ADDENDUM NO. 1
CURED-IN-PLACE PIPE (CIPP) REHABILITATION OF SNITARY SEWERS
FOR SEWER BASINS NOS. 23, 19 AND A PORTION OF 18
CITY OF DULUTH
BID NO. 14-0137, PROJECT NO. 1072
BID OPENING DATE: 2:00 PM , August 6 2014
Date: July 23, 2014

NOTICE

This Addendum is issued to modify, explain or correct the original drawings, specifications and/or previous addenda and is hereby made a part of the Contract Documents. Please attach this Addendum to the specification and note receipt of this Addendum on the Request for Bid.

SPECIFICATIONS

SP-3 (1806) DETERMINATION AND EXTENSION OF TIME
SP3-2, Add the following paragraph regarding a Milestone Completion Date:

"By December 15, 2014, 20,000 feet of sewer main in either Basin 19 and/or Basin 18 needs to be CIPP lined.

SP-9 (2503) LATERAL SEALING CONNECTION
SP-9.1 System Description
In the second sentence **REPLACE** "**heat cure**" with "**steam cure**".

SP-9.5.2 Materials Product
Item 6, **REPLACE "brim"** with "**connection liner**"

SP-9.6.2 Installation
Item 4, In the second sentence, **DELETE "air"** and "**or water"**

DRAWINGS
For clarification the data shown on the manhole index sheets, 5, 71, 122 and 196 have been incorporated into the pipe index sheet charts. Attached are revised pipe index sheets 3, 4, 69, 70, 120, 121 and 195 for your use.

END OF ADDENDUM

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #18									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
6	W 6TH ST ALLEY	SL0360092	8	VCP	64	DE0360090	UNKNOWN	SA0360091	3.01
6	W 6TH ST ALLEY	SL0360150	8	VCP	333	SA0360146	8.20	SA0360147	6.00
7	W 6TH ST ALLEY	SL0360149	8	VCP	381	SA0360296	8.11	SA0360146	8.20
7	W 6TH ST ALLEY	SL0360303	8	VCP	67	SA0360296	8.11	SA0360297	UNKNOWN
7	W 6TH ST ALLEY	SL0360200	8	VCP	449	SA0360193	5.88	SA0360194	6.51
8	W 6TH ST ALLEY	SL0360198	8	VCP	104	SA0360191	5.70	SA0360192	7.58
9	W 5TH ST	SL0360095	8	VCP	262	SA0360093	5.88	SA0360094	6.51
9	W 5TH ST	SL0360094	8	VCP	20	SA0360092	6.78	SA0360093	5.88
9	W 5TH ST	SL0360203	8	VCP	65	SA0360196	5.50	SA0360197	4.83
9	W 5TH ST	SL0360202	8	VCP	225	SA0360195	5.98	SA0360196	5.50
10	W 5TH ST	SL0360235	8	VCP	408	SA0360219	5.98	SA0360220	7.80
11	W 5TH ST ALLEY	SL0360098	8	VCP	284	SA0360096	11.50	SA0360097	8.88
11	W 5TH ST ALLEY	SL0360097	8	VCP	128	SA0360095	8.00	SA0360096	11.50
12	W 4TH ST	SL0360101	8	VCP	35	SA0360099	7.38	SA0360100	9.08
12	W 4TH ST	SL0360100	8	VCP	384	SA0360098	7.40	SA0360099	7.38
12	W 4TH ST	SL0360161	8	VCP	74	SA0360155	7.00	SA0360350	21.97
12	W 4TH ST	SL0360162	8	VCP	159	SA0360350	21.97	SA0360158	10.03
13	W 4TH ST	SL0450197	8	VCP	57	LH0450193	UNKNOWN	SA0450001	9.39
13	W 4TH ST	SL0450001	8	VCP	110	SA0450198	7.00	LH0450193	UNKNOWN
14	W 4TH ST ALLEY	SL0360103	8	VCP	417	SA0360101	13.92	SA0360102	8.61
14	W 4TH ST ALLEY	SL0360310	8	VCP	353	SA0360303	9.00	SA0360304	8.10
15	W 4TH ST ALLEY	SL0360311	8	VCP	455	SA0360304	8.10	SW0360305	9.47
15	W 4TH ST ALLEY	SL0360212	8	VCP	110	SA0360235	11.50	SD0360236	10.60
16	W 4TH ST ALLEY	SL0360253	8	VCP	96	SA0360245	6.52	SD0360247	9.04
16	W 4TH ST ALLEY	SL0360251	8	VCP	115	SA0450006	7.36	SA0360245	6.52
16	W 4TH ST ALLEY	SL0450003	8	VCP	104	SA0450003	4.50	SA0450005	3.96
17	W 3RD ST	SL0360106	8	VCP	414	SA0360104	6.00	SA0360105	8.63
17	W 3RD ST	SL0360313	8	VCP	445	SA0360306	5.20	SA0360307	7.00
18	W 3RD ST	SL0360314	8	VCP	467	SA0360307	7.00	SA0360241	7.85
18	W 3RD ST	SL0360218	12	VCP	179	SA0360356	6.56	SA0360242	9.03
18	W 3RD ST	SL0360219	12	VCP	194	SA0360242	9.03	SA0360243	11.00
18	W 3RD ST	SL0360220	12	VCP	49	SA0360243	11.00	SA0360257	10.00
19	W 3RD ST	SL0360264	15	VCP	49	SA0360256	10.50	SA0360257	10.00
19	W 3RD ST	SL0360263	15	VCP	203	SA0360255	9.94	SA0360256	10.50
19	W 3RD ST	SL0360262	15	VCP	214	SA0360254	10.00	SA0360255	9.94
19	W 3RD ST	SL0360261	12	VCP	253	SA0360253	8.02	SA0360254	10.00
19	W 3RD ST	SL0360260	12	VCP	269	SA0360252	8.00	SA0360253	8.02
20	W 3RD ST	SL0360259	10	VCP	203	SA0360251	9.50	SA0360252	8.00
20	W 3RD ST	SL0360256	8	VCP	53	LH0360248	UNKNOWN	SD0360250	9.00
21	NEW ST	SL0450013	8	VCP	285	SA0450014	5.00	SA0450015	10.00
21	NEW ST	SL0450012	8	VCP	131	SA0450013	2.40	SA0450014	5.00
22	W 3RD ST ALLEY	SL0360119	8	VCP	419	SA0360117	4.61	SA0360118	3.96
22	W 3RD ST ALLEY	SL0360113	8	VCP	177	SD0360111	13.60	SA0360112	3.88
22	W 3RD ST ALLEY	SL0360112	8	VCP	181	SA0360110	9.00	SD0360111	13.60
23	W 3RD ST ALLEY	SL0360316	8	VCP	402	SA0360309	11.52	SW0360310	12.18
23	W 3RD ST ALLEY	SL0360281	8	VCP	73	SA0360273	7.69	SA0360274	10.00
23	W 3RD ST ALLEY	SL0360280	8	VCP	27	SA0360272	10.80	SA0360274	10.00
23	W 3RD ST ALLEY	SL0360279	8	VCP	98	SA0360271	10.44	SA0360272	10.80
24	W 3RD ST ALLEY	SL0360266	8	VCP	434	SA0360258	8.77	SA0360259	9.00
24	W 3RD ST ALLEY	SL0360270	8	VCP	145	SA0360261	5.00	SA0360263	5.38
25	W 3RD ST ALLEY	SL0450015	8	VCP	416	SA0450016	7.00	SA0450017	10.00
26	W 2ND ST	SL0360125	8	VCP	422	SA0360123	11.64	SA0360124	10.92
26	W 2ND ST	SL0360124	8	VCP	22	SA0360122	11.41	SA0360123	11.64
26	W 2ND ST	SL0360370	8	VCP	391	DE0360360	UNKNOWN	SA0360122	11.41
27	W 2ND ST	SL0360318	8	VCP	402	SA0360311	10.00	SW0360312	11.74
27	W 2ND ST	SL0360283	8	VCP	205	SA0360285	11.99	SA0360275	10.83

