

# SANTA MARIA DEL PIANTO METRO STATION

Student  
Briefing Pack



# BRIEF

The local railway authority Metropolitana di Napoli (MDN) is implementing an expansion programme, part of which involves the extension of the principal east-west metro line. MDN will appoint teams of internationally recognised designers (architects and engineers) to undertake the design of the stations along the extension. MDN reason for doing this is to produce stations that will help create a perception in Italy and overseas of Naples as a modern, economically vibrant and cultured city. As a result of your international reputation, your team has been invited to prepare a concept design for a landmark station at Santa Maria del Pianto, adjacent to the city's main cemetery, Poggioreale.

The new station will be on Metro Linea 1 between Poggioreale and Capodichino, close to the cemetery's north entrance. The station will provide easy access to the surrounding areas and a new route into the city from the north east of Naples. The station will form part of a transport hub that will also include parking for up to 1,500 cars and a bus station for 45 buses. The passenger flow is expected to be 6000 people per day (including the rush hour peak). Importantly, the station must also be able to accommodate passengers visiting the cemetery on Sundays, particular on the Day of the Dead (usually around the 2nd November) when 10,000 passengers are expected to use the station.

## Information about the site

As usual at this stage of a project, only partial information is available, including:

- A brief introduction to Naples, history, climate, geology.
- A plan of the site showing key features
- Passenger numbers

The site is essentially flat and the key levels are:

- Platform level at 100mASD (above surface datum) and;
- Station concourse level at 143mASD

## Deliverables

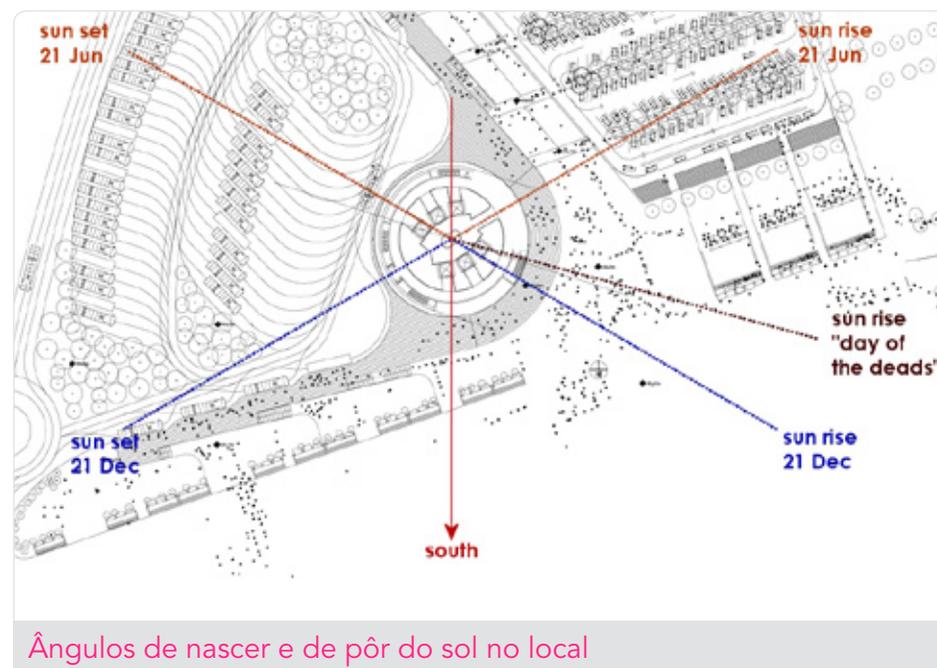
Produce a design proposal that achieves the client's objectives on a single large piece of paper.

