

DG 18-094 Northern Utilities, Inc.
Phase 2 Reconciliation

Category	Estimate	Actual	Variance	Variance Analysis
Labor (Internal)	15,872.00	1,480.72	14,391.28	Utilized contract construction inspection instead of internal labor.
Main Installation	121,245.35	131,025.83	(9,780.48)	Additional main installation costs due to obstructions and other required offsets.
Restoration (PV Finish)	25,436.25	28,535.33	(3,099.08)	Mobile and McDonald crossings larger than anticipated
Restoration (Binder)	92,297.25	94,772.50	(2,475.25)	Mobile and McDonald crossings larger than anticipated
Restoration (Grind & Inlay)	22,080.00	4,200.30	17,879.70	Less 2nd year paving required.
Restoration (Loam & seed)	-	31,795.80	(31,795.80)	The original estimate did not anticipate the need for loam and seed on the project. However, loam and seed was required for drill locations at Rte. 125 and the rail trail.
Crew Time	28,855.20	124,937.63	(96,082.43)	Additional crew time was required for numerous obstructions and offsets and also restricted work day hours. Additional time for testing, pigging and the use of air dryers were also not anticipated in the original estimate.
Sand	719.28	7,862.18	(7,142.90)	Additional sand due to test holes, excavation at McDonalds and DD twice to install sleeve pipe and gas main once the sleeve pipe was through
Gravel	21,473.75	6,265.57	15,208.18	The original estimate anticipated more direct bury installation requiring more gravel for backfill.
Ledge & Rock Removal	68,090.40	14,569.72	53,520.68	Construction encountered less ledge and rock than anticipated.
Traffic Control	62,000.00	165,312.78	(103,312.78)	The original estimate anticipated the use of the typical traffic control measures of two flaggers and a police detail. Permit conditions for traffic control required two flaggers and flagger truck along with two detail officers. In addition, delays caused by the directional drills and moisture removal increased construction days.
Directional Drills	40,000.00	378,985.98	(338,985.98)	The original estimate anticipated small drills and the estimate was developed prior to the project being permitted with the NH DOT and engineered to include their requirements. The actual drills for the project were larger and more complex than originally expected with approximately 1,400 lf of pipe installed by directional drill. In addition, the Company encountered problems with the 12" casing pipe associated with the drill under RTE 101 that caused significant delays and additional costs.
Materials (Direct Order)	62,444.00	118,751.58	(56,307.58)	Additional cost for casing pipe associated with the directional drills and the replacement of 1080' of 8" pipe damaged by the casing problem with the Rte. 101 crossing
Environmental/Engineering/Permits	-	6,121.00	(6,121.00)	Unanticipated erosion control required at the Mobile station on Maine Street.
Extra Depth	-	1,226.08	(1,226.08)	Extra depth with the 8" main at drain crossing.
Shoring	-	4,955.71	(4,955.71)	Shoring required at drill locations.
Spoil Removal	-	13,352.05	(13,352.05)	The original estimate did not anticipate 100% spoil removal because of unsuitable soil at certain locations.
Welder	-	6,804.08	(6,804.08)	The original estimate did not anticipate the requirement for a directional drill at the rail trail with the railroads requirement for a steel casing.
Saw Cut	-	1,744.48	(1,744.48)	Cut back for Rd crossing at Main St for wider trench and bump out at McDonalds around drains
Backhoe (Rubber Tire)	-	7,483.58	(7,483.58)	Additional equipment for moving pipe and plates.
Excavator (Large)	-	2,837.44	(2,837.44)	Larger equipment required for excavations on slopes and drill pits.
Excavator (Med Size)	-	3,552.00	(3,552.00)	Larger equipment required for excavations on slopes and drill pits.
Dewatering (Labor & Equipment)	-	12,972.57	(12,972.57)	The original estimate did not anticipate the high water table and the need to utilize dewatering to facilitate construction.
Crane Truck	-	316.44	(316.44)	
Service Truck (Camera Truck)	-	679.04	(679.04)	A camera truck was required for the investigation into the Rte. 101 directional drill casing.

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Vac Truck	-	763.92	(763.92)	Unanticipated test hole requirements to locate underground foreign utilities.
Steel Plates	-	4,404.16	(4,404.16)	Road and driveway crossings and entry/exit pits of bores also used to set up drill rig on top of
Adder for PV Removal	-	8,078.50	(8,078.50)	Extra thick asphalt removal
M&S Stock Room	-	6,774.05	(6,774.05)	Additional couplings and fittings for the project.
Sidewalk	-	4,381.08	(4,381.08)	The original cost estimate did not anticipate the NH DOT permit requirement to install temporary ADA compliant sidewalks.
Misc	-	11,934.80	(11,934.80)	Air dryer rental and compressors for moisture removal
Total Base Cost	560,513.48	1,206,876.90	(646,363.42)	
Overheads	311,306.86	635,416.76	(324,109.90)	
Total Cost	871,820.34	1,842,293.66	(970,473.32)	