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #18									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
27	W 2ND ST	SL0360284	8	VCP	24	SA0360275	10.83	SA0360276	11.82
27	W 2ND ST	SL0360285	8	VCP	143	SA0360276	11.82	SA0360277	11.60
27	W 2ND ST	SL0360286	8	VCP	86	SA0360277	11.60	SA0360278	12.47
28	W 2ND ST	SL0360276	10	VCP	406	SA0360268	13.15	SA0360269	13.57
28	W 2ND ST	SL0360275	10	VCP	290	SA0360267	12.82	SA0360268	13.15
28	W 2ND ST	SL0360272	10	VCP	171	SA0360264	4.29	SA0360267	12.82
29	W 2ND ST	SL0360322	8	VCP	224	SA0450022	13.10	SA0360317	13.98
29	W 2ND ST	SL0450021	8	VCP	14	SA0450021	13.20	SA0450022	13.10
29	W 2ND ST	SL0450201	8	VCP	73	SA0450020	11.80	SA0450021	13.20
29	W 2ND ST	SL0450020	8	VCP	62	SA0450019	7.50	SA0450020	11.80
29	W 2ND ST	SL0450018	8	VCP	75	SA0450018	8.00	SA0450019	7.50
29	W 2ND ST	SL0450196	8	VCP	38	SA0450204	10.76	SA0450018	8.00
29	W 2ND ST	SL0450017	8	VCP	423	SA0450205	10.00	SA0450204	10.76
30	W 2ND ST ALLEY	SL0360130	8	VCP	534	SA0360128	11.57	SA0360129	15.71
30	W 2ND ST ALLEY	SL0360305	12	VCP	20	SA0360324	12.58	SA0360325	11.26
30	W 2ND ST ALLEY	SL0360330	12	VCP	208	SA0360205	11.29	SA0360324	12.58
30	W 2ND ST ALLEY	SL0360371	8	VCP	215	SA0360361	UNKNOWN	SA0360324	12.58
31	W 2ND ST ALLEY	SL0360325	9	VCP	425	SA0360319	9.32	SA0360320	7.27
31	W 2ND ST ALLEY	SL0360324	9	VCP	32	SA0360318	8.10	SA0360319	9.32
31	W 2ND ST ALLEY	SL0450022	8	VCP	404	SA0450023	8.00	SA0360318	8.10
32	W 2ND ST ALLEY	SL0450036	8	VCP	181	SA0450038	10.02	SA0450039	17.87
33	W 1ST ST	SL0360369	18	VCP	79	SA0360321	10.87	SA0360348	12.00
33	W 1ST ST	SL0360368	18	VCP	387	SA0360359	9.50	SA0360321	10.87
33	W 1ST ST	SL0360348	12	VCP	497	SA0450035	7.00	SW0360343	13.81
34	W 1ST ST	SL0450033	8	VCP	129	SA0450034	9.52	SA0450035	7.00
34	W 1ST ST	SL0450026	8	VCP	152	SA0450027	2.28	SA0450034	9.52
34	W 1ST ST	SL0450025	8	VCP	29	SA0450026	7.44	SA0450027	2.28
34	W 1ST ST	SL0450024	8	VCP	68	SA0450025	6.70	SA0450026	7.44
34	W 1ST ST	SL0450038	8	VCP	135	SA0450040	17.72	SD0450041	UNKNOWN
35	W 1ST ST ALLEY	SL0360342	10	VCP	399	SA0360337	13.59	SA0360338	12.40
35	W 1ST ST ALLEY	SL0360343	10	VCP	424	SA0360338	12.40	SA0360339	10.00
35	W 1ST ST ALLEY	SL0360344	12	VCP	50	SA0360339	10.00	SA0360342	14.00
36	W 1ST ST ALLEY	SL0360346	12	VCP	46	SA0360341	12.70	SA0360342	14.00
36	W 1ST ST ALLEY	SL0360367	12	VCP	222	SA0360358	19.23	SA0360341	12.70
36	W 1ST ST ALLEY	SL0360345	12	VCP	173	SA0360340	27.00	SA0360358	19.23
36	W 1ST ST ALLEY	SL0450035	9	VCP	501	SA0450037	9.00	SA0360340	27.00
37	W 1ST ST ALLEY	SL0450034	8	VCP	194	SA0450036	15.60	SA0450037	9.00
37	W 1ST ST ALLEY	SL0450054	6	VCP	94	LH0450056	UNKNOWN	DB0450212	UNKNOWN
37	W 1ST ST ALLEY	SL0450055	6	VCP	50	DB0450212	UNKNOWN	DB0450213	UNKNOWN
37	W 1ST ST ALLEY	SL0450047	8	VCP	146	SA0450049	4.00	SA0450050	8.00
37	W 1ST ST ALLEY	SL0450046	8	VCP	370	SA0450048	5.20	SA0450050	8.00
38	W SUPERIOR ST	SL0360356	18	VCP	53	SA0360298	11.60	SA0310025	13.20
38	W SUPERIOR ST	SL0360355	18	VCP	225	SA0450060	11.83	SA0360298	11.98
38	W SUPERIOR ST	SL0450058	18	VCP	200	SA0450059	12.16	SA0450060	11.83
38	W SUPERIOR ST	SL0450057	18	VCP	36	SA0450058	12.30	SA0450059	12.16
38	W SUPERIOR ST	SL0450056	15	VCP	434	SA0450057	13.00	SA0450058	12.30
39	W SUPERIOR ST	SL0450052	15	VCP	287	SA0450054	12.30	SA0450057	13.00
39	W SUPERIOR ST	SL0450051	12	VCP	87	SA0450053	12.00	SA0450054	12.30
39	W SUPERIOR ST	SL0450049	12	VCP	90	SA0450051	13.00	SA0450053	12.00
39	W SUPERIOR ST	SL0450045	8	VCP	268	SA0450047	12.00	SA0450051	13.00
39	W SUPERIOR ST	SL0450044	8	VCP	203	SA0450046	12.50	SA0450047	12.00
40	W SUPERIOR ST	SL0450043	8	VCP	370	SA0450045	8.00	SA0450046	12.50
41	W MICHIGAN ST	SL0310049	8	VCP	34	SA0310048	UNKNOWN	SA0310014	12.14
41	W MICHIGAN ST	SL0310013	8	VCP	166	SA0310014	12.14	SA0310015	13.44
41	W MICHIGAN ST	SL0310014	8	VCP	385	SA0310015	13.44	SA0310016	12.50
41	W MICHIGAN ST	SL0310015	8	VCP	506	SA0310016	12.50	SA0310017	12.26