# ABOUT NAPLES



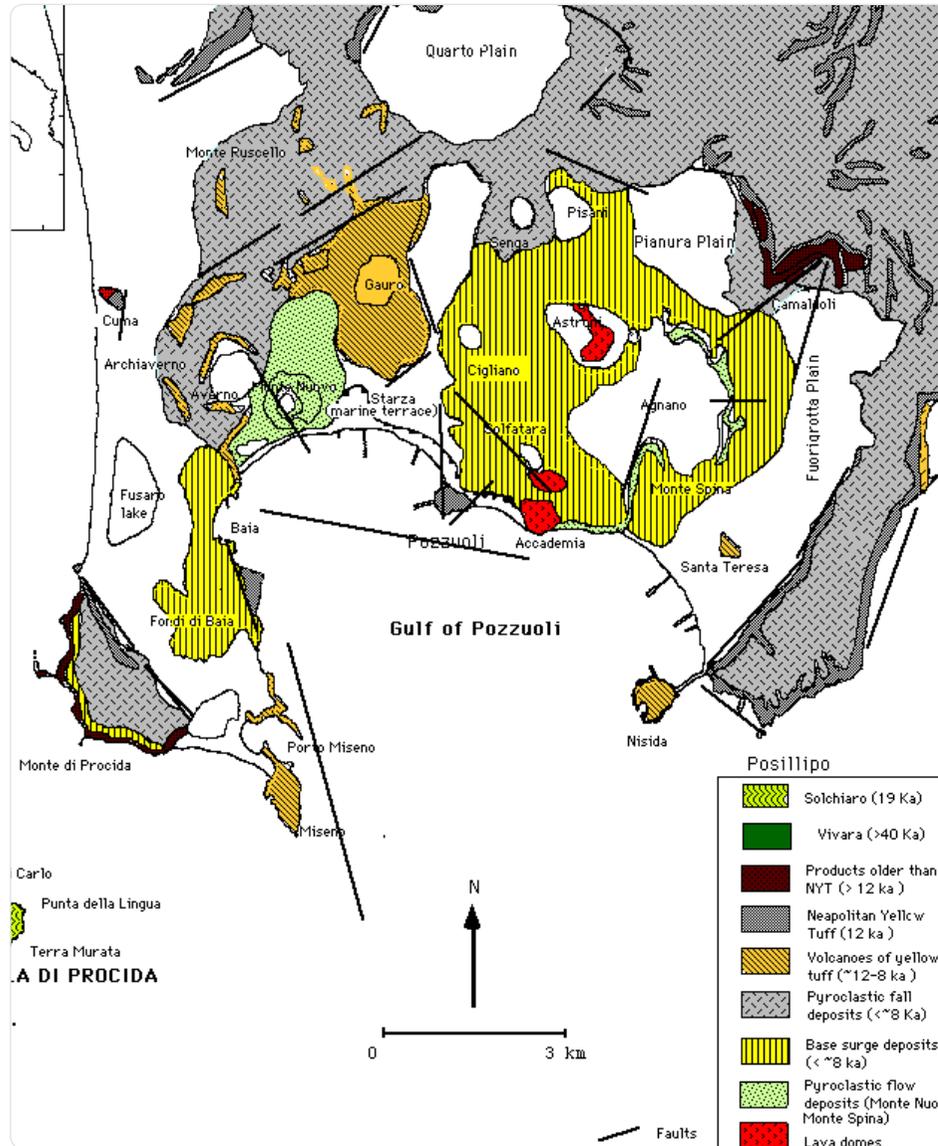
The largest city of Campania, capital of the province and the region, Naples is the third most populated city in Italy (after Rome and Milan), with over a million inhabitants, and is the most important industrial center and trading port for the South. It is situated halfway down the Tyrrhenia coast, at the innermost point of the Bay of Naples, between Vesuvius and the Phlegrean Fields.

It has a mild and constant climate, with average temperatures of 16° C and a serene sky for at least half the year. Among the major industries are metalworking, oil refineries, mechanics (naval and railroad), electricity and food producing. The artistic crafting of coral and tortoise shell flourishes.



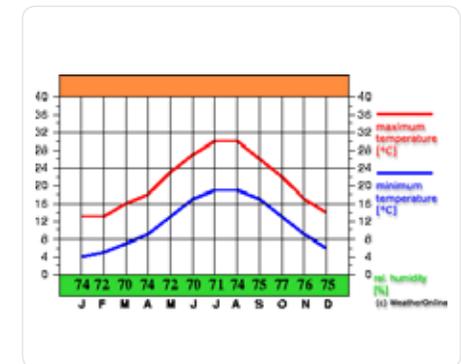
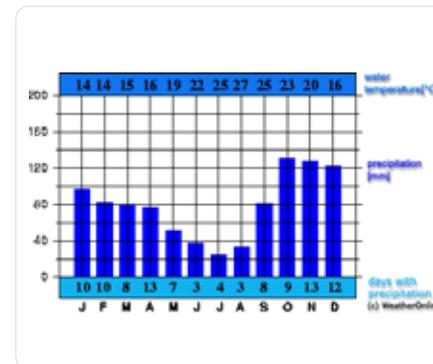
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# ABOUT NAPLES



