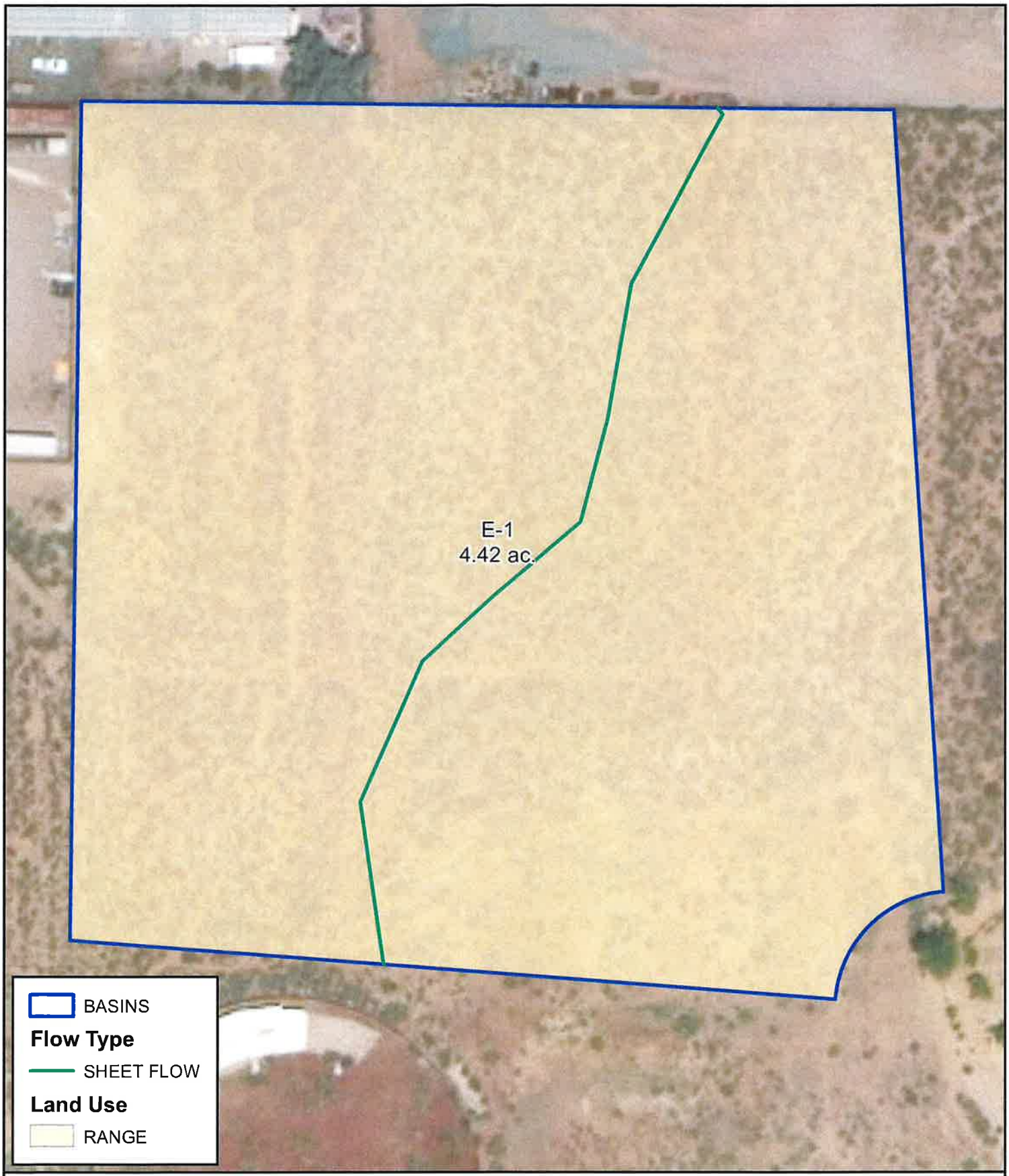
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



EXISTING HYDROLOGY
R AND K READY MIX
CARSON CITY, NV
AUGUST 2020
NOTES

NORTH

0 30 60
FEET

PRELIMINARY

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel: 775.823.4068
Fax: 775.823.4066