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #18									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
42	W MICHIGAN ST	SL0400002	15	VCP	471	SA0400002	10.00	SA0400003	13.25
42	W MICHIGAN ST	SL0400001	10	VCP	281	SA0400001	10.10	SA0400002	10.00
43	N 27TH AVE W ALLEY	SL0360093	8	VCP	155	SA0360091	3.01	SA0360092	6.78
44	N 26TH AVE W	SL0360116	9	VCP	80	DE0360114	UNKNOWN	SA0360115	4.20
44	N 26TH AVE W	SL0360117	9	VCP	129	SA0360115	4.20	SA0360118	3.96
44	N 26TH AVE W	SL0360120	9	VCP	162	SA0360118	3.96	SA0360121	13.92
44	N 26TH AVE W	SL0360127	18	VCP	138	SA0360125	14.55	SA0360126	16.00
44	N 26TH AVE W	SL0360128	18	VCP	54	SA0360126	16.00	SA0360129	15.71
45	N 25TH AVE W ALLEY	SL0360148	8	VCP	212	SA0360145	UNKNOWN	SA0360147	6.00
45	N 25TH AVE W ALLEY	SL0360151	8	VCP	177	SA0360147	6.00	SA0360148	5.23
46	N 24TH AVE W	SL0360159	8	VCP	130	SA0360156	UNKNOWN	SA0360157	UNKNOWN
46	N 24TH AVE W	SL0360160	8	VCP	31	SA0360157	UNKNOWN	SA0360158	10.03
47	N 23RD AVE W	SL0360303	8	VCP	67	SA0360266	7.81	SA0360297	UNKNOWN
47	N 23RD AVE W	SL0360304	8	VCP	66	SA0360297	UNKNOWN	SW0360299	8.82
47	N 23RD AVE W	SL0360217	10	VCP	151	SA0360240	10.14	SA0360357	10.00
47	N 23RD AVE W	SL0360366	10	VCP	27	SA0360357	10.00	SA0360241	7.85
48	N 23RD AVE W ALLEY	SL0360282	8	VCP	179	SA0360274	10.80	SA0360275	10.83
49	N 22ND AVE W	SL0360267	15	VCP	148	SA0360259	9.00	SA0360260	7.60
49	N 22ND AVE W	SL0360268	15	VCP	47	SA0360260	7.60	SA0360278	12.47
49	N 22ND AVE W	SL0360331	8	VCP	201	SA0360325	11.26	SA0360326	10.60
49	N 22ND AVE W	SL0360332	8	VCP	26	SA0360326	10.60	DB0360349	UNKNOWN
50	N 21ST AVE W	SL0360236	8	VCP	197	SA0360220	7.80	SA0360228	7.53
50	N 21ST AVE W	SL0360244	8	VCP	171	SA0360228	7.53	SA0360232	11.70
50	N 21ST AVE W	SL0360248	12	VCP	198	SA0360232	11.70	SA0360233	9.50
50	N 21ST AVE W	SL0360249	12	VCP	151	SA0360233	9.50	SA0360234	9.40
50	N 21ST AVE W	SL0360250	12	VCP	27	SA0360234	9.40	SA0360254	10.00
51	N 21ST AVE W ALLEY	SL0360273	8	VCP	49	SA0360265	6.81	SA0360266	7.81
51	N 21ST AVE W ALLEY	SL0360274	8	VCP	88	SA0360266	7.81	SA0360267	12.82
52	N 20TH AVE W	SL0360231	8	VCP	293	SA0360215	5.97	SA0360216	7.00
52	N 20TH AVE W	SL0360269	8	VCP	98	SA0360262	6.98	SA0360263	5.38
52	N 20TH AVE W	SL0360271	8	VCP	158	SA0360263	5.38	SA0360264	14.29
53	N 20TH AVE W	SL0360347	18	VCP	207	SA0360342	14.00	SA0310029	11.32
53	N 20TH AVE W	SL0310028	18	VCP	111	SA0310029	11.32	SA0310030	11.35
53	N 20TH AVE W	SL0310029	18	VCP	89	SA0310030	11.35	SA0310031	11.03
54	N 19 1/2 AVE W	SL0360224	8	VCP	124	SA0360208	11.50	SA0360209	10.23
55	N 19TH AVE W	SL0360222	8	VCP	355	SA0360206	6.99	SA0360207	4.75
55	N 19TH AVE W	SL0360255	8	VCP	157	SD0360247	9.04	SD0360250	9.00
56	N 19TH AVE W	SL0360323	8	VCP	194	SA0360317	13.98	SA0360319	9.32
56	N 19TH AVE W	SL0310024	20	VCP	140	SA0310025	13.20	SA0310026	12.74
56	N 19TH AVE W	SL0310025	20	VCP	74	SA0310026	12.74	SA0310027	12.98
57	N 18 1/2 AVE W	SL0360252	8	VCP	160	SA0360244	6.00	SA0360245	6.52
58	PIEDMONT AVE	SL0450019	6	VCP	273	SA0360316	5.75	SA0450020	11..80
58	PIEDMONT AVE	SL0450198	6	VCP	10	DB0450209	UNKNOWN	DB0450210	UNKNOWN
58	PIEDMONT AVE	SL0450199	6	VCP	40	DB0450210	UNKNOWN	DB0450211	UNKNOWN
58	PIEDMONT AVE	SL0450200	6	VCP	26	DB0450211	UNKNOWN	SA0450020	11.80
59	N 18 1/2TH AVE W ALLEY	SL0450002	8	VCP	181	SA0450002	5.00	SA0450003	4.50
60	N 18TH AVE W	SL0450014	8	VCP	137	SA0450015	10.00	SA0450017	10.00
60	N 18TH AVE W	SL0450016	8	VCP	127	SA0450017	10.00	SA0450018	7.50
61	FIR AVE	SL0450030	8	VCP	159	SA0450031	15.00	SA0450032	5.00
61	FIR AVE	SL0450031	8	VCP	112	SA0450032	5.00	SA0450033	8.50
61	FIR AVE	SL0450032	8	VCP	30	SA0450033	8.50	SA0450034	9.52
62	FIR AVE ALLEY	SL0450027	8	VCP	191	SA0450028	6.00	SA0450029	6.00
62	FIR AVE ALLEY	SL0450028	8	VCP	82	SA0450029	6.00	SA0450030	6.00
62	FIR AVE ALLEY	SL0450029	8	VCP	76	SA0450030	6.00	SA0450034	9.52
63	N 17 1/2TH AVE W	SL0450006	8	VCP	283	SA0450007	11.00	SA0450008	11.10
63	N 17 1/2TH AVE W	SL0450007	8	VCP	47	SA0450008	11.10	SA0450010	5.28

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #18									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
64	PARK AVE	SL0450023	8	VCP	289	SA0450024	5.00	SA0450026	7.44
65	S 17TH AVE W	SL0450053	8	VCP	182	SA0450055	7.50	SA0450057	13.00
66	S 16TH AVE W	SL0450048	8	VCP	163	SA0450050	8.00	SA0450051	13.00
67	S 15TH AVE W ALLEY	SL0450039	8	VCP	163	SD0450041	UNKNOWN	SD0450042	6.85
68	S 14TH AVE W	SL0450037	8	VCP	198	SA0450039	17.87	SA0450040	17.72

CERTIFIED BY: MARK GUISDFREDI REG. NO.: 23295

SIGNATURE: Mark Guisdfredi DATE: APRIL 19, 2013

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWERS IN SANITARY BASINS #18, 19, & 23

