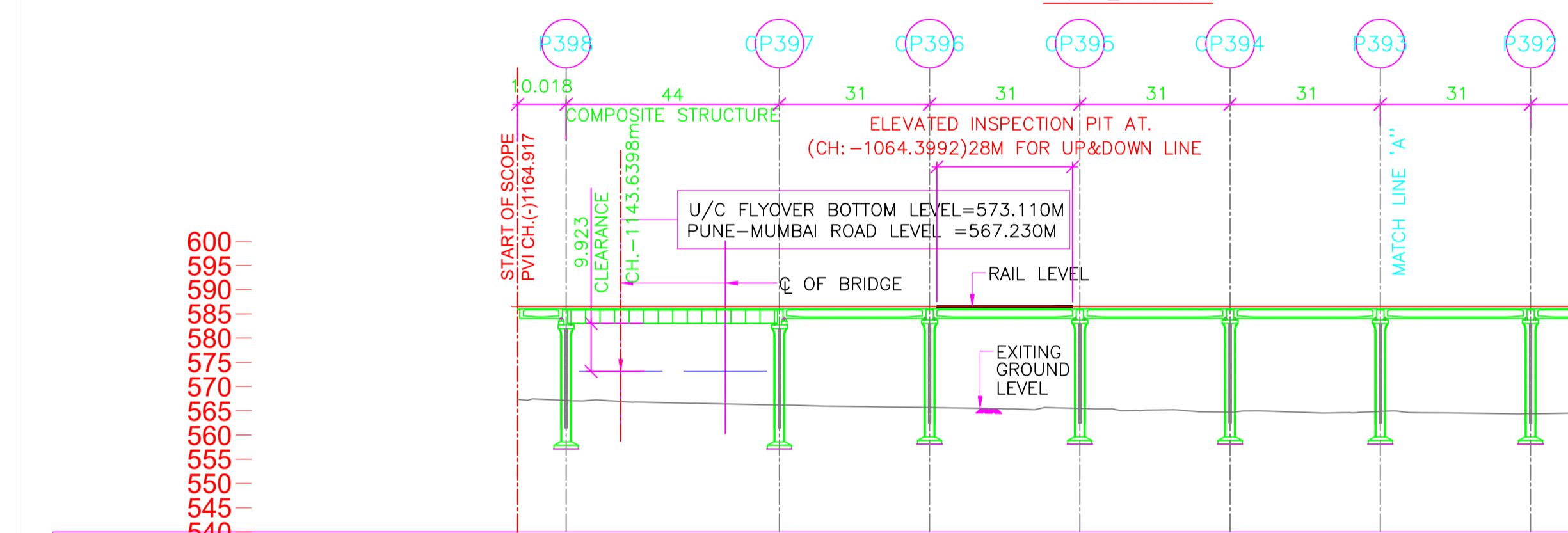
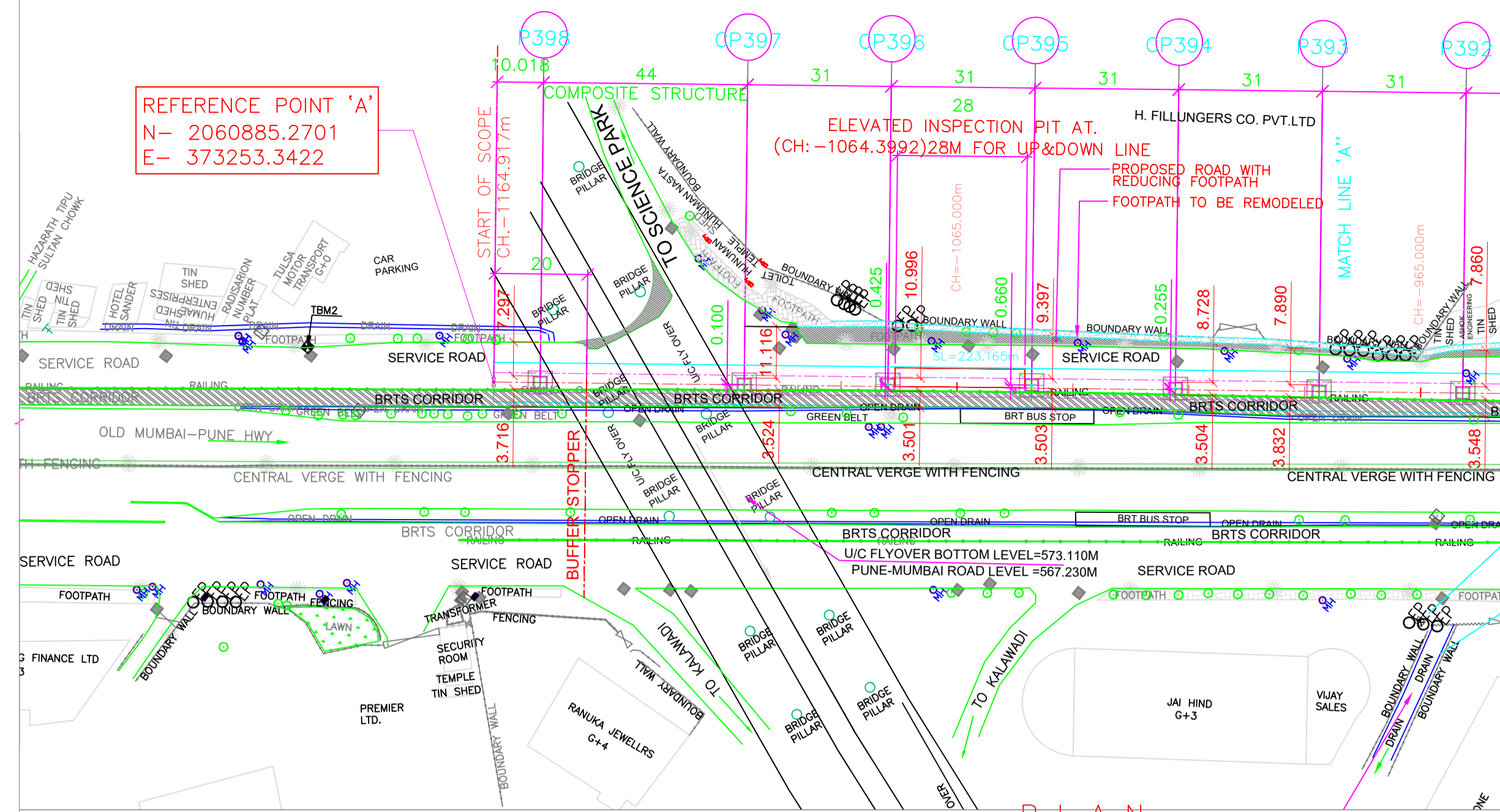


