

2008 NH ACE 107 Program

WO#	Comments	Status	Actual Footage	Actual Spend YTD (3-31-2009)	Costs to be removed from the program	Costs to be recovered	Avg Cost/ft based on Actuals	Estimate footage vs Actual footage (over)/under	Estimate vs Actual cost (over)/under	Estimate Cost/ft vs Actual Cost/ft (over)/under	Service Costs to be removed from program	Svc Relay	Svc reconnect	Svc Insert	Abandoned	Priority	Paving	Category			
																First Group of \$500,000 Approved					
586498	Abandon 750' of main (only 65' replaced) Main abandonment only Take soil sample and cut out section 565 feet of 4" and 1200 of 6"	CASBUILT	410	\$55,733.78		\$55,733.78	\$135.94	100	\$9,784.97	(\$7.47)	\$0.00	1 (BS)				1	No	PROG			
586407		CASBUILT	65	\$69,088.82		\$69,088.82	\$1,062.90	750			\$0.00	3	1			2	Yes-PEND	PROG			
548871		CASBUILT	586	\$87,941.37		\$83,949.73	\$150.07	114	(\$39,583.77)	(\$80.99)	\$3,991.64	13 (12-BS, 1PL)				3	No	RNMC			
626849		COMP	1	\$600.86		\$600.86					\$0.00							RNMC			
586547		CASBUILT	1864	\$286,790.84	\$33,972.06	\$231,570.06	\$153.86	(779)	(\$61,986.06)	\$53.34	\$21,248.72	8 (4-BS, 2-CS, 1-CS/PL)	3 (2-CS, 1-PL)	4 (PL)		4	No	PROG			
592301		CASBUILT	487	\$73,203.88	\$4,227.80	\$68,976.08	\$150.32	(12)	(\$2,657.40)	(\$1.80)	\$0.00	5 (4-BS, 1-BS/PL)	3 (PL)			31	Yes-PEND	RNMC			
Sub-tot			3413	\$573,359.55	\$38,199.86	\$509,919.33						\$25,240.36							First Group Totals		
																Second Group Pending Approval					
586538	Extended due to poor condition of main Take soil sample and cut out section	CASBUILT	1238	\$195,953.23		\$190,397.28	\$158.28	(38)	(\$34,765.90)	(\$23.96)	\$5,555.95	16 (9-BS, 1-CS, 1-CS/PL)	6 (PL)			5	No	PROG			
586408		CASBUILT	145	\$32,145.10	\$1,682.77	\$30,462.33	\$221.69	0	\$2,404.96	\$16.59	\$0.00	2(BS	1(PL)			6	No	PROG			
586501		CASBUILT	234	\$37,871.73	\$1,737.75	\$35,059.86	\$161.85	26	\$34,973.09	\$118.33	\$1,074.12	1 (CS)				7	Yes-PEND	PROG			
548877		CASBUILT	685	\$154,679.80	\$5,880.37	\$140,534.47	\$225.81	(485)	(\$107,512.06)	\$10.03	\$8,264.96	7 (3-BS, 4-CS)	1 (PL)			8	No	RNMC			
626920		CASBUILT	1	\$1,429.43		\$1,429.43					\$0.00							RNMC			
548872	Abandoned 52' of main (no main replaced)	CASBUILT	280	\$27,351.31		\$27,351.31	\$97.68	(5)	\$42,410.29	\$156.00	\$0.00	2 (BS)	1 (PL)	1 (BS)		9	No	RNMC			
586531		CASBUILT	1	\$3,608.96	\$3,608.96	\$0.00	\$3,608.96	51			\$0.00					10	No	PROG			
548884		CASBUILT	720	\$137,557.62	\$3,830.96	\$133,726.66	\$191.05	(190)	(\$34,842.24)	\$2.75	\$0.00	10 (BS)				11	No	RNMC			
586504		CASBUILT	990	\$95,758.89		\$92,135.22	\$96.73	(535)	(\$29,512.79)	\$48.87	\$3,623.67	1 (CS)	3 (2-PL, 1-CS)		1 (CS)	12	No	PROG			
586508		CASBUILT	728	\$191,240.46		\$191,240.46	\$262.69	22	(\$18,002.97)	(\$31.71)	\$0.00	8 (8-BS)	3 (1CS, 2PL)			13	Yes-PEND	PROG			