CITY OF DULUTH

CITY PROJECT NO.: 1072 STATE AID PROJECT NO.: N/A

DRAWN BY: KLB

BASIN 18 PIPE INDEX SHEET

SHEET NO. 4 OF 206

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #19

ESTIMATED QUANTITIES

SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
72	W 15TH ST	SL0550014	8	VCP	91	SA0550007	5.65	SA0550006	8.02
72	W 15TH ST	SL0550015	8	VCP	384	SA0550006	8.02	SA0550005	6.05
72	W 15TH ST	SL0570088	8	VCP	468	SA0550005	6.05	SA0570087	11.95
73	W 15TH ST	SL0570089	8	VCP	242	SA0570085	5.02	SA0570086	9.98
74	W 15TH ST ALLEY	SL0550017	8	VCP	207	SA0550003	7.06	SA0550002	5.64
74	W 15TH ST ALLEY	SL0550018	8	VCP	176	SA0550002	5.64	SA0550001	7.01
74	W 15TH ST ALLEY	SL0550019	8	VCP	270	SA0550001	7.01	SA0570089	7.00
74	W 15TH ST ALLEY	SL0570092	8	VCP	201	SA0570089	7.00	SA0570088	7.40
75	W 15TH ST ALLEY	SL0570093	8	VCP	199	SA0570090	8.00	SA0570088	7.40
75	W 15TH ST ALLEY	SL0570095	8	VCP	152	SA0570091	UNKNOWN	SA0570092	10.35
75	15TH ST W ALLEY	SL0570097	8	VCP	143	SA0570093	3.50	SA0570092	10.35
75	15TH ST W ALLEY	SL0570096	8	VCP	202	SA0570084	6.50	SA0570093	3.50
76	W SKYLINE PKWY	SL0390001	8	VCP	264	SA0390001	9.14	SA0390002	10.03
76	W SKYLINE PKWY	SL0390002	8	VCP	245	SA0390002	10.03	SA0390003	8.08
76	W SKYLINE PKWY	SL0390003	8	VCP	351	SA0390003	8.08	SA0390004	9.07
77	W SKYLINE PKWY	SL0390005	8	VCP	451	SA0390005	7.98	SA0390006	8.70
78	W SKYLINE PKWY ALLEY	SL0390010	8	VCP	131	SA0390010	4.38	SA0390011	4.28
78	W SKYLINE PKWY ALLEY	SL0390011	8	VCP	446	SA0390011	4.28	SA0390012	6.16
78	W SKYLINE PKWY ALLEY	SL0390012	8	VCP	446	SA0390012	6.16	SA0390013	6.97
79	W SKYLINE PKWY ALLEY	SL0390013	8	VCP	284	SA0390013	6.97	SA0390015	8.80
79	W SKYLINE PKWY ALLEY	SL0390014	8	VCP	196	SA0390014	6.01	SA0390015	8.80
80	W DIAMOND AVE	SL0390087	8	VCP	309	SA0390088	11.90	SA0390090	9.00
81	W 13TH ST	SL0390016	8	VCP	299	SA0390016	6.40	SA0390019	9.84
81	W 13TH ST	SL0390088	8	VCP	482	SA0390089	8.80	SA0390090	9.00
82	W 13TH ST ALLEY	SL0390084	8	VCP	214	SA0390085	8.10	SD0390086	7.30
82	W 13TH ST ALLEY	SL0390083	8	VCP	305	SD0390084	13.43	SA0390085	8.10
82	W 13TH ST ALLEY	SL0390082	8	VCP	220	SA0390083	7.80	SD0390084	13.43
83	W 12TH ST	SL0390139	8	VCP	305	SA0390139	6.50	SA0390140	5.00
83	W 12TH ST	SL0390093	8	VCP	276	SA0390094	6.90	SD0390095	6.00
83	W 12TH ST	SL0390092	8	VCP	330	SA0390093	7.00	SA0390094	6.90
84	W 12TH ST ALLEY	SL0390141	8	VCP	330	SA0390141	5.80	SA0390142	6.00
84	W 12TH ST ALLEY	SL0390099	8	VCP	341	SA0390100	7.00	SA0390101	4.00
84	W 12TH ST ALLEY	SL0390098	8	VCP	125	SA0390099	3.56	SA0390100	7.00
84	W 12TH ST ALLEY	SL0390097	8	VCP	64	DE0390098	UNKNOWN	SA0390099	3.56
85	W 11TH ST	SL0390025	8	VCP	55	DE0390025	UNKNOWN	SA0390026	7.98
85	W 11TH ST	SL0390026	8	VCP	147	SA0390026	7.98	SA0390027	9.80
85	W 11TH ST	SL0390143	8	VCP	358	SA0390143	8.00	SA0390144	7.20
86	W 11TH ST	SL0390104	8	VCP	467	SA0390105	8.00	SA0390213	UNKNOWN
86	W 11TH ST	SL0390103	8	VCP	74	LH0390104	UNKNOWN	SA0390105	8.00
86	W 11TH ST	SL0390102	8	VCP	156	SA0390103	12.99	LH0390104	UNKNOWN
87	11TH ST ALLEY W	SL0390028	8	VCP	76	SA0390028	6.50	SA0390029	16.28
87	11TH ST ALLEY W	SL0390146	8	VCP	118	SA0390146	10.13	SA0390147	8.30
87	11TH ST W ALLEY	SL0390145	8	VCP	166	SA0390145	8.03	SA0390146	10.13
88	11TH ST W ALLEY	SL0390107	8	VCP	510	SA0390108	4.00	SA0390109	5.90
89	W 10TH ST	SL0390052	8	VCP	143	SA0390052	8.01	SD0390053	8.43
89	W 10TH ST	SL0390030	10	VCP	254	SA0390030	10.00	SA0390031	5.50
90	W 10TH ST	SL0390148	8	VCP	243	SA0390148	8.30	SA0390149	7.40
90	W 10TH ST	SL0390176	8	VCP	311	SA0390175	8.00	SA0390176	5.00
90	W 10TH ST	SL0390175	8	VCP	114	SA0390174	3.00	SA0390175	8.00
90	W 10TH ST	SL0390174	8	VCP	61	LH0390173	UNKNOWN	SA0390174	3.00
91	W 10TH ST ALLEY	SL0390033	8	VCP	310	SA0390033	8.80	SA0390034	7.50
91	W 10TH ST ALLEY	SL0390032	8	VCP	140	SA0390032	6.10	SA0390034	7.50
91	W 10TH ST ALLEY	SL0390150	8	VCP	358	SA0390150	3.96	SA0390151	7.00
92	W 10TH ST ALLEY	SL0390180	8	VCP	294	SA0390179	9.80	SA0390180	UNKNOWN
93	W 10TH ST ALLEY B	SL0390035	8	VCP	160	SA0390035	8.91	SA0390036	4.97
94	W 9TH ST	SL0390055	8	VCP	336	SA0390055	6.21	SA0390057	6.20