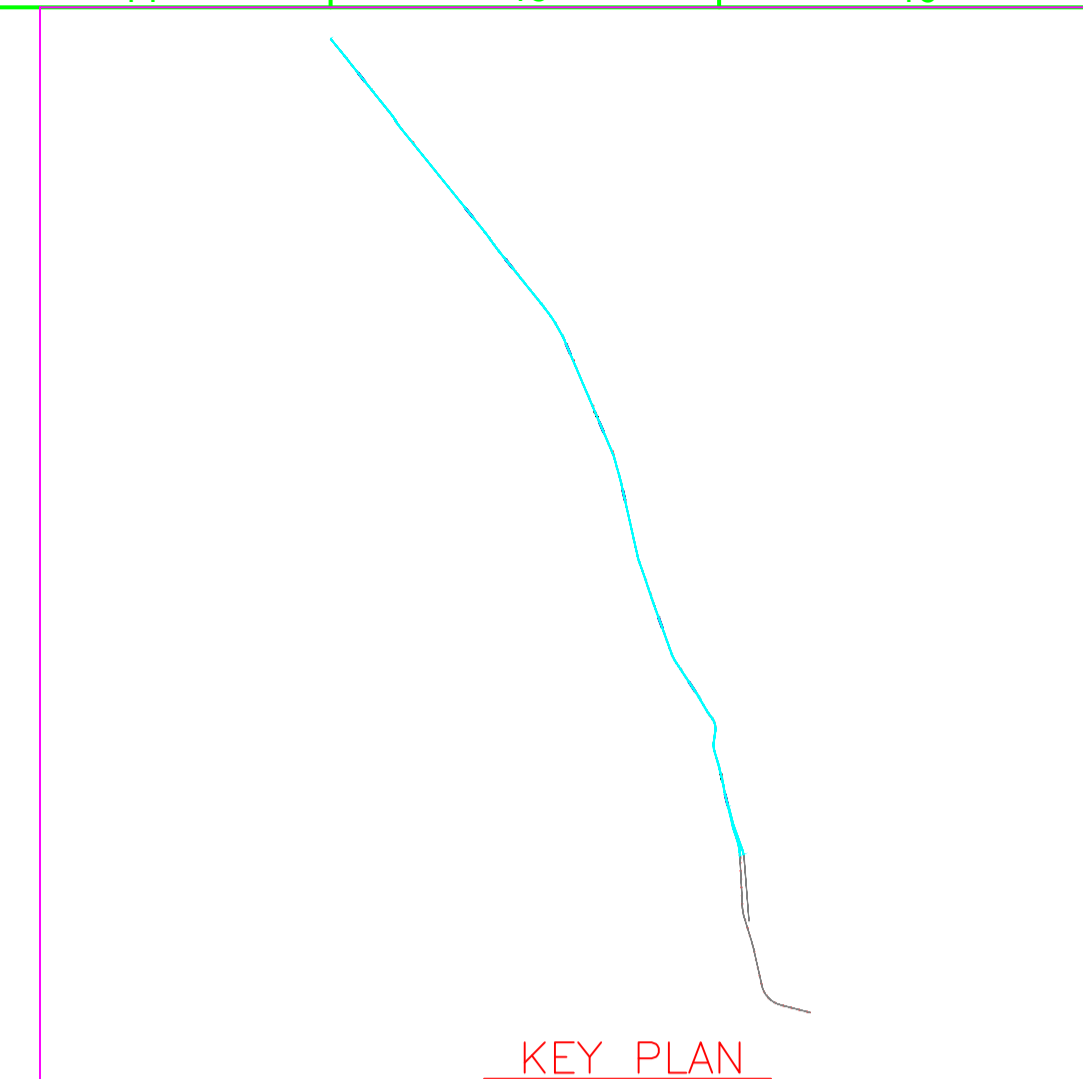
TO PCMC

TO RANGE HILL

REFERENCE POINT 'A'
N- 2060885.2701
E- 373253.3422



VERTICAL ALIGNMENT	L=1330.875 m G=0.000%	
HORIZONTAL ALIGNMENT	SL223.165m*	SL223.165m*
ELEVATION LEVEL DIFFERENCE AS PER NIT	19.137	20.308
ELEVATION LEVEL DIFFERENCE AS PER SURVEY	19.354	20.821
RAIL LEVELS (M)	596.500	596.500
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	567.363	566.192
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	567.146	565.679
PROJECT CHAINAGES	-1164.9172	-110.8992
NORTHING	373253.3422	373305.7427
EASTING	373253.3422	373305.7427



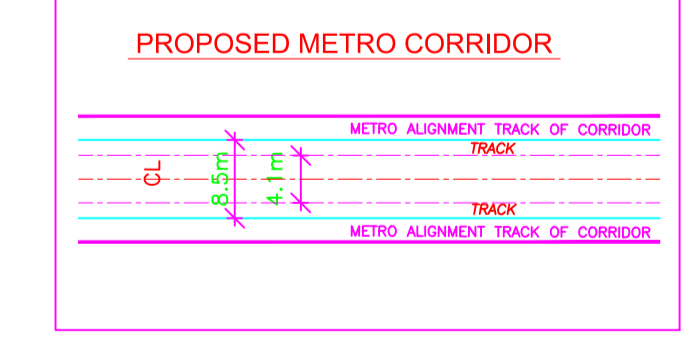
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - XY X = PIER TYPE, Y = PIER No.
 - Transition Start & End

- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B15	04.07.18	CHAINAGES MODIFIED.	
B04	08.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 06.06.18	
B03	23.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 17.05.18 & 22.05.18	
B02	15.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 11.05.18 & 14.05.18	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC

SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:

CONTRACTOR

PROOF CONSULTANT

GENERAL CONSULTANT TO PMRP

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

PROOF CONSULTANT

GENERAL CONSULTANT TO PMRP

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

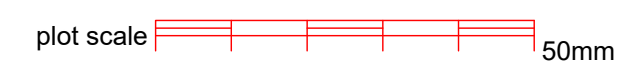
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

