



APPENDIX A

Geological Long Sections and Reliability Diagrams

MELBOURNE METRO RAIL PROJECT

GEOLOGICAL LONG SECTION

LEGEND

- PROPOSED STATION EXTENT IN PLAN
- CONTROL LINE PROPOSED WESTBOUND RAIL TUNNEL
- CONTROL LINE PROPOSED EASTBOUND RAIL TUNNEL
- INDICATIVE RAIL INFRASTRUCTURE
- ALTERNATIVE CONTROL LINE
- INDICATIVE PROPOSED RAIL TUNNEL PLATFORM (SECTION)
- INDICATIVE EXISTING INFRASTRUCTURE (SECTION)
- INFERRED GROUND WATER LEVEL (SECTION)

LEGEND INVESTIGATION LOCATIONS

- REFERENCE DESIGN BOREHOLE
- Measured Depth
- Measured Groundwater Level
- Screening

NOTES

- THESE NOTES APPLY TO ALL PROJECT DRAWINGS IN THE SET UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES TO AHD.
- ALL CO-ORDINATES ARE IN METRES TO MGA-55.
- INFERRED GROUNDWATER LEVEL BASED ON MEASUREMENTS TAKEN IN MELBOURNE METRO BOREHOLES BETWEEN AUGUST AND DECEMBER 2015.
- GEOLOGICAL UNITS SHOWN ARE SIMPLIFIED AND MATERIAL COMPOSITION AND STRENGTH CAN VARY CONSIDERABLY WITHIN GEOLOGICAL UNIT.
- BOUNDARIES BETWEEN GEOLOGICAL UNITS ARE INFERRED ONLY AND SUBJECT TO CHANGE AS FURTHER SUBSURFACE INFORMATION BECOMES AVAILABLE.
- AERIAL PHOTOGRAPH HAS 50% TRANSPARENCY APPLIED.
- EXISTING STRUCTURES ARE INDICATIVE ONLY.

REFERENCES

- TUNNEL ALIGNMENT BASED ON PROPOSED RAIL ALIGNMENT (REVISION 2.3) SOURCED FROM AJM JV, FILE <MMR-AJM-PWAA-M2-DD-D08000-TRACK.DWG> AND <MMR-AJM-PWAA-M2-DD-D08000-PROF.DWG>, RECEIVED BY GOLDER ASSOCIATES 28-10-2015.
- TUNNEL INFRASTRUCTURE SOURCED FROM AJM-JV FILE <MMR-AJM-PWAA-M2-CS-D05000-TNNL-STR.dwg>, RECEIVED BY GOLDER 16-11-2015.
- STATION EXTENTS (REVISION 3.3) SOURCED FROM AJM JV, DWG FILE <MMR-AJM-PM2-M2-DD-D05000_STN_EXTENT.dwg>, RECEIVED BY GOLDER ASSOCIATES 16-11-2015.
- AERIAL PHOTOGRAPH DATE OF CAPTURE OCTOBER 2014, IMAGE RESOLUTION 10 cm, SOURCED FROM PUBLIC TRANSPORT VICTORIA.
- TOPOGRAPHY, ROADS AND RAIL DATA SOURCED FROM VICMAP 2013.

LEGEND STRATIGRAPHY

- Recent Silt
- Fill
- Coode Island Silt
- Holocene Alluvium
- Jolimont Clay
- Newer Volcanics
- Pleistocene Alluvium
- Fishermens Bend Silt (Upper)
- Fishermens Bend Silt (Lower)
- Moray Street Gravels
- Early Pleistocene Colluvial and Alluvial Sediments
- Newer Volcanics Swan St Basalt
- Punt Rd Sands
- Brighton Group
- Two - Older Volcanics
- RS - EW (Residual to Extremely Weathered)
- HW - FR (Highly Weathered to Fresh)
- Werribee Formation
- Devonian Granite
- Sud - Melbourne Formation, Siltstone / Sandstone
- RS - EW (Residual to Extremely Weathered)
- HW - MW (Highly to Moderately Weathered)
- SW - FR (Slightly Weathered to Fresh)

LEGEND HISTORICAL INVESTIGATION LOCATIONS

- MELBOURNE METRO BOREHOLES
- GOLDER BOREHOLE
- GOLDER CONE PENETRATION TEST
- GOLDER PROBE HOLE
- AURECON STAGE 1 BOREHOLE
- DESKTOP AUDIT BOREHOLES
- DESKTOP AUDIT BOREHOLE - STAGE 1
- GOLDER ASSOCIATES FILES
- REGIONAL RAIL LINK
- FEDERATION SQUARE
- CITY LINK
- MURL
- WESTERN BYPASS

LEGEND RELIABILITY

QUALITY AND QUANTITY OF DATA	GEOLOGICAL COMPLEXITY				
	Very Complex	Complex	Intermediate	Simple	Very Simple
Very Poor	Very Low	Very Low	Low	Low	Moderate
Poor	Very Low	Low	Low	Moderate	High
Fair	Low	Moderate	Moderate	High	High
Good	Moderate	Moderate	High	High	Very High
Very Good	High	High	Very High	Very High	Very High

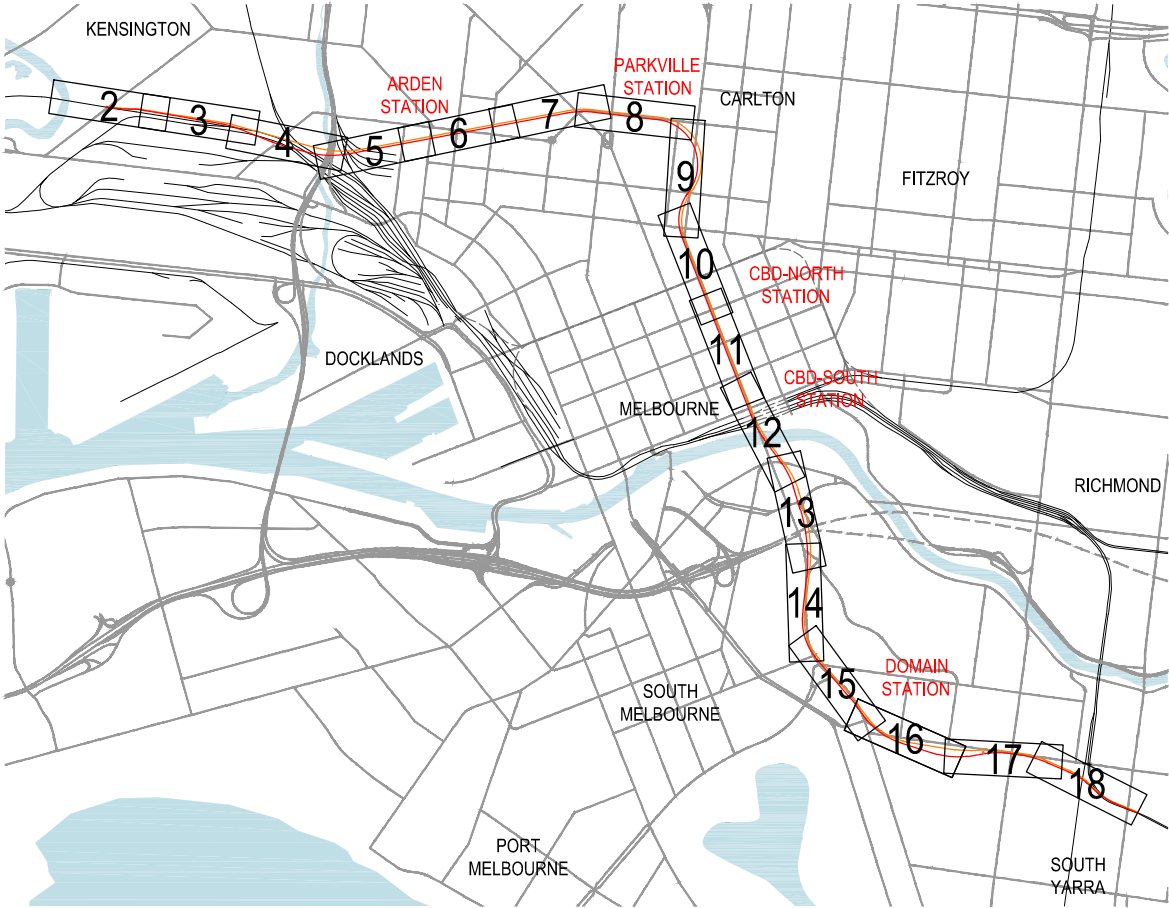
GROUND MODEL RELIABILITY

Very low (VL)	Available information insufficient given the geological complexity to develop a basic conceptual model. Indicative only, should not be relied upon.
Low (L)	Available information sufficient given the geological complexity to develop a basic conceptual ground model. Insufficient to develop an observational model.
Moderate (M)	Sufficient information given the geological complexity to develop an observational model. Significant uncertainty requiring further investigation or risk management.
High (H)	Sufficient information given the geological complexity to develop an observational ground model. Some uncertainty requiring further investigation or risk management.
Very High (VH)	Able to develop detailed observational ground model. Sufficient information given the geological complexity to identify ground related uncertainty.

FIGURE LIST MMR-AJM-PWAA-DR-NN-500450

- SHEET 1 KEY MAP, LEGEND AND NOTES
- SHEET 2 TO 18 GEOLOGICAL LONG SECTION
- SHEET 19 TO 35 GEOLOGICAL LONG SECTION - RELIABILITY

KEY MAP



Note:
Surface works are not shown

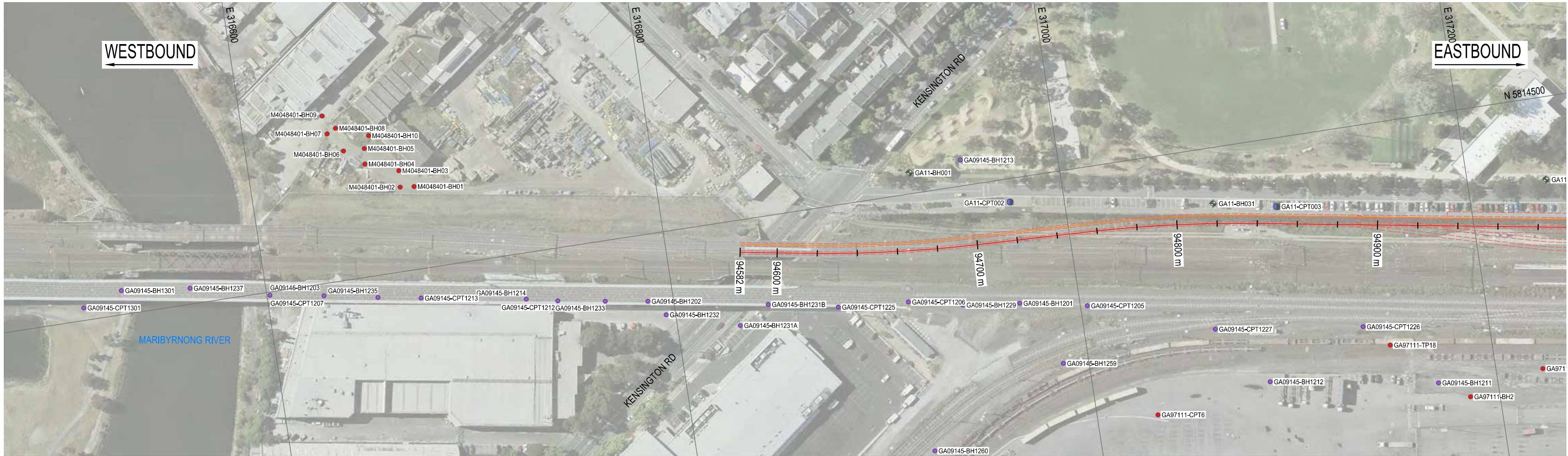
NOT FOR CONSTRUCTION



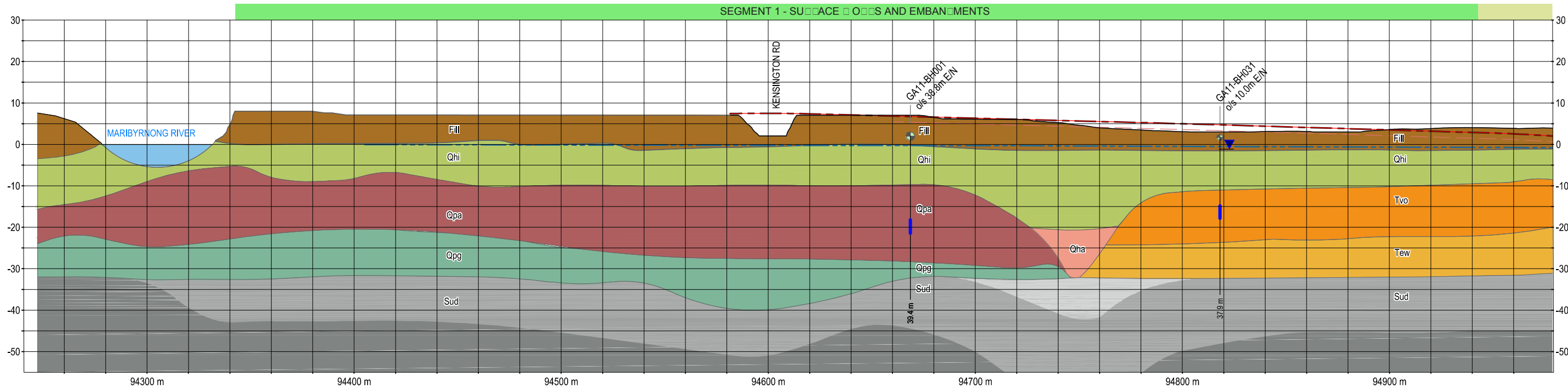
Melbourne Metro Rail Project

Title	GEOLOGICAL LONG SECTION			SHEET 1 OF 35
Drawing Number	MMR-AJM-PWAA-DR-NN-500450			Revision P1.1
Drawn By	Approved By	Date	Map Size	
GOLDER	SLVB	23-03-2016	A3	





PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title GEOLOGICAL LONG SECTION		SHEET 2 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