586550	Abandoned 985 feet of cast iron, relayed 510 feet	CASBUILT	560	\$169,047.46	\$8,032.99	\$155,952.97	\$301.87	40	(\$13,176.85)	(\$42.09)	\$5,061.50	11 (9-BS, 1-CS, 1PL)	4 (PL)			14	No	PROG			
586506		CASBUILT	390	\$109,901.26	\$3,207.85	\$103,074.36	\$281.80	10	(\$32,231.71)	(\$87.62)	\$3,619.05	4 (BS)	5 (PL)	1 (CS)		16	No	PROG			
548886		CASBUILT	510	\$75,664.70	\$3,532.40	\$72,132.30	\$148.36	300	\$4,007.88	(\$50.00)	\$0.00	2 (BS)				17	No	RNMC			
548885		CASBUILT	756	\$159,505.75	\$6,998.96	\$136,712.96	\$210.99	294	(\$20,572.50)	(\$78.67)	\$15,793.83	11 (2-BS, 8-CS, 1-PL)				18	No	RNMC			
586413		CASBUILT	886	\$226,011.13	\$10,601.19	\$215,409.94	\$255.09	39	(\$67,970.09)	(\$84.24)	\$0.00	6 (BS)	7 (PL)			19	Yes-PEND	PROG			
586551	Abandoned 1255 feet of cast iron, relayed 370 feet	CASBUILT	520	\$61,701.45	\$5,255.09	\$50,920.78	\$118.66	(40)	\$54,160.23	\$122.72	\$5,525.58	4 (3-CS, 1-PL)	4 (PL)			21	No	PROG			
586496		CASBUILT	482	\$78,839.21		\$78,839.21	\$163.57	(52)	\$32,040.21	\$94.29	\$0.00	5 (BS)	3 (PL)			23	No	PROG			
586510		CASBUILT	1303	\$231,746.03		\$220,810.84	\$177.86	(23)	\$40,376.72	\$34.74	\$10,935.19	9 (5-BS, 4CS, 1-PL)	5 (PL)			24	No	PROG			
548894		CASBUILT	114	\$27,902.63		\$27,902.63	\$244.76	(14)	\$4,251.91	\$76.79	\$0.00	1 (BS)	1 (PL)			27	No	RNMC			
586411		CASBUILT	370	\$98,841.75	\$98,841.75	\$0.00	\$267.14	885	\$14,670.79	(\$176.69)	\$7,813.53	9 (4-BS, 2-BS/CS, 2-BS/PL, 1-CS/PL)	7 (4-PL, 1-BS/PL, 2-CS/PL)	2 (1-PL, 1-CS/PL)		29	No	PROG			
609897	Worked with wo#586411	CASBUILT	282	\$29,013.45	\$29,013.45	\$0.00				\$0.00								RNMC			
586416	Field scope change	CASBUILT	304	\$39,171.65		\$36,419.55	\$128.85	(9)	(\$10,222.75)	(\$30.72)	\$2,752.10		2 (PL)	1 (PL)		32	No	RNMC			
586417		CASBUILT	271	\$15,184.12		\$15,184.12	\$56.03	304	\$36,530.39	\$33.91	\$0.00					33	No	PROG			
Sub-tot			11770	\$2,200,127.12	\$182,224.49	\$1,955,696.68						\$70,019.48							Third Group -- Work not completed in 08 and work deferred to 09		
Tot Group 1 & 2			15183	\$2,773,486.67	\$220,424.35	\$2,465,616.01						\$95,259.84									
586529	Tie in to be comp March/April	WSTOP		\$161,625.78				1,100	\$45,944.06			1				25	No	PROG			
586410	Deferred to 2009	WSCHD		\$8,551.75				875	\$183,184.67							22	No	PROG			
586414	Deferred to 2009	WSCHD		\$8,853.80				990	\$168,204.20							20	No	PROG			
586493	Closed due to town paving requirements	CLOSE		\$18,900.53				860	\$128,138.32							15	No	PROG			
586536	Deferred to 2009	WSCHD		\$11,401.10				1,250	\$317,633.75							26	No	PROG			
548870		GUAR		\$0.00				200	\$55,664.27							28	No	RNMC			
586554	Deferred to 2009 - State Permit	WSCHD		\$3,111.90				575	\$75,040.26							30	No	PROG			
588562	Deferred to 2009	WSCHD		\$0.00														RNMC			
				\$212,444.86															Second Group Totals		
				\$2,985,931.53																	



