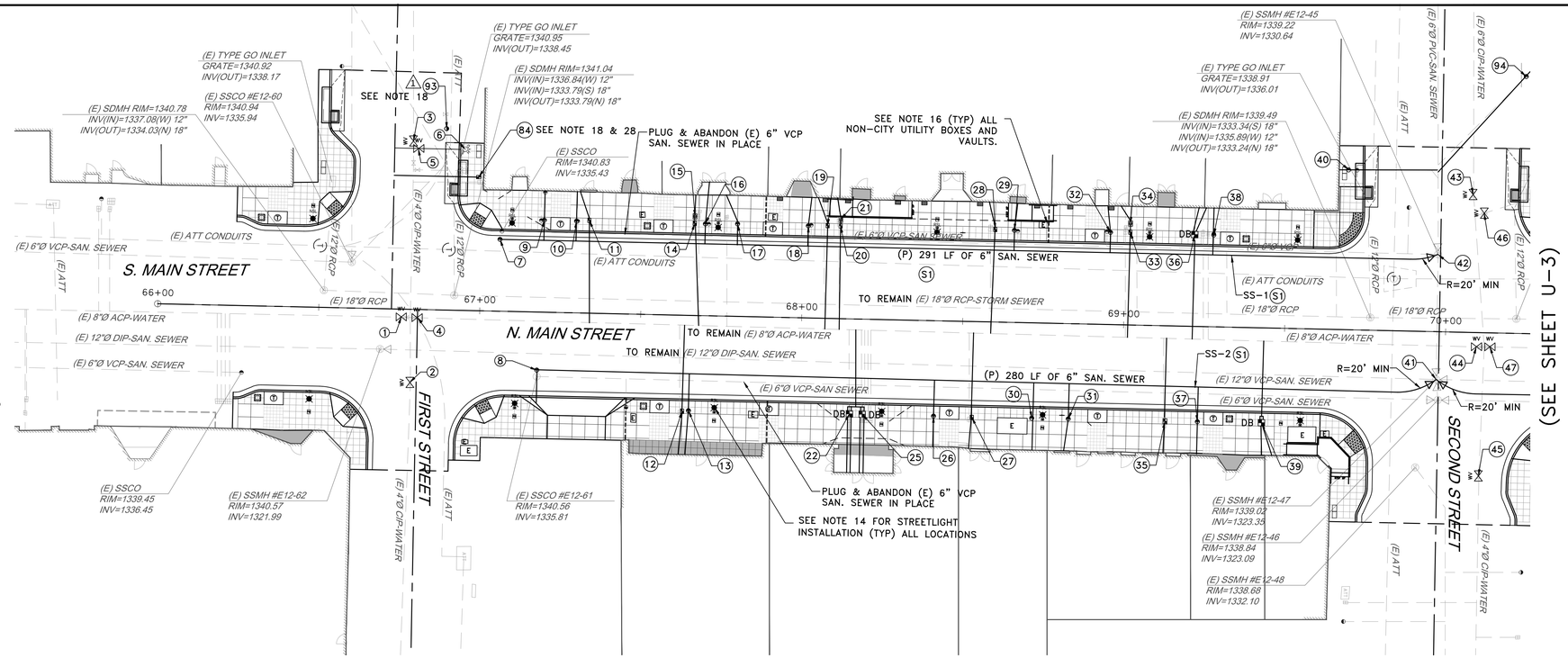
UTILITY CONSTRUCTION NOTES: 1

1. ALL SEWER AND WATER MAIN CONSTRUCTION TO BE DONE IN CONFORMANCE WITH CITY STANDARDS (2012).
2. SEE WATER NOTES CITY STND NO. 500.
3. ALL EXISTING SEWER AND WATER SERVICE LATERALS AND WATER VALVES WITHIN THE PROJECT LIMITS ARE TO BE REPLACED, UNLESS NOTED OTHERWISE. FULL REPLACEMENT SHALL BE FROM MAIN TO BUILDING WALL AT (E) CONNECTIONS.
4. ALL TRENCHING TO BE AS SHOWN ON DETAIL 1, SHEET CD-6.
5. LOCATION OF SIDEWALK UTILITY BOXES SHALL BE AS SHOWN ON DETAIL-1, SHEET CD-2.
6. WHERE NEW SEWER AND WATER CONNECTIONS ARE PROVIDED, AND NO EXISTING CONNECTION EXISTS, LATERAL STUBS SHALL BE CONSTRUCTED TO AND THROUGH BUILDINGS AS SHOWN ON CITY STND NO. 321 AND 526.
7. ALL NEW AND/OR REPLACEMENT SEWER SERVICE LATERALS SHALL BE 4" AND RECONSTRUCTED IN ACCORDANCE WITH CITY STD. NO. 309, SEE NOTE 4.
8. ALL WATER SERVICE LATERALS SHALL BE 1" UNLESS NOTED OTHERWISE. 1" LATERALS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STD. NO. 503.
9. WHERE NOTED, 2" WATER LATERALS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STD. NO. 505.
10. WHERE NOTED, DUAL WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH CITY STD. NO. 509, SEE NOTE 3.
11. MULTIPLE COMBINED WATER METER SERVICES (QUAD OR TRIPLE) SHALL BE INSTALLED IN ACCORDANCE WITH CITY STD. NO. 514.
12. PRESSURE REDUCING VALVES SHALL BE INSTALLED IN ACCORDANCE WITH CITY STND NO. 517 AND 518.
13. WATER VALVES SHALL BE INSTALLED IN ACCORDANCE WITH CITY STD. NO. 501.
14. METERS SHALL BE INSTALLED BY THE CONTRACTOR. SALVAGED METERS SHALL BE TAGGED TO IDENTIFY THE EXISTING SERVICE AND REINSTALLED AT SAME SERVICE WHEN RECONSTRUCTED.