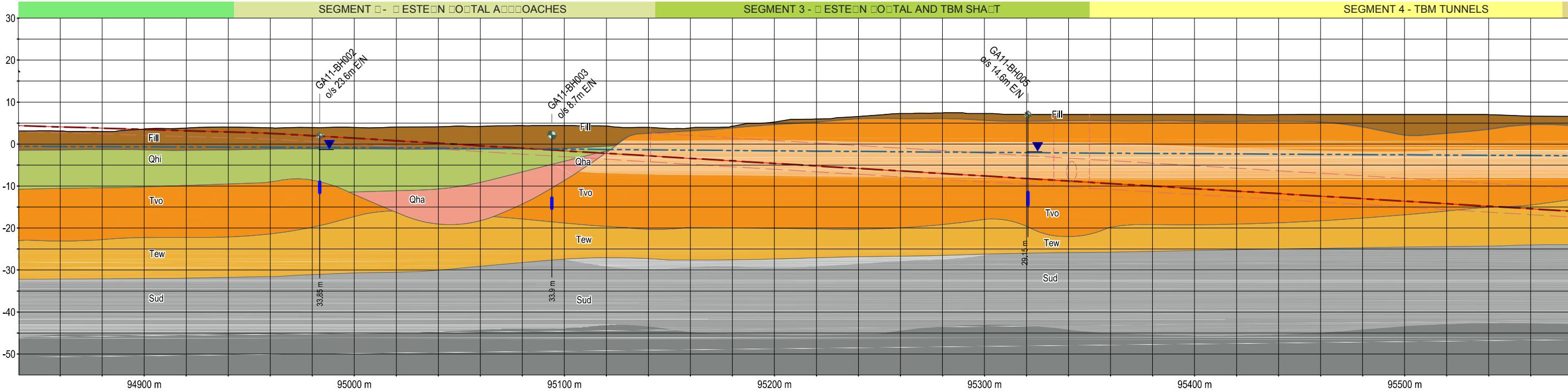


REFER TO SHEET 2 OF 35

REFER TO SHEET 4 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



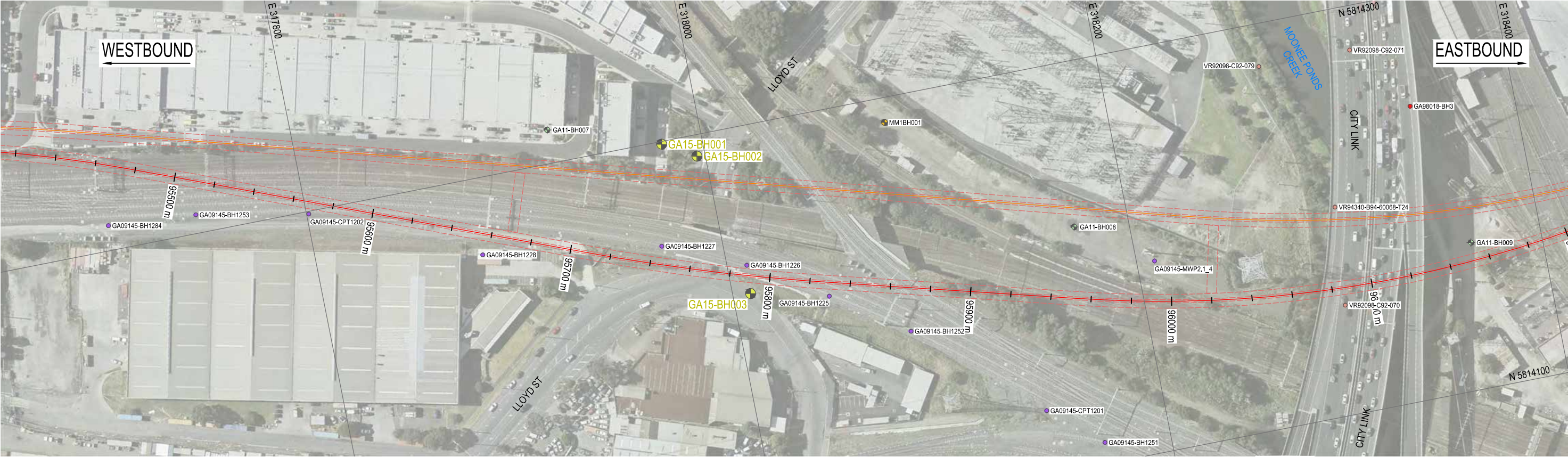
Melbourne Metro Rail Project

Title GEOLOGICAL LONG SECTION		SHEET 3 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

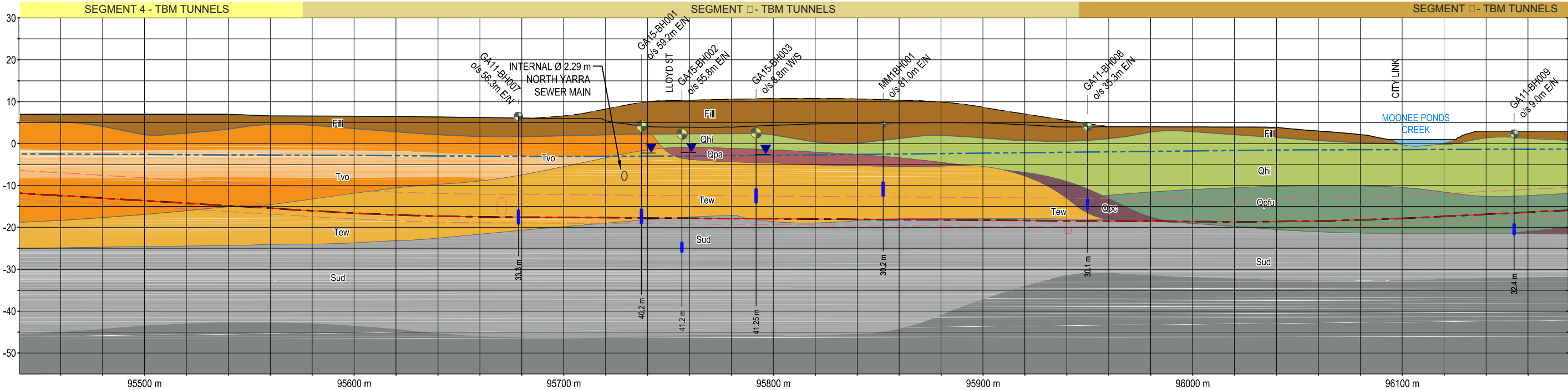


REFER TO SHEET 3 OF 35

REFER TO SHEET 5 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 4 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

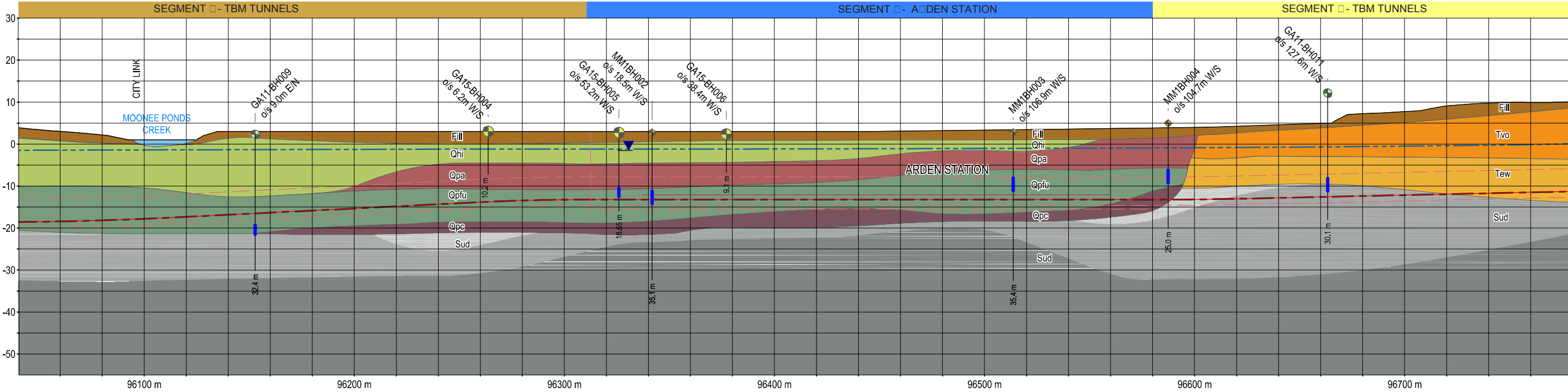


REFER TO SHEET 4 OF 35

REFER TO SHEET 6 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 5 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

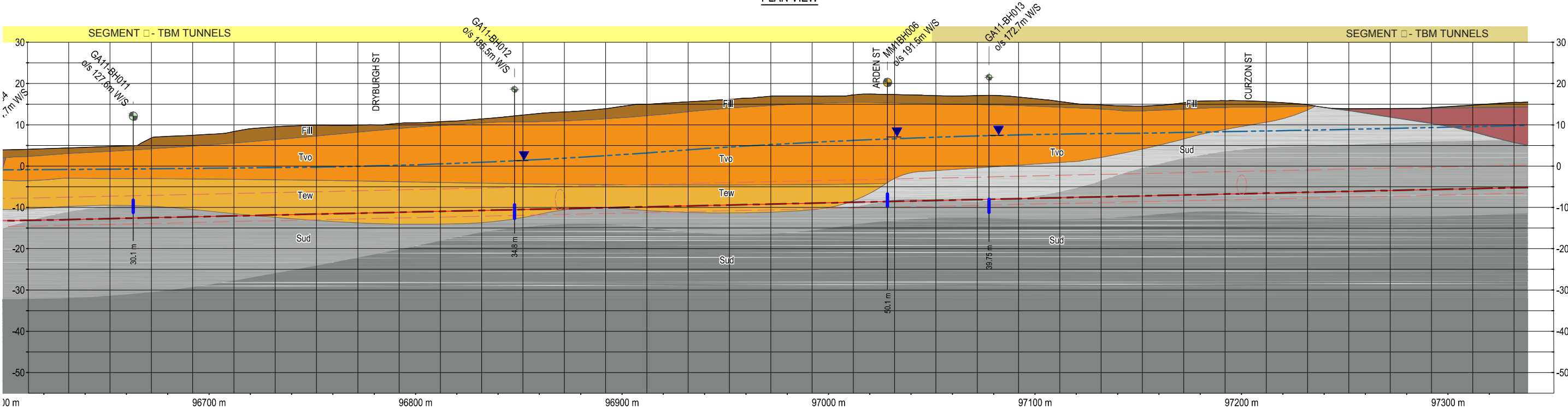


REFER TO SHEET 5 OF 35

REFER TO SHEET 7 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

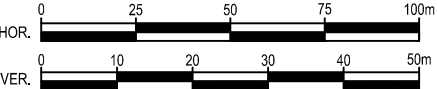
Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

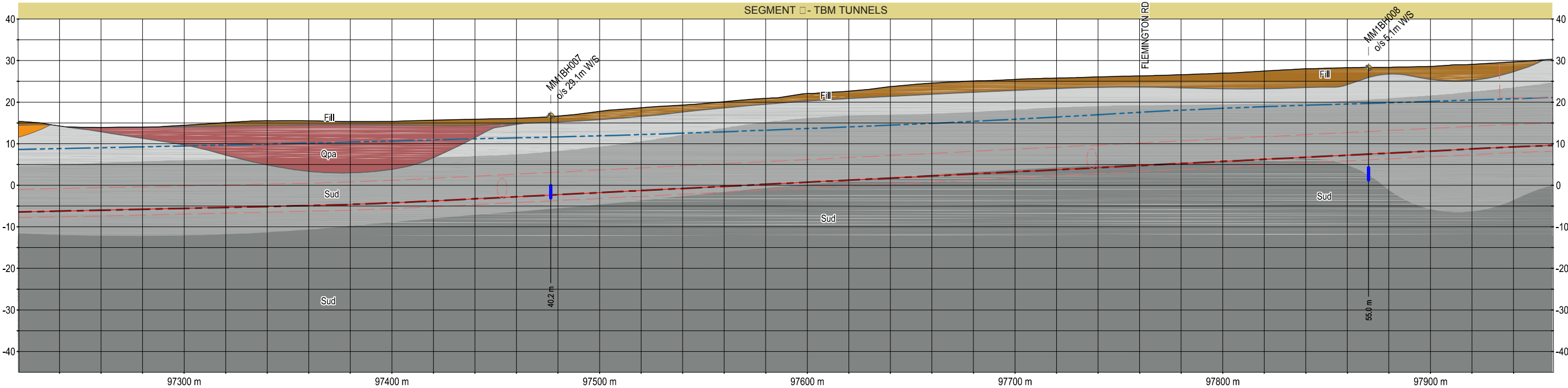
Title GEOLOGICAL LONG SECTION		SHEET 6 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3



REFER TO SHEET 6 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 7 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

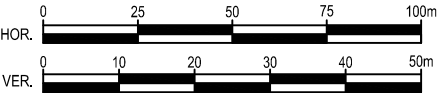
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

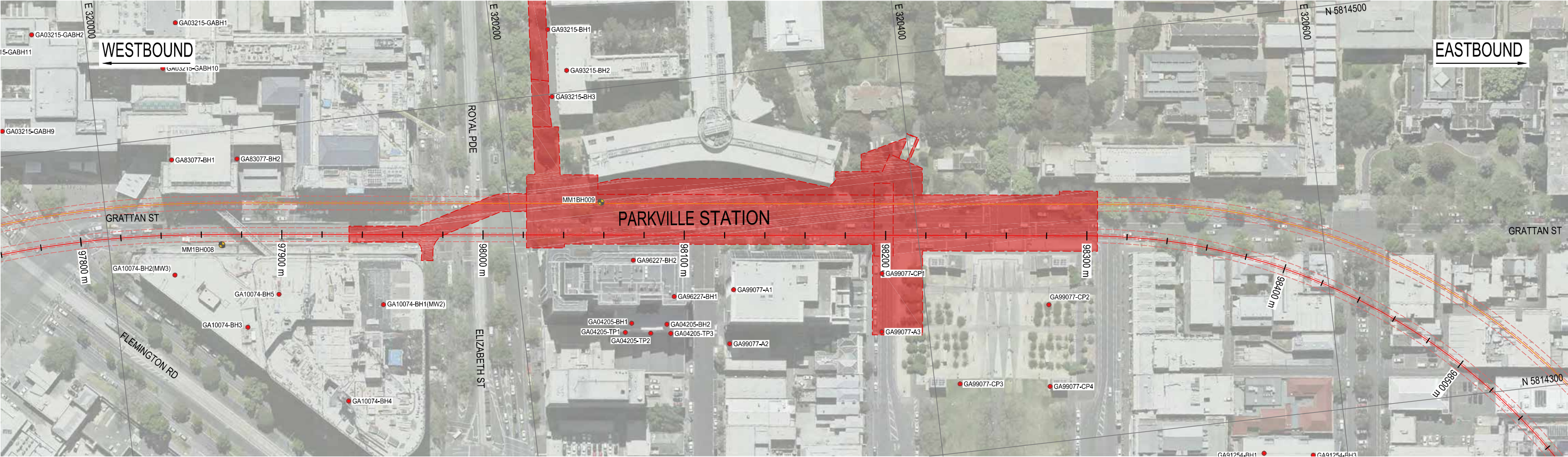
Date
23-03-2016

Map Size
A3

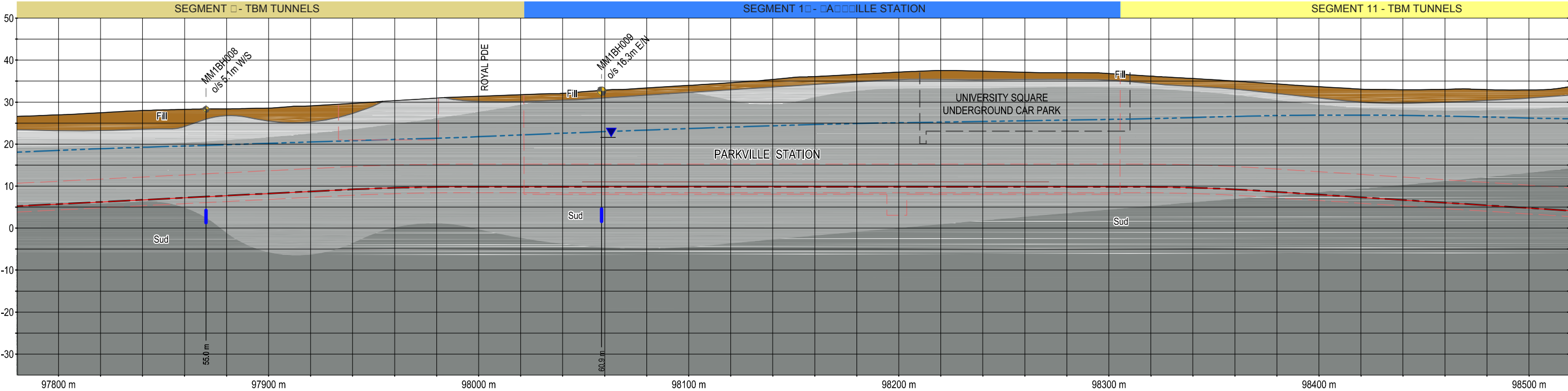


REFER TO SHEET 7 OF 35

REFER TO SHEET 9 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title		SHEET 8 OF 35	
GEOLOGICAL LONG SECTION			
Drawing Number		Revision	
MMR-AJM-PWAA-DR-NN-500450		P1.1	
Drawn By	Approved By	Date	Map Size
GOLDER	SLVB	23-03-2016	A3



The map displays the tram network in Melbourne, Australia, with a focus on the Westbound and Eastbound directions. The tram lines are shown as red dashed lines with black tick marks indicating station locations. The map includes street names such as Swanston St, Victoria St, and Grattan St. The tram lines are labeled with station codes and distances between stations. The Westbound direction is indicated by a black arrow pointing left, and the Eastbound direction is indicated by a black arrow pointing right. The map also shows various landmarks and buildings in the area.



