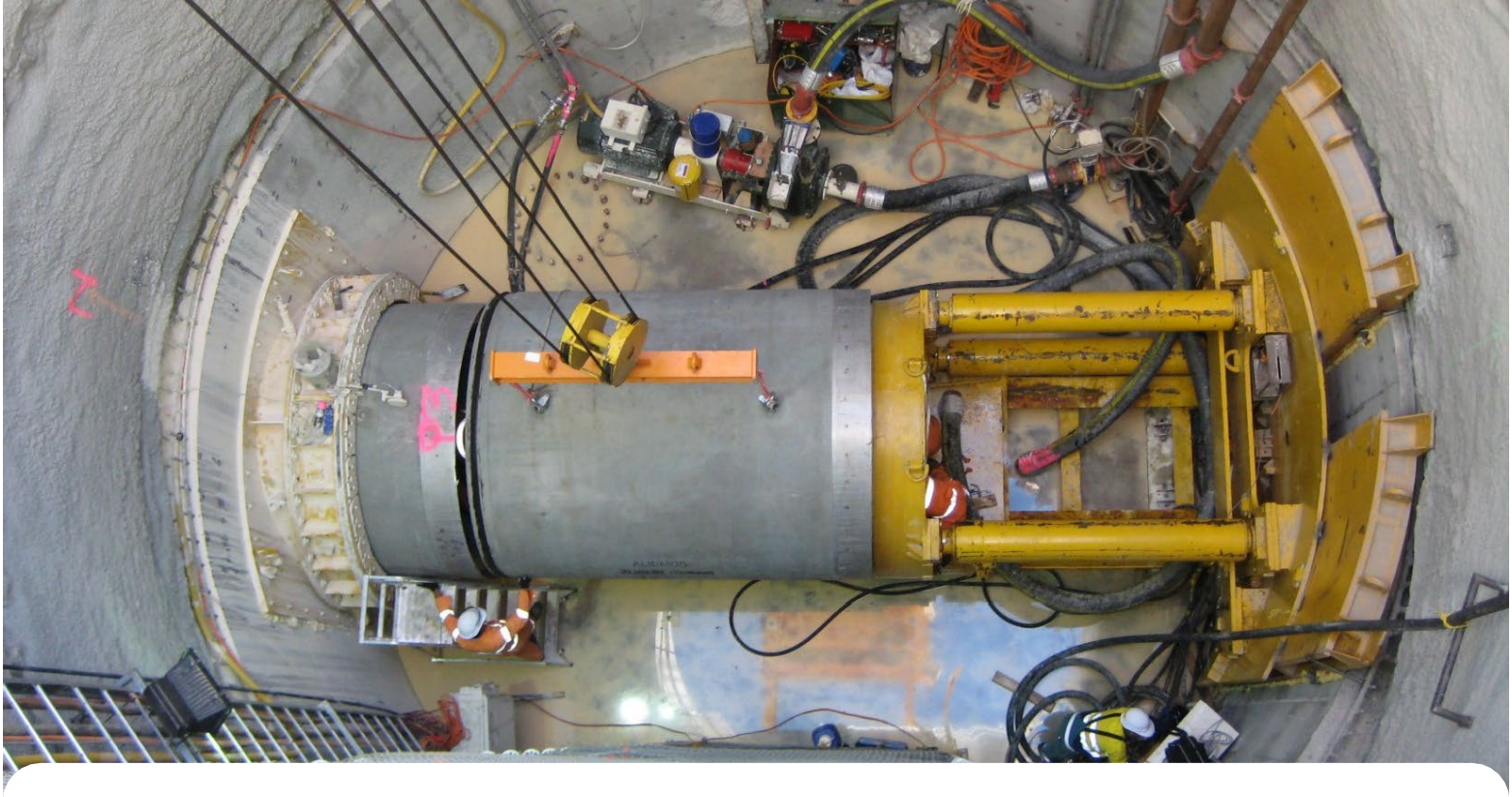

REFERENCE LIST
PIPE JACKING PROJECTS 3 DURING THE LAST 20 YEARS

Construction Period	Project	Country	Contract Value Mio SGD	Client
2023 - 2024	OAL 3 Ostsee Anbindungsleitung Trenchless Shore Crossing (Micro Tunnel) ID2000mm, L = 352m 1 no. Onshore entry shaft construct using sheet piling	Germany	TBC	Gascade Gastransport GmbH
2022 - 2023	Ostsee LNG Pipeline Trenchless Shore Crossing (Micro Tunnel) ID2000mm, L = 755m 1 no. Onshore entry shaft construct using sheet piling	Germany	TBC	RWE Supply & Trading GmbH
2021 - 2025 (On-going)	Construction of Link Sewers for the DTSS Phase 2 Project 3 Schedule III Contract 2 (Old Choa Chu Kang Road / Jalan Bahar) (Balance Works) ID300mm, L = 95m ID1200mm, L = 3,115m ID1500mm, L = 680m ID2500mm, L = 1,610m ID2700mm, L = 350m 36 shafts diameter 4.4m to 9.5m, depth upto 40m, construct using sheet piling, cast in situ and caisson sinking method.	Singapore	61.9	Public Utilities Board
2021 - 2022	Advanced Contract for the Proposed Deep Gravity Sewers Project at Sentosa ID2000mm, L = 150m 1 no. of shaft construct using caisson sinking method.	Singapore	3.9	Sentosa Development Corporation

