

Madison Metropolitan Sewerage District engineers have used trenchless technologies in 34 projects, spanning the years from 2000 to today. Project engineers Jeff Klawes, Eric Hjellen and Theran Jacobson compiled a list of these trenchless crossings and the technologies used.

Project	Size [Dia (in) – Length (ft)]	Trenchless Technology Method	Year	Trenchless Installation Crossing
PS 17 Force Main Relief – Phase 2	42” sewer 105’	Pilot Tube Microtunnel	2024	Military Ridge State Trail (Railroad Corridor)
PS 17 Force Main Relief – Phase 1	72” casing 160’	Pipe Ramming with Auger Bore	2021	CTH M / S. Main Street
WI Shorewood Relief - Phase 2	48” casing 45’	Jack and Bore	2022	RR Tracks
NEI – Truax Relief	60” casing 160’	Pilot Tube Auger Bore with Pipe Ramming	2019	USH 151 / E. Washington Avenue
PS 12 Force Main Relocation	54” casing 163’	Pipe Ramming with Auger Bore	2016	McKee Rd / PD
NEI – SEI to FEI Relief/Replacement	48” sewer 228’	Microtunnel	2013	USH 51 / Stoughton Road
NEI – SEI to FEI Relief/Replacement	60” sewer 195’	Microtunnel	2013	E. Broadway & Unnamed Tributary
NEI – SEI to FEI Relief/Replacement	48” sewer 194’	Microtunnel	2013	USH 12/18, Beltline Highway
PS 18 Force Main	66” casing 148’	Tunnel Boring Machine	2014	Monona Drive
PS 18 Force Main	66” casing 207’	Pilot Tube Microtunnel & Pipe Ramming	2014	W. Broadway & Yahara River
PS 18 Force Main	66” casing 267’	Pipe Ramming	2014	USH 12/18, Beltline Highway
PS 18 Force Main	66” casing 140’	Tunnel Boring Machine	2014	Railroad
PS 18 Force Main	66” casing 179’	Tunnel Boring Machine	2014	South Town Drive / Moorland Road
NEI – PS 10 to Lein Road Relief/Replacement	87” casing 130’	Tunnel Boring Machine	2010	Sycamore Ave
NEI – PS 10 to Lein Road Relief/Replacement	60” sewer 225’	Microtunnel	2010	USH 51 / Stoughton Road
NEI – PS 10 to Lein Road Relief / Replacement	60” sewer 322’	Microtunnel	2010	STH 30
PS 1 North Basin Int	60” casing 20’	Pipe Ram	2002	Burke Outfall

Project	Size [Dia (in) – Length (ft)]	Trenchless Technology Method	Year	Trenchless Installation Crossing
PS 1 North Basin Int	36” casing 65’	Auger Bore	2002	CanPac Railroad in Commercial Ave
Crosstown Force Main Replacement – 14 crossings in total	48” casing for all Length ranges: 30’ - 120’	Multiple methods	2002	Crossings included large storm sewers; RR tracks; multiple arterial streets, and MG&E tunnels.
WI Campus Relief - Phase II	48” 600’	Microtunnel	2000	Campus Drive
WI Campus Relief - Phase II	48” casing 44’	Hand mine	2000	WI & Southern Railroad

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