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #19

ESTIMATED QUANTITIES

SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
94	W 9TH ST	SL0390056	8	VCP	233	SA0390056	9.80	SA0390057	6.20
95	W 9TH ST	SL0390154	8	VCP	70	SA0390154	8.20	SA0390155	16.60
95	W 9TH ST	SL0390153	8	VCP	232	SA0390153	4.20	SA0390154	8.20
95	W 9TH ST	SL0390152	8	VCP	105	SA0390152	8.30	SA0390153	4.20
96	W 9TH ST ALLEY	SL0390058	8	VCP	337	SA0390058	4.92	SA0390059	7.00
96	W 9TH ST ALLEY	SL0390157	8	VCP	223	SA0390157	7.00	SA0390158	7.00
97	W 8TH ST	SL0390060	8	VCP	313	SA0390060	5.54	SA0390061	8.51
98	W 8TH ST ALLEY	SL0390163	8	VCP	407	SA0390164	9.80	SA0390165	5.09
98	W 8TH ST ALLEY	SL0390162	8	VCP	379	SA0390162	7.97	SA0390163	9.95
99	W 8TH ST ALLEY	SL0390189	8	VCP	209	SA0390188	7.90	SD0390194	5.76
99	W 8TH ST ALLEY	SL0360365	8	VCP	35	SA0360354	6.24	SA0360183	6.67
99	W 8TH ST ALLEY	SL0360364	8	VCP	14	SA0360355	6.35	SA0360354	6.24
100	W 7TH ST	SL0360169	8	VCP	241	SA0360135	5.64	SA0360164	9.35
100	W 7TH ST	SL0360166	8	VCP	172	SA0360161	11.16	SA0360162	5.01
100	W 7TH ST	SL0360165	8	VCP	199	SA0360160	11.04	SA0360161	11.16
101	W 7TH ST	SL0360181	8	VCP	92	DE0360174	UNKNOWN	SA0360175	8.00
102	W 7TH ST ALLEY	SL0360137	8	VCP	423	SA0360142	6.10	SA0360143	8.80
102	W 7TH ST ALLEY	SL0360145	8	VCP	35	SA0360138	9.11	SA0360139	4.90
102	W 7TH ST ALLEY	SL0360144	8	VCP	195	SA0360137	10.14	SA0360138	9.11
102	W 7TH ST ALLEY	SL0360178	8	VCP	22	SA0360171	16.60	SA0360172	16.02
103	W 7TH ST ALLEY	SL0360176	8	VCP	18	SA0360170	13.20	SA0360172	16.02
103	W 7TH ST ALLEY	SL0360175	8	VCP	135	SD0360169	8.92	SA0360170	13.20
103	W 7TH ST ALLEY	SL0360174	8	VCP	261	SA0360168	5.60	SD0360169	8.92
103	W 7TH ST ALLEY	SL0360192	8	VCP	391	SA0360185	7.00	SD0360186	20.00
104	W 6TH ST	SL0360300	8	VCP	53	SA0360293	6.36	SA0360294	5.34
104	W 6TH ST	SL0360301	8	VCP	157	SA0360294	5.34	SW0360295	11.16
104	W 6TH ST	SL0360188	8	VCP	64	SA0360181	6.50	SA0360182	10.83
105	N 27TH AVE W	SL0390053	8	VCP	199	SD0390053	8.43	SA0390054	6.90
105	N 27TH AVE W	SL0390054	8	VCP	169	SA0390054	6.90	SA0390057	6.20
105	N 27TH AVE W	SL0390057	8	VCP	183	SA0390057	6.20	SA0390059	7.00
105	N 27TH AVE W	SL0390059	8	VCP	153	SA0390059	7.00	SA0390061	8.51
106	N 27TH AVE W	SL0360090	10	VCP	141	SA0360088	11.90	SA0360089	8.80
107	N 26TH AVE W	SL0570091	8	VCP	199	SA0570087	11.95	SA0570088	7.40
107	N 26TH AVE W	SL0570094	8	VCP	148	SA0570088	7.40	SA0390004	9.07
107	N 26TH AVE W	SL0390004	8	VCP	28	SA0390004	9.07	SA0390008	9.95
107	N 26TH AVE W	SL0390008	8	VCP	191	SA0390008	9.95	SA0390013	6.97
107	N 26TH AVE W	SL0390034	8	VCP	73	SA0390034	7.50	SA0390036	4.97
107	N 26TH AVE W	SL0390036	8	VCP	94	SA0390036	4.97	SA0390037	9.00
107	N 26TH AVE W	SL0390037	8	VCP	117	SA0390037	9.00	SA0390038	7.00
108	N 26TH AVE W	SL0390038	8	VCP	153	SA0390038	7.00	SA0390039	9.00
108	N 26TH AVE W	SL0390039	8	VCP	289	SA0390039	9.00	SA0390040	3.50
108	N 26TH AVE W	SL0390040	8	VCP	111	SA0390040	3.50	SA0390062	11.06
109	LINCOLN PKWY	SL0390166	8	VCP	260	SA0390166	6.00	SA0390167	5.50
109	LINCOLN PKWY	SL0390167	8	VCP	293	SA0390167	5.50	SA0360085	8.20
110	LINCOLN PKWY	SL0360087	8	VCP	298	SA0360085	8.20	SD0360086	8.00
110	LINCOLN PKWY	SL0360088	8	VCP	171	SD0360086	8.00	SD0360087	7.81
111	N 26TH AVE W ALLEY	SL0390015	8	VCP	170	SA0390015	8.80	SA0390016	6.40
112	N 25TH AVE W	SL0570074	8	VCP	152	SA0570092	10.35	SA0390006	8.02
112	N 25TH AVE W	SL0390024	8	VCP	169	SA0390024	9.00	SA0390027	9.80
112	N 25TH AVE W	SL0390027	8	VCP	202	SA0390027	9.80	SA0390029	16.28
112	N 25TH AVE W	SL0390029	8	VCP	40	SA0390029	16.28	SA0390030	10.00
112	N 25TH AVE W	SL0360136	8	VCP	195	SA0360141	8.36	SA0360143	8.80
112	N 25TH AVE W	SL0360138	8	VCP	163	SA0360143	8.80	SA0360144	7.49
113	LINCOLN PARK DR	SL0390017	8	VCP	224	SA0390017	4.80	SA0390018	4.90
113	LINCOLN PARK DR	SL0390018	8	VCP	58	SA0390018	4.90	SA0390019	9.84
114	N 24TH AVE W	SL0390140	8	VCP	213	SA0390140	5.00	SA0390142	6.00

CERTIFIED BY: MARK GUISDFREDI REG. NO.: 23295

SIGNATURE: Mark Guisdfredi DATE: APRIL 19, 2013

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWERS IN SANITARY BASINS #18, 19, & 23

CITY OF DULUTH

CITY PROJECT NO.: 1072 STATE AID PROJECT NO.: N/A

DRAWN BY: KLB

BASIN 19 PIPE INDEX SHEET

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #19									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
114	N 24TH AVE W	SL0390142	8	VCP	154	SA0390142	6.00	SA0390144	7.20
114	N 24TH AVE W	SL0390144	8	VCP	203	SA0390144	7.20	SA0390147	8.30
114	N 24TH AVE W	SL0390147	8	VCP	161	SA0390147	8.30	SA0390149	7.40
114	N 24TH AVE W	SL0390149	8	VCP	202	SA0390149	7.40	SA0390151	7.00
115	N 24TH AVE W	SL0390151	8	VCP	219	SA0390151	7.00	SA0390155	16.60
115	N 24TH AVE W	SL0390155	8	VCP	150	SA0390155	16.60	SA0390158	7.00
115	N 24TH AVE W	SL0390158	8	VCP	161	SA0390158	7.00	SA0390219	UNKNOWN
116	N 24TH AVE W	SL0390161	8	VCP	189	SA0390161	7.50	SA0390165	5.09
116	N 24TH AVE W	SL0390164	8	VCP	166	SA0390165	5.09	SA0360135	5.64
116	N 24TH AVE W	SL0390165	8	VCP	50	SA0390163	9.95	DB0390192	UNKNOWN
117	N 24TH AVE W	SL0360363	8	VCP	63	SA0360135	5.64	SA0360136	5.80
117	N 24TH AVE W	SL0360143	8	VCP	167	SA0360136	5.80	SA0360139	4.90
117	N 24TH AVE W	SL0360146	8	VCP	132	SA0360139	4.90	SA0360140	5.90
118	N 21ST AVE W	SL0360184	8	VCP	125	SA0360177	8.00	SA0360178	6.50
118	N 21ST AVE W	SL0360185	8	VCP	110	SA0360178	6.50	SA0360181	6.50
119	ARCH AVE	SL0390173	8	VCP	115	SA0390172	16.02	SA0390175	8.00