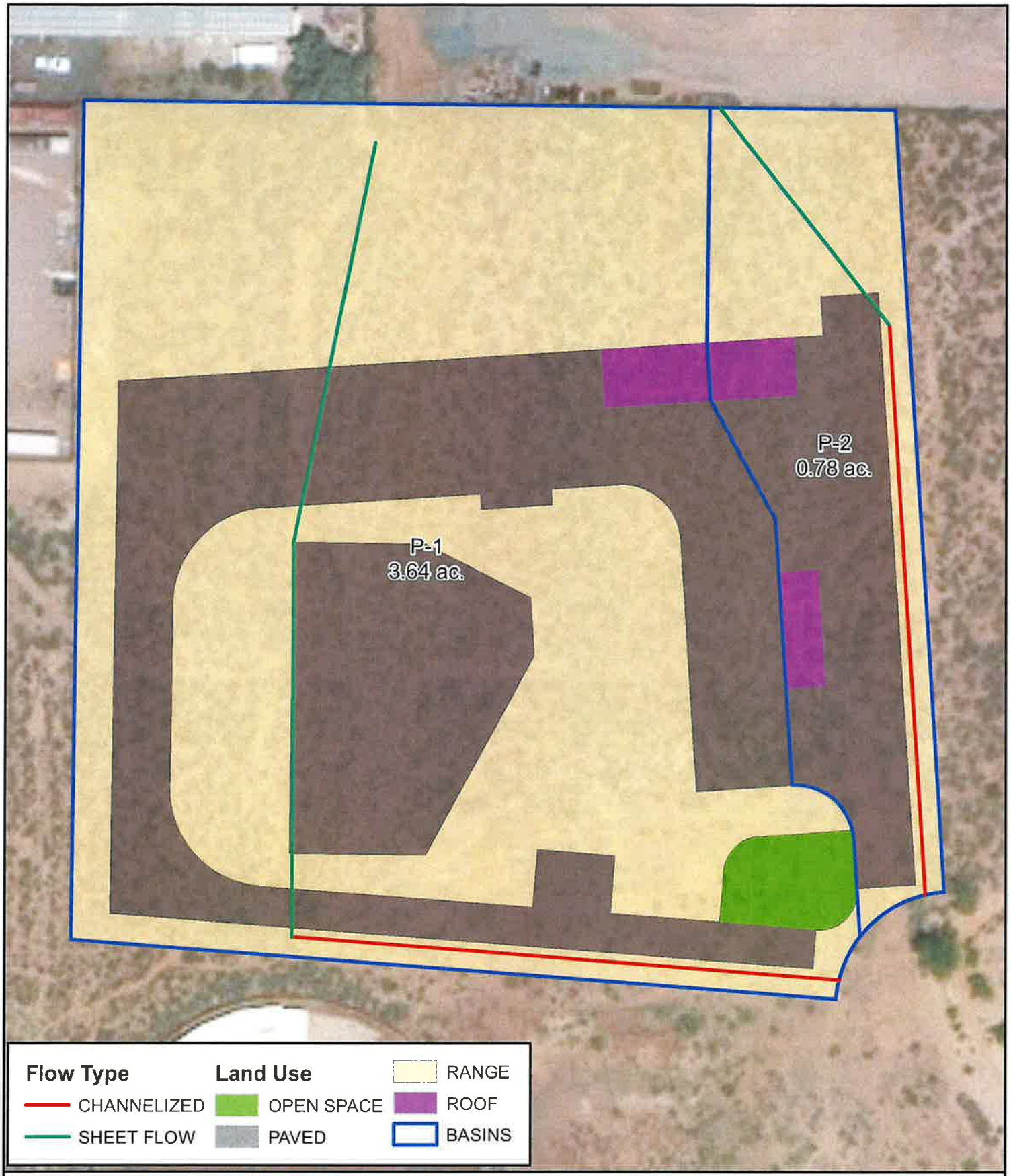
FIGURE X

WOOD RODGERS

TIME OF CONCENTRATION																						5-YEAR STORM EVENT	
Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $_{5\ Year}$	Initial Flow Time, T_i			Travel Time, T_t														Total (T_i+T_t)	Urbanized Basins Check	Final	NOAA ATLAS 14 Rainfall Intensity	Rational Flow
			Overland Flow			Channelized Flow				Gutter Flow				Piped Flow										
			L_i (ft)	S (ft/ft)	T_i (min)	L_s(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	Pipe Ø	S (ft/ft)	V (ft/s)	T_{t3} (min)	T_c (min)	T_c*(min)	T_c (min)	$I_{5\ year}$ (in/hour)	$Q_{5\text{-}year}$ (cfs)
E-1	4.42	0.20	500	0.0177	30.0															30.0	12.8	12.8	1.19	1.0

WOOD RODGERS

TIME OF CONCENTRATION																				100-YEAR STORM EVENT	
Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $_{100\text{-Year}}$	Initial Flow Time, T_i			Travel Time, T_t												Total (T_i+T_t)	Urbanized Basins Check	Final	NOAA ATLAS 14 Rainfall Intensity	Rational Flow
			Overland Flow			Channelized Flow				Gutter Flow				Piped Flow								
			L_i (ft)	S (ft/ft)	T_i (min)	L_s(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	V (ft/s)	T_{t3} (min)	T_c (min)	T_c*(min)	T_c (min)	$I_{100\text{-year}}$ (in/hour)	$Q_{100\text{-year}}$ (cfs)
E-1	4.42	0.50	500	0.0177	20.0													20.0	12.8	12.8	2.93	6.5



PROPOSED HYDROLOGY
R AND K READY MIX
CARSON CITY, NV
AUGUST 2020
NOTES

NORTH

0 30 60
FEET

PRELIMINARY

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel: 775.823.4068
Fax: 775.823.4066

FIGURE X

WOOD RODGERS

TIME OF CONCENTRATION																						5-YEAR STORM EVENT	
Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $_{5\text{-Year}}$	Initial Flow Time, T_i			Travel Time, T_t														Total (T_i+T_t)	Urbanized Basins Check	Final	NOAA ATLAS 14 Rainfall Intensity	Rational Flow
			Overland Flow			Channelized Flow				Gutter Flow				Piped Flow										
			L_i (ft)	S (ft/ft)	T_i (min)	L_t(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	Pipe Ø	S (ft/ft)	V (ft/s)	T_{t3} (min)	T_c (min)	T_c"(min)	T_c (min)	$I_{5\ year}$ (in/hour)	$Q_{5\text{-year}}$ (cfs)
P-1	3.64	0.46	413	0.0229	17.8	283	0.0023	0.8	6.1											23.9	13.9	13.9	1.31	2.2
P-2	0.78	0.56	142	0.0256	8.5	284	0.0171	2.1	2.3											10.8	12.4	10.8	1.47	0.6

WOOD RODGERS

TIME OF CONCENTRATION																				100-YEAR STORM EVENT	
Drainage Basin	Drainage Area (AC)	Weighted Average C-Factor $_{100\text{-}Year}$	Initial Flow Time, T_i			Travel Time, T_t											Total (T_i+T_t)	Urbanized Basins Check	Final	NOAA ATLAS 14 Rainfall Intensity	Rational Flow
			Overland Flow			Channelized Flow				Gutter Flow				Piped Flow							
			L_i (ft)	S (ft/ft)	T_i (min)	L_s(ft)	S (ft/ft)	V(ft/s)	T_{t1} (min)	L_t (ft)	S (ft/ft)	V (ft/s)	T_{t2} (min)	L_t (ft)	n	V (ft/s)	T_{t3} (min)	T_c (min)	T_c*(min)	T_c (min)	$I_{100\text{-}year}$ (in/hour)	$Q_{100\text{-}year}$ (cfs)
P-1	3.64	0.66	413	0.0229	12.2	283	0.0023	0.8	6.1									18.3	13.9	**13.9**	**3.15**	**7.6**
P-2	0.78	0.72	142	0.0256	5.9	294	0.0171	2.1	2.3									8.2	12.4	**8.2**	**4.04**	**2.3**

