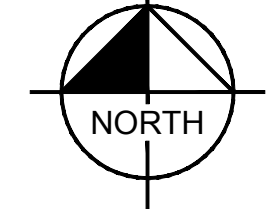
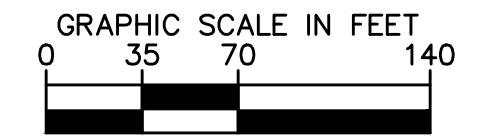
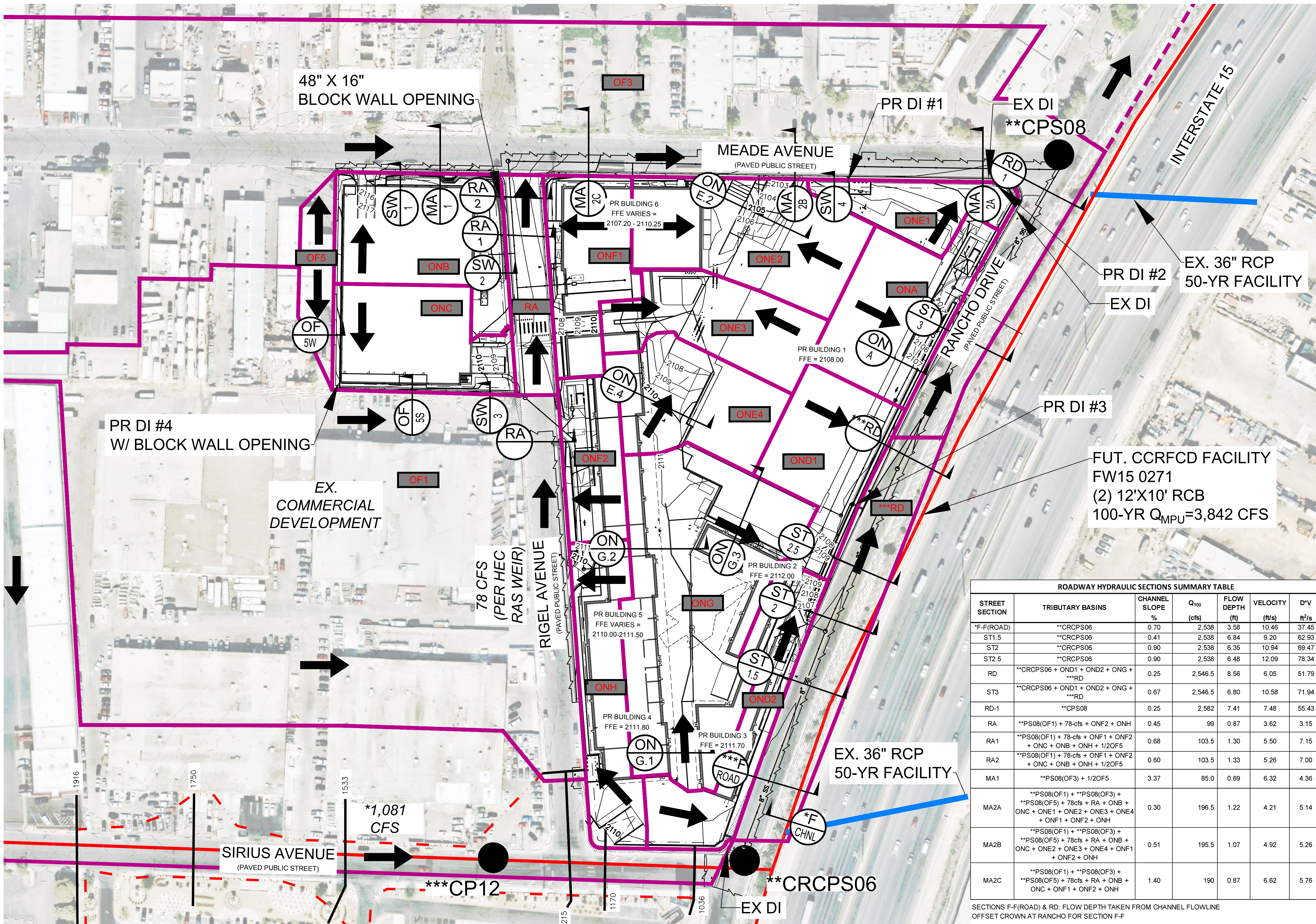


Plotted By: Schofield, Sean Sheet: 2/10 Layout: PRO-2 January 12, 2023 10:20:22am K:\NAV-Civil\0929295012 - Area 15 District 2 (Fisher Brothers)\Reports\DRAINAGE\02_ADD\Figures\PRO_ADD.dwg
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LEGEND

- XXX BASIN ID
- BASIN BOUNDARY
- PRORATED BASIN BOUNDARY
- FUTURE CCRCFD REGIONAL FACILITY
- EXITING DRAINAGE FACILITY
- FLOW ARROW
- X' XX SECTION ID
- CPX CONCENTRATION POINT
- XXXX PRORATED BASIN ID
- 1036 HEC-RAS CROSS SECTION & ID
- 2-FT CONTOURS
- 1-FT CONTOURS
- PROPOSED CONTOURS
- - - PROPOSED 100-YR INUNDATION LIMITS