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #23									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
123	W 8TH ST ALLEY	SL0390067	8	VCP	227	SA0390067	7.00	SA0390068	6.80
124	W 7TH ST	SL0390063	8	VCP	133	SA0390063	8.80	SA0390064	10.00
124	W 7TH ST	SL0390064	8	VCP	57	SA0390064	10.00	SD0390065	6.50
124	W 7TH ST	SL0390065	8	VCP	171	SD0390065	6.50	SA0390066	11.00
124	W 7TH ST	SL0390066	8	VCP	281	SA0390066	11.00	SA0360001	UNKNOWN
125	LYMAN ST	SL0380027	8	VCP	349	SA0380027	8.00	SA0390072	8.45
125	LYMAN ST	SL0390071	8	VCP	215	SA0390072	8.45	SA0390073	9.88
125	LYMAN ST	SL0390072	8	VCP	99	SA0390073	9.88	SA0390074	5.94
126	W 7TH ST ALLEY	SL0390069	8	VCP	440	SA0390069	4.00	SA0360002	7.00
127	W 6TH ST	SL0390070	8	VCP	244	SA0390070	10.03	SA0390071	7.20
127	W 6TH ST	SL0360003	8	VCP	371	SA0390071	7.20	SA0360003	12.30
127	W 6TH ST	SL0360004	8	VCP	52	SA0360003	12.30	SA0360004	5.21
127	W 6TH ST	SL0360005	8	VCP	43	SA0360004	5.21	SA0360005	5.70
127	W 6TH ST	SL0360006	8	VCP	252	SA0360005	5.70	SA0360007	8.00
128	W 6TH ST ALLEY	SL0360009	8	VCP	454	SA0360008	10.00	SD0360009	UNKNOWN
128	W 6TH ST ALLEY	SL0360010	8	VCP	176	SD0360009	UNKNOWN	SA0360010	5.90
128	W 6TH ST ALLEY	SL0360011	8	VCP	103	SA0360010	5.90	SA0360011	9.00
129	WELLINGTON ST	SL0380029	8	VCP	16	SA0380028	5.44	SA0380029	6.49
129	WELLINGTON ST	SL0380030	8	VCP	331	SA0380029	6.49	SA0390077	6.50
129	WELLINGTON ST	SL0390075	8	VCP	248	SA0390077	6.50	SD0390078	4.23
129	WELLINGTON ST	SL0390076	8	VCP	224	SD0390078	4.23	SA0360012	6.00
130	WELLINGTON ST	SL0360013	8	VCP	227	SA0360012	6.00	SA0360013	8.18
130	WELLINGTON ST	SL0360014	8	VCP	226	SA0360013	8.18	SA0360014	12.90
130	WELLINGTON ST	SL0360015	8	VCP	363	SA0360014	12.90	SA0360015	7.00
131	WELLINGTON ST	SL0360016	8	VCP	349	SA0360015	7.00	SA0360016	7.98
132	WELLINGTON ST ALLEY	SL0380031	8	VCP	312	SA0380030	7.00	SA0380031	7.03
132	WELLINGTON ST ALLEY	SL0390077	8	VCP	304	SA0380031	7.03	SD0360023	14.50
132	WELLINGTON ST ALLEY	SL0360018	8	VCP	89	DE0360017	UNKNOWN	SA0360018	10.20
133	WELLINGTON ST ALLEY	SL0360021	8	VCP	171	SA0360020	5.76	SA0360021	5.50
133	WELLINGTON ST ALLEY	SL0360022	8	VCP	167	SA0360021	5.50	SA0360022	7.76
134	WICKLOW ST	SL0380032	8	VCP	279	SA0380032	8.50	SD0360024	8.12
134	WICKLOW ST	SL0360025	8	VCP	301	SD0360024	8.12	SA0360025	8.00
134	WICKLOW ST	SL0360027	8	VCP	314	SA0360026	8.00	SA0360027	8.00
134	WICKLOW ST	SL0360028	8	VCP	60	SA0360027	8.00	SA0360028	7.00
135	WICKLOW ST	SL0360030	8	VCP	156	SA0360029	4.25	SA0360030	9.66
135	WICKLOW ST	SL0360033	8	VCP	47	SA0360032	9.09	SA0360033	9.92
136	WICKLOW ST ALLEY	SL0360040	8	VCP	361	SA0360039	7.20	SA0360040	9.00
137	EXETER ST	SL0350097	8	VCP	31	DE0350104	UNKNOWN	SA0350102	6.80
137	EXETER ST	SL0360045	8	VCP	514	SA0360044	5.20	SA0360045	10.02
138	EXETER ST	SL0360046	8	VCP	476	SA0360045	10.02	SA0360046	10.18
139	EXETER ST ALLEY	SL0350110	8	VCP	189	SA0350148	4.94	SA0350100	6.50
140	DEVONSHIRE ST	SL0350102	8	VCP	297	SA0350098	6.33	SA0350097	16.33
140	DEVONSHIRE ST	SL0350111	8	VCP	164	SA0350141	4.14	SA0350142	5.49
140	DEVONSHIRE ST	SL0350112	8	VCP	73	SA0350142	5.49	SD0350143	5.50
140	DEVONSHIRE ST	SL0350113	8	VCP	367	SD0350143	5.50	SA0360053	12.50
141	DEVONSHIRE ST	SL0360054	8	VCP	334	SA0360053	12.50	SA0360054	11.00
141	DEVONSHIRE ST	SL0360055	8	VCP	146	SA0360054	11.00	SA0360055	5.50
142	DEVONSHIRE ST ALLEY	SL0350104	8	VCP	285	SA0350096	7.35	SA0350150	5.50
142	DEVONSHIRE ST ALLEY	SL0350148	8	VCP	14	SA0350150	5.50	SA0350095	6.09
142	DEVONSHIRE ST ALLEY	SL0350105	8	VCP	526	SA0350095	6.09	SA0350094	5.50
143	DEVONSHIRE ST ALLEY	SL0360060	8	VCP	130	SA0360059	7.18	SA0360060	6.61
144	RESTORMEL ST	SL0380033	8	VCP	233	SA0380033	8.53	SA0350090	4.50
144	RESTORMEL ST	SL0350093	8	VCP	366	SA0350090	4.50	SA0350091	9.00
144	RESTORMEL ST	SL0350094	8	VCP	299	SA0350091	9.00	SA0350092	9.10
145	RESTORMEL ST	SL0350095	8	VCP	288	SA0350092	9.10	SA0350146	9.12
145	RESTORMEL ST	SL0350145	8	VCP	288	SA0350146	9.12	SA0350093	9.00