2008 NH ACE 107 Program

WO#	Division	Town Code	Location / Street	From	To	Address Range	Exst Diameter	Exst Material	YOI	System Pressure	Relay Diameter	Relay/Insert Footage	Abandon Footage	Total Footage	Aband Count	Recnct Count	Relay/Insert Count	# of Services	Estimated Direct Main Cost	Estimated Direct Service Cost	Total Estimated Direct Cost	Total Estimated Loaded Cost (60%)	DCost for Increased Size	LCost for Increased Size (60%)	AVG DCost / Foot	AVG LCost / Foot	Prioritization Factor (Pr)
586498	NH - Central	MNC	Brown Av	O'Malley St	W Hillcrest Av	406-492	6	CI	1930	LP	8	510	0	510	0	0	1	1	\$39,553.69	\$1,395.53	\$40,949.22	\$65,518.75	\$0.00	\$0.00	\$80.29	\$128.47	174.00
586407	NH - North	CCD	Centre St	Merrimack St	N Spring St	54-74	4	CI	1932	LP AB to 60 PSIG	Relay/Abandon	65	750	815	1	0	2	3	\$35,143.80	\$2,437.19	\$37,580.99	\$60,129.58	\$0.00	\$0.00	\$46.11	\$73.78	172.00
548871	NH - South	NAS	Chestnut St	60 Chestnut St	82 Chestnut St	60-82	2	BS	1908	LP AB to 60 PSIG	Abandon	0	700	700	2	1	8	11	\$19,674.74	\$10,548.76	\$30,223.50	\$48,357.60	\$0.00	\$0.00	\$43.18	\$69.08	162.40
626849		NAS	Chestnut St			60-82																					
586547	NH - Central	MNC	Varney St	Brock St	Precourt St	451	4	CI	1916	LP	6	1085	0	1085	0	3	9	12	\$125,099.13	\$15,403.86	\$140,502.99	\$224,804.78	\$33,317.32	\$53,307.71	\$129.50	\$207.19	145.00
592301	NH - North	CCD	Holt St	School St	#2 Holt St	2-20	2	BS	1894	LP	4	475	0	475	2	3	5	10	\$35,421.64	\$8,669.91	\$44,091.55	\$70,546.48	\$2,280.00	\$3,648.00	\$92.82	\$148.52	2.40
								= Reduced Diameter from OE Analysis				2135	1450	3585	5	7	25	37	\$254,893	\$38,455	\$293,348	\$469,357	\$35,597	\$56,956	\$130.92		
												0.40	0.27	0.68					Less Increased Sizing		\$257,751	\$412,401					
586538	NH - Central	MNC	Shasta St	Lincoln St	S Hall St	584-642	4	CI	1954	LP	6	1200	0	1200	0	6	10	16	\$81,986.78	\$18,755.30	\$100,742.08	\$161,187.33	\$0.00	\$0.00	\$83.95	\$134.32	145.00
586408	NH - North	CCD	Concord St	exst 4" Plat #7	EOM	7-13	2	BS	1953	LP	4	145	0	145	1	1	1	3	\$19,752.13	\$1,841.66	\$21,593.79	\$34,550.06	\$836.65	\$1,338.64	\$148.92	\$238.28	102.40
586501	NH - Central	MNC	Cedar St	Elm St			3	CI	1927	LP	4	260	0	260	0	0	1	1	\$44,031.39	\$1,496.62	\$45,528.01	\$72,844.82	\$1,500.20	\$2,400.32	\$175.11	\$280.17	68.00
548877	NH - South	NAS	DEXTER ST	43 DEXTER ST	49 DEXTER ST	43-49	2	BS	1927	LP	4	200	0	200	0	1	2	3	\$25,615.56	\$3,864.28	\$29,479.84	\$47,167.74	\$1,154.00	\$1,846.40	\$147.40	\$235.84	65.00