Note:
Surface works are not shown

A map of Melbourne, Australia, showing the location of the study area. The map includes labels for Kensington, Melbourne, and South Yarra. A red rectangle highlights the study area in the northern part of Melbourne. A scale bar indicates 0 to 1 KM.



Title GEOLOGICAL LONG SECTION		SHEET 9 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

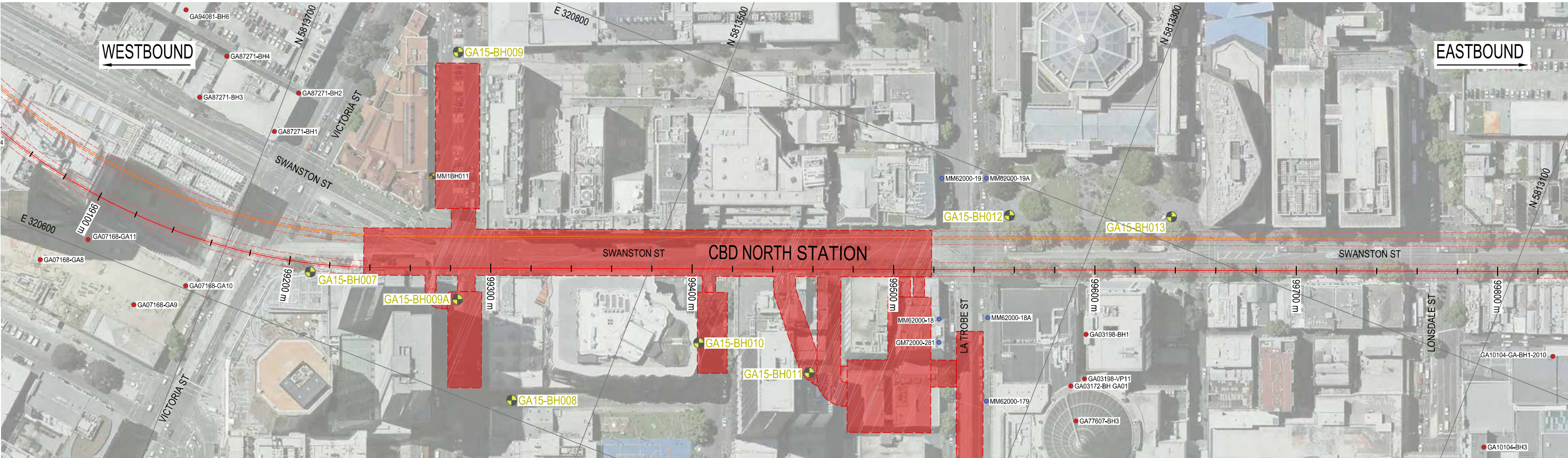
Drawing Number	Revision
MMR-AJM-PWAA-DR-NN-500450	P1.1

Drawn By	Approved By	Date	Map Size
GOLDER	SLVB	23-03-2016	A3

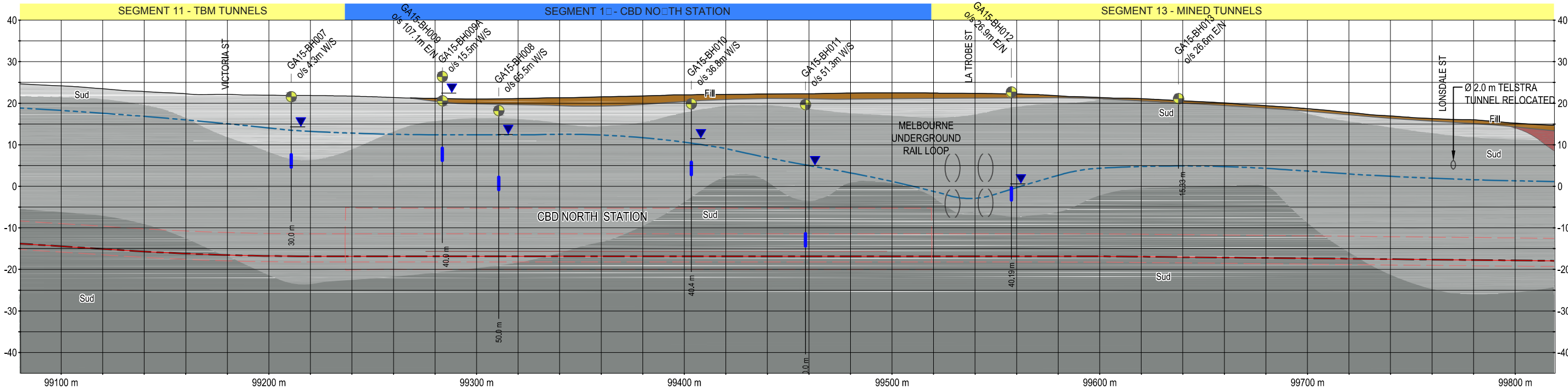


REFER TO SHEET 9 OF 35

REFER TO SHEET 11 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 10 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

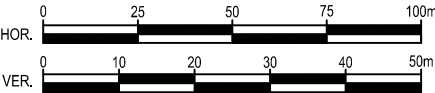
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

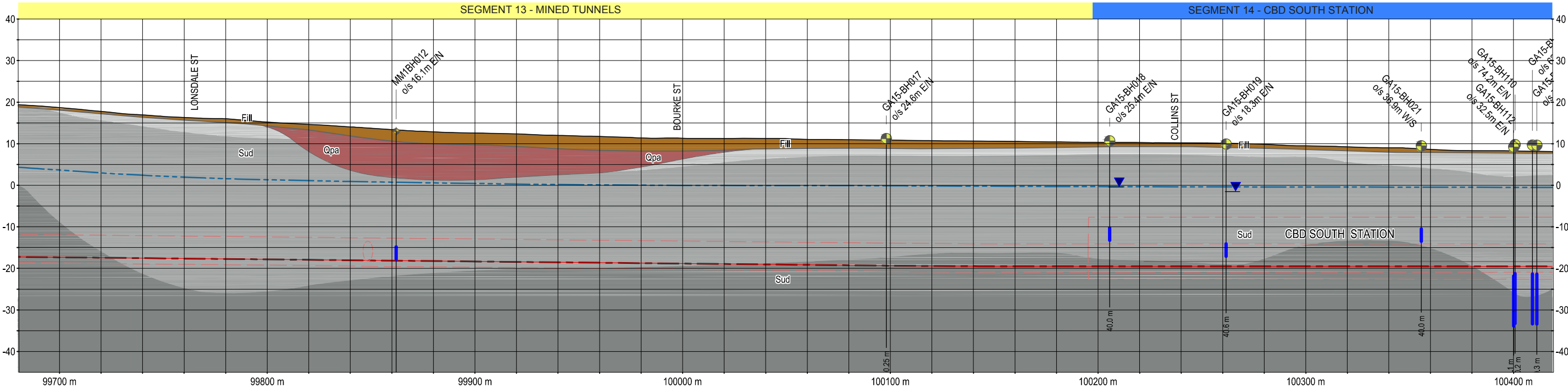


REFER TO SHEET 10 OF 35



REFER TO SHEET 12 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 11 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

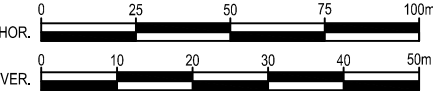
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

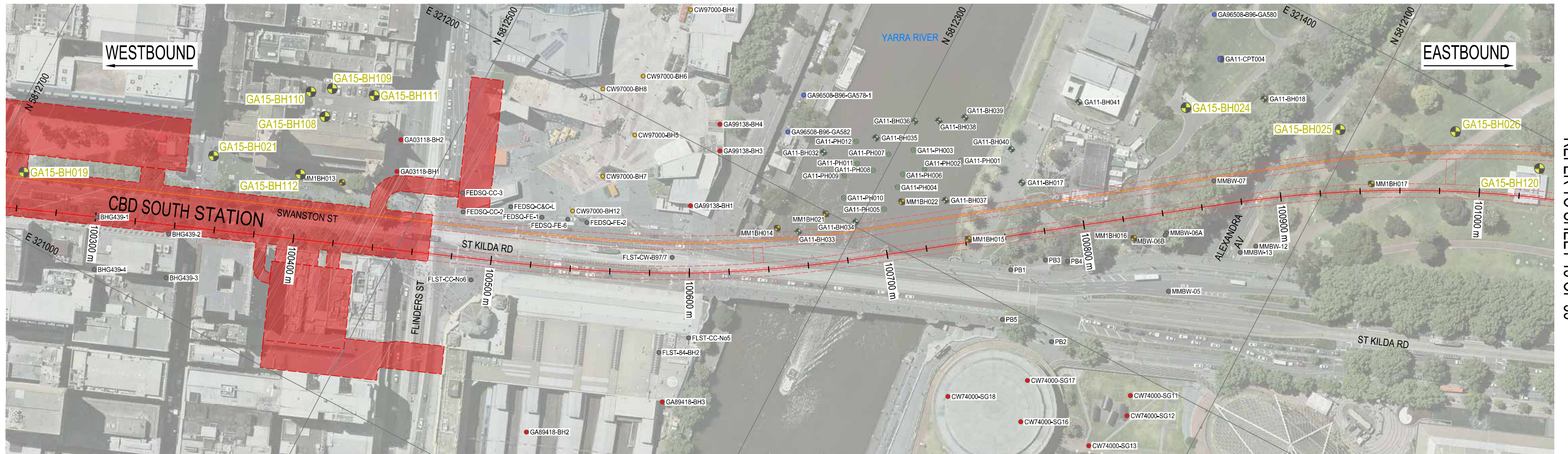
Date
23-03-2016

Map Size
A3

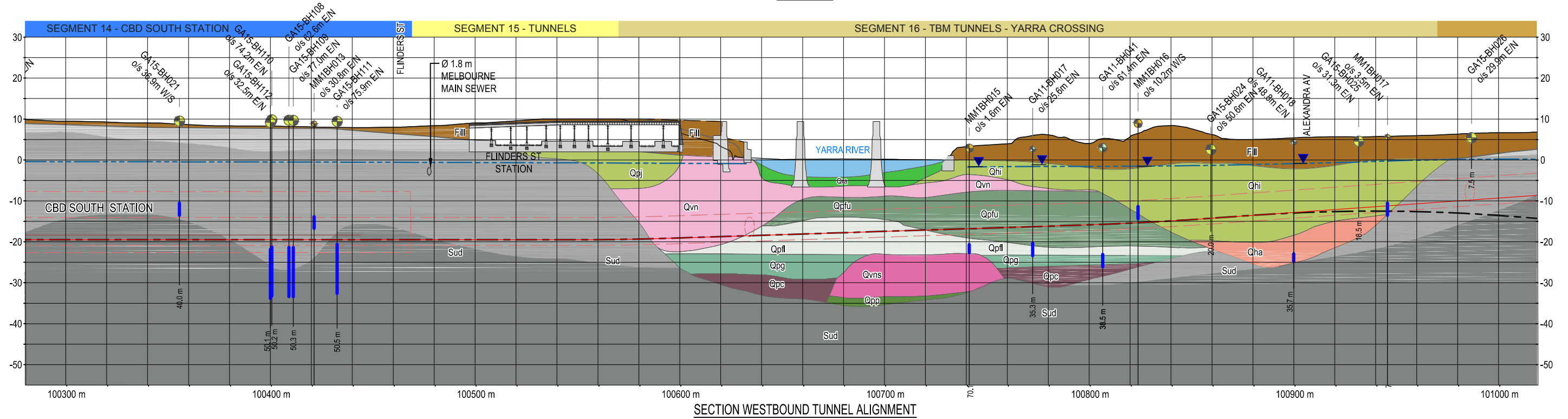


REFER TO SHEET 11 OF 35

REFER TO SHEET 13 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 12 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3



This aerial map illustrates the proposed tram alignment along St Kilda Rd. The alignment is shown as a red line with dashed orange boundaries. Key features include:

- Directional Indicators:** "WESTBOUND" and "EASTBOUND" arrows at the top.
- Stations:** GA15-BH024, GA15-BH025, GA15-BH026, GA15-BH120, GA15-BH121, GA15-BH027, and GA15-BH028.
- Distance Markers:** 10090 m, 101000 m, 101100 m, 101200 m, 101300 m, 101400 m, 101500 m, and 101600 m.
- Streets:** Alexandra Av, Southbank Blvd, Linlithgow Av, and St Kilda Rd.
- Other Labels:** GA96508-B96-GA580, GA11-CPT004, GA11-BH018, GA11-BH019, GA95550-B95-GA14, GA95531-B95-GA304, GA95550-B95-GA13, GA95531-B95-GA401, GA98077-BH1, GA98077-BH5, GA98077-BH2, GA98077-BH6, GA93099-B93-1512, GA95531-B95-GA301, GA95531-B95-GA305, VR92099-B92-2514, VR93099-B93-1511, VR92099-B92-1173, GA13-BH122, GA13-BH121, GA13-BH120, GA13-BH119, GA13-BH118, GA13-BH117, GA13-BH116, GA13-BH115, GA13-BH114, GA13-BH113, GA13-BH112, GA13-BH111, GA13-BH110, GA13-BH109, GA13-BH108, GA13-BH107, GA13-BH106, GA13-BH105, GA13-BH104, GA13-BH103, GA13-BH102, GA13-BH101, GA13-BH100, GA13-BH099, GA13-BH098, GA13-BH097, GA13-BH096, GA13-BH095, GA13-BH094, GA13-BH093, GA13-BH092, GA13-BH091, GA13-BH090, GA13-BH089, GA13-BH088, GA13-BH087, GA13-BH086, GA13-BH085, GA13-BH084, GA13-BH083, GA13-BH082, GA13-BH081, GA13-BH080, GA13-BH079, GA13-BH078, GA13-BH077, GA13-BH076, GA13-BH075, GA13-BH074, GA13-BH073, GA13-BH072, GA13-BH071, GA13-BH070, GA13-BH069, GA13-BH068, GA13-BH067, GA13-BH066, GA13-BH065, GA13-BH064, GA13-BH063, GA13-BH062, GA13-BH061, GA13-BH060, GA13-BH059, GA13-BH058, GA13-BH057, GA13-BH056, GA13-BH055, GA13-BH054, GA13-BH053, GA13-BH052, GA13-BH051, GA13-BH050, GA13-BH049, GA13-BH048, GA13-BH047, GA13-BH046, GA13-BH045, GA13-BH044, GA13-BH043, GA13-BH042, GA13-BH041, GA13-BH040, GA13-BH039, GA13-BH038, GA13-BH037, GA13-BH036, GA13-BH035, GA13-BH034, GA13-BH033, GA13-BH032, GA13-BH031, GA13-BH030, GA13-BH029, GA13-BH028, GA13-BH027, GA13-BH026, GA13-BH025, GA13-BH024, GA13-BH023, GA13-BH022, GA13-BH021, GA13-BH020, GA13-BH019, GA13-BH018, GA13-BH017, GA13-BH016, GA13-BH015, GA13-BH014, GA13-BH013, GA13-BH012, GA13-BH011, GA13-BH010, GA13-BH009, GA13-BH008, GA13-BH007, GA13-BH006, GA13-BH005, GA13-BH004, GA13-BH003, GA13-BH002, GA13-BH001.