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #23									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
145	RESTORMEL ST	SL0350107	8	VCP	194	SA0350093	9.00	SA0350139	2.00
145	RESTORMEL ST	SL0350108	8	VCP	263	SA0350139	2.00	SA0350140	6.71
146	RESTORMEL ST	SL0350109	8	VCP	281	SA0350140	6.71	SA0360065	7.72
146	RESTORMEL ST	SL0360066	12	VCP	435	SA0360065	7.72	SA0360066	10.10
147	RESTORMEL ST ALLEY	SL0350114	8	VCP	367	SA0350105	7.00	SA0350106	3.74
147	RESTORMEL ST ALLEY	SL0350115	8	VCP	200	SA0350106	3.74	SA0350107	7.00
147	RESTORMEL ST ALLEY	SL0350116	8	VCP	300	SA0350107	7.00	SA0350108	7.70
148	RESTORMEL ST ALLEY	SL0350117	8	VCP	578	SA0350108	7.70	SA0350109	7.10
149	VERNON ST	SL0350119	8	VCP	449	SA0350114	3.80	SA0350113	6.49
149	VERNON ST	SL0350120	8	VCP	336	SA0350113	6.49	SA0350112	5.44
149	VERNON ST	SL0350121	8	VCP	28	SA0350112	5.44	SA0350111	9.50
150	VERNON ST	SL0350122	8	VCP	575	SA0350111	9.50	SA0350110	9.94
150	VERNON ST	SL0350124	8	VCP	34	DE0350138	UNKNOWN	SA0350137	10.19
150	VERNON ST	SL0350125	8	VCP	205	SA0350137	10.19	SA0350136	9.67
151	VERNON ST ALLEY	SL0350133	8	VCP	343	SA0350115	8.70	SA0350116	6.10
152	CHESTNUT ST	SL0350132	8	VCP	158	SA0350118	7.70	SA0350117	9.10
152	CHESTNUT ST	SL0350135	8	VCP	341	SA0350117	9.10	SA0350123	13.20
152	CHESTNUT ST	SL0350136	8	VCP	49	SA0350123	13.20	SA0350124	12.20
152	CHESTNUT ST	SL0350137	8	VCP	306	SA0350124	12.20	SA0350125	13.50
153	TRUCK CENTER DR	SL0350049	12	VCP	459	SA0350133	10.00	SA0350132	15.90
154	PRIVATE RD	SL0350128	8	VCP	31	DE0350122	UNKNOWN	SA0350121	6.94
154	PRIVATE RD	SL0350129	8	VCP	192	SA0350121	6.94	SA0350120	5.00
154	PRIVATE RD	SL0350130	8	VCP	217	SA0350120	5.00	SA0350119	8.20
154	PRIVATE RD	SL0350131	8	VCP	159	SA0350119	8.20	SA0350118	7.70
155	CARLTON ST	SL0380011	8	VCP	333	SA0380039	6.67	SA0350030	6.53
155	CARLTON ST	SL0350001	8	VCP	238	SA0350144	10.00	SA0350145	10.50
156	W 8TH ST	SL0380005	8	VCP	167	SA0380005	7.29	SA0380006	10.94
156	W 8TH ST	SL0380007	8	VCP	188	SA0380007	9.49	SA0380008	9.90
157	7TH ST W ALLEY	SL0350055	8	VCP	83	SA0350024	5.99	SA0350023	4.51
157	7TH ST W ALLEY	SL0350054	8	VCP	180	SA0350025	3.24	SA0350023	4.51
158	W 6TH ST	SL0350052	15	VCP	99	SA0350020	11.00	SA0350021	8.56
158	W 6TH ST	SL0350053	18	VCP	89	SA0350021	8.56	SA0350022	3.32
158	W 6TH ST	SL0350057	18	VCP	289	SA0350022	3.32	SA0350026	15.98
158	W 6TH ST	SL0350058	18	VCP	92	SA0350026	15.98	SA0350027	9.10
159	W 5TH ST	SL0350062	8	VCP	222	SA0350034	10.40	SA0350033	12.20
159	W 5TH ST	SL0350063	8	VCP	126	SA0350033	12.20	SA0350032	6.00
159	W 5TH ST	SL0350064	8	VCP	125	SA0350032	6.00	SA0350031	6.00
160	W 4TH ST	SL0350066	8	VCP	406	SD0350039	7.40	SA0350038	10.00
160	W 4TH ST	SL0350067	8	VCP	79	SA0350038	10.00	SA0350037	13.70
161	W 4TH ST ALLEY	SL0360035	8	VCP	415	SA0360034	5.30	SA0360035	8.87
162	GRAND AVE	SL0350082	8	VCP	184	SA0350062	2.56	SA0350061	16.80
162	GRAND AVE	SL0360056	8	VCP	55	SA0360055	5.50	SA0360056	6.13
162	GRAND AVE	SL0360057	8	VCP	248	SA0360056	6.13	SA0360057	11.11
163	GRAND AVE	SL0360052	8	VCP	118	SA0360051	7.86	SA0360052	9.82
163	GRAND AVE	SL0360050	8	VCP	252	SA0360049	7.00	SA0360050	7.84
164	GRAND AVE ALLEY	SL0350074	10	VCP	157	SD0350048	23.18	SA0350046	10.26
164	GRAND AVE ALLEY	SL0360062	8	VCP	334	SA0360061	7.15	SA0360062	11.33
165	W 2ND ST	SL0350078	8	VCP	227	SA0350071	8.20	SA0350070	13.67
165	W 2ND ST	SL0350079	8	VCP	446	SA0350070	13.67	SA0350069	11.20
166	W 2ND ST	SL0350080	8	VCP	375	SA0350069	11.20	SD0350068	11.10
166	W 2ND ST	SL0350081	8	VCP	200	SD0350068	11.10	SA0350058	6.10
166	W 2ND ST	SL0350090	12	VCP	95	SA0350059	5.20	SA0350058	6.10
167	W 2ND ST	SL0350089	12	VCP	525	SA0350060	14.11	SA0350059	5.20
167	W 2ND ST	SL0350085	8	VCP	460	SA0350067	1.50	SA0350060	14.11
167	W 2ND ST	SL0350146	8	VCP	86	SA0350147	UNKNOWN	SA0350067	1.50
168	W 2ND ST ALLEY	SL0360071	8	VCP	286	SA0360068	10.90	SA0360070	13.67

CERTIFIED BY: MARK GUISDFREDI REG. NO.: 23295

SIGNATURE: Mark Guisdfredi DATE: APRIL 19, 2013

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWERS IN SANITARY BASINS #18, 19, & 23

CITY OF DULUTH

CITY PROJECT NO.: 1072 STATE AID PROJECT NO.: N/A

DRAWN BY: KLB

BASIN 23 PIPE INDEX SHEET

SHEET NO. 120OF 206

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #23									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
169	W 1ST ST	SL0360074	12	VCP	223	SA0350132	15.90	SA0360071	8.20
170	W 1ST ST ALLEY	SL0360076	12	VCP	292	SA0360072	12.80	SA0360073	6.80
170	W 1ST ST ALLEY	SL0360083	8	VCP	404	SA0360080	8.90	SA0360081	11.04
171	W SUPERIOR ST	SL0350068	15	VCP	349	SA0350089	14.03	SA0360074	16.60
172	W MICHIGAN ST	SL0300039	8	VCP	405	SA0300034	7.22	SA0300035	6.02
172	W MICHIGAN ST	SL0300047	8	VCP	385	SA0300042	8.01	SA0310001	9.29
173	W MICHIGAN ST ALLEY	SL0300034	8	VCP	204	SA0300030	10.55	SA0300031	11.15
173	W MICHIGAN ST ALLEY	SL0300035	8	VCP	232	SA0300031	11.15	SW0300032	21.01
174	N 39TH AVE W	SL0380001	8	VCP	191	SA0380001	11.50	SA0380002	5.00
174	N 39TH AVE W	SL0380002	8	VCP	160	SA0380002	5.00	SA0380003	6.30
174	N 39TH AVE W	SL0380003	8	VCP	257	SA0380003	6.30	SA0380004	10.40
174	N 39TH AVE W	SL0380004	8	VCP	74	SA0380004	10.40	SA0380008	9.90
174	N 39TH AVE W	SL0380009	15	VCP	139	SA0380008	9.90	SA0380009	6.00
174	N 39TH AVE W	SL0380010	15	VCP	181	SA0380009	6.00	SA0380010	18.60
175	N 38TH AVE W	SL0350050	15	VCP	170	SA0380011	12.23	SA0350019	5.50
175	N 38TH AVE W	SL0350051	15	VCP	110	SA0350019	5.50	SA0350020	11.00
176	N 38TH AVE W ALLEY	SL0350056	8	VCP	181	SA0350023	4.51	SA0350022	3.32
177	N 37TH AVE W	SL0350060	10	VCP	177	SA0350028	14.36	SA0350027	9.10
177	N 37TH AVE W	SL0350061	20	VCP	300	SA0350027	9.10	SA0350031	6.00
177	N 37TH AVE W	SL0350065	24	VCP	360	SA0350031	6.00	SA0350037	13.70
178	N 37TH AVE W	SL0350069	24	VCP	106	SA0350037	13.70	SA0350045	10.10
178	N 37TH AVE W	SL0350070	24	VCP	445	SA0350045	10.10	SA0350046	10.26
179	N 35TH AVE W	SL0350084	12	VCP	319	SA0350061	16.80	SA0350060	14.11
179	N 35TH AVE W	SL0350088	12	VCP	121	SA0350064	10.68	SA0350060	14.11
180	ANSON AVE	SL0390073	8	VCP	240	SA0390074	5.94	SA0390075	9.20
180	ANSON AVE	SL0390074	8	VCP	57	SA0390075	9.20	SA0390076	9.23
180	ANSON AVE	SL0380028	8	VCP	149	SA0390076	9.23	SA0380028	5.44
181	ATLANTIC AVE	SL0350101	8	VCP	86	SA0350099	6.00	SA0350097	16.33
181	ATLANTIC AVE	SL0350103	8	VCP	185	SA0350097	16.33	SA0350095	6.09
181	ATLANTIC AVE	SL0350134	8	VCP	118	SA0350116	6.10	SA0350117	9.10
182	ATLANTIC AVE ALLEY	SL0360024	8	VCP	148	SD0360023	14.50	SD0360024	8.12
182	ATLANTIC AVE ALLEY	SL0350098	8	VCP	115	SA0350102	6.80	SA0350101	6.10
182	ATLANTIC AVE ALLEY	SL0350099	8	VCP	121	SA0350101	6.10	SA0350100	6.50
182	ATLANTIC AVE ALLEY	SL0350100	8	VCP	113	SA0350100	6.50	SA0350099	6.00
183	PACIFIC AVE	SL0350106	8	VCP	138	SA0350094	5.50	SA0350093	9.00
183	PACIFIC AVE	SL0350118	8	VCP	141	SA0350109	7.10	SA0350110	9.94
184	WINNIPEG AVE	SL0390068	8	VCP	150	SA0390068	6.80	SA0360001	UNKNOWN
184	WINNIPEG AVE	SL0360001	8	VCP	180	SA0360001	UNKNOWN	SA0360002	7.00
184	WINNIPEG AVE	SL0360002	8	VCP	146	SA0360002	7.00	SA0360004	5.21
184	WINNIPEG AVE	SL0360007	8	VCP	110	SA0360006	6.00	SA0360007	8.00
184	WINNIPEG AVE	SL0360008	8	VCP	156	SA0360007	8.00	SA0360011	9.00
184	WINNIPEG AVE	SL0360012	8	VCP	156	SA0360011	9.00	SA0360015	7.00
185	WINNIPEG AVE	SL0360360	8	VCP	296	SA0360065	7.72	SA0350135	11.42
186	GRAND FORKS AVE	SL0360017	8	VCP	188	SA0360016	7.98	SA0360022	7.76
186	GRAND FORKS AVE	SL0360023	8	VCP	159	SA0360022	7.76	SA0360030	9.66
186	GRAND FORKS AVE	SL0360043	8	VCP	155	SA0360042	10.26	SA0360043	12.40
186	GRAND FORKS AVE	SL0360044	8	VCP	224	SA0360043	12.40	SA0360047	10.17
186	GRAND FORKS AVE	SL0360047	8	VCP	78	SA0360046	10.18	SA0360047	10.17
186	GRAND FORKS AVE	SL0360048	8	VCP	79	SA0360047	10.17	SA0360048	8.53
187	N 32ND AVE W	SL0350002	8	VCP	404	SA0350145	10.50	SA0300023	5.43
187	N 32ND AVE W	SL0300026	8	VCP	86	SA0300023	5.43	SW0300024	7.54
188	N 29TH AVE W	SL0360053	10	VCP	11	SA0360052	9.82	SA0360058	11.95
188	N 29TH AVE W	SL0360058	10	VCP	10	SA0360057	11.11	SA0360058	11.95
188	N 29TH AVE W	SL0360059	10	VCP	192	SA0360058	11.95	SA0360062	11.33
188	N 29TH AVE W	SL0360063	10	VCP	155	SA0360062	11.33	SA0360063	10.99
188	N 29TH AVE W	SL0360064	10	VCP	34	SA0360063	10.99	SA0360064	11.56