15. SEE SHEET D-1 THROUGH D-4 FOR ITEMS REMOVED.
16. ALL STATION REFERENCES ARE TO CENTER OF BOXES. LOCATION OF CONNECTIONS AT BUILDINGS AND AT MAINS ARE EXISTING/DESIGN LOCATIONS AS SHOWN ON THE PLAN AND PROFILE, OR AS DIRECTED BY THE ENGINEER.
17. SEE SHEET E1-E4 FOR STREETLIGHT CONSTRUCTION.
18. SEE SHEETS SD-1 THROUGH SD-2 FOR STORM DRAIN CONSTRUCTION.
19. PGE UTILITY BOXES AND VAULTS TO BE RESET/RELOCATED BY OTHERS.
20. CITY WATER METER AND IRRIGATION CONTROLLER TO BE RELOCATED. SEE SHEETS D-2 FOR DEMOLITION AND SHEETS LI-2 FOR RELOCATION OF CONTROLLER. RELOCATED METER PER SHEET U-3.
21. UTILITIES SHALL CLEAR STRUCTURES PER STD NO. 316.
22. WHERE UTILITY IS REPLACED OUTSIDE LIMITS OF PAVING, ALL SIDEWALK AND ROADWAY SHALL BE REPLACED IN ACCORDANCE WITH CITY STANDARD. SIDEWALK SHALL BE REPLACED TO NEAREST SCORE-LINE.
23. TRENCHING SHALL BE DONE IN ACCORDANCE WITH DETAIL 1, SHEET CD-6 FOR ALL WORK WITHIN PAVING LIMITS. FOR WORK OUTSIDE PAVING LIMITS ALL WORK SHALL BE DONE IN CONFORMANCE WITH CITY STD. NO. 222.
24. SSMH CONNECTIONS SHALL BE INSIDE DROPS PER CITY STD. NO. 304.
25. MANHOLES SHALL BE CONSTRUCTED PER STD. NO. 301 & 302. DEMOLITION AND RETROFIT PER STD. NO. 302. ABANDON PER STD. NO. 313.
26. FIRE HYDRANTS SHALL BE RESET IN ACCORDANCE WITH CITY STD. NO. 502.
27. RODDING INLET SHALL BE CONSTRUCTED PER CITY STD. NO. 307. 6" MAIN MAY HAVE 20' LONG RADIUS SWEEPS JUST UPSTREAM OF SSMH.
28. A MINIMUM OF 6" CLEARANCE SHALL BE PROVIDED FROM ALL STRUCTURES.
29. FOR ABANDONED AND RAISED STRUCTURES SEE SHEETS D-1 THROUGH D-4. 2



(SEE SHEET U-2 FOR PROFILES OF SS-1 AND SS-2)