This aerial map illustrates the proposed tram alignment along St Kilda Rd. The alignment is shown as a red line with dashed orange boundaries. Key stations are marked with yellow icons and labels: GA15-BH024, GA15-BH025, GA15-BH026, GA15-BH120, GA15-BH121, GA15-BH027, and GA15-BH028. Distance markers are placed along the alignment, ranging from 10090 m to 101600 m. The map also shows major roads: Alexandra Av, Southbank Blvd, Linlithgow Av, and St Kilda Rd. Directional arrows at the top indicate Westbound and Eastbound travel. Various other points of interest are labeled, including GA96508-B96-GA580, GA11-CPT004, GA11-BH018, GA11-BH019, GA95531-B95-GA304, GA95531-B95-GA305, GA95531-B95-GA401, GA95531-B95-GA301, GA95531-B95-GA302, GA95531-B95-GA303, GA95531-B95-GA304, GA95531-B95-GA305, GA95531-B95-GA401, GA95531-B95-GA402, GA95531-B95-GA403, GA95531-B95-GA404, GA95531-B95-GA405, GA95531-B95-GA406, GA95531-B95-GA407, GA95531-B95-GA408, GA95531-B95-GA409, GA95531-B95-GA410, GA95531-B95-GA411, GA95531-B95-GA412, GA95531-B95-GA413, GA95531-B95-GA414, GA95531-B95-GA415, GA95531-B95-GA416, GA95531-B95-GA417, GA95531-B95-GA418, GA95531-B95-GA419, GA95531-B95-GA420, GA95531-B95-GA421, GA95531-B95-GA422, GA95531-B95-GA423, GA95531-B95-GA424, GA95531-B95-GA425, GA95531-B95-GA426, GA95531-B95-GA427, GA95531-B95-GA428, GA95531-B95-GA429, GA95531-B95-GA430, GA95531-B95-GA431, GA95531-B95-GA432, GA95531-B95-GA433, GA95531-B95-GA434, GA95531-B95-GA435, GA95531-B95-GA436, GA95531-B95-GA437, GA95531-B95-GA438, GA95531-B95-GA439, GA95531-B95-GA440, GA95531-B95-GA441, GA95531-B95-GA442, GA95531-B95-GA443, GA95531-B95-GA444, GA95531-B95-GA445, GA95531-B95-GA446, GA95531-B95-GA447, GA95531-B95-GA448, GA95531-B95-GA449, GA95531-B95-GA450, GA95531-B95-GA451, GA95531-B95-GA452, GA95531-B95-GA453, GA95531-B95-GA454, GA95531-B95-GA455, GA95531-B95-GA456, GA95531-B95-GA457, GA95531-B95-GA458, GA95531-B95-GA459, GA95531-B95-GA460, GA95531-B95-GA461, GA95531-B95-GA462, GA95531-B95-GA463, GA95531-B95-GA464, GA95531-B95-GA465, GA95531-B95-GA466, GA95531-B95-GA467, GA95531-B95-GA468, GA95531-B95-GA469, GA95531-B95-GA470, GA95531-B95-GA471, GA95531-B95-GA472, GA95531-B95-GA473, GA95531-B95-GA474, GA95531-B95-GA475, GA95531-B95-GA476, GA95531-B95-GA477, GA95531-B95-GA478, GA95531-B95-GA479, GA95531-B95-GA480, GA95531-B95-GA481, GA95531-B95-GA482, GA95531-B95-GA483, GA95531-B95-GA484, GA95531-B95-GA485, GA95531-B95-GA486, GA95531-B95-GA487, GA95531-B95-GA488, GA95531-B95-GA489, GA95531-B95-GA490, GA95531-B95-GA491, GA95531-B95-GA492, GA95531-B95-GA493, GA95531-B95-GA494, GA95531-B95-GA495, GA95531-B95-GA496, GA95531-B95-GA497, GA95531-B95-GA498, GA95531-B95-GA499, GA95531-B95-GA500, GA95531-B95-GA501, GA95531-B95-GA502, GA95531-B95-GA503, GA95531-B95-GA504, GA95531-B95-GA505, GA95531-B95-GA506, GA95531-B95-GA507, GA95531-B95-GA508, GA95531-B95-GA509, GA95531-B95-GA510, GA95531-B95-GA511, GA95531-B95-GA512, GA95531-B95-GA513, GA95531-B95-GA514, GA95531-B95-GA515, GA95531-B95-GA516, GA95531-B95-GA517, GA95531-B95-GA518, GA95531-B95-GA519, GA95531-B95-GA520, GA95531-B95-GA521, GA95531-B95-GA522, GA95531-B95-GA523, GA95531-B95-GA524, GA95531-B95-GA525, GA95531-B95-GA526, GA95531-B95-GA527, GA95531-B95-GA528, GA95531-B95-GA529, GA95531-B95-GA530, GA95531-B95-GA531, GA95531-B95-GA532, GA95531-B95-GA533, GA95531-B95-GA534, GA95531-B95-GA535, GA95531-B95-GA536, GA95531-B95-GA537, GA95531-B95-GA538, GA95531-B95-GA539, GA95531-B95-GA540, GA95531-B95-GA541, GA95531-B95-GA542, GA95531-B95-GA543, GA95531-B95-GA544, GA95531-B95-GA545, GA95531-B95-GA546, GA95531-B95-GA547, GA95531-B95-GA548, GA95531-B95-GA549, GA95531-B95-GA550, GA95531-B95-GA551, GA95531-B95-GA552, GA95531-B95-GA553, GA95531-B95-GA554, GA95531-B95-GA555, GA95531-B95-GA556, GA95531-B95-GA557, GA95531-B95-GA558, GA95531-B95-GA559, GA95531-B95-GA560, GA95531-B95-GA561, GA95531-B95-GA562, GA95531-B95-GA563, GA95531-B95-GA564, GA95531-B95-GA565, GA95531-B95-GA566, GA95531-B95-GA567, GA95531-B95-GA568, GA95531-B95-GA569, GA95531-B95-GA570, GA95531-B95-GA571, GA95531-B95-GA572, GA95531-B95-GA573, GA95531-B95-GA574, GA95531-B95-GA575, GA95531-B95-GA576, GA95531-B95-GA577, GA95531-B95-GA578, GA95531-B95-GA579, GA95531-B95-GA580, GA95531-B95-GA581, GA95531-B95-GA582, GA95531-B95-GA583, GA95531-B95-GA584, GA95531-B95-GA585, GA95531-B95-GA586, GA95531-B95-GA587, GA95531-B95-GA588, GA95531-B95-GA589, GA95531-B95-GA590, GA95531-B95-GA591, GA95531-B95-GA592, GA95531-B95-GA593, GA95531-B95-GA594, GA95531-B95-GA595, GA95531-B95-GA596, GA95531-B95-GA597, GA95531-B95-GA598, GA95531-B95-GA599, GA95531-B95-GA600, GA95531-B95-GA601, GA95531-B95-GA602, GA95531-B95-GA603, GA95531-B95-GA604, GA95531-B95-GA605, GA95531-B95-GA606, GA95531-B95-GA607, GA95531-B95-GA608, GA95531-B95-GA609, GA95531-B95-GA610, GA95531-B95-GA611, GA95531-B95-GA612, GA95531-B95-GA613, GA95531-B95-GA614, GA95531-B95-GA615, GA95531-B95-GA616, GA95531-B95-GA617, GA95531-B95-GA618, GA95531-B95-GA619, GA95531-B95-GA620, GA95531-B95-GA621, GA95531-B95-GA622, GA95531-B95-GA623, GA95531-B95-GA624, GA95531-B95-GA625, GA95531-B95-GA626, GA95531-B95-GA627, GA95531-B95-GA628, GA95531-B95-GA629, GA95531-B95-GA630, GA95531-B95-GA631, GA95531-B95-GA632, GA95531-B95-GA633, GA95531-B95-GA634, GA95531-B95-GA635, GA95531-B95-GA636, GA95531-B95-GA637, GA95531-B95-GA638, GA95531-B95-GA639, GA95531-B95-GA640, GA95531-B95-GA641, GA95531-B95-GA642, GA95531-B95-GA643, GA95531-B95-GA644, GA95

[illegible]

Note:
Surface works are not shown

NOT FOR CONSTRUCTION

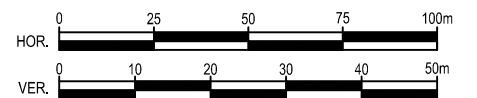


Melbourne Metro Rail Project

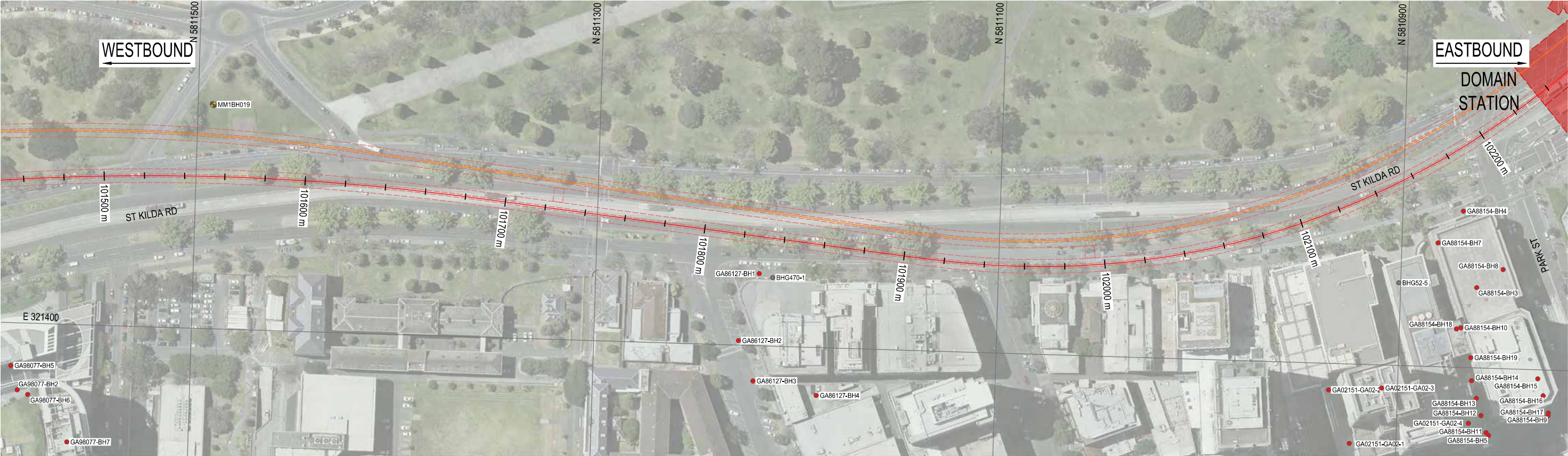
Title
GEOLOGICAL LONG SECTION SHEET 13 OF 35

Drawing Number	Revision
MMR-AJM-PWAA-DR-NN-500450	P1.1

Drawn By	Approved By	Date	Map Size
GOLDER	SLVB	23-03-2016	A3

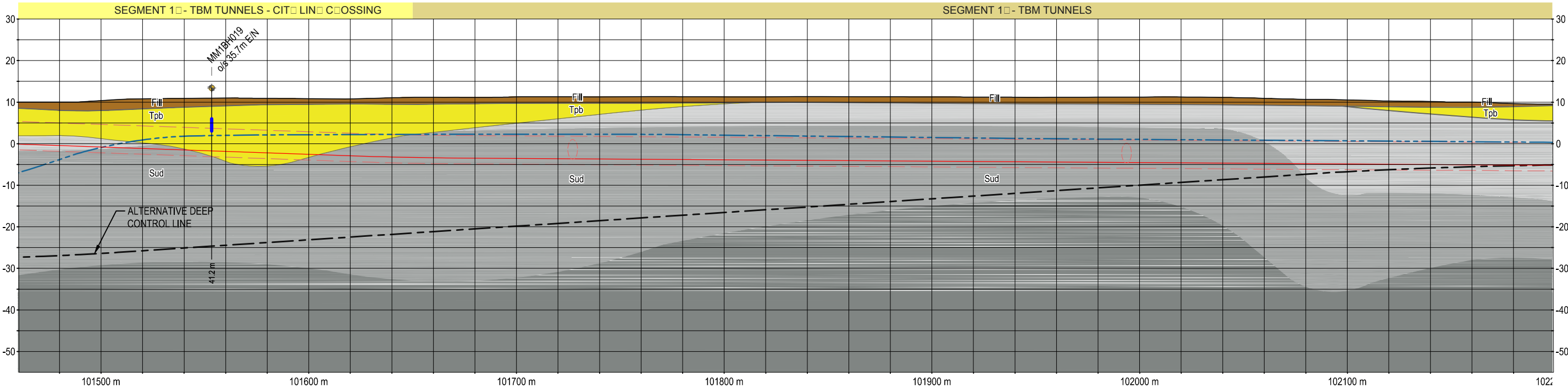


REFER TO SHEET 13 OF 35



REFER TO SHEET 15 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 14 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

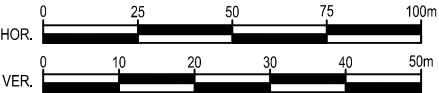
Revision
P1.1

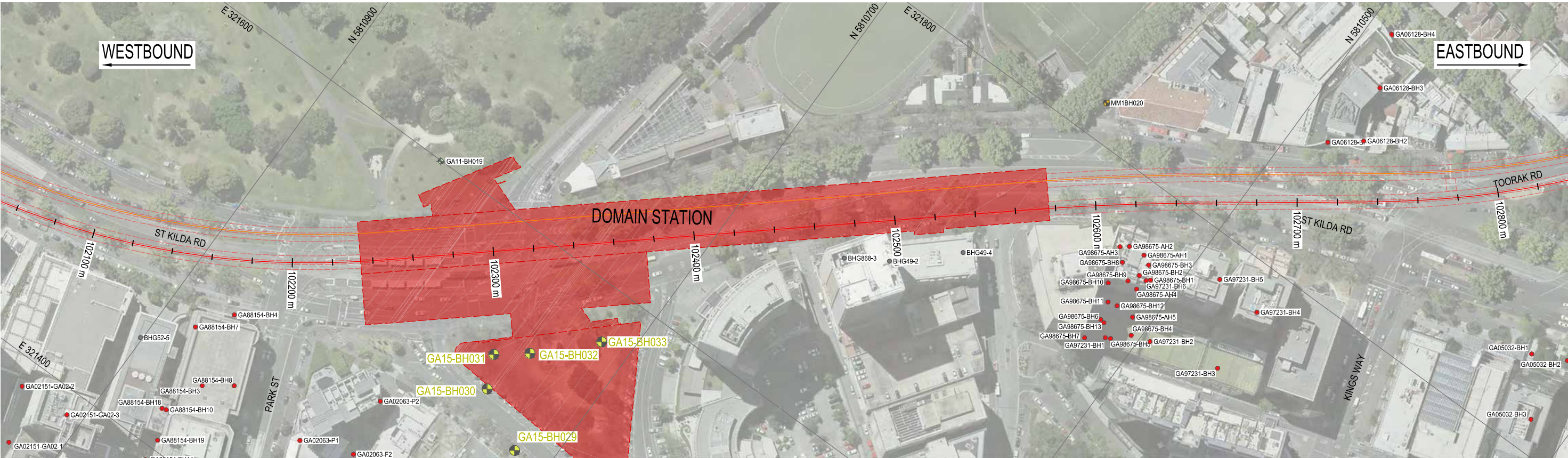
Drawn By
GOLDER

Approved By
SLVB

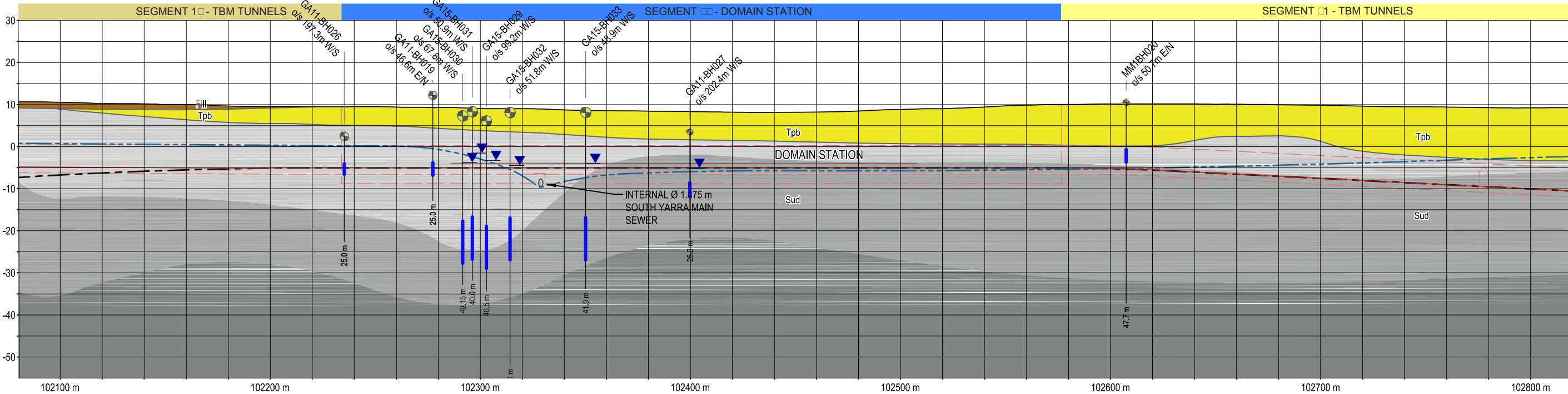
Date
23-03-2016

Map Size
A3





PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title GEOLOGICAL LONG SECTION		SHEET 15 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