* REFERENCED FROM AREA 15 STUDY (DS-4921)
 ** REFERENCED FROM CITY OF LAS VEGAS CENTRAL NEIGHBORHOOD STUDY
 *** REFERENCED FROM AREA 15 EVENT PARKING LOT (DS-5288)
 NOTE: 1,081-CFS REFERENCED FOR FLOWRATE AT INTERSECTION OF PRIVATE DRIVEWAY & SIRIUS AVENUE. REFER TO APPENDIX D FOR REFERENCE Q.

ROADWAY HYDRAULIC SECTIONS SUMMARY TABLE

STREET SECTION	TRIBUTARY BASINS	CHANNEL SLOPE %	Q ₁₀₀ (cfs)	FLOW DEPTH (ft)	VELOCITY (ft/s)	D _V (ft ² /s)
*F-F(ROAD)	**CRCP506	0.70	2,538	3.58	10.46	37.45
ST1.5	**CRCP506	0.41	2,538	6.84	9.20	62.93
ST2	**CRCP506	0.90	2,538	6.35	10.94	69.47
ST2.5	**CRCP506	0.90	2,538	6.48	12.09	78.34
RD	**CRCP506 + OND1 + OND2 + ONG + **RD	0.25	2,546.5	8.56	6.05	51.79
ST3	**CRCP506 + OND1 + OND2 + ONG + **RD	0.67	2,546.5	6.80	10.58	71.94
RD-1	**CPS08	0.25	2,582	7.41	7.48	55.43
RA	**PS08(OFF1) + 78-cfs + ONF2 + ONH	0.45	99	0.87	3.62	3.15
RA1	**PS08(OFF1) + 78-cfs + ONF1 + ONF2 + ONC + ONB + ONH + 1/2OF5	0.68	103.5	1.30	5.50	7.15
RA2	**PS08(OFF1) + 78-cfs + ONF1 + ONF2 + ONC + ONB + ONH + 1/2OF5	0.60	103.5	1.33	5.26	7.00
MA1	**PS08(OFF3) + 1/2OF5	3.37	85.0	0.69	6.32	4.36
MA2A	**PS08(OFF1) + **PS08(OFF3) + **PS08(OFF5) + 78cfs + RA + ONB + ONC + ONE1 + ONE2 + ONE3 + ONE4 + ONF1 + ONF2 + ONH	0.30	196.5	1.22	4.21	5.14
MA2B	**PS08(OFF1) + **PS08(OFF3) + **PS08(OFF5) + 78cfs + RA + ONB + ONC + ONE2 + ONE3 + ONE4 + ONF1 + ONF2 + ONH	0.51	195.5	1.07	4.92	5.26
MA2C	**PS08(OFF1) + **PS08(OFF3) + **PS08(OFF5) + 78cfs + RA + ONB + ONC + ONF1 + ONF2 + ONH	1.40	190	0.87	6.62	5.76

SECTIONS F-F(ROAD) & RD: FLOW DEPTH TAKEN FROM CHANNEL FLOWLINE OFFSET CROWN AT RANCHO FOR SECTION F-F
 78-CFS PER RAS ANALYSIS FLOWS NORTH IN RIGEL AVENUE

Existing / Proposed Condition Flow Summary

Basin ID / Comb Pt	Area / Tributary Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)
**CPS06	N/A	1045	405
*CP05	N/A	31	18
*EX10	N/A	7	4
***CP12	N/A	1158	459
Q=1081-CFS + **PS08(OFF2)	N/A	2538	873
**CRCP506	N/A	114.56	235
**PS08	N/A	2582	917
**CPS08	N/A	3762	1226

Prorated Flow Summary

BASIN ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	AREA (ac)	Q ₁₀₀ (cfs/ac)	Q ₁₀ (cfs/ac)
PS08	235	100	114.6	2.05	0.87
SUBBASIN ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	AREA (ac)	Q ₁₀₀ (cfs/ac)	Q ₁₀ (cfs/ac)
PS08(OFF1)	19	8	9.2	2.05	0.87
PS08(OFF2)	77	33	37.5	2.05	0.87
PS08(OFF3)	84	36	40.9	2.05	0.87
PS08(OFF4)	29	12	14.2	2.05	0.87
PS08(OFF5)	1	<1	0.3	2.05	0.87
PS08(ON1)	2	1	0.8	2.05	0.87
PS08(ON2)	2	1	1.0	2.05	0.87
PS08(ON3)	2	1	0.8	2.05	0.87
PS08(ON4)	2	1	0.8	2.05	0.87
PS08(ONF1)	1	0.5	0.7	2.05	0.87
PS08(ONF2)	1	0.5	0.7	2.05	0.87
PS08(ONF3)	1	0.5	0.7	2.05	0.87
PS08(ONF4)	1	0.5	0.7	2.05	0.87
PS08(ONF5)	4	2	2.1	2.05	0.87
PS08(ONH)	1	0.5	0.7	2.05	0.87
PS08(RD)	2.5	1	1.1	2.05	0.87
PS08(RA)	1	<1	0.4	2.05	0.87
SUBTOTAL	235	100	114.6	-	-