BID SET

UTILITY CONSTRUCTION ITEM

- (S1) CONSTRUCT 6" SANITARY SEWER MAIN
- (S2) CONSTRUCT 4" SANITARY SEWER MAIN RODDING INLET AND BOX
- (S3) CONSTRUCT 4" SANITARY SEWER SERVICE, CLEANOUT, AND BOX (SHALLOW)
- (S4) CONSTRUCT 4" SANITARY SEWER SERVICE, CLEANOUT, AND BOX (DEEP)
- (S5) CONNECT 6" SS MAIN TO (E) SSMH WITH INSIDE DROP. SEE NOTE 25.
- (S6) CONSTRUCT 4" SANITARY SEWER SERVICE STUB, CLEANOUT AND BOX (SHALLOW) 2
- (S7) CONNECT TO EXISTING SANITARY SEWER DROP INLET CONNECTION 1
- (S8) CONSTRUCT 4" SANITARY SEWER SERVICE STUB, CLEANOUT AND BOX (DEEP) 2
- (S9) CONSTRUCT 6" SANITARY SEWER SERVICE , CLEANOUT AND BOX (SHALLOW) 2
- (W1) CONSTRUCT SINGLE 1" WATER LATERAL, METER, AND BOX
- (W2) CONSTRUCT SINGLE 2" WATER LATERAL, METER, AND BOX
- (W3) CONSTRUCT 2" WATER LATERAL, DOUBLE METERS, AND BOX
- (W4) CONSTRUCT QUAD 1" WATER SERVICES, METERS WITH 2" LATERALS AND MANIFOLD. EACH DBL METER SHALL BE IN B24 BOX. BOXES NOTED SEPARATELY.
- (W5) CONSTRUCT 1" PRV WATER IN BOX
- (W6) CONSTRUCT 4" GATE VALVE IN BOX
- (W7) CONSTRUCT 6" GATE VALVE IN BOX
- (W8) INSTALL 8" GATE VALVE IN BOX
- (W10) RESET FIRE HYDRANT
- (W11) CONSTRUCT 2" WATER LATERAL WITH THREE (3) EA. 1" WATER SERVICES AND METERS. METERS INSTALLED IN ONE (2) SINGLE B9 BOX AND ONE (1) DOUBLE B24 BOX. EACH METER BOX NOTED SEPARATELY. SEE NOTE 23.
- (W12) CONSTRUCT DOUBLE 1" PRV IN B24 BOX
- (W13) RELOCATE FIRE HYDRANT
- (W14) CONSTRUCT 1" WATER SERVICE STUB AND BOX. NO METER.

KEY NOTES

Structure Table

Structure Name	RIM EL	STATION	OFFSET	ITEM ID
1	1340.98	MS66+75.7	2.41, R	W5
2	1340.39	MS66+78.8	22.71, R	W6
3	1342.85	MS66+78.3	-52.28, L	W6
4	1341.01	MS66+80.7	2.47, R	W8
5	1342.52	MS66+79.9	-49.88, L	W7
6	1342.75	MS66+94.4	-50.03, L	W13
7	1340.83	MS67+05.8	-22.30, L	S2
8	1340.66	MS67+18.1	18.03, R	S2
9	1341.30	MS67+19.5	-28.59, L	S3
10	1333.31	MS67+29.5	-28.50, L	S3
11	1341.41	MS67+33.4	-28.81, L	W1
12	1340.73	MS67+63.5	29.81, R	W1
13	1340.73	MS67+65.5	29.58, R	S3
14	1341.49	MS67+66.2	-28.63, L	W1
15	1341.52	MS67+66.2	-30.76, L	W5
16	1341.47	MS67+69.5	-28.58, L	S3
17	1341.45	MS67+79.5	-28.66, L	S3
18	1341.39	MS68+01.5	-28.60, L	S3
19	1341.37	MS68+07.5	-28.79, L	W1
20	1341.36	MS68+11.4	-28.74, L	W1

Structure Table

Structure Name	RIM EL	STATION	OFFSET	ITEM ID
21	1341.39	MS68+11.4	-30.82, L	W5
22	1340.73	MS68+15.5	29.50, R	W4
25	1340.71	MS68+19.4	29.52, R	W4
26	1340.31	MS68+41.6	29.61, R	S3
27	1340.05	MS68+53.5	29.78, R	W1
28	1341.26	MS68+59.5	-28.73, L	W1
29	1341.20	MS68+65.5	-28.60, L	S3
30	1339.69	MS68+72.1	29.59, R	S3
31	1339.40	MS68+83.4	29.58, R	S3
32	1340.98	MS68+95.3	-28.61, L	S3
33	1340.91	MS69+01.5	-28.81, L	W1
34	1340.93	MS69+01.5	-31.50, L	W5
35	1339.31	MS69+13.5	29.67, R	W1
36	1340.48	MS69+21.5	-28.50, L	W3
37	1339.31	MS69+23.5	29.58, R	S3
38	1340.30	MS69+27.4	-28.49, L	S3
39	1339.27	MS69+43.5	29.45, R	W3
40	1340.17	MS69+68.8	-49.63, L	S3
41	2008.53	MS69+97.4	14.85, R	S5
42	2008.82	MS69+97.2	-23.97, L	S5