A point of embarkation for emigrants in the past, Naples now has a large traffic of merchandise (petroleum, carbon, cereals) and passengers. It is the largest Italian port, with a noteworthy nexus of railway and highways and a large international airport. In the vast urban area one can distinguish many different neighborhoods: the old center, characterized by buildings closely crowded together, is bordered on the west by the new administrative district and on the east by the business district, into which flows almost all the road and rail traffic. Other neighborhoods, with narrow climbing streets, rise around the base of the San Martino and Capodimonte hills. These neighborhoods have experienced intense development, typically of the simpler kind, in contrast to that of the residential neighborhoods that stretch out comfortably along the Vomero and Posillipo hills.

The geology of the area derives from its volcanic character with volcanic ash and pumice prevalent to depths of over 60m below ground surface across the area. Seismic activity is also characteristic of the area and needs to be considered in design.



# HISTORY OF NAPLES



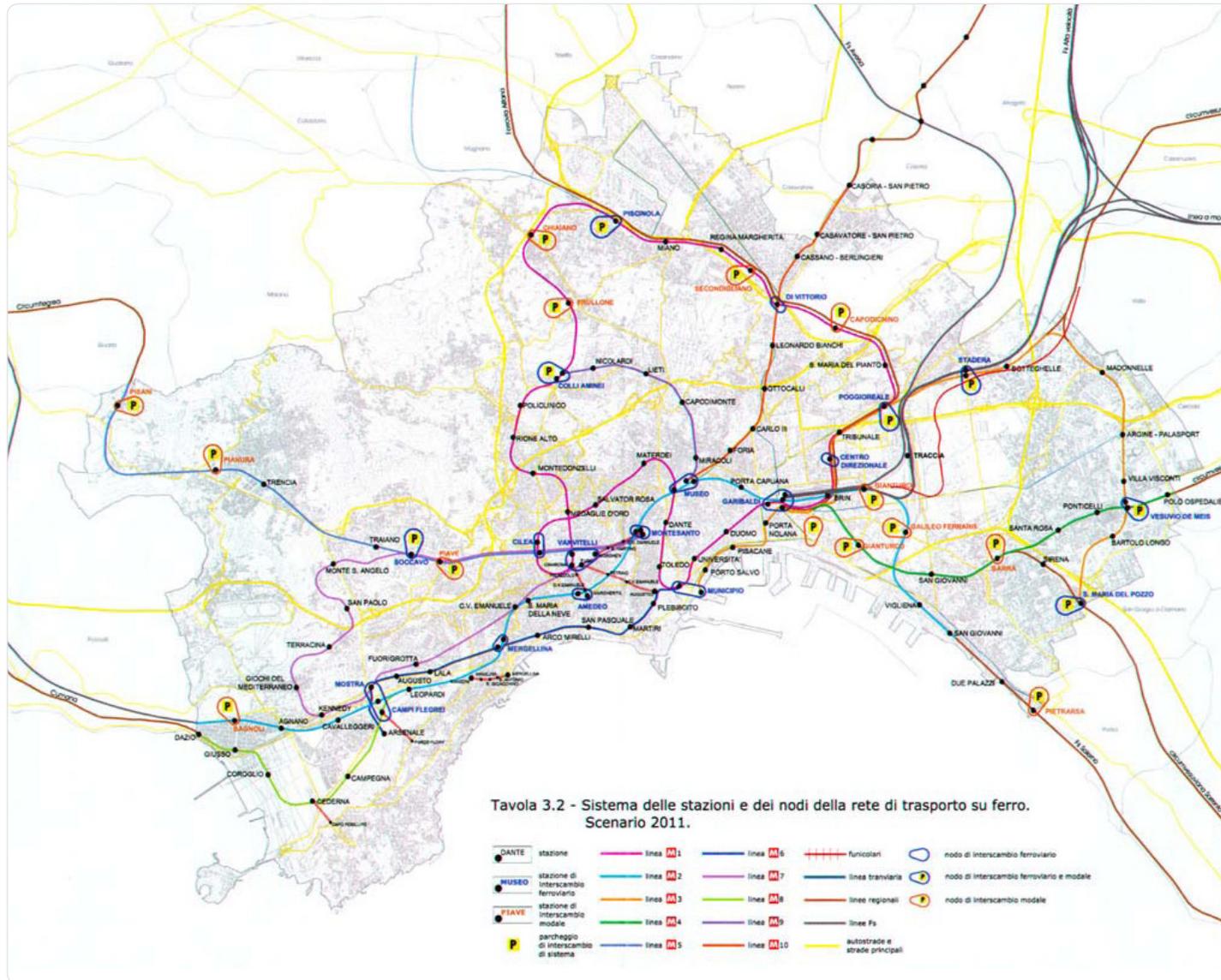
The original nucleus of the city can be found on the little island of Megaride. Occupied today by Castel dell' Ovo (Egg Castle), it was first a settlement of the Aegean Greeks, then the Rodi, followed by the Cumani, in the seventh and sixth centuries B.C. The Cumani also occupied the Pizzofalcone heights and named the city Palaepolis (Old City). Around the fifth century B.C., Neapolis (New City) arose in the surrounding areas, exercising strong cultural influence based on its Greek roots.