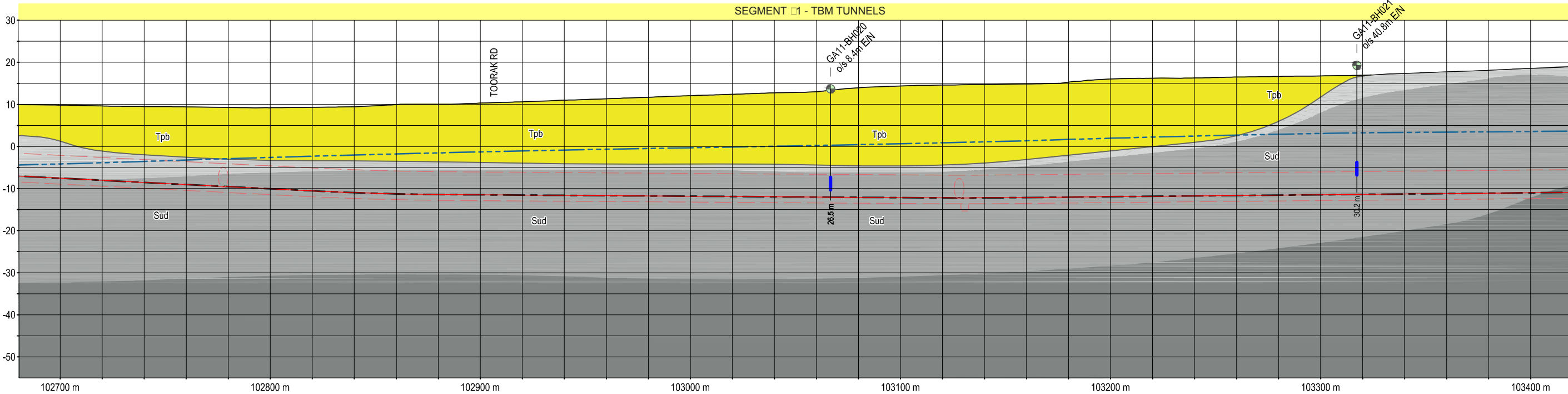


REFER TO SHEET 15 OF 35



REFER TO SHEET 17 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 16 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By
GOLDER

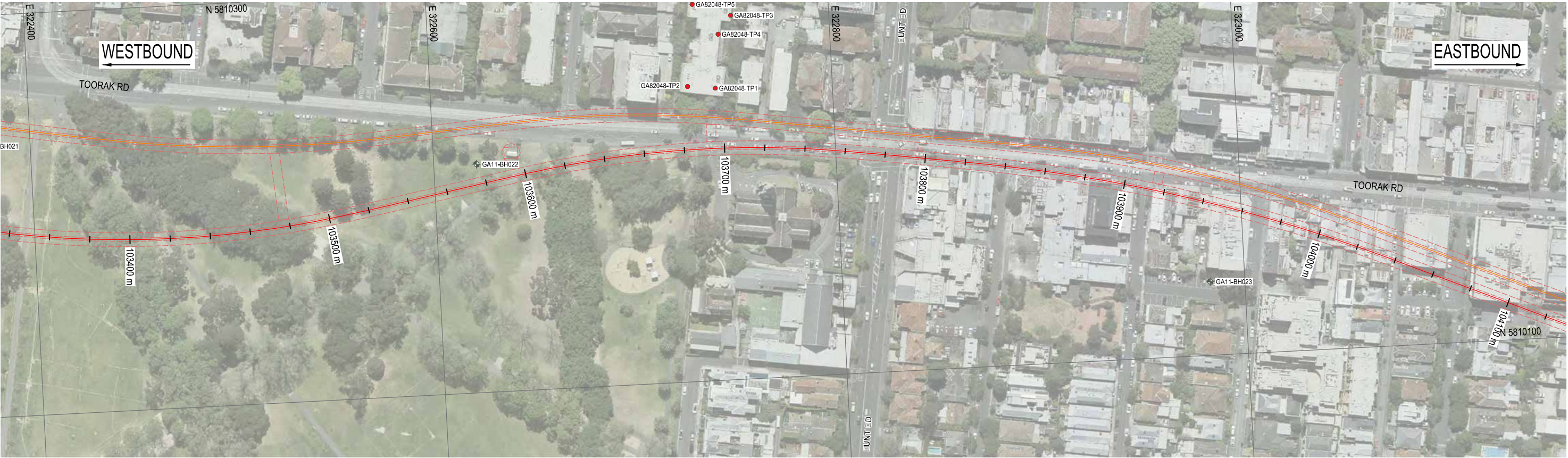
Approved By
SLVB

Date
23-03-2016

Map Size
A3

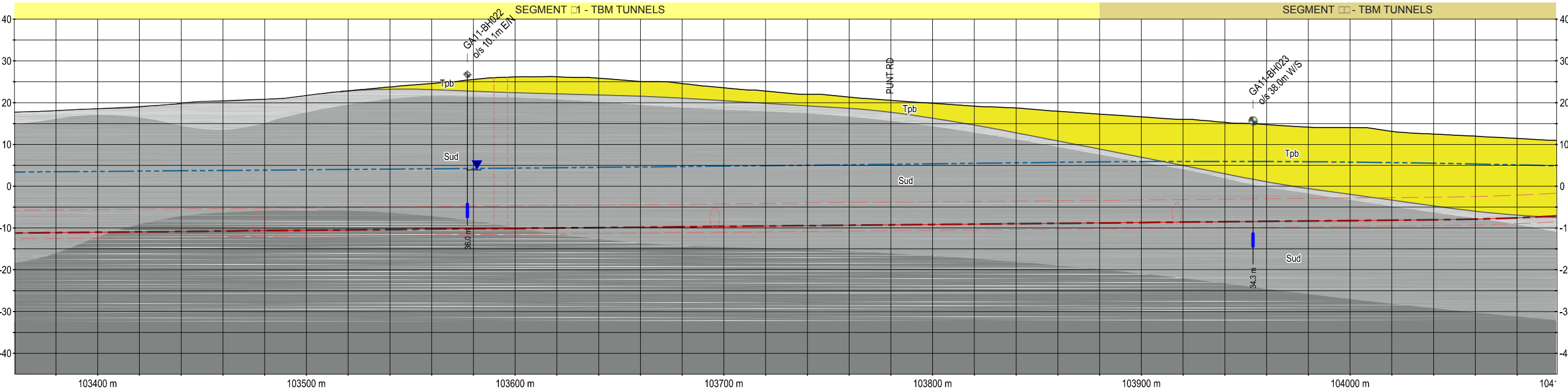


REFER TO SHEET 16 OF 35



REFER TO SHEET 18 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 17 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

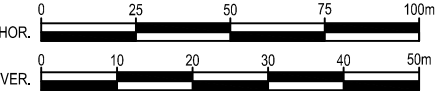
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

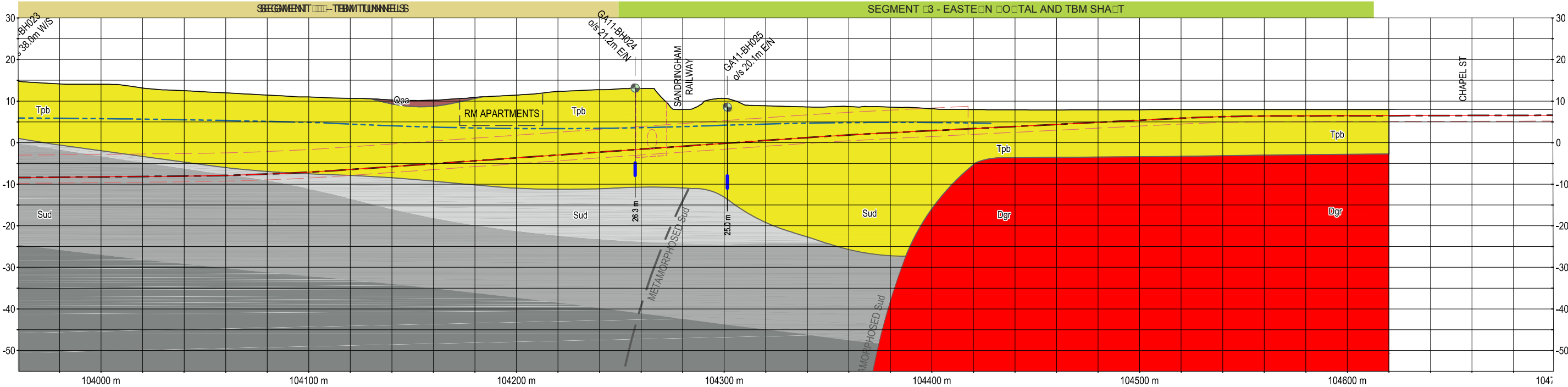
Date
23-03-2016

Map Size
A3





PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEOLOGICAL LONG SECTION SHEET 18 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

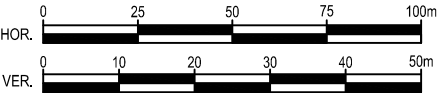
Revision
P1.1

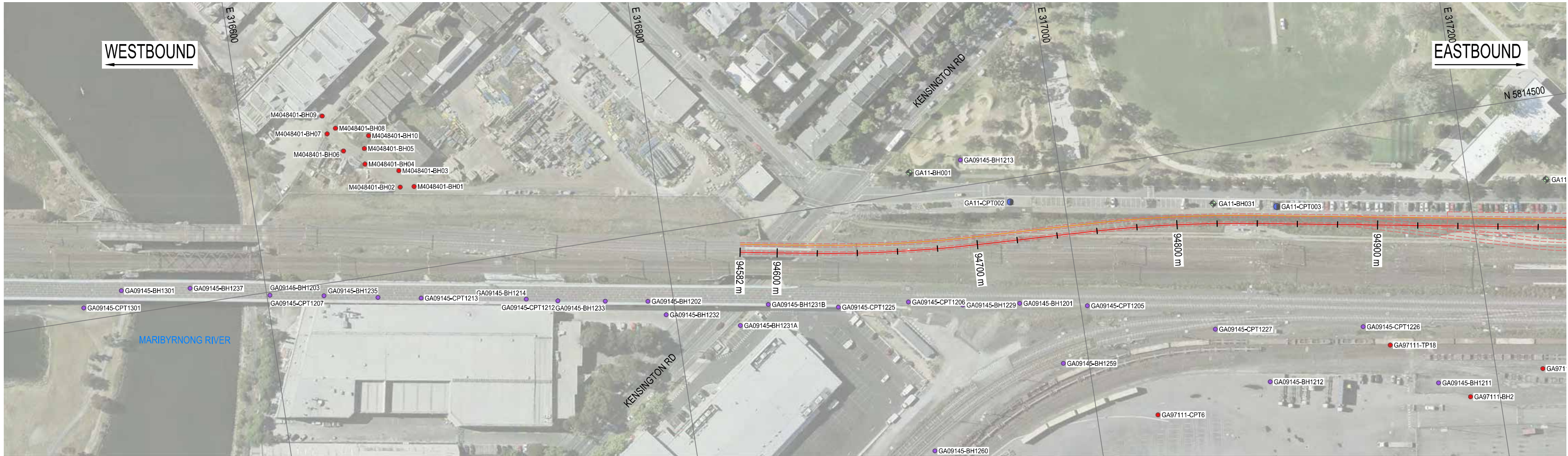
Drawn By
GOLDER

Approved By
SLVB

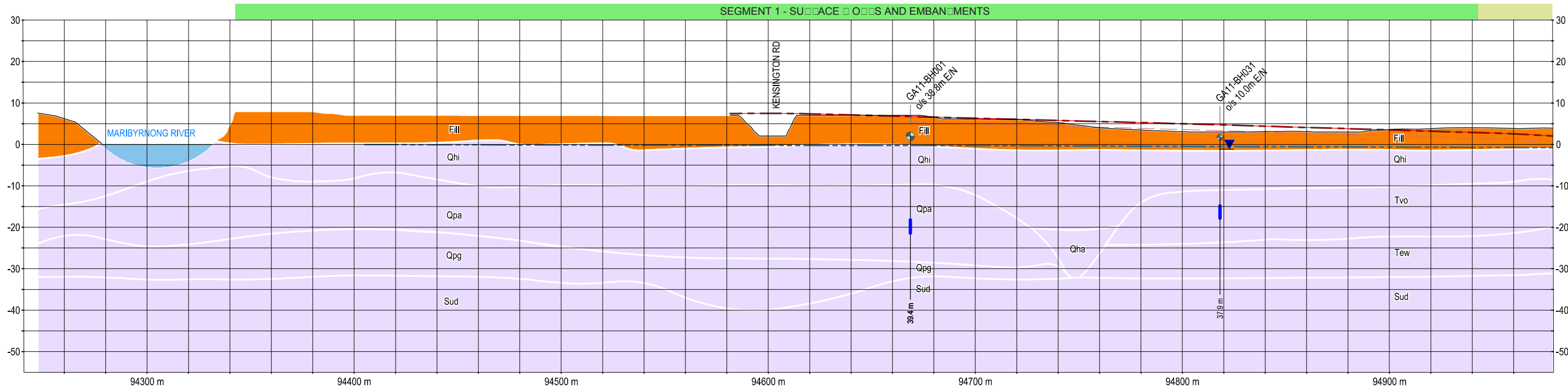
Date
23-03-2016

Map Size
A3





PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



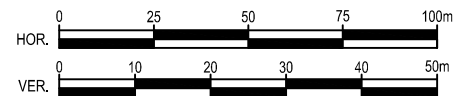
Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 19 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3
--------------------	---------------------	--------------------	----------------



[illegible][illegible][illegible]

Note:
Surface works are not shown

NOT FOR CONSTRUCTION

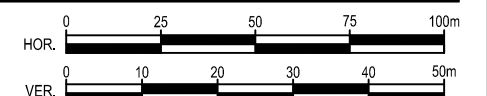


Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 20 OF 35

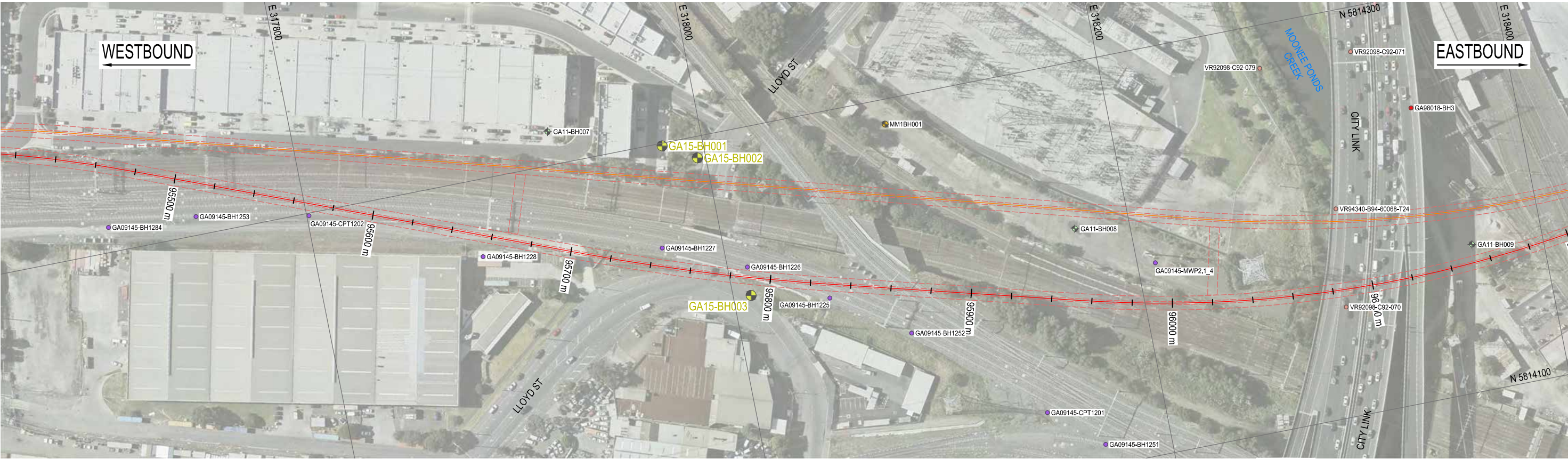
Drawing Number	Revision
MMR-AJM-PWAA-DR-NN-500450	P1.1