Structure Table

Structure Name	RIM EL	STATION	OFFSET	ITEM ID
43	1339.36	MS70+07.6	-42.83, L	W7
44	1339.08	MS70+09.6	4.46, R	W8
45	1338.13	MS70+11.1	44.49, R	W6
46	1339.05	MS70+11.2	-37.09, L	W7
47	1339.05	MS70+13.9	4.32, R	W8
48	1338.96	MS70+28.6	-42.96, L	W10
49	1338.21	MS70+59.4	29.62, R	S3
50	1338.21	MS70+67.3	29.67, R	W1
51	1335.98	MS73+88.4	29.00, R	W1
52	1335.98	MS73+82.2	29.11, R	S3
53	1337.72	MS71+09.3	29.62, R	S3
54	1337.72	MS71+12.7	29.64, R	W1
55	1337.76	MS71+61.3	29.78, R	W12
56	1337.77	MS71+65.3	29.50, R	W12
57	1337.78	MS71+85.3	29.56, R	S9 2
58	1337.89	MS70+85.3	29.67, R	W2
59	1337.80	MS71+87.6	29.56, R	S6 2
60	1337.41	MS72+14.8	18.14, R	S2
61	1335.39	MS75+01.6	18.02, R	S2
62	1337.73	MS72+17.3	29.50, R	W3

Structure Table

Structure Name	RIM EL	STATION	OFFSET	ITEM ID
63	1337.63	MS72+45.1	-44.08, L	W10
64	1337.15	MS72+64.7	14.55, R	S7 1
65	1337.27	MS72+68.9	3.46, R	W8
66	1337.37	MS72+71.3	-34.77, L	W7
67	1337.23	MS72+73.6	3.40, R	W8
68	1337.44	MS72+74.2	-43.13, L	W7
69	1336.44	MS73+39.5	28.92, R	W1
70	1335.76	MS74+20.4	29.09, R	S3
71	1336.46	MS73+44.1	32.25, R	S3
72	1336.41	MS73+44.2	29.10, R	S3
73	1335.73	MS74+26.4	29.00, R	W3
74	1339.75	MS74+26.4	32.50, R	W11
77	1334.77	MS75+19.0	37.26, R	W10
78	1335.42	MS75+32.8	4.02, R	W8
79	1335.43	MS75+34.0	3.20, R	W7
80	1335.38	MS75+34.0	5.24, R	W7
81	1334.97	MS75+35.0	36.50, R	W7
82	1335.43	MS75+33.1	-53.00, L	W7
83	1335.40	MS75+35.2	4.06, R	W8
84	1341.69	MS66+98.8	-41.50, L	W1

Structure Table

Structure Name	RIM EL	STATION	OFFSET	ITEM ID
85	1335.25	MS75+66.2	-29.10, L	S8 1 2
86	1335.10	MS75+82.5	-29.17, L	W1
87	1335.10	MS75+82.5	-31.97, L	W5
88	1335.03	MS75+88.6	-28.98, L	S4
89	1333.41	MS75+97.6	29.17, R	W3
90	1336.90	MS73+56.2	-29.13, L	S4 2
93	1343.10	MS66+88.5	-56.30, L	S2 1
94	1341.86	MS70+23.3	-79.79, L	S3
96	1336.10	MS74+02.4	-28.00, L	S8 1 2
97	1335.89	MS74+30.4	-28.00, L	S8 1 2
98	1335.80	MS74+60.4	-27.98, L	S8 1 2
99	1335.71	MS74+82.4	-27.98, L	S8 1 2
100	1335.49	MS74+82.3	28.00, R	S6 1 2

UTILITY LEGEND

- WATER METER
- DB DUAL WATER METER
- PRESSURE RELIEF VALVE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- SS SANITARY SEWER MANHOLE
- SD STORM DRAIN MANHOLE

0 20 40
SCALE: HORZ. 1"=20'

REV	DATE	DESCRIPTION	BY
1	3-3-16	PER ADDENDUM #1	CAM
2	3-15-16	PER ADDENDUM #3	CAM

PROJECT ENGINEER: CATHY A. McKEON
LICENSE: NO. 51026 EXP.: 9-30-17
VERIFY SCALE
0 1/2 1 2 3
BAR REPRESENTS THREE INCHES ON ORIGINAL

REGISTERED PROFESSIONAL ENGINEER CATHY A. McKEON NO. 51026 EXP. 9-30-17 CIVIL STATE OF CALIFORNIA
FEB. 18, 2016

Crawford & Associates, Inc. Geotechnical Engineering, Design and Construction Services
100 N. Pine Street Ukiah, CA 95482

RAU AND ASSOCIATES INC.
CIVIL ENGINEERS · LAND SURVEYORS
100 NORTH PINE STREET• (707) 462-6536 • UKIAH, CA 95482

LAKEPORT DOWNTOWN IMPROVEMENTS – PHASE II
S. MAIN STREET LAKEPORT, CA.
SCALE: 1"=20' APPROVED BY: DRAWN BY: RRH/MAW
DATE: FEB 2016 REVIEWED BY: CAM
WATER & SANITARY SEWER PLAN & NOTES
STA: 66+00 TO STA: 70+00
CITY OF LAKEPORT
DRAWING NUMBER U-1 of 70 SHTS