

EAST SIDE ACCESS

facts & figures



Purpose: Direct access to Midtown Manhattan's East Side at Grand Central Terminal for LIRR customers traveling from and to Long Island and Queens.

Magnitude of Project	Manhattan	Queens	Total
Construction			
22 ft Tunnel Boring Machines	2 Hard Rock	2 Soft Ground	4 Total
TBM Tunneling (bores/ft)	8/31,000	4/10,000	12/41,000
TBM Tunneling Muck (cy)	430,000	150,000	580,000
Drill and Blast (cy)	415,000	30,000	445,000
Other Excavation (cy)	25,000	500,000	525,000
Total Excavation (cy)	870,000	680,000	1,550,000
Depth of Tunnel	80 ft - 140 ft	0 ft - 90 ft	0 ft - 140 ft
Steel (ton)	30,000	30,000	60,000
Concrete (cy)	175,000	215,000	390,000
Estimated Cost	-	-	\$ 7.3 Billion
Start of Operations	-	-	2016

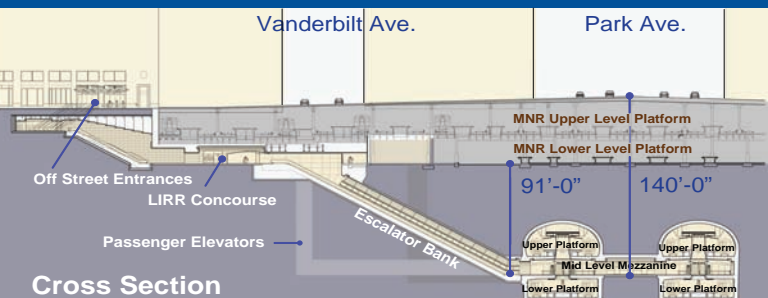
Systems

Passenger Trips per Day (Year 2020)			162,000
Peak Hr. Trains - GCT/Penn	24/37	3	64
GCT Platforms/Tracks	4/8	-	4/8
Concourse (ft)	Length - 1,360'	Width - 170' to 240'	Height - 9' to 15'
Mezzanine (ft)	Length - 1,020'	Width - 52'	Height - 9' to 12'
Upper 2 Platforms (ft)	Length - 1,020'	Width - 27'	Height - 9' to 11'
Lower 2 Platforms (ft)	Length - 1,020'	Width - 27'	Height - 9' to 24'
Escalators/Elevators	50/19	-	50/19
Route Miles/Track Miles	2/11	1.5/16	3.5/25
Switches	15	109	113
Catenary Structures	-	220	220
Central Instrument Locations	6	18	24
Yards/Maintenance Facilities	1	1/1	1/2
Ventilation Plants	6	7	13
Traction/Facility Power Substations	4/5	4/8	8/13
Pumping Stations	4	3	7
Jet Fans	36	8	44
Cable (miles)	110	38	148
Ductbank (miles)	9	9	18



Long Island Rail Road
East Side Access

www.mta.info/capconstr/esas/index.html



Cross Section

Section at 45th St. Looking North



Capital Construction

Rev 3 - May 2011