In the following century it was occupied by the Romans, surrounded by walls and characterized by blocks of streets formed in grids. Later it was occupied by the Byzantines, then the Goths, and then became capital of an autonomous dukedom. After a brief period of Longobard dominion, it fell under Norman control, until Ruggero II of Altavilla, King of Sicily, was able to add it to his kingdom in 1139. With the Angevin conquest in 1266, Naples became the capital and experienced notable demographic and urban growth. New growth occurred with the arrival of Alfonso of Aragon and with the reign of his successors (fifteenth century).





# NAPLES METRO



Naples' first metro line, the so called METROPOLITANA COLLINARE (hill subway), now Line 1, opened in 1993 between Colli Aminei and Vanvitelli, the line was extended to Piscinola / Secondigliano in 1995 reaching a length of 8 km (4 km underground between Vanvitelli and Colli Aminei). As you can see on the map, from Vanvitelli the metro line runs in a steep (5.5 %) curved tunnel to reach the Salvator Rosa station via Cilea (Pza. Quattro Giornate). Stations between Garibaldi and Toledo will be at sea level. From Vanvitelli northwards, the line literally winds its way up the mountain to reach its highest point at Policlinico (268 m above sea level at station entrance) and then descend again (mainly on a viaduct) to the terminus at Piscinola / Scampia (126 m).

# NAPLES METRO

The Vanvitelli - Museo (Cavour) section has been in service since 5 April 2001. Dante station opened in March 2002, while Materdei station was completed on the 5 July 2003. Until 14 Dec 2002, Line 1 operated a 30 minute shuttle between Dante and Vanvitelli. Now the line is in regular service with trains every 6 minutes. Special emphasis was put on artistic design of the stations on the newest section. Total length of the line in 2003 is 13.5 km. METROPOLITANA FS, now Line 2, is an urban, mainly underground service offered by FS (Ferrovie dello Stato/Trenitalia - Italian National Railways) between Gianturco and Pozzuoli (14.5 km - opened in 1925). Metropolitan trains run approximately every 8 minutes sharing tracks with Intercity and Eurostar Italia trains.

Naples is currently carrying out the most important public transport project in Italy by expanding the network and upgrading existing suburban lines into metro lines. Phase 1 will

create a metro network of 53 km with 68 stations (23 of which will be newly built). Phase 2 includes a total of 9 lines and should be finished by 2011:

- Line 1 (Metro) will become a ring line via the airport (Piscinola - Aeroporto 2005, Dante - Garibaldi 2006, ring 2010).
- Line 2 (FS) will be extended east to San Giovanni with 3 stations
- Line 4 (Circumvesuviana) will run from its Naples terminus to Vesuvio and further east (conversion of existing line)
- Line 5 (Circumflegrea) from Montesanto to Pisani, incl. new interchange with Line 1 at Cilea via elevators.
- Line 6 will be a new 5.5 km light rail line from Municipio to Mostra-Campi Flegrei (partially built)
- Line 7 (Circumflegrea/ Cumana) will be a ring line using parts of existing lines, which are being put underground: Montesanto - Soccavo - Kennedy - Montesanto
- Line 8 Campo Flegrei - Dazio, actually a new 5 km underground branch off Line 2
- Line 9 will be a new 3.8 km metro line with 6 stations linking Museo and Colli Aminei on Line 1.