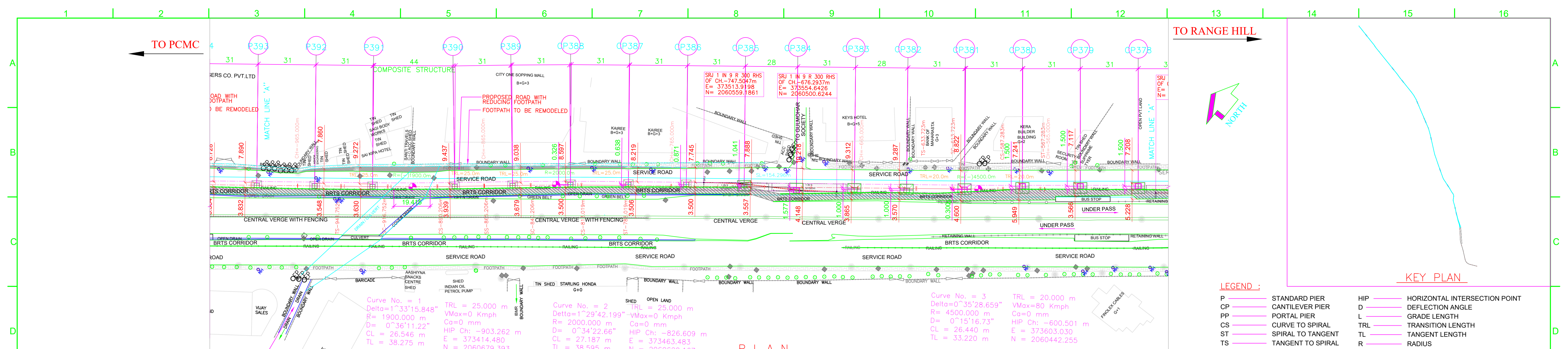
TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. -1164.5610m TO -986.5440m

SCALE: 1:1 **DATE:** 07.05.18 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 0'-24)