Drawn By	Approved By	Date	Map Size
GOLDER	SLVB	23-03-2016	A3

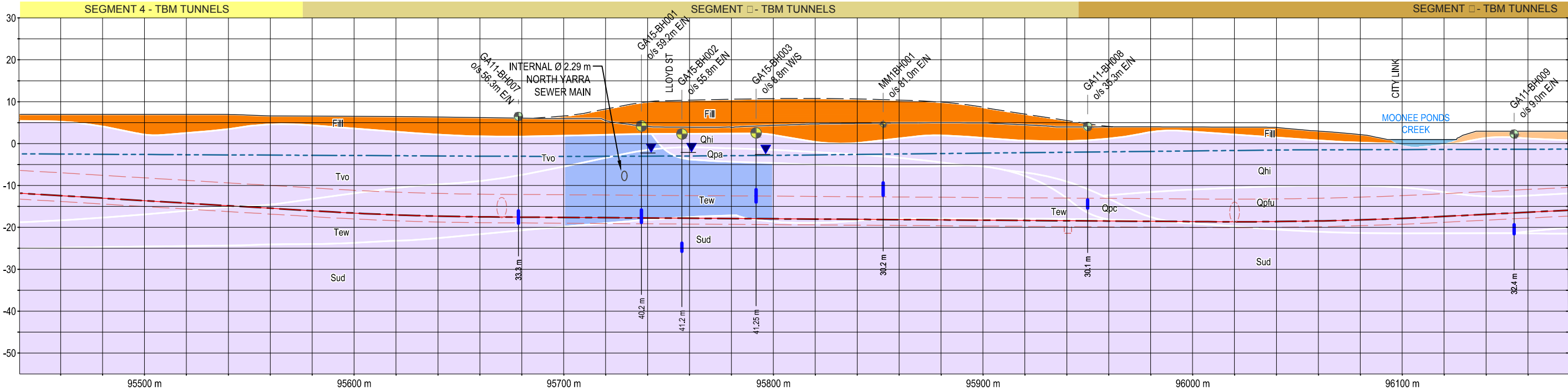


REFER TO SHEET 20 OF 35

REFER TO SHEET 22 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 21 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

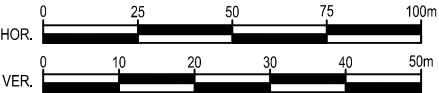
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

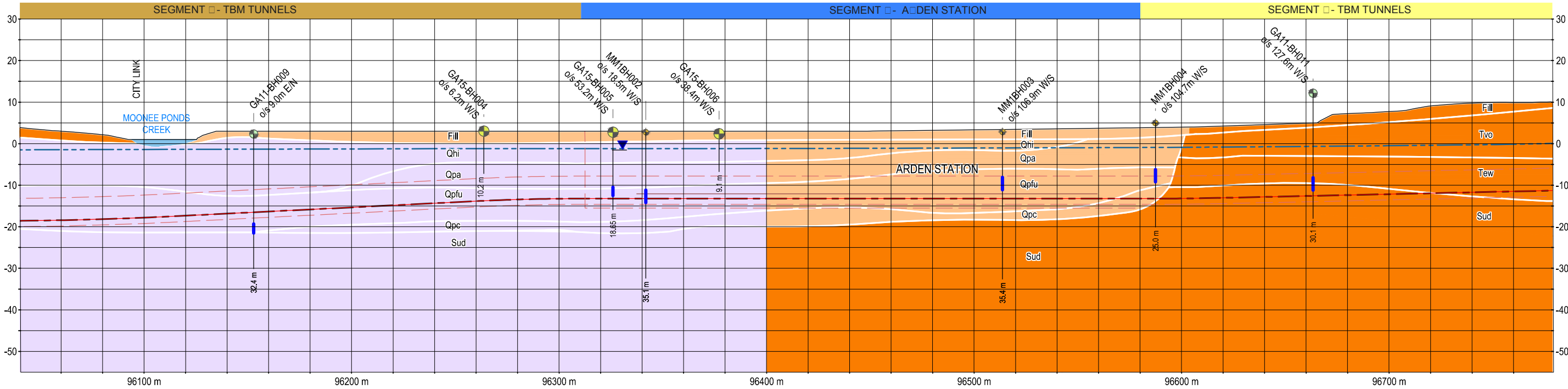
Map Size
A3



REFER TO SHEET 21 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 22 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

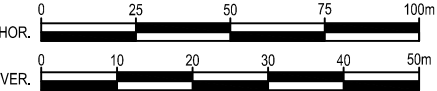
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

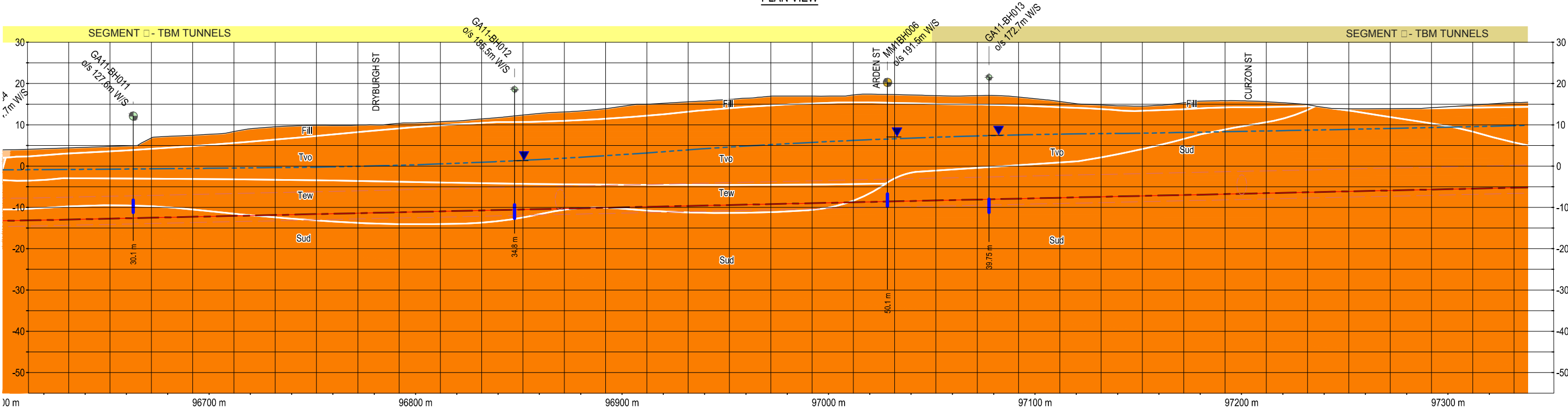


REFER TO SHEET 22 OF 35

REFER TO SHEET 24 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

- 1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
- 2. ALL LEVELS ARE IN METRES TO AHD.
- 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
- 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title GEO. SECTION - RELIABILITY		SHEET 23 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

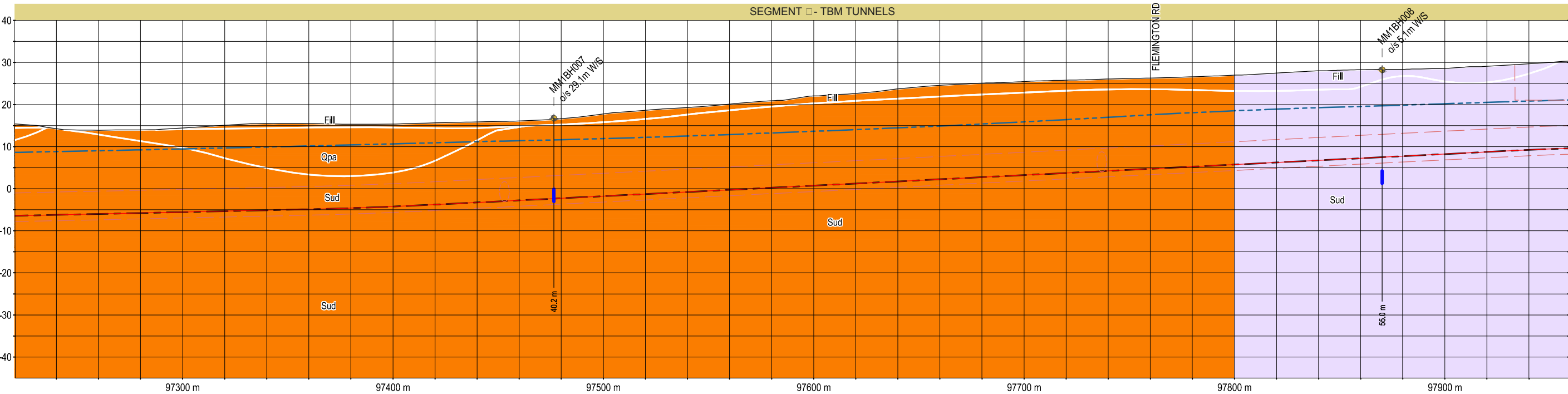


REFER TO SHEET 23 OF 35



REFER TO SHEET 25 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 24 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

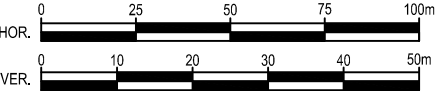
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

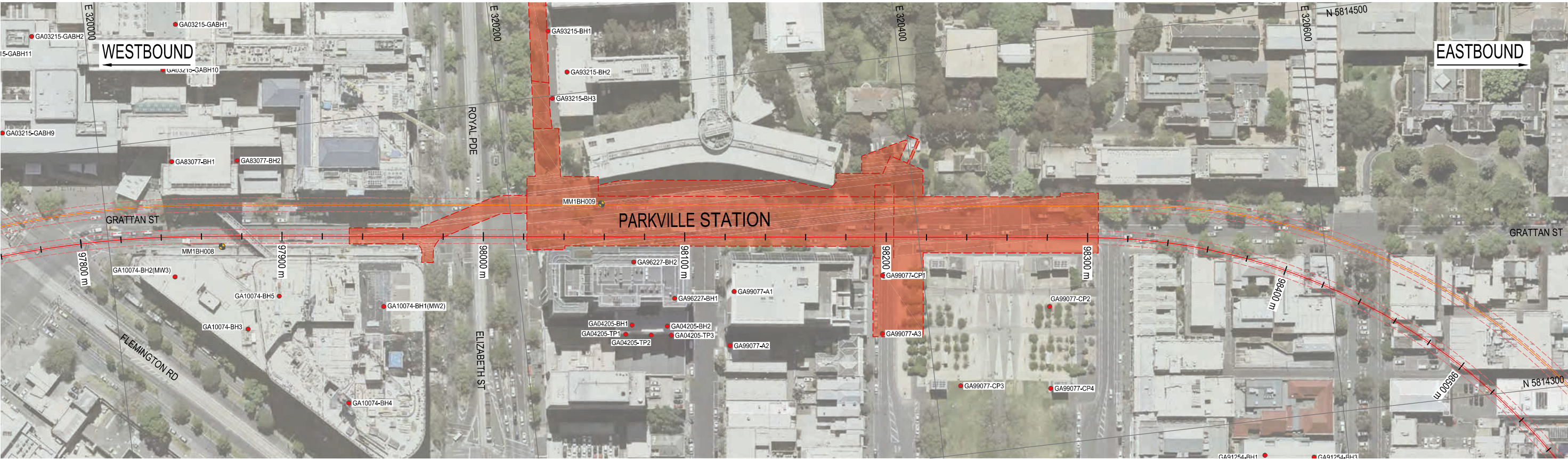
Date
23-03-2016

Map Size
A3

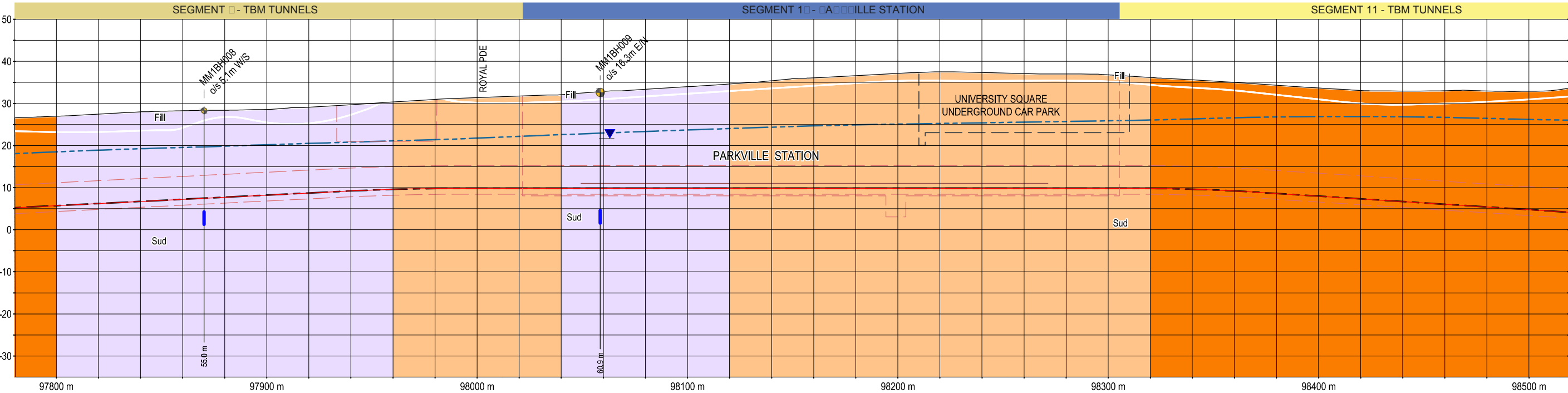


REFER TO SHEET 24 OF 35

REFER TO SHEET 26 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

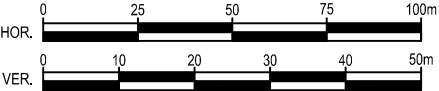
Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title		GEO. SECTION - RELIABILITY		SHEET 25 OF 35	
Drawing Number		MMR-AJM-PWAA-DR-NN-500450		Revision	
Drawn By		GOLDER		P1.1	
Approved By		SLVB		Map Size	
Date		23-03-2016		A3	

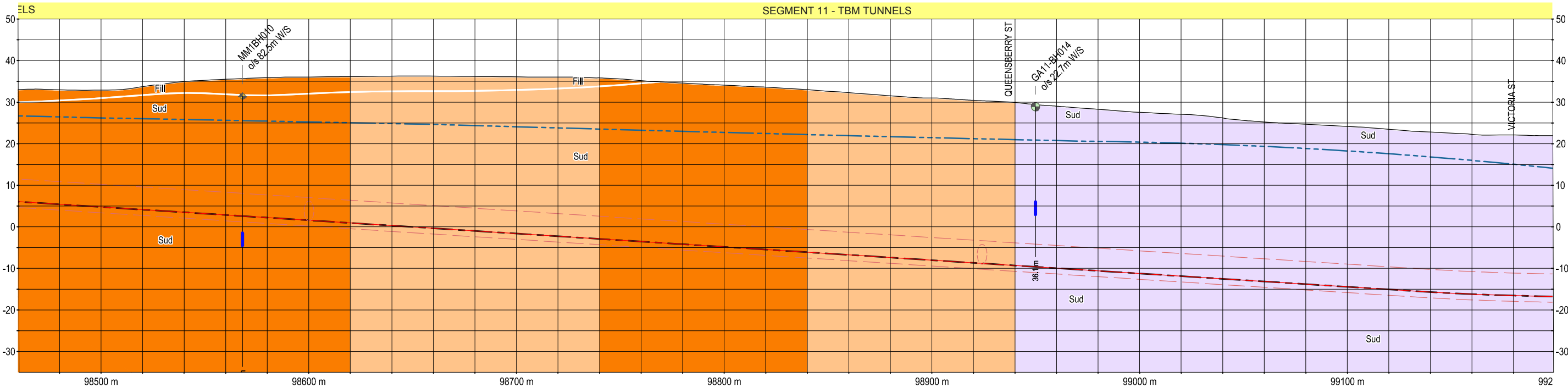


REFER TO SHEET 25 OF 35



REFER TO SHEET 27 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 26 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