WOOD RODGERS

August 31, 2020

Community Development Department
Carson City
108 E. Proctor Street
Carson City, NV 89701

Re: Sewer Letter in support of the R&K Ready Mixed Concrete Special Use Permit

The purpose of this letter is to address sewer impacts from the proposed project. The proposed project site (APN 005-072-06) is approximately 4.4 acres in size and is located in Section 4 in T15N, R20E, MDM, and is a part of Carson City. The site is accessed from the southeast corner from Ryan Way.

The site is currently undeveloped. An existing 8-inch ACP public sanitary sewer main is located along the west property line. The R&K Ready Mixed Concrete project includes a 3,360 square foot office and shop building that will connect to the existing public sewer system.

The peak daily flow is calculated using the sewage contributions for industrial areas as specified by the *Carson City Development Standards*. The *Standards* specify an average flow of 300 gallons/capita/day peak design flow rate with a 12 capita/acre population density. This results in a peak sewer flow rate of 0.025 cubic feet per second (15,900 gallons per day). The sewer flows will likely be less than the design code calculations based on the small building footprint for the site. The flows generated by this project are low, less than 200 fixture units, and it is assumed that the downstream system can handle the additional load.

The proposed private sanitary sewer system located within the project will meet the requirements outlined in the *Carson City Development Standards*. A full sewer design will be completed at the time of final design of the project.

Please consider this letter in lieu of a Preliminary Sewer Report for the project. If you have any questions or concerns, please contact me at 775-823-5204 or jwilbrecht@woodrodgers.com.

Sincerely,

PROFESSIONAL ENGINEER STATE OF NEVADA
JILLIAN G. WILBRECHT
Exp: 6/30/22
CIVIL
No. 22522
8/31/20

Jillian Wilbrecht, P.E.

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
TITLE SHEET

OWNER/DEVELOPER:

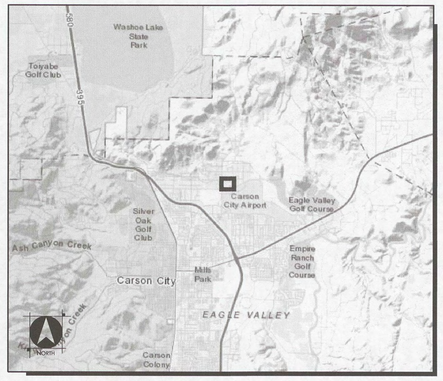
R&K READY MIXED CONCRETE, LLC
930 TAHOE BLVD, STE 802; PMB 526
INCLINE VILLAGE, NV 89451
949-253-2800 EXT 368

BASIS OF BEARINGS

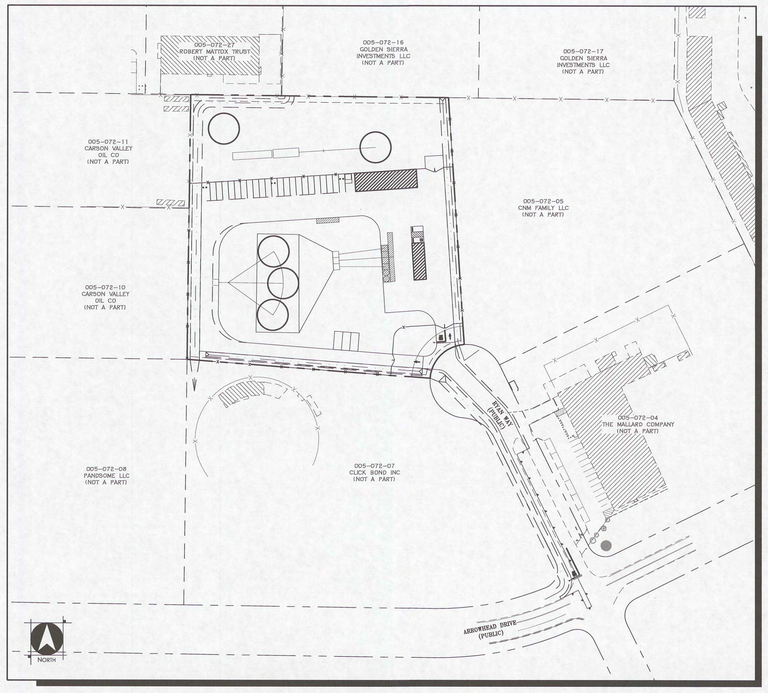
NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983/1994, HIGH ACCURACY REFERENCE NETWORK (NAD 83/94-HARN), AS DETERMINED USING REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS CONSTRAINED TO THE 2010 CARSON CITY CONTROL NETWORK. THE BEARING BETWEEN CARSON CITY CONTROL MONUMENTS CC053 AND CC052 IS TAKEN AS NORTH 51°55'06" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES. GRID TO GROUND COMBINED FACTOR=1.00020000

BASIS OF ELEVATION

BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) AS TAKEN FROM CARSON CITY BENCHMARK CC053, WITH A PUBLISHED ELEVATION OF 4714.97 FT. BENCHMARK CC053 IS DESCRIBED AS BEING 2½" BRASS DISK STAMPED "CC053 2010" LOCATED ON THE EAST SIDE OF WEDCO WAY, APPRX. 408' NORTH OF THE INTERSECTION OF OLD HOT SPRINGS ROAD AND WEDCO WAY.