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWER BASIN #23									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
188	N 29TH AVE W	SL0360081	8	VCP	184	SA0360078	11.87	SA0360079	12.22
188	N 29TH AVE W	SL0360082	8	VCP	183	SA0360079	12.22	SA0360081	11.04
189	N 29TH AVE W	SL0360084	8	VCP	167	SA0360081	11.04	SA0360082	7.98
189	N 29TH AVE W	SL0300038	8	VCP	234	SA0360082	7.98	SA0300035	8.87
189	N 29TH AVE W	SL0300040	12	VCP	359	SA0300035	8.87	SA0300036	6.64
190	N 29TH AVE W	SL0300041	12	VCP	283	SA0300036	6.64	SW0300037	10.98
191	N 28TH AVE W	SL0300045	8	VCP	157	SA0300040	6.68	SA0300041	6.90
191	N 28TH AVE W	SL0300046	8	VCP	35	SA0300041	6.90	SA0300042	8.01
192	N 27TH AVE W	SL0310002	8	VCP	296	SA0310002	9.31	SW0310003	20.48
193	N 26TH AVE W	SL0310004	8	VCP	156	SA0310004	9.97	SA0310005	10.36
193	N 26TH AVE W	SL0310005	8	VCP	143	SA0310005	10.36	SA0310006	9.83
193	N 26TH AVE W	SL0310006	8	VCP	31	SA0310006	9.83	SW0310007	17.37
194	COURTLAND ST	SL0310009	8	VCP	285	SA0310009	13.09	SA0310010	7.98
194	COURTLAND ST	SL0310010	8	VCP	245	SA0310010	7.98	SA0310011	7.06
194	COURTLAND ST	SL0310011	8	VCP	185	SA0310011	7.06	SW0310012	9.27

CERTIFIED BY: MARK GUISDFREDI REG. NO.: 23295

SIGNATURE: Mark Guisdfredi DATE: APRIL 19, 2013

CURED IN PLACE PIPE (CIPP) REHAB OF SANITARY SEWERS IN SANITARY BASINS #18, 19, & 23

CITY OF DULUTH

CITY PROJECT NO.: 1072 STATE AID PROJECT NO.: N/A

DRAWN BY: KLB

BASIN 23 PIPE INDEX SHEET

CURED IN PLACE PIPE (CIPP) REHAB OF MISC SANITARY SEWER PIPES									
ESTIMATED QUANTITIES									
SHEET NUMBER	LOCATION	PIPE ID	PIPE DIAMETER	PIPE MATERIAL	CIPP LENGTH	START MANHOLE	MANHOLE DEPTH	END MANHOLE	MANHOLE DEPTH
196	MARSHALL SCHOOL	SL0640030	8"	VCP	67	SA0640027	9.50	SA0640029	13.64
196	MARSHALL SCHOOL	SL0640033	24"	VCP	253	SA0640029	13.64	SA0640030	12.11
196	MARSHALL SCHOOL	SL0640034	24"	VCP	199	SA0640030	12.11	SA0640031	13.65
196	MARSHALL SCHOOL	SL0640035	24"	VCP	199	SA0640031	13.65	SA0640033	12.19
196	MARSHALL SCHOOL	SL0640037	24"	VCP	178	SA0640033	12.19	SA0640034	10.87
197	MARSHALL SCHOOL	SL0640038	24"	VCP	454	SA0640034	10.87	SA0640045	9.84
197	MARSHALL SCHOOL	SL0540081	24"	VCP	235	SA0640045	9.84	SA0540026	11.15
197	MARSHALL SCHOOL	SL0540083	24"	VCP	134	SA0540026	11.15	SA0540027	12.32
198	MARSHALL SCHOOL	SL0540021	24"	VCP	275	SA0540027	12.32	SA0510004	10.27
198	MARSHALL SCHOOL	SL0510004	24"	VCP	279	SA0510004	10.27	SA0510003	22.03
199	E 14TH ST	SL0510001	8"	VCP	404	SA0510007	11.00	SA0510006	8.20
199	E 14TH ST	SL0510002	8"	VCP	83	SA0510006	8.20	SA0510005	6.47
199	E 14TH ST	SL0510003	8"	VCP	52	SA0510005	6.47	SA0510004	10.27
200	E 8TH ST	SL0760020	8"	VCP	214	SA0760060	3.75	SA0760080	UNKNOWN
200	E 8TH ST	SL0760089	8"	VCP	254	SA0760080	UNKNOWN	SA0760059	5.42
201	W 1ST ST	SL0450181	8"	VCP	446	SA0450184	10.00	SA0450185	10.00
201	W 1ST ST	SL0450182	8"	VCP	390	SA0450185	10.00	SA0450186	4.50
202	W 1ST ST	SL0450184	8"	VCP	177	SA0450187	9.00	SA0450188	9.20
203	W 1ST ST	SL0450140	8"	VCP	125	SA0450142	8.00	SD0450143	9.34
203	W 1ST ST	SL0450141	8"	VCP	91	SD0450143	9.34	SA0450149	6.57
204	W 4TH ST ALLEY	SL0340070	8"	VCP	491	SA0340069	14.00	SW0340013	10.68
205	W 3RD ST ALLEY	SL0340170	8"	VCP	185	SA0340170	11.00	SA0340207	13.22
205	W 3RD ST ALLEY	SL0340171	8"	VCP	307	SA0340208	3.75	SW0340018	9.87