626920		NAS	Dexter St			24-51																					
548872	NH - South	HUD	Gloria Av	Highland St	#11 Gloria Av	2-19	2	BS	1954	60	4	275	0	275	0	1	3	4	\$38,614.41	\$4,986.59	\$43,601.00	\$69,761.60	\$0.00	\$0.00	\$158.55	\$253.68	60.00
586531	NH - Central	MNC	Rosedale Av	#30 Rosedale Av	#33 Rosedale Av	33	2	BS	1958	LP	Abandon	0	52	52	0	0	1	1	\$8,537.13	\$1,064.28	\$9,601.41	\$15,362.26	\$0.00	\$0.00	\$184.64	\$295.43	60.00
548884	NH - South	NAS	Brook St	1-17 Brook St, Nas		1-17	2	BS	1921	LP	4	530	0	530	0	0	9	9	\$54,114.43	\$10,082.68	\$64,197.11	\$102,715.38	\$3,058.10	\$4,892.96	\$121.13	\$193.80	60.00
586504	NH - Central	MNC	Esty Av	Hall St	EOM	30-62	4	CI	1959	LP	6	455	0	455	0	1	3	4	\$36,509.02	\$4,894.79	\$41,403.81	\$66,246.10	\$0.00	\$0.00	\$91.00	\$145.60	60.00
586508	NH - Central	MNC	Hall St & Lowell St	Concord St	E High St	592-628	3	CI	1893	LP	6	750	0	750	4	5	10	19	\$90,672.00	\$17,601.43	\$108,273.43	\$173,237.49	\$0.00	\$0.00	\$144.36	\$230.98	60.00
586550	NH - South	NAS	Mulberry St	Elm St	Chestnut St	18-38	2	BS	1912	LP	4	600	0	600	0	5	10	15	\$78,521.41	\$18,897.72	\$97,419.13	\$155,870.61	\$3,462.00	\$5,539.20	\$162.37	\$259.78	52.40
586506	NH - Central	MNC	Green St	Wilson St	Hall St	601-651	4	CI	1912	LP	4	400	0	400	1	5	6	12	\$36,170.29	\$12,373.18	\$48,543.47	\$77,669.55	\$1,920.00	\$3,072.00	\$121.36	\$194.17	43.33
548886	NH - South	HUD	Library St	Highland St	School st	2-18	2	BS	1908	LP, LP AB to 60 PSIG	Relay/Abandon	335	475	810	0	0	2	2	\$47,004.30	\$2,791.06	\$49,795.36	\$79,672.58	\$1,932.95	\$3,092.72	\$61.48	\$98.36	35.00
548885	NH - South	NAS	New Dunstable Rd & Liberty St	Gaffney St	Kinsley St		2	BS	1955	LP to 60 PSIG	Relay/Abandon	805	245	1050	0	2	9	11	\$72,673.51	\$14,159.77	\$86,833.28	\$138,933.25	\$5,040.00	\$8,064.00	\$82.70	\$132.32	32.00
586413	NH - North	CCD	School St	Liberty St	Westbourne Rd	114-122	4	CI	1911	LP	6	925	0	925	1	9	13	23	\$72,633.76	\$26,141.89	\$98,775.65	\$158,041.04	\$4,440.00	\$7,104.00	\$106.78	\$170.86	30.18
586551	NH - South	NAS	Prescott Rd & Putnam St	Baldwin St	Putnam St	31-40	2	BS	1924	LP	4 & 6	480	0	480	1	3	4	8	\$65,139.17	\$7,274.38	\$72,413.55	\$115,861.68	\$1,442.50	\$2,308.00	\$150.86	\$241.38	26.00
586496	NH - Central	MNC	Belmont St	Massabesic St	Auburn St	394-411	3	CI	1893	LP	6	430	0	430	1	3	7	11	\$57,838.67	\$11,460.97	\$69,299.64	\$110,879.42	\$0.00	\$0.00	\$161.16	\$257.86	20.00