VICINITY MAP
NOT TO SCALE



SITE PLAN
NOT TO SCALE

SITE INFORMATION:

SITE PLAN STATISTICS
- SITE AREA: 4.42 AC
- BUILDING AREA: 4,200± SF
- IMPERVIOUS AREA: 76,282± SF
- LANDSCAPE AREA: 3,153± SF

PARKING STATISTICS
- TOTAL PARKING REQUIRED: 9 STALLS
- TOTAL PARKING PROVIDED: 25 STALLS
- TOTAL ACCESSIBLE PARKING REQUIRED: 1 STALL
- TOTAL ACCESSIBLE PARKING PROVIDED: 1 STALL

LANDSCAPING STATISTICS
- SITE AREA: 4.42 AC
- REQUIRED LANDSCAPE AREA: 20% IMPERVIOUS AREA = 15,256± SF
- PROVIDED LANDSCAPE AREA: 4.1% = 3,153± SF

ASSESSOR PARCEL NUMBER
- 005-072-06

ENGINEERS STATEMENT:

I, JILLIAN WILBRECHT, DO HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 20th DAY OF AUGUST, 2020.

JILLIAN G. WILBRECHT, P.E. #22522

PROFESSIONAL ENGINEER - STATE OF NEVADA
JILLIAN G. WILBRECHT
Exp: 6/30/22
CIVIL
No. 22522
8/20/20

SHEET INDEX

SHT No.	DWG ID	DRAWING DESCRIPTION
1	T-1	TITLE SHEET
2	S-1	PRELIMINARY SITE PLAN
3	G-1	PRELIMINARYGRADING PLAN
4	U-1	PRELIMINARY UTILITY PLAN

R&K READY MIXED CONCRETE
TITLE SHEET

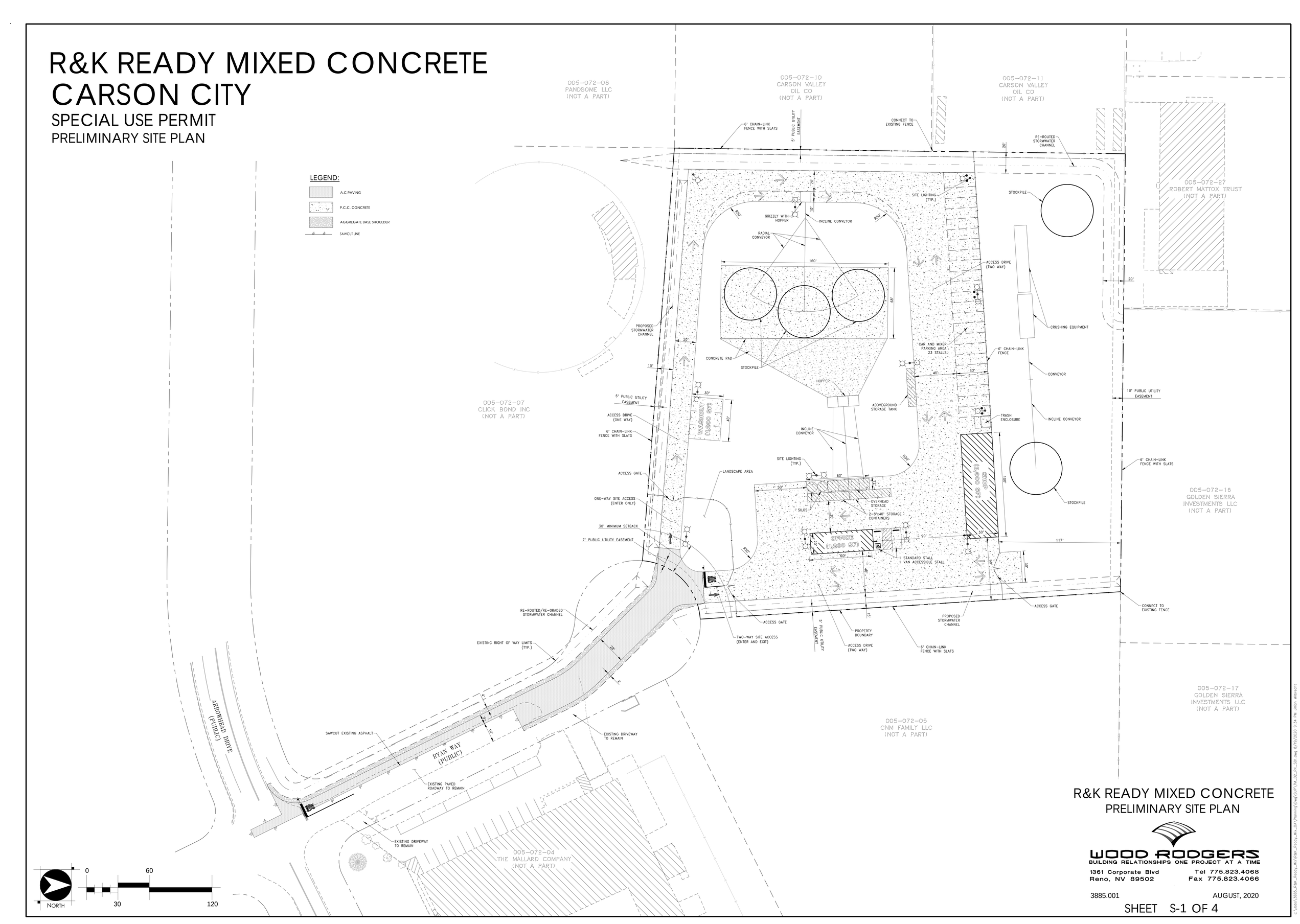
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Blvd
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

3885.001 AUGUST, 2020

SHEET T-1 OF 4

J:\Jobs\3885_R&K_Ready_Mix\R&K_Ready_Mix_CUP\Planning\Dwg\SUP\TM_01_RK_TDI.dwg, 8/19/2020 9:45 PM, Jillian Wilbrecht