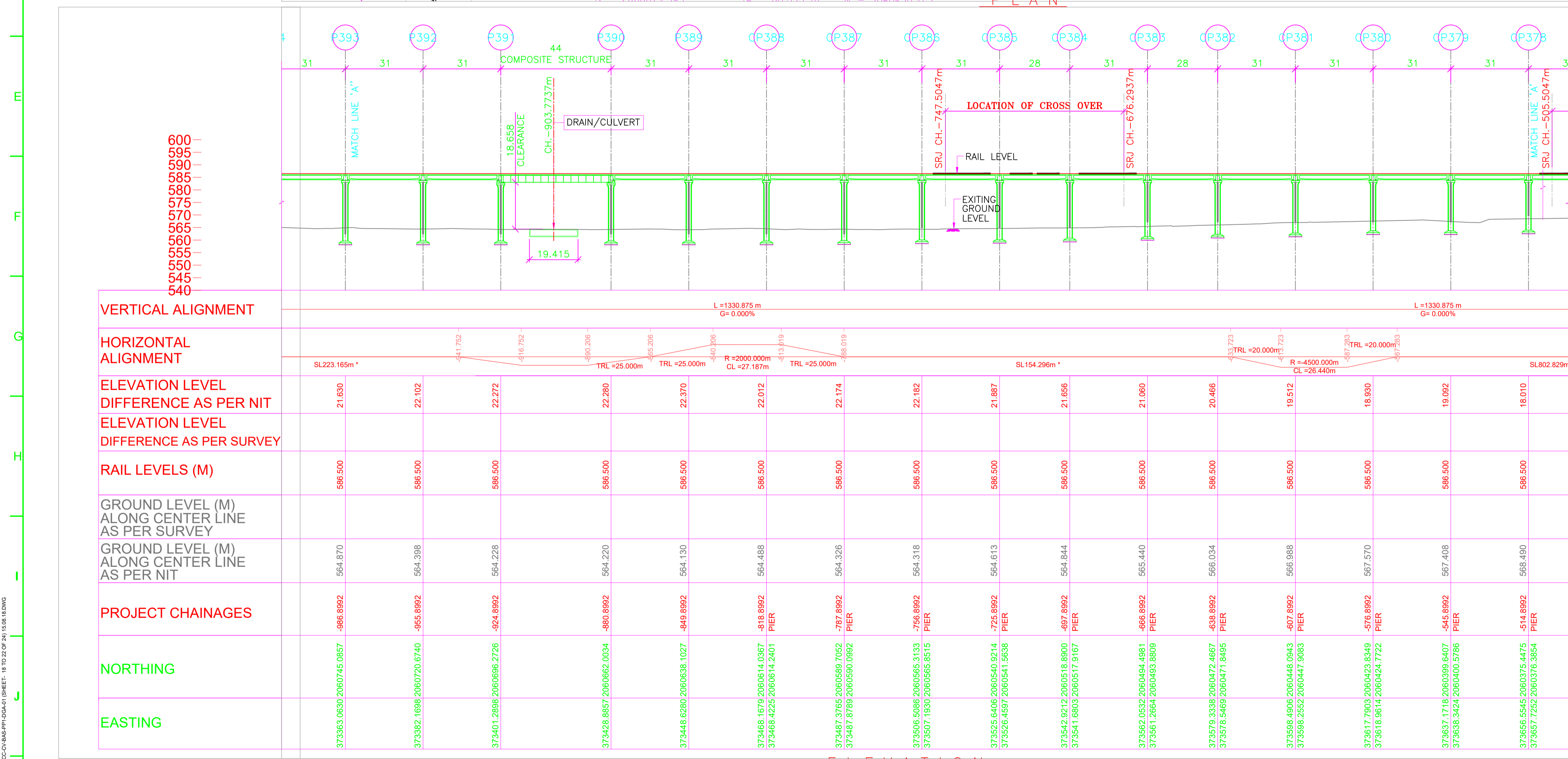
REVISION NO: B05





- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER NO.
 - METRO PORTION
 - TRANSITION START & END

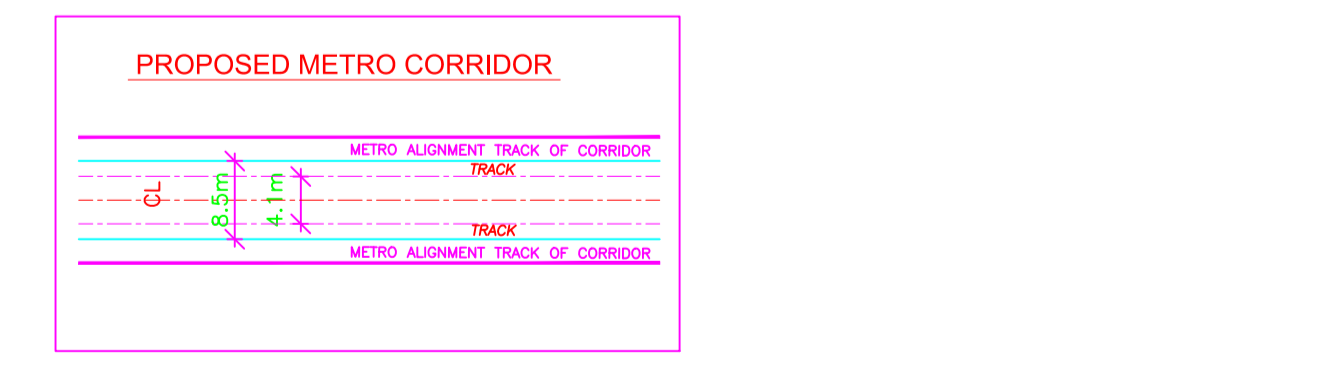
- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001



ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B14	04.07.18	CHAINAGES MODIFIED.	
B13	08.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 06.06.18	
B12	31.05.18	CP383 & CP382 ECCENTRICITY MODIFIED	
B11	30.05.18	P384 TO P381 CONVERT TO CANTILEVER PIER	
B10	23.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 17.05.18 & 22.05.18	
B09	15.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 11.05.18 & 14.05.18	
B08	07.05.18	MODIFIED AS PER MAIL FROM GC RECEIVED ON 05.05.18	
B07	21.04.18	SPAN MODIFIED AT P391 TO P389 DUE TO CULVERT	
B06	07.03.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 22.02.18	
B05	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B04	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17.	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC

SIGN: _____ DATE: 04.07.18

CONTRACTOR

SIGN: _____ DATE: 04.07.18

PROOF CONSULTANT

SIGN: _____ DATE: 04.07.18

GENERAL CONSULTANT TO PMRP

SIGN: _____ DATE: 04.07.18

CONSULTANTS

STRUCHION DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014
Phone No: 4317684, 4319288, 4319288. 4319288 FAX: 91-11-4316057
E-MAIL: mct@tandoni.com; tandon1@tandoniconsultants.com
WEBSITE: www.tandoni.com