STRABAG
WORK ON PROGRESS

Construction Period	Project	Country	Contract Value Mio SGD	Client
2020 - 2021	Baltic Pipe Project - Microtunnel Shore Crossing Landfall Denmark and Landfall Poland ID2000mm, L = 1,600m 2 nos. of entry pits	Denmark / Poland	68.2	Saipem S.p.A.
2019 - 2024 (On-going)	Proposed 1600mm Diameter and Twin 800mm Diameter Pipelines Crossing Marina Reservoir from Marina South to Marina East ID3000mm, L = 1,480m 2 nos. of shafts and permanent chambers	Singapore	55.2	Public Utilities Board
2019 - 2023 (On-going)	Construction of Link Sewers for DTSS Phase 2 Project - Schedule II Contract 2 (Commonwealth Avenue / Toh Tuck / Boon Lay Way / International Business Park) ID400mm, L = 75m ID800mm/ID1000mm, L = 856m ID1200mm/ID1500mm, L = 852m ID1800mm/ID2100mm, L = 1,057m ID2500mm, L = 1,690m ID3000mm, L = 1,041m 39 shafts diameter 3.9m to 17.8m, depth upto 50.8m, construct using sheet piling, cast in situ and caisson sinking method.	Singapore	84.9	Public Utilities Board
2019 - 2023 (On-going)	Construction of Link Sewers for DTSS Phase 2 Project - Schedule III Contract 3 (Jalan Buroh / Jurong Port Road) ID400mm, L = 625m ID900mm, L = 655m ID1000mm, L = 690m ID1500mm, L = 1,425m ID2000mm, L = 1,205m 31 shafts diameter 3.9m to 13.5m, depth upto 42.6m, construct using sheet piling, cast in situ and caisson sinking method.	Singapore	42.0	Public Utilities Board
2017 - 2019	Construction of Service Tunnels, Access Shafts and Ancillary Works in Jurong Island ID3000mm, L = 1,578m	Singapore	112.2	Jurong Town Corporation
2017 - 2020	Proposed Sewers in Upper Changi Road East Area - Contract 2 ID300mm, L = 645m ID2500mm, L = 3,315m 18 shafts diameter 4.0m to 9.0m, depth upto 29.0m, construct using sheet piling and caisson sinking method.	Singapore	32.0	Public Utilities Board
2017 - 2018	Trenchless Shore Crossing (Micro Tunnel) - Germany ID2000mm, L = 1,400m 2 jacking shaft size 12m long x 8m wide x 12m deep, built by sheet piling method	Germany	40.6	Nord Stream 2 AG
2015 - 2017	Proposed Sewers in Lorong Lada Hitam Area - Contract 2 ID1500mm, L = 11m ID1800mm, L = 851m 4 shafts diameter 7.2m, depth upto 41m, construct using sheet piling and shaft sinking method.	Singapore	20.2	Public Utilities Board

Construction Period	Project	Country	Contract Value Mio SGD	Client
2015 - 2017	Contract T3005 3 Advanced Sewer Diversion (Package 2) ID150mm, L = 66m ID300mm, L = 1,512m ID600mm, L = 230m ID750mm, L = 44m ID2100mm, L = 1,848m ID2400mm, L = 51m ID3000mm, L = 634m 52 shafts diameter 7.2m to 8.8m, depth upto 16m, construct using caisson sinking method. Square shaft 2.5m x 2.5m and 5.0m x 2.5m and circular shaft 3.0m, depth upto 16m, construct using sheet piling method. Secant bored piles method is applied to MH70, depth upto 30m.	Singapore	78.6	Land Transport Authority
2015 - 2017	Contract T3003 3 Advanced Sewer Diversion (Package 1), NEWater Pipe & Effluent Outfall Pipe ID300mm, L = 1,030m ID1200mm, L = 1,260m ID2100mm, L = 2,380m ID2200mm, L = 460m ID3000mm, L = 50m ID4000mm, L = 50m 57 shafts diameter ranging 3.0m to 8.8m, upto depth 16.0m, construct using caisson sinking method. Square shaft 2.5m x 2.5m and 5.0m x 2.5m, depth upto 16m, construct using sheet piling method. Secant bored piles method is applied for 2 of the shafts to depth 39.0m.	Singapore	53.4	Land Transport Authority
2014 - 2018	South Stream Pipeline Shore Crossing ID2000mm, L = 2,900m Circular Entry Pits ID15.0m, approx. 20 m deep	Russia	161.4	Saipem S.p.A.
2014 - 2017	Contract C9057 3 Construction of Bukit Panjang Underpass ID2000mm, L = 1,300m 2 shafts upto 15.0m depth, construct using secant bored piling method.	Singapore	46.0	Land Transport Authority
2014 - 2016	Sewers in Lorong Lada Hitam Area 3 Contract 1 ID1000mm, L = 900m 8 shafts diameter 7.2m, depth upto 18m, construct using sheet piling method.	Singapore	8.8	Public Utilities Board
2014 - 2015	Tuas South Avenue Phase 2A ID2000mm, L = 300m 2 shafts diameter 8.8m, depth 13.0m, construct using sheet piling method.	Singapore	8.0	Public Utilities Board