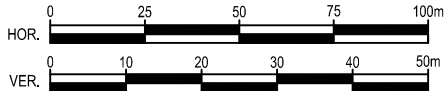
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

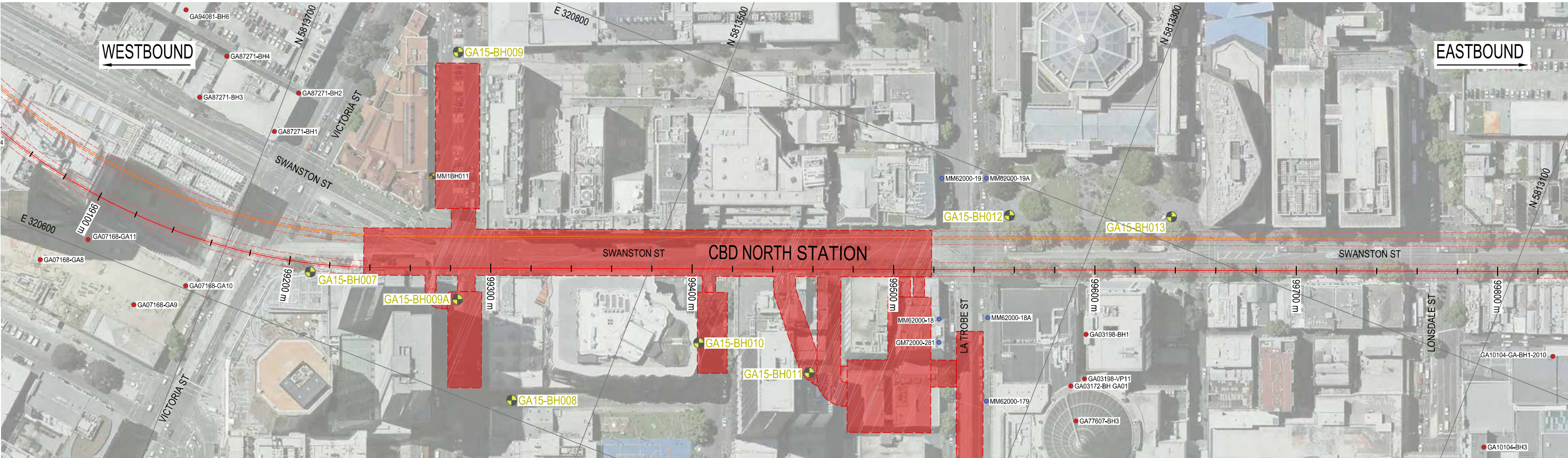
Date
23-03-2016

Map Size
A3

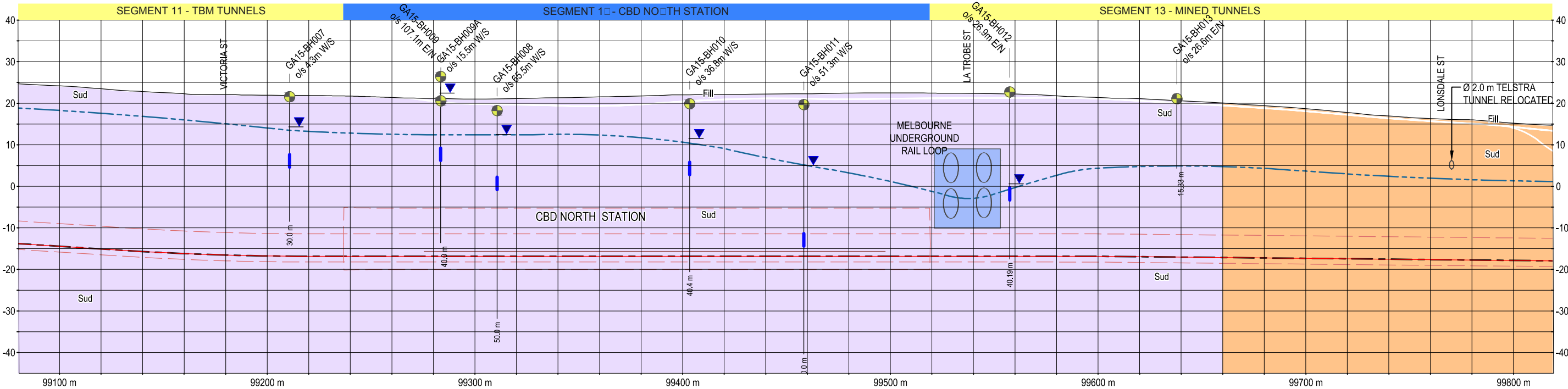


REFER TO SHEET 26 OF 35

REFER TO SHEET 28 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 27 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

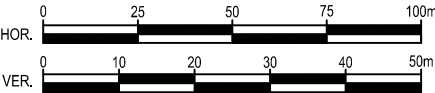
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

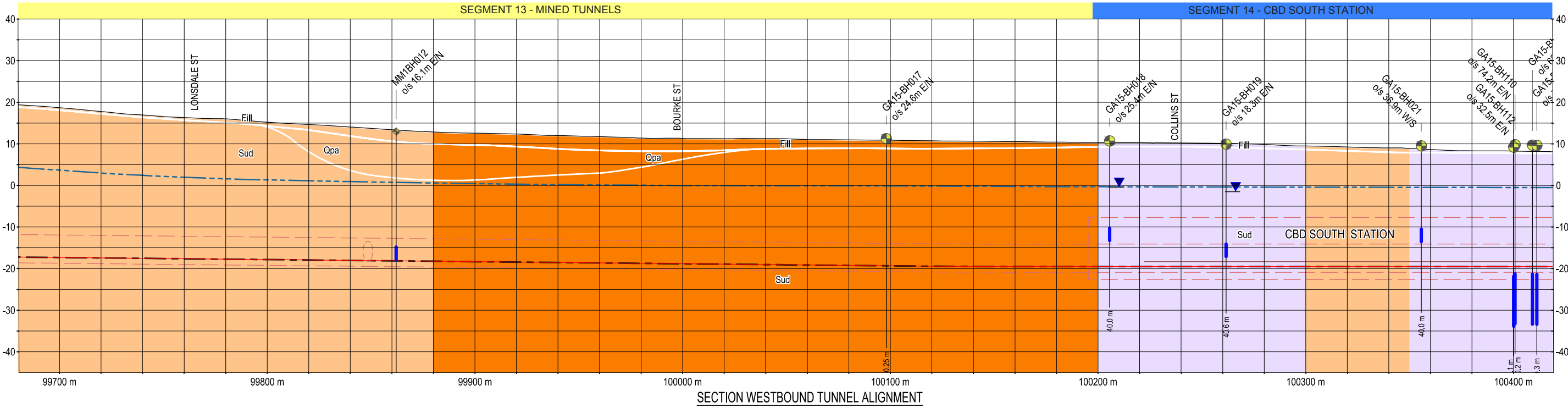


REFER TO SHEET 27 OF 35



REFER TO SHEET 29 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 28 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

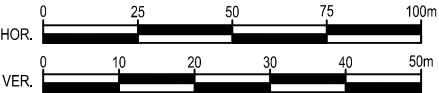
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

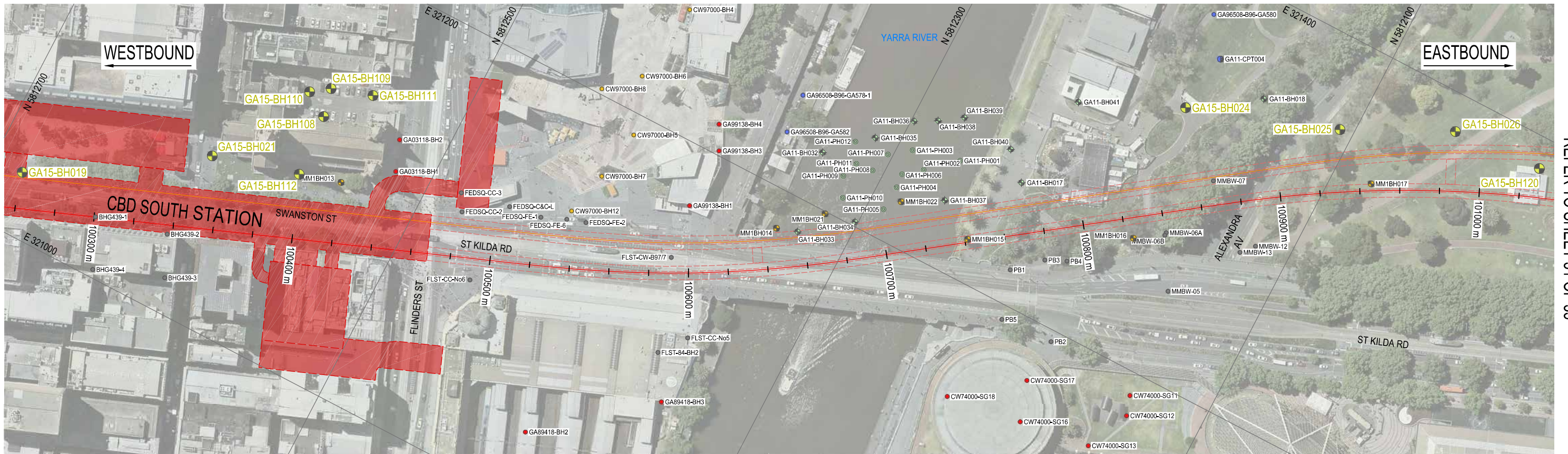
Date
23-03-2016

Map Size
A3

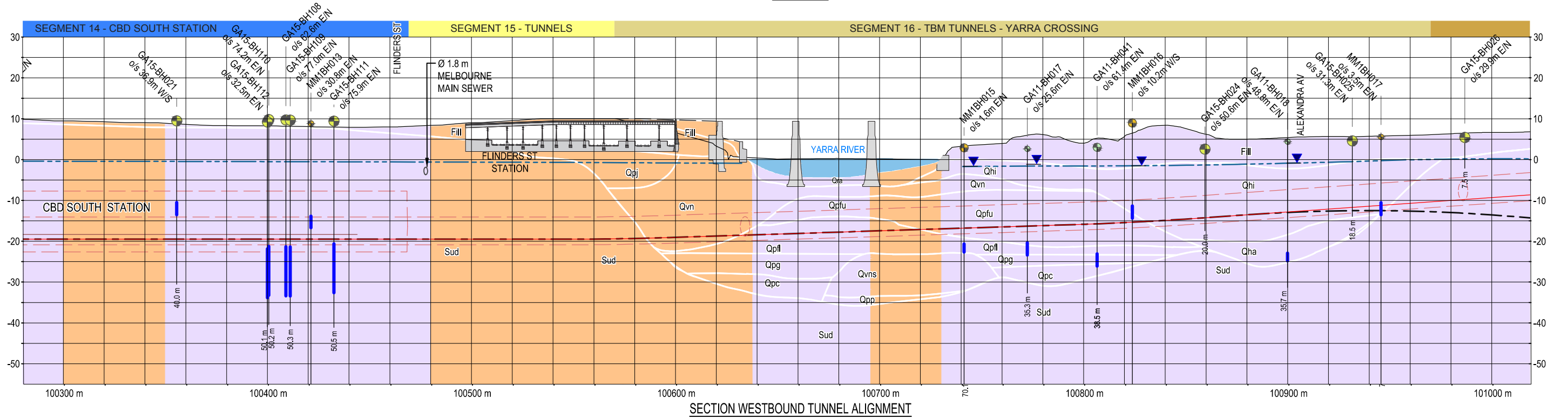


REFER TO SHEET 28 OF 35

REFER TO SHEET 31 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

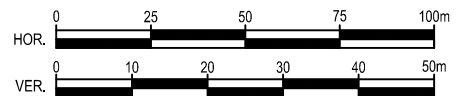
Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title GEO. SECTION - RELIABILITY		SHEET 29 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

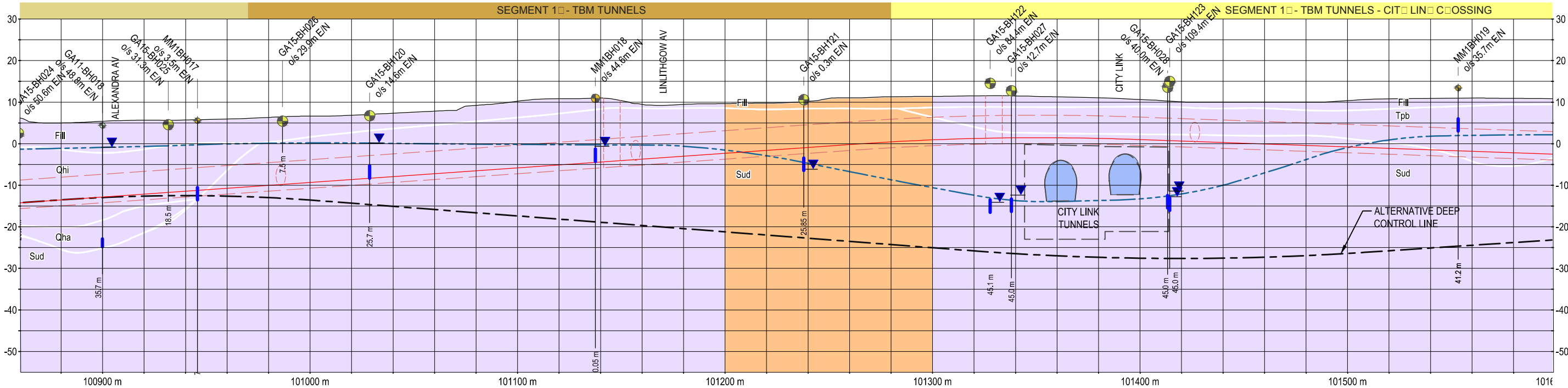


REFER TO SHEET 29 OF 35

REFER TO SHEET 31 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 30 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

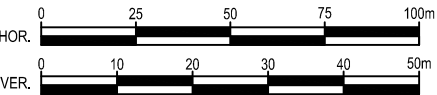
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