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED/REVIEWED** AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND ISSUED AS 'GOOD FOR CONSTRUCTION'/BEING GIVEN NO OBJECTION

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. -986.5440m TO -514.5440m

SCALE: 1:1 **DATE:** 12.10.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 0-24)

REVISION NO: B14

MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

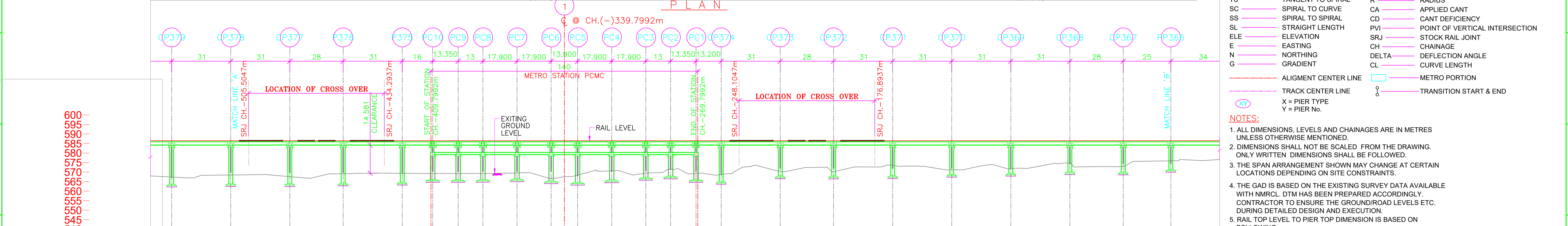
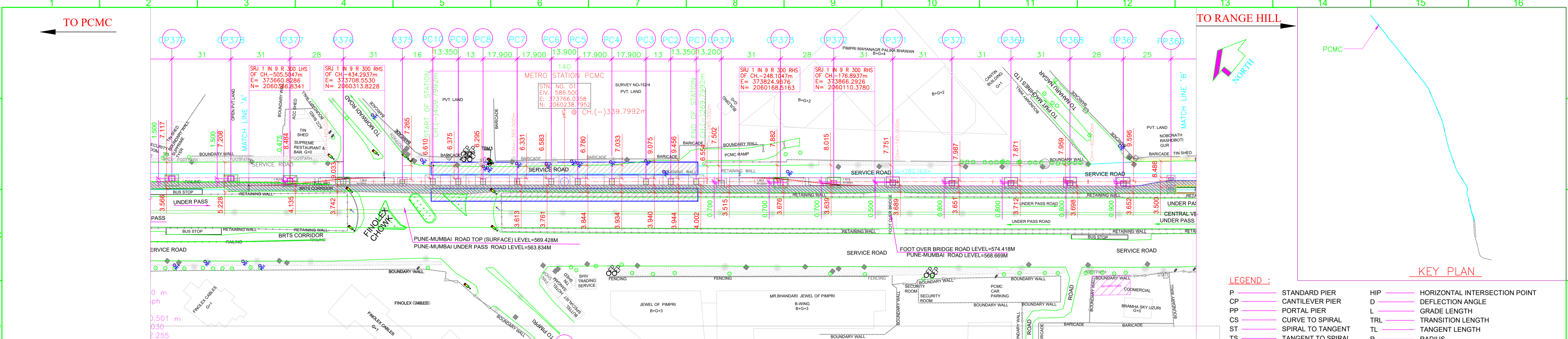
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. -986.5440m TO -514.5440m

SCALE: 1:1 **DATE:** 12.10.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 0-24)