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
PRELIMINARY SITE PLAN

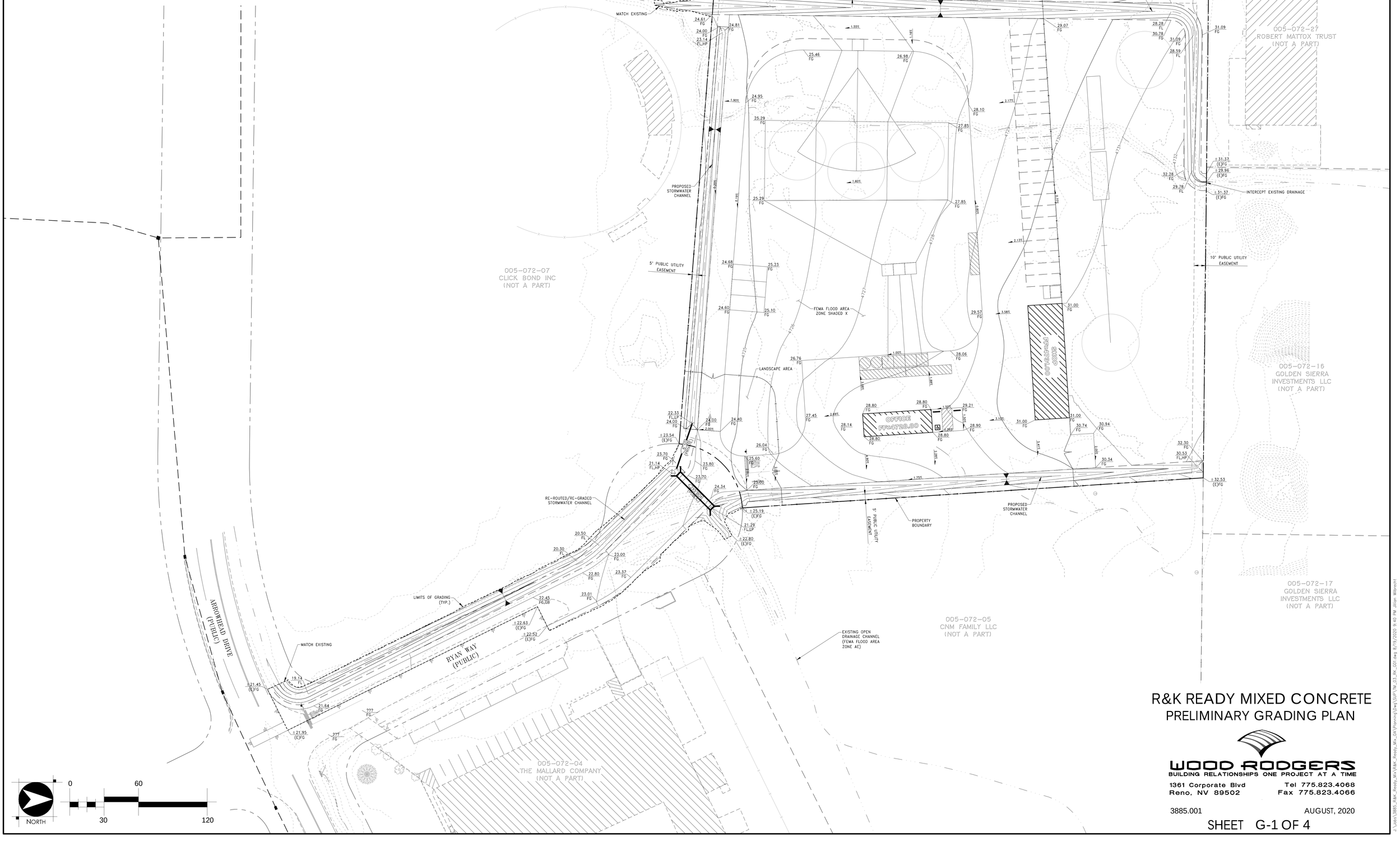


R&K READY MIXED CONCRETE
PRELIMINARY SITE PLAN

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Blvd
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