# LOCAL INFORMATION



The church of Santa Maria del Pianto is in the middle of the Poggioreale cemetery.

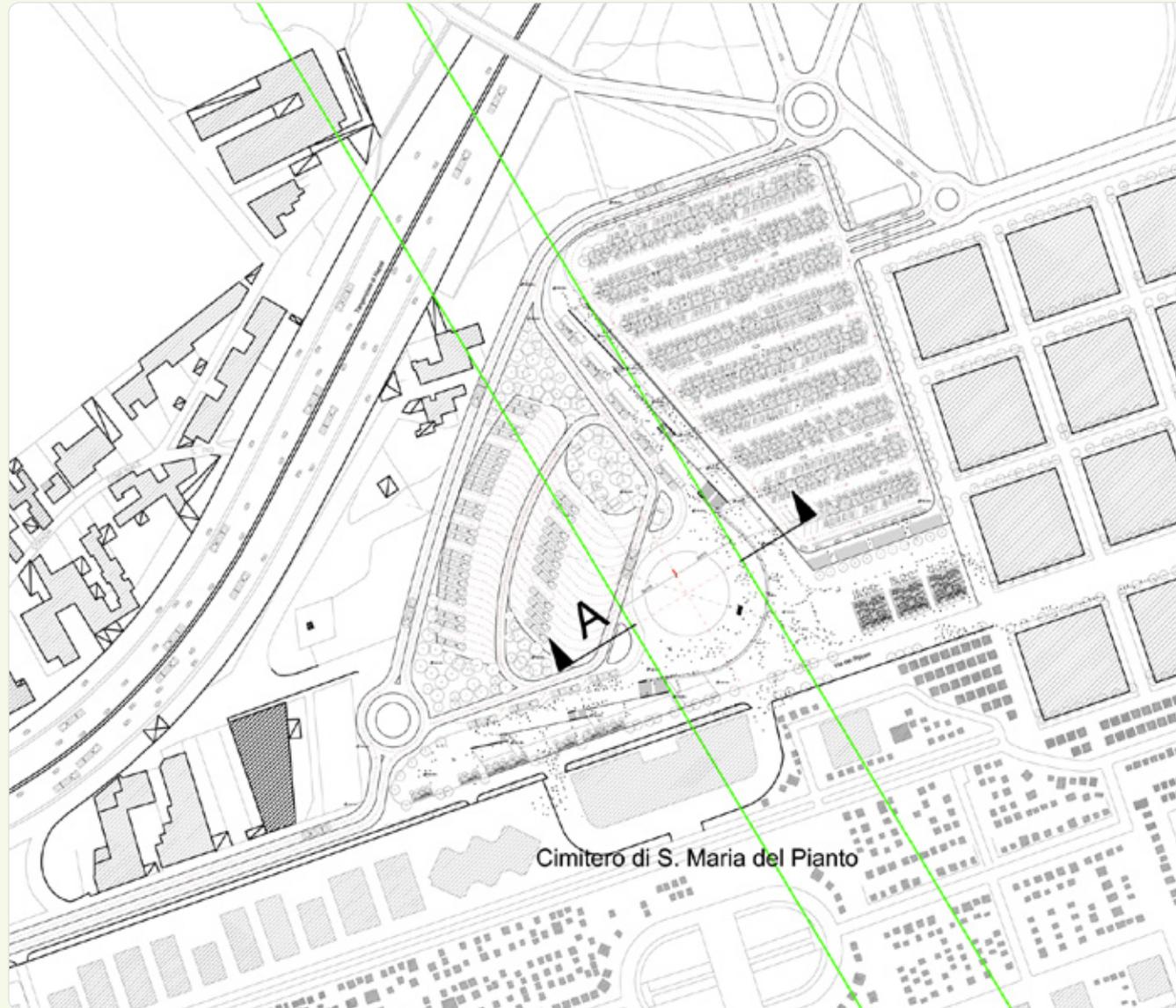
The church was designed by Francisco Picchiatti and adopts the form of a Greek cross. It has a Baroque façade.