ONSITE HYDRAULIC SECTIONS

TRIBUTARY BASINS	SLOPE	Q ₁₀₀	Q ₁₀	FLOW DEPTH (ft)	VELOCITY (ft/s)	D _V (ft ² /s)	TYPE	SIDE SLOPES	BOTTOM WIDTH (ft)	Ret'd 4q ₁₀ (ft)
ON1	0.54	2	0.26	2107.10	2107.82	2108.00	ONB	4:1	7	N/A
ON2	0.50	2.5	0.14	2106.90	2107.55	2108.00	ONB	4:1	7	N/A
ON4	3.60	1	0.06	2107.25	2107.37	2108.00	ONB	4:1	7	N/A
ON6T	1.15	2	0.19	2111.55	2111.73	2112.00	ONB	4:1	7	N/A
ON6Z	0.80	2	0.13	2110.90	2111.35	2112.00	ONB	4:1	7	N/A
ON6N	1.00	2	0.26	2107.40	2107.52	2108.00	ONB	4:1	7	N/A
ON6S	1.02	2	0.14	2111.70	2111.98	2112.00	ONB	4:1	7	N/A

DROP INLET SUMMARY TABLE

DROP INLET ID	Tributary Basins	Q ₁₀₀ (cfs)	SLOPE (%)	FLOW DEPTH (ft)	Q _{INT} (cfs)	Q _{EXP} (cfs)	DI TYPE
DI#1	ONE1	1.0	SUMP	0.20	1.0	0.0	JENSEN DI2'X2'
DI#2	ONE1	1.0	SUMP	0.20	1.0	0.0	JENSEN DI2'X2'
DI#3	OND1	1.0	SUMP	0.12	1.0	0.0	4' TYPE C
DI#4	1/2OF5	0.5	SUMP	0.13	0.5	0.0	JENSEN DI2'X2'

CHANNEL HYDRAULIC SECTIONS SUMMARY TABLE

ID	TRIBUTARY BASINS	CHANNEL SLOPE %	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	FLOW DEPTH (ft)	VELOCITY (ft/s)	D _V (ft ² /s)	TYPE	SIDE SLOPES	BOTTOM WIDTH (ft)	Ret'd 4q ₁₀ (ft)
*F-F(CHNL)	Channel Capacity	0.70	270.1	3.00	6.43	19.29	TRAP	4:1	7	N/A	
SW1	ONB	1.00	2	0.54	1.73	0.93	V-Ditch	4:1	N/A	6"	
SW2	ONB	0.25	2	0.70	1.63	0.72	V-Ditch	4:1	N/A	6"	
SW3	ONC+ 1/2OF5	1.00	2.5	0.58	1.83	1.06	V-Ditch	4:1	N/A	6"	
SW4	ONE1	1.01	1	0.15	2.36	0.35	V-Ditch	50:1	N/A	N/A	
OF5W	1/2OF5	2.74	0.5	0.06	2.81	0.17	Concrete Flume	0:1	3	N/A	
OF5S	1/2OF5 + ONC	1.01	2.5	0.40	3.87	1.55	V-Ditch	4:1	N/A	N/A	

RAS Standard Table 1

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
SIRIUS	1916	100-yr	PropCond-EL	1,158.00	2120.70	2122.55	2122.55	2122.93	0.008145	4.96	233.59	297.67	0.99
SIRIUS	1750	100-yr	PropCond-EL	1,158.00	2116.50	2118.23	2118.93	2120.74	0.015487	14.09	95.80	97.00	2.14
SIRIUS	1533	100-yr	PropCond-EL	1,158.00	2112.00	2113.71	2114.66	2117.09	0.017377	15.05	79.46	83.06	2.29
SIRIUS	1245		Lat Struct										
SIRIUS	1215	100-yr	PropCond-EL	1,095.50	2109.25	2110.68	2111.04	2111.89	0.011742	10.27	129.87	184.50	1.88
SIRIUS	1170	100-yr	PropCond-EL	1,081.44	2108.93	2109.81	2110.22	2111.24	0.016094	9.89	117.19	197.44	1.98
SIRIUS	1036	100-yr	PropCond-EL	1,081.44	2108.20	2110.52	2110.52	2111.60	0.002889	8.52	132.14	61.50	1.01

AREA 15 DISTRICT 2 PREPARED FOR NEW VEGAS HOLDING COMPANY, LLC CITY OF LAS VEGAS

ONSITE PROPOSED CONDITION DRAINAGE MAP

PRO-2

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