586510	NH - Central	MNC	Harrison St	Hall St	High Ridge Rd	239-387	4	CI	1901	LP	6	1280	0	1280	0	5	14	19	\$146,495.32	\$23,581.40	\$170,076.72	\$272,122.75	\$0.00	\$0.00	\$132.87	\$212.60	16.25
548894	NH - South	NAS	Reed Ct	1 Reed Ct		1	1.25	BS	1913	LP	4	100	0	100	0	1	1	2	\$17,901.06	\$2,195.53	\$20,096.59	\$32,154.54	\$0.00	\$0.00	\$200.97	\$321.55	13.40
586411	NH - North	CCD	N State St	Chapel St	Centre St	65-105	6	CI	1892	LP AB to 60 PSIG	Relay/Abandon	225	1030	1255	3	13	16	32	\$39,632.34	\$31,313.00	\$70,945.34	\$113,512.54	\$0.00	\$0.00	\$56.53	\$90.45	11.67
609897		CCD	N Main St			102-114																					
586416	NH - North	CCD	Woodman St (at High School)	#4 Woodman St	#8 Woodman St	4-8	2	BS	1929	LP to 60 PSIG	2	295	0	295	0	3	0	3	\$15,936.84	\$2,156.22	\$18,093.06	\$28,948.90	\$0.00	\$0.00	\$61.33	\$98.13	0.00
586417	NH - South	HUD	Connell St	Library St	#10 Connell St	6-10	2	BS	1928	LP to 60 PSIG	2	575	0	575	0	0	6	6	\$24,302.26	\$8,019.31	\$32,321.57	\$51,714.51	\$0.00	\$0.00	\$56.21	\$89.94	0.00
								= Reduced Diameter from OE Analysis				Sub-tot		12067							\$1,299,033.84	\$2,078,454.14	\$24,786.40	\$39,658.24			
												Total		15652					Less Increased Sizing		\$1,274,247.44	\$2,038,795.90					
586529	NH - Central	MNC	Lowell St & Chestnut St	Rosciuszko Rd	Bridge St		3&4	CI	1914	LP	6	1100	0	1100	4	2	6	12	\$120,111.84	\$9,619.31	\$129,731.15	\$207,569.84	\$0.00	\$0.00	\$117.94	\$188.70	15.82
586410	NH - North	CCD	N Main St	Storrs St	Chapel St	143-204	6	CI	1892	LP	8	875	0	875	0	5	11	16	\$100,838.30	\$18,996.96	\$119,835.26	\$191,736.42	\$0.00	\$0.00	\$136.95	\$219.13	24.00
586414	NH - North	CCD	Warren St & N Spring St	Rumford St	Pleasant St		4	CI	1892	LP	6	990	0	990	2	5	14	21	\$89,954.79	\$20,706.46	\$110,661.25	\$177,058.00	\$0.00	\$0.00	\$111.78	\$178.85	27.50
586493	NH - South	HUD	School St	Library St	First St	26-46	4	BS	1947	LP	6	860	0	860	0	0	1	1	\$90,503.75	\$1,395.53	\$91,899.28	\$147,038.85	\$0.00	\$0.00	\$106.86	\$170.98	50.00
586536	NH - Central	MNC	Sagamore St	Beech St	Russell St	149-219	4	CI	1917	LP	6	1250	0	1250	3	9	21	33	\$169,848.39	\$35,798.39	\$205,646.78	\$329,034.85	\$0.00	\$0.00	\$164.52	\$263.23	15.13
548870	NH - South	NAS	Lovewell St	110 Lovewell St	119 Lovewell St	110-119	2	BS	1908	LP	4	200	0	200	0	0	1	1	\$33,394.64	\$1,395.53	\$34,790.17	\$55,664.27	\$1,154.00	\$1,846.40	\$173.95	\$278.32	12.00