3885.001 AUGUST, 2020

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
PRELIMINARY GRADING PLAN



R&K READY MIXED CONCRETE
PRELIMINARY GRADING PLAN

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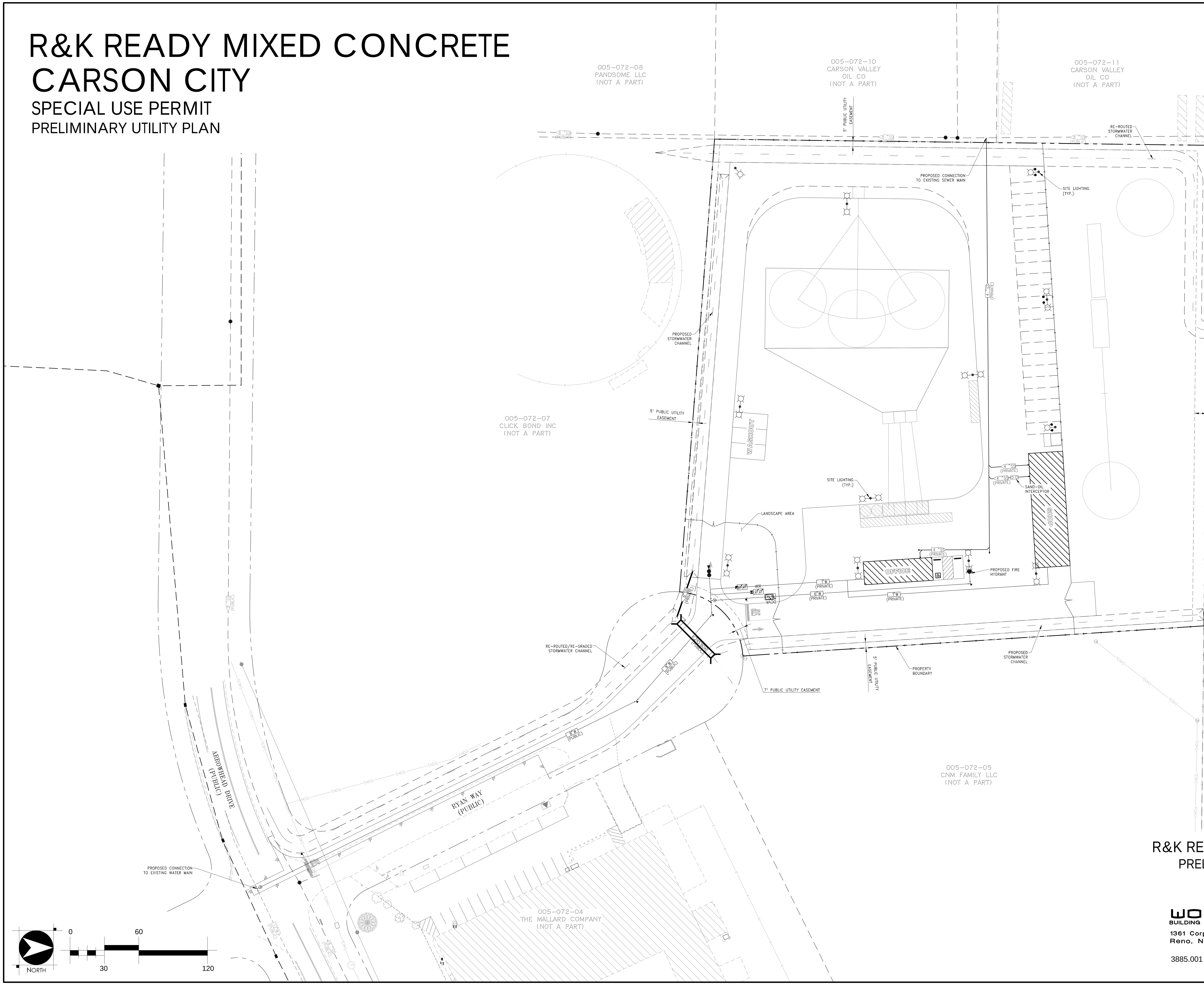
3885.001 AUGUST, 2020

SHEET G-1 OF 4

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
PRELIMINARY UTILITY PLAN



R&K READY MIXED CONCRETE
PRELIMINARY UTILITY PLAN

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Fax 775.823.4066

3885.001

AUGUST, 2020

SHEET U-1 OF 4

WOOD RODGERS

September 28, 2020

Ms. Heather Ferris
Associate Planner
Carson City Community Development

via email (HFerris@carson.org)

Heather,

As you know, the Applicant is seeking Director approval to vary the landscaping requirements associated with this project. We understand that the Director is seeking additional justification to support our request for reduced landscaping associated with the proposed batch plant.

Based on Carson City Code, as designed, this project would require nearly half an acre to be landscaped based on 20% of the impervious area (excluding building area). As described in Section 3.1 of the Carson City Code, landscaping is intended to serve a number of purposes including to 1) enhance the appearance of the community including visually from streets, 2) provide buffers between various uses, 3) provide shade for parking areas, and 4) conserve water by using appropriate plants. In terms of the project, given the proposed use and location, the applicant believes what they are proposing for landscaping meets the intent of the landscaping requirements.

As background, the subject site is zoned Industrial surrounding by similar, heavy industrial uses and is nearly 1 mile from any residential uses so providing landscaping along property perimeters will only serve to screen the use from other similar heavy industrial uses, which have not provided any landscaping along property lines. As such, requiring landscaping to buffer between uses seems uncharacteristic for the area. Additionally, the site is encumbered by a number of drainage easements that limit landscape treatments along the perimeter. Finally, providing landscaping anywhere other than the entrance and/or along parking lot edges would be a waste as it would be destroyed by trucks and equipment on a daily basis.

To further support our request for reduced landscaping, the applicant has revised the proposed site plan to reflect landscaping adjacent to the parking area. By providing this additional landscape area, the project can provide 7,968 square feet of landscaping (10.2%). To further support our request, we provide the following justification:

In terms of enhancing the appearance from streets, the project site fronts on Ryan Way, where the northern terminus provides access to the subject site and the adjacent undeveloped site. While projects typically provide landscaping along the frontage to mitigate visual concerns, given the awkward shape of the parcel, landscape area in the front is limited. It is also worth noting that due to the location of this project, is unlikely that anyone other than employees at the facility will see or be visually impacted by the project. However, to enhance the visual appearance at the entrance from Ryan Way, the Applicant has provided an enhanced entry feature at the gate that includes drought tolerant shrubs and grasses to conserve water.

In terms of landscaping to provide shade for parking areas, the site plan has been adjusted to include a 10-foot wide landscape strip adjacent to the parking area. As designed, this landscape strip will include drought

tolerant shrubs with trees strategically placed to provide shade. As part of the site improvement permit, a formal landscape plan will be prepared by a landscape architect and will specifically identify plants/shrubs that are drought tolerant, conserve water, and are acceptable to the Airport Manager.

Finally, in terms of a landscape buffer between various uses, the project site is surrounded by existing industrial developments and undeveloped parcels. In reviewing current aerial photos and through site visits, it is worth noting that the existing developments that abut the subject site do NOT include landscape buffers between the uses, all of which are also zoned Industrial. As designed, the proposed project will actually provide more than any of the surrounding uses have provided.

In summary, providing landscaping that meets the 20% of impervious surface would call attention to the project as the landscaping would seem out of place and not in keeping with the current industrial nature of the area. The reduction in landscaping is further supported by the condition from the Airport Manager that they want limited landscaping to avoid attracting birds to the area. A follow up discussion with the Airport Manager on 9/25/2020 confirmed that the Airport Manager is concerned about trees being planted with this project and would prefer shrubs or grasses that do not attract birds to the area.