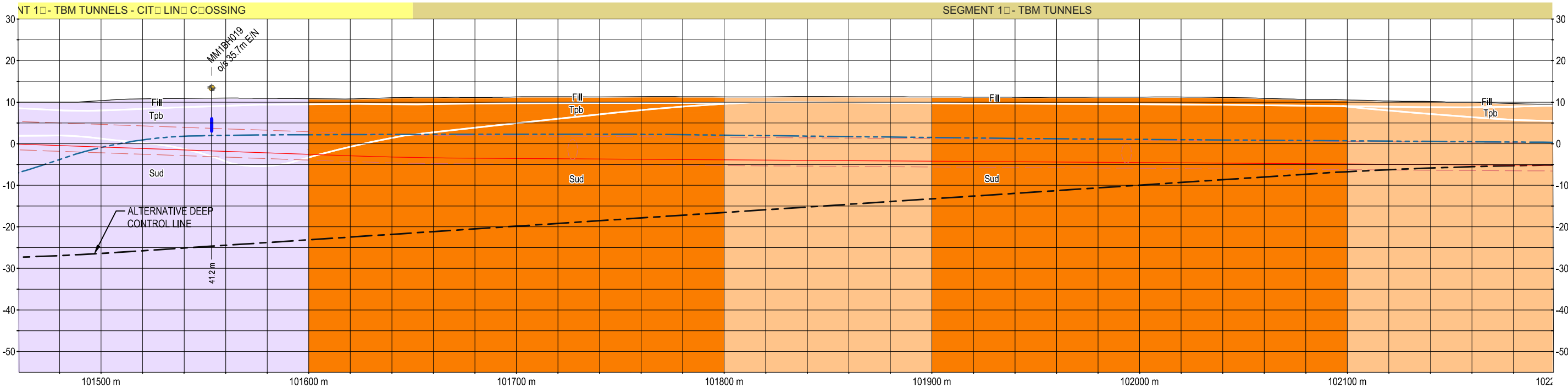


REFER TO SHEET 30 OF 35



REFER TO SHEET 32 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

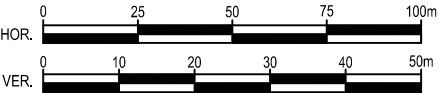
Note:
Surface works are not shown

NOT FOR CONSTRUCTION



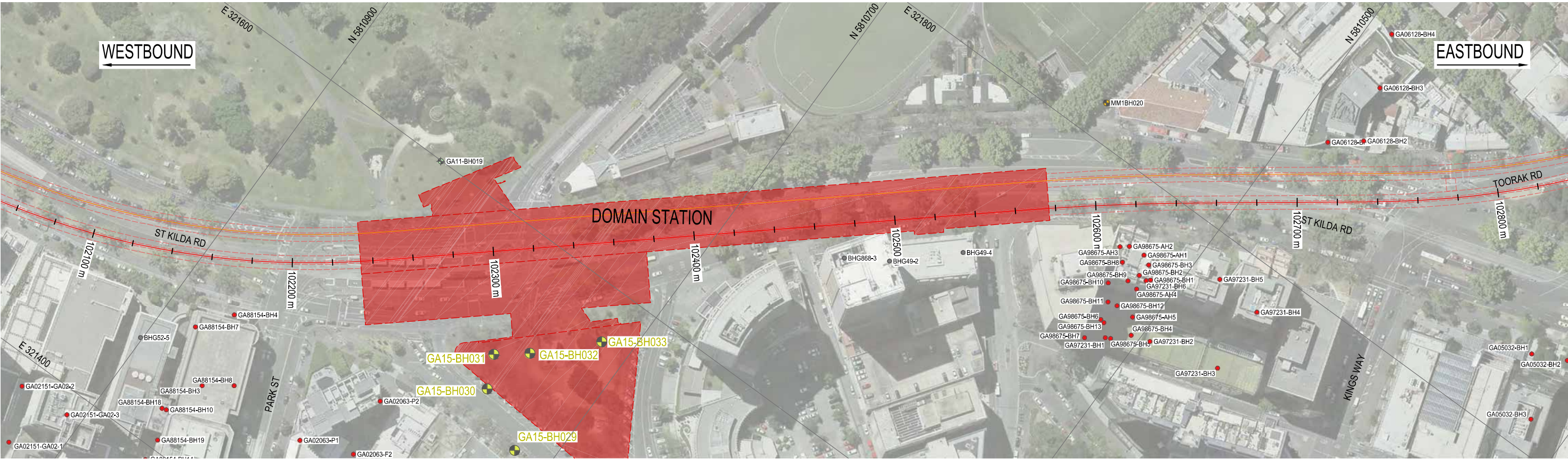
Melbourne Metro Rail Project

Title GEO. SECTION - RELIABILITY		SHEET 31 OF 35	
Drawing Number MMR-AJM-PWAA-DR-NN-500450		Revision P1.1	
Drawn By GOLDER	Approved By SLVB	Date 23-03-2016	Map Size A3

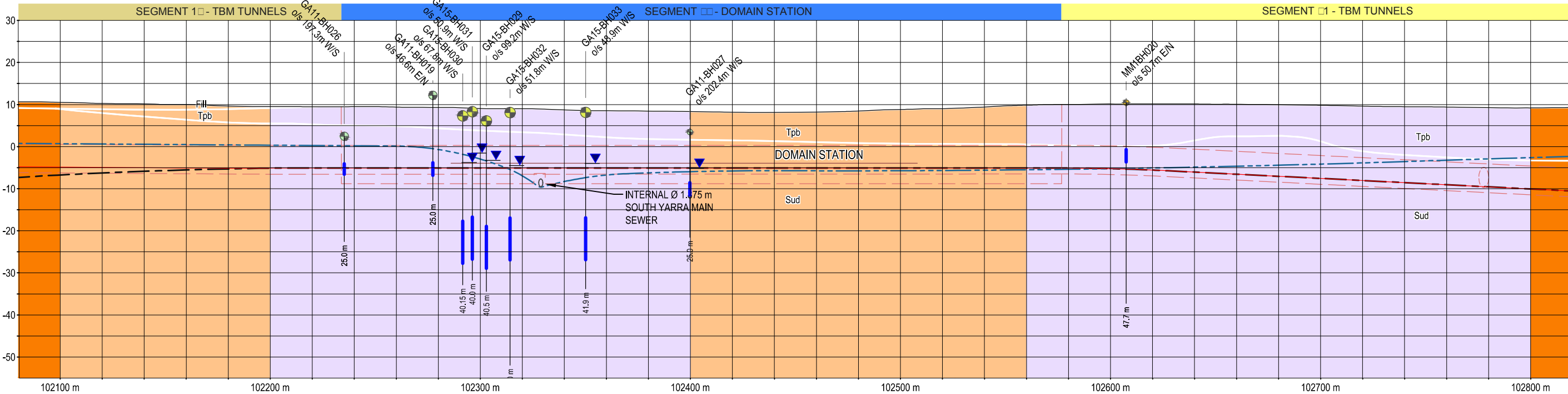


REFER TO SHEET 31 OF 35

REFER TO SHEET 33 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

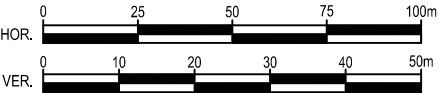
Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title		GEO. SECTION - RELIABILITY		SHEET 32 OF 35	
Drawing Number		MMR-AJM-PWAA-DR-NN-500450		Revision	
				P1.1	
Drawn By		Approved By		Date	
GOLDER		SLVB		23-03-2016	
				Map Size	
				A3	

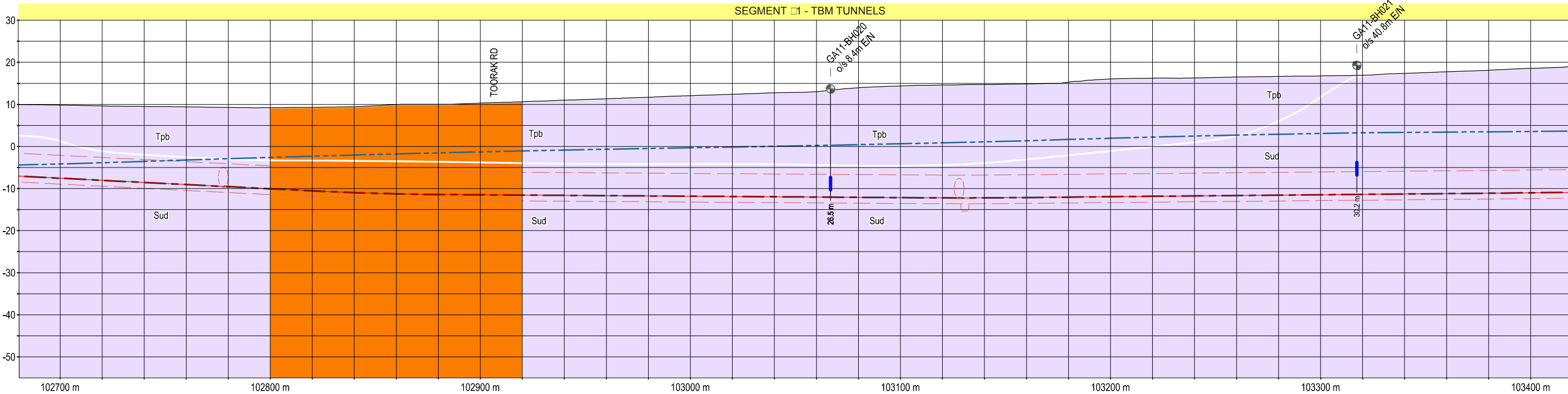


REFER TO SHEET 32 OF 35



REFER TO SHEET 34 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

- NOTES
1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
 2. ALL LEVELS ARE IN METRES TO AHD.
 3. ALL COORDINATES ARE IN METRES TO MGA-Z55
 4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION

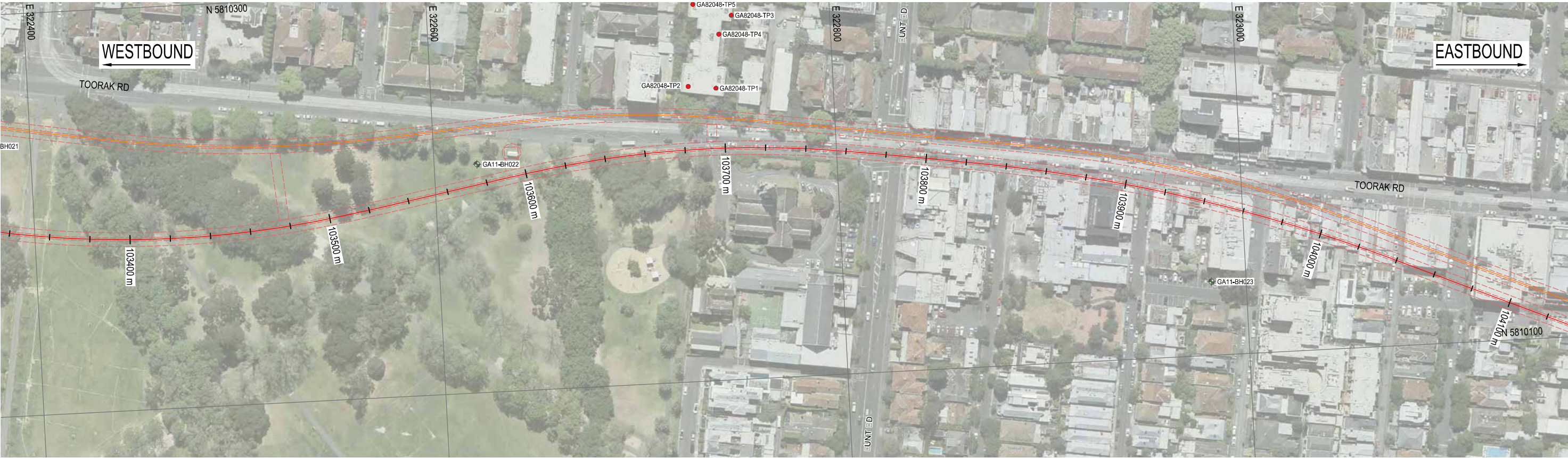


Melbourne Metro Rail Project

Title		GEO. SECTION - RELIABILITY		SHEET 33 OF 35	
Drawing Number		MMR-AJM-PWAA-DR-NN-500450		Revision	
Drawn By		GOLDER		P1.1	
Approved By		SLVB		Map Size	
Date		23-03-2016		A3	

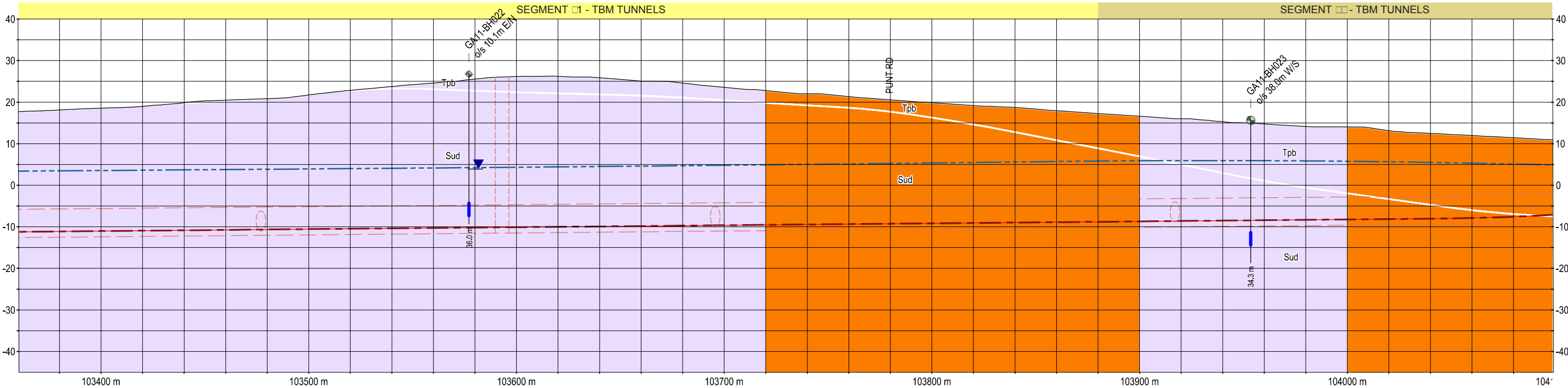


REFER TO SHEET 33 OF 35



REFER TO SHEET 35 OF 35

PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 34 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

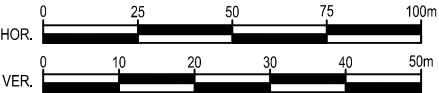
Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

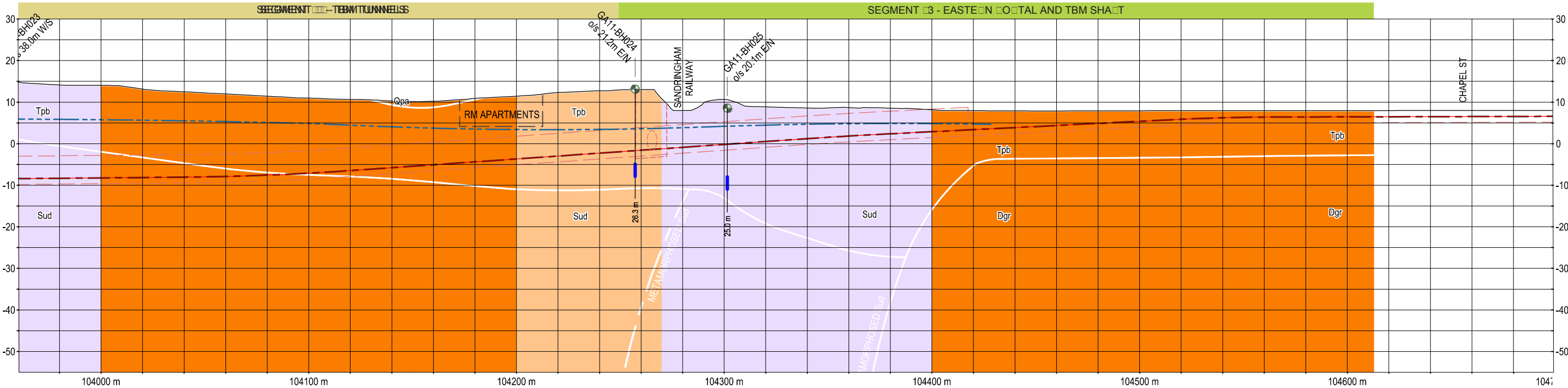
Map Size
A3



REFER TO SHEET 34 OF 35



PLAN VIEW



SECTION WESTBOUND TUNNEL ALIGNMENT

NOTES

1. REFER FIGURE MMR-AJM-PWAA-DR-NN-500450, SHEET 1 OF 35 FOR NOTES AND LEGEND.
2. ALL LEVELS ARE IN METRES TO AHD.
3. ALL COORDINATES ARE IN METRES TO MGA-Z55
4. INTERPRETED SUBSURFACE CONDITIONS SHOWN ON LONG SECTION TO BE USED FOR EES PURPOSES ONLY.

Note:
Surface works are not shown

NOT FOR CONSTRUCTION



Melbourne Metro Rail Project

Title
GEO. SECTION - RELIABILITY SHEET 35 OF 35

Drawing Number
MMR-AJM-PWAA-DR-NN-500450

Revision
P1.1

Drawn By
GOLDER

Approved By
SLVB

Date
23-03-2016

Map Size
A3