REVISION NO: B14



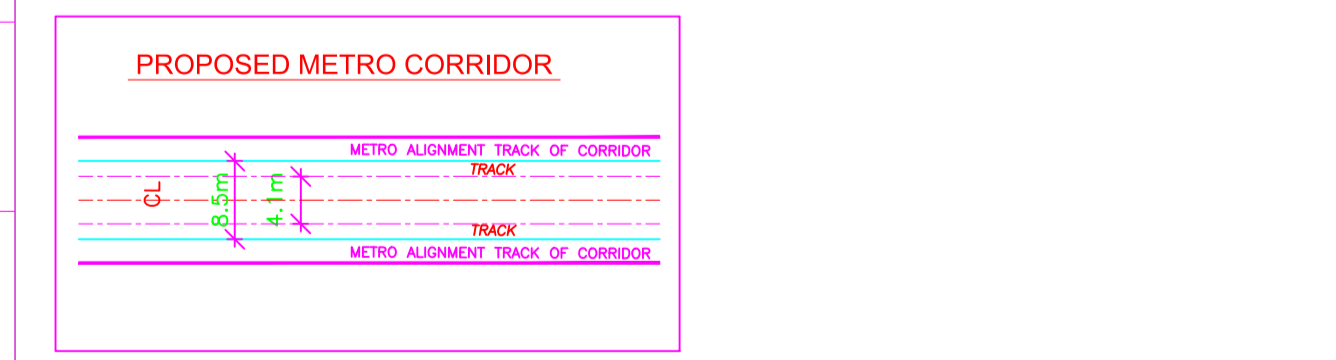
VERTICAL ALIGNMENT	1330.875 m G=0.000%	L=1330.875 m G=0.000%	L=1330.875 m G=0.000%
HORIZONTAL ALIGNMENT	SL802.829m*		
ELEVATION LEVEL DIFFERENCE AS PER NIT	19.092	18.010	18.879
ELEVATION LEVEL DIFFERENCE AS PER SURVEY	19.092	18.010	18.879
RAIL LEVELS (M)	586.500	586.500	586.500
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	567.408	568.490	567.621
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	567.408	568.490	567.621
PROJECT CHAINAGES	-545.8992 PIER	-514.8992 PIER	-483.8992 PIER
NORTHING	373837.1718	373855.5545	373873.9373
EASTING	2060399.6407	2060400.5765	2060401.5123

- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - ALG ALIGNMENT CENTER LINE
 - TRK TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER NO.
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - METRO PORTION
 - TRANSITION START & END
- NOTES:**
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DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE - 1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B15	04.07.18	CHAINAGES MODIFIED.	
B14	08.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 06.06.18	
B13	31.05.18	CP374 TO CP367 ECCENTRICITY MODIFIED	
B12	30.05.18	P374 TO P367 CONVERT TO CANTILEVER PIER	
B11	23.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 17.05.18 & 22.05.18	
B10	15.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 11.05.18 & 14.05.18	
B09	07.05.18	MODIFIED AS PER MAIL FROM GC RECEIVED ON 05.05.18	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	07.03.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 22.02.18	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC

SIGN: DATE: 04.07.18

SIGN: NAME: MPP

SIGN: NAME: PGT

SIGN: NAME: MAJ

SIGN: NAME: VLD

SIGN: NAME:

DRAWN BY: DESIGN BY: CHECKED BY: APPROVED BY:

CONTRACTOR

ACCEPTED BY:

CONSULTANTS

STRUCHTON DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

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PROOF CONSULTANT

SIGN: SHUBHAM GARG

DATE:

NAME: SUBRAMANIAN RAMAN

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTRA, NEW DELHI-110 014
Phone No: 4317684, 4319288, 4319060 FAX: 91-11-4318657
E-MAIL: mct@tsonl.com; tandon1@mantranonline.com
WEBSITE: www.tsonl.com

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GENERAL CONSULTANT TO PMRP

SIGN: PRASAD MOHITE

DATE:

NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. -514.5440m TO 0.0000m

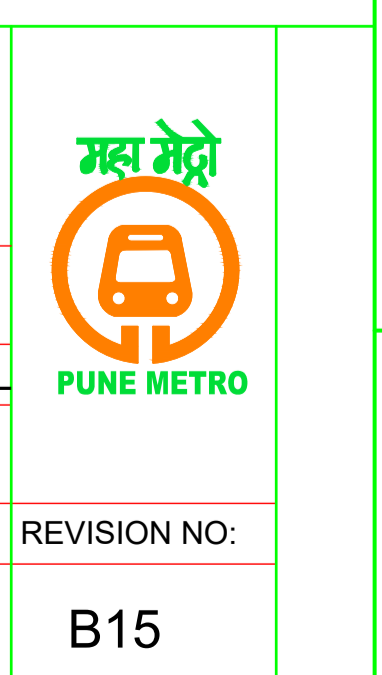
SCALE: 1:1