Taking all of that into consideration, we respectfully ask the Director to support the request for a reduction allowing the Applicant to provide 7,968 square feet of landscape treatments, which equates to 10.2% of the impervious surface.

Thank you for the opportunity to provide additional justification. We look forward to hearing from you.

Sincerely,

Stacie Huggins

Stacie Huggins
Associate - Planning

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
TITLE SHEET

OWNER/DEVELOPER:
R&K READY MIXED CONCRETE, LLC
930 TAHOE BLVD, STE 802; PMB 526
INCLINE VILLAGE, NV 89451
949-253-2800 EXT 368

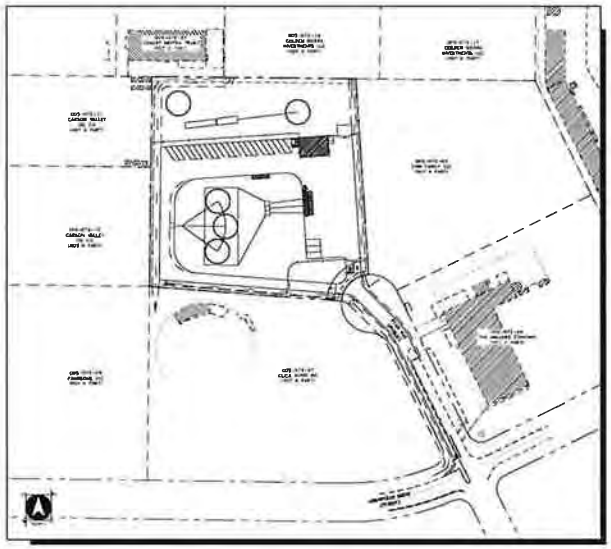
BASIS OF BEARINGS

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NORTH AMERICAN DATUM OF 1983/1994, HIGH ACCURACY REFERENCE NETWORK (NAD83/94 HARN), AS DETERMINED USING REAL TIME KINEMATIC (RTK) GPS OBSERVATIONS CONSTRAINED TO THE 2018 CARSON CITY CONTROL NETWORK. THE BEARING BETWEEN CARSON CITY CONTROL MONUMENTS CC033 AND CC035 IS TAKEN AS NORTH 51°53'08" EAST. ALL DIMENSIONS SHOWN ARE GROUND DISTANCES. GRID TO GROUND COMBINED FACTOR = 1.0000000

BASIS OF ELEVATION

BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) AS TAKEN FROM CARSON CITY BENCHMARK CC033, WITH A PUBLISHED ELEVATION OF 4,914.97 FT. BENCHMARK CC033 IS DESCRIBED AS BEING 2.5" BRASS DISK STAMPED "CC033 2010" LOCATED ON THE EAST SIDE OF WEDGO WAY APPROX. 400' NORTH OF THE INTERSECTION OF OLD HOT SPRINGS ROAD AND WEDGO WAY

VICINITY MAP
NOT TO SCALE



SITE PLAN
NOT TO SCALE

SITE INFORMATION:

APN NUMBER(S)
SITE AREA: 4.4 AC±
BUILDING AREA: 3,500 SF
IMPERVIOUS AREA: 78,811 SF
LANDSCAPE AREA: 11,689 SF

PARKING STATISTICS
TOTAL PARKING REQUIRED: 7 SPACES
TOTAL PARKING PROVIDED: 8 SPACES
TOTAL ACCESSIBLE PARKING REQUIRED: 1 SPACE
TOTAL ACCESSIBLE PARKING PROVIDED: 1 SPACE

LANDSCAPING STATISTICS
SITE AREA: 4.43 AC
REQUIRED LANDSCAPE AREA: 20% IMPERVIOUS AREA = 15,663 SF
PROPOSED LANDSCAPE AREA: 13,895 ± / 11,689 SF

ASSESSOR PARCEL NUMBER
030-027-06

ENGINEERS STATEMENT:

I, JULIAN WILBRECHT, DO HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND WAS COMPLETED ON THE 31st DAY OF AUGUST 2020

JULIAN G. WILBRECHT P.E. #22523

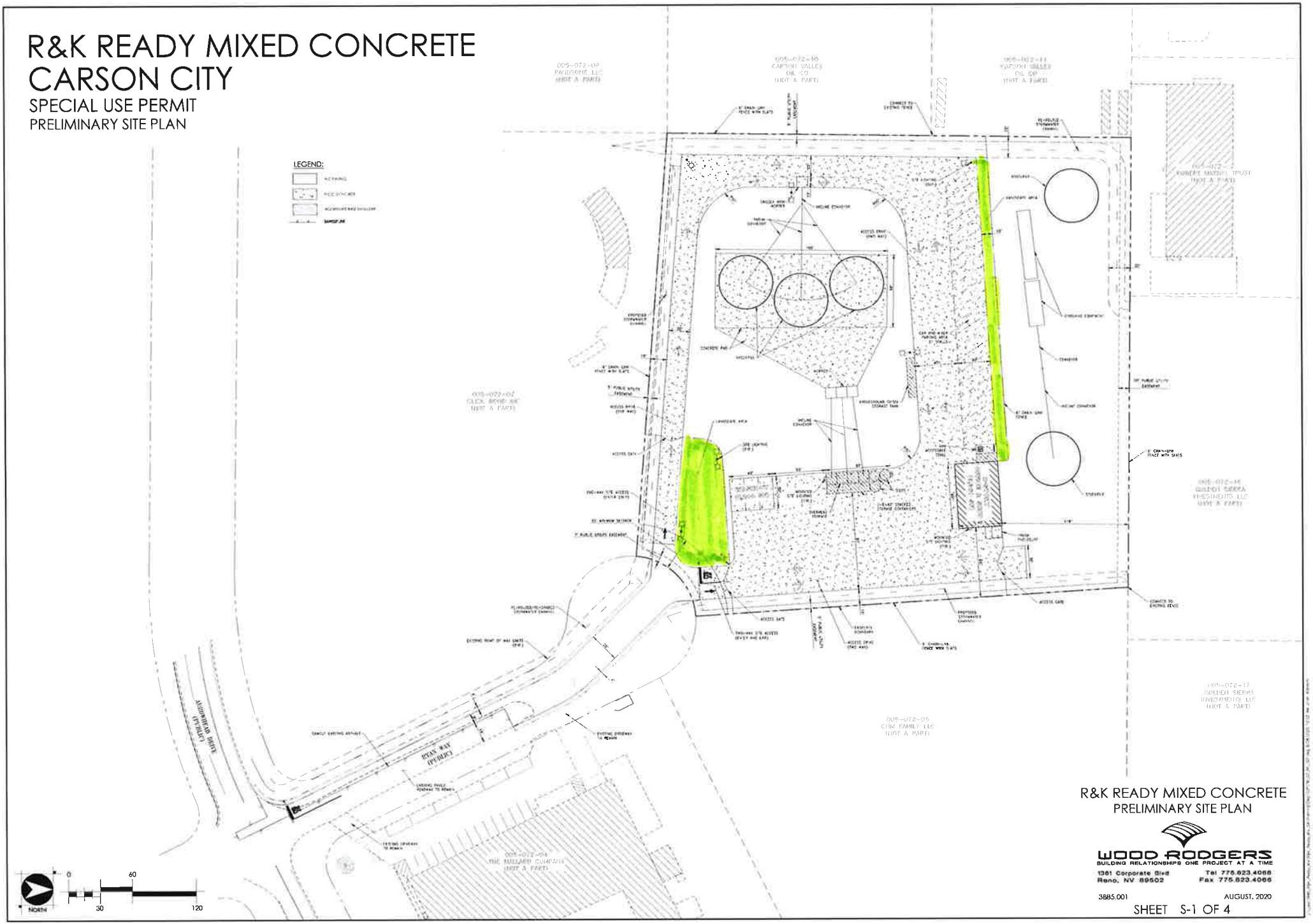
SHEET INDEX

R&K READY MIXED CONCRETE
TITLE SHEET

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Blvd
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

3885.001
AUGUST, 2020

R&K READY MIXED CONCRETE
CARSON CITY
SPECIAL USE PERMIT
PRELIMINARY SITE PLAN



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PRELIMINARY SITE PLAN

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Reno, NV 89502
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Fax 775.823.4066

3885.001 AUGUST, 2020

Heather Ferris

From: Stacie Huggins <shuggins@WoodRodgers.com>
Sent: Wednesday, October 7, 2020 4:48 PM
To: Heather Ferris
Subject: RE: Landscape Reduction - R&K Batch Plant

Follow Up Flag: Follow up
Flag Status: Completed

Hi Heather – wanted to follow up with you regarding the landscaping condition. When we last spoke, you mentioned the possibility of a condition that allowed the Developer/Applicant to pay an in lieu of fee to cover the "missing" 10% of landscape. Based on that suggestion, we have drafted the following condition for consideration:

Proposed Condition 8 - Landscaping
In addition to the landscaping shown on the site plan dated 9/28/2020, the Developer shall provide a one-time payment of $5,000 to Carson City in lieu of providing additional landscaping. The payment shall be provided to Carson City prior to Certificate of Occupancy. The Developer and City understand that said payment will be used for neighborhood beautification efforts (ie – landscaping) in the general vicinity of the project site.

I am happy to get on a call to discuss this further if necessary but hope we can work this out ahead of the next Planning Commission meeting on October 28.

Thanks!

Stacie Huggins
Wood Rodgers, Inc.
775.823.5258 Direct
775.250.8213 Mobile

| **Fully Functional** in a Remote Workspace Environment |

From: Stacie Huggins
Sent: Monday, September 28, 2020 12:08 PM
To: Heather Ferris <HFerris@carson.org>
Subject: RE: Landscape Reduction - R&K Batch Plant

Heather – as follow up to our discussion on Friday and in anticipation of our meeting on Tuesday to discuss possible changes to the conditions, please see the attached memo and site plan revisions for Staff consideration regarding the request to reduce landscape requirements.

Let me know if you have any questions or need anything else to support this request.

Thank you.

Stacie Huggins
Wood Rodgers, Inc.
775.823.5258 Direct
775.250.8213 Mobile

| **Fully Functional** in a Remote Workspace Environment |

From: Heather Ferris <HFerris@carson.org>
Sent: Friday, September 25, 2020 1:30 PM
To: Stacie Huggins <shuggins@WoodRodgers.com>
Subject: Landscape Standards

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Stacie-

Below is an excerpt from Division 3- Landscaping. It might help you as your formulate your reasoning for requesting a reduced landscaping standard. You may also want to take a look at 3.1 as it outlines the purpose of the Division.

Excerpt from Division 3.2:

"The director may approve variations to the standards set out in this division if they respond more appropriately to a particular site and provide equivalent means of achieving the intent of the landscape standards."

Heather

Heather Ferris
Associate Planner
Carson City, NV 89701
775-283-7080

From: Carolyn Groth <carolyngroth@yahoo.com>
Sent: Monday, September 28, 2020 11:53 AM
To: Planning Department <planning@carson.org>
Subject: Special Use Permit File #LU-2020-0033

I received a notice of a proposed permanent concrete batch and rock crushing plant with material storage silos over 45 ft tall near property I own on Goni and Sutro. I would be ok with the development as long as the increased noise and dust production were addressed. I would like to hear how the plant will address these issues in relations to the impact on businesses or potential businesses in this area.

Thank you

Carolyn Groth