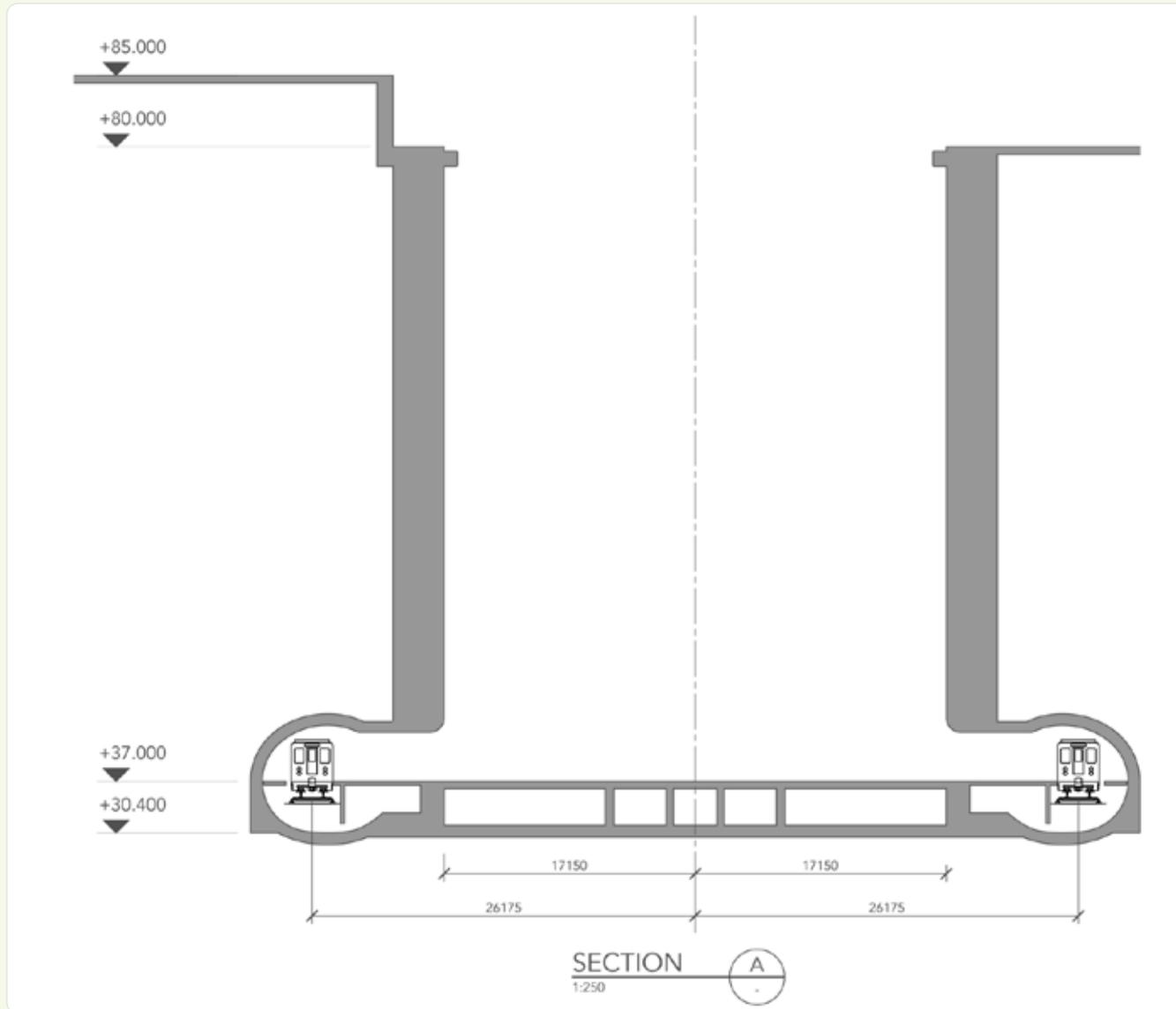
# LOCAL INFORMATION



# IMPLANTATION



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