Bill Impacts due to Cast Iron and Bare Steel Replacement Program

	Total Yr 1
Annual Increase due to Cast Iron Bare Steel program	\$314,318
Annual Throughput (based on Nov 07 COG filing)	154,702,063
Increase Factor	\$0.0020
Typical Residential bill (Based on Pk 08-09 and OffPeak 09 COG)	\$1,757
Typical Usage	1250
Annual Increase for Residential Heating customer	\$2.54
Percent bill increase	0.14%
Annual Revenues 2006-07 from Rate Case	\$176,520,000
Annual percent increase	0.18%

**Energy North**  
**Illustrative Cast Iron, Bare Steel Replacement Program**  
**Illustrative Computation of Revenue Requirement**

Annual Increase due to Cast Iron Bare Steel program

		Year 1 FY09		
	<b><u>Deferred Tax Calculation</u></b>			
1	CIBS Program Actual Spend	2,465,616		
2	Base Spending Amount	500,000		
3	Incremental Amount	1,965,616		
4	Cumulative REP Program Spend	1,965,616		
5				
6	Book Depreciation Rate (a)	2.23%		
7	15/20 YR MACRS Tax Depr. Rates	5.00%		
8	Vintage Year Tax Depreciation:			
9	Year 1 Spend	98,281		
10	Year 2 Spend			
11	Year 3 Spend			
12	Year 4 Spend			
13	Year 5 Spend			
14				
15	Annual Tax Depreciation	98,281		
16	Cumulative Tax Depreciation	98,281		
17				
18	Book Depreciation	43,800		
19	Cumulative Book Depreciation	43,800		
20				
21	Book/Tax Timer	54,480		
22	Effective Tax Rate	40.53%		
23				
24	Deferred Tax Reserve	22,078		
25				
26	<b><u>Rate Base Calculation</u></b>			
27	Plant In Service	1,965,616		
28	Accum Depr	(43,800)		
29	Def Tax Reserve	(22,078)		
30	Year End Rate Base	1,899,737		
31				
32	<b><u>Revenue Requirement Calculation</u></b>			
33	Year End Rate Base	1,899,737		
34	Pre-Tax ROR	12.25%		
35	Return and Taxes	232,778		
36	Book Depreciation	43,800		
37	Property Taxes (b)	1.92% 37,740		
38	Annual Revenue Requirement	314,318		
39				
40	<b><u>Annual Rate Adjustment</u></b>			
41				
42	Incremental Annual Rate Adjustment			
43				
44				
45	<b><u>Imputed Capital Structure</u></b>			
46		<u>Ratio</u>	<u>Rate</u>	<u>Weighted</u>
47	Long Term Debt (c)	50.00%	7.02%	3.51%
48	Short Term Debt	0.00%	0.00%	0.00%
49	Common Equity (d)	50.00%	10.39%	5.20%
50				
51		100.00%		8.71%
				12.25%

(a) Actual 2007 Composite Depreciation rate for distribution property.

(b) Actual 2007 ratio of municipal tax expense to net plant in service.

(c) Capital structure per Merger Settlement in Docket DG 06-107, Exhibit 1, Section 3(c).