Construction Period	Project	Country	Contract Value Mio SGD	Client
2013 - 2015	Sewers in Jurong East and Jurong West Areas ID1800mm, L = 1,900m 14 shafts diameter 5.0m and 7.2m, depth varying from 10.5m to 15.5m, construct using cast in situ, caisson sinking and sheet piling method.	Singapore	12.4	Public Utilities Board
2013 - 2015	Sewerage Scheme to Serve Jurong Eastern Catchment - Package A Contract 1 ID3000mm, L = 1,400m	Singapore	8.0	Public Utilities Board
2012 - 2015	Strategic Tunnel Enhancement Programme (STEP) Contract LS-01& LS-02 ID3100mm, L = 3,450m ID2800mm, L = 6,093m ID1800mm, L = 13,455m ID1400mm, L = 317m ID1200mm, L = 2,753m ID1000mm, L = 2,984m ID800mm, L = 5,063m ID600mm, L = 5,328m ID400mm, L = 5,882m ID200mm, L = 5,778m 342 shafts depth between 8m to 26m.	Abu Dhabi UAE	585.0	Abu Dhabi Sewerage Service Company (ADSSC)
2012 - 2013	Proposed Erection of a Pipe Culvert & Shaft at Banyan Avenue, Jurong Island ID3200mm, L = 90m 1 no. temporary launching shaft size 8.0m x 10.0m, 18.2m depth and 1 no temporary receiving shaft size 8.0m x 9.0m, 18.2m depth construct by using sheet piling method.	Singapore	4.3	Sembcorp Design & Construction
2012 - 2014	Sewerage Scheme to Serve Jurong Eastern Catchment - Package B ID3000mm, L = 3,015m ID2500mm, L = 205m ID1350mm, L = 62m ID900mm, L = 78m ID300mm, L = 114m 18 shafts diameter varied between 4.4m to 8.8m, depth upto 29m, construct using caisson sinking method.	Singapore	23.3	Public Utilities Board
2011 - 2014	Sewerage Scheme to Serve Jurong Eastern Catchment - Package A Contract 2 ID2500mm, L = 2,430m ID1350mm, L = 121m 11 shafts diameter varied between 4.4m to 8.8m, depth upto 29m, construct using caisson sinking method.	Singapore	17.1	Public Utilities Board
2011 - 2012	Submarine Gas Transmission Pipeline Project ID2000mm, L = 1,550m 2 shafts diameter 7.5m and 14.0m, depth upto 30m, construct using diaphragm wall method.	Singapore	23.6	Powergas Singapore

Construction Period	Project	Country	Contract Value Mio SGD	Client
2011 - 2012	Contract 920 3 Cable Tunnel at Halifax Road ID3000mm, L = 140m 2 shafts diameter 7.2m and 8.8m, depth upto 26.0m, construct using caisson sinking method.	Singapore	2.4	Shanghai Tunnel Engineering Co
2010 - 2011	Southern Seawater Desalination Plant Shore Crossing Tunnels ID2400mm, L = 1,716m ID2000mm, L = 965m	Australia	56.4	WA Water Corporation
2009 - 2012	Sewerage Scheme to Serve Pasir Ris / Tampines 3 Package 2 ID3000mm, L = 2,415m ID2000mm, L= 1,185m ID1500mm, L= 3,280m 24 shafts diameter varied between 4.4m to 8.8m, depth upto 34m, construct using caisson sinking method.	Singapore	39.4	Public Utilities Board
2006 - 2010	Alkimos Waste Water Treatment Scheme Main sewer, ID2000mm, L = 6,300m Earth work 2.0 Mio. m^3 Ocean outfall pipeline 76=, L = 3,700m 13 shafts diameter 8.8m, depth up to 20m	Australia	374.4	WA Water Corporation
2006 - 2007	East 3 West Gas Pipeline Project Gautami Godavari River Crossing ID2400mm, L = 2,438m 3 shafts diameter 8.8m, depth from 30m to 35m, construct using caisson sinking method.	India	36.4	Reliance Industries Limited
2006 - 2007	Deep Tunnel Sewerage System Kranji Link Sewer ID1650mm, L = 150m ID1200mm, L = 850m	Singapore	9.5	Public Utilities Board
2003 - 2005	Deep Tunnel Sewerage System Upper Thomson Link Sewer ID2400mm, L = 3,013m ID1200mm, L = 967m ID600mm, L = 616m ID400mm, L = 333m 32 shafts diameter ranging 4.4m to 8.8m, depth up to 40m, construct using caisson sinking method.	Singapore	42.9	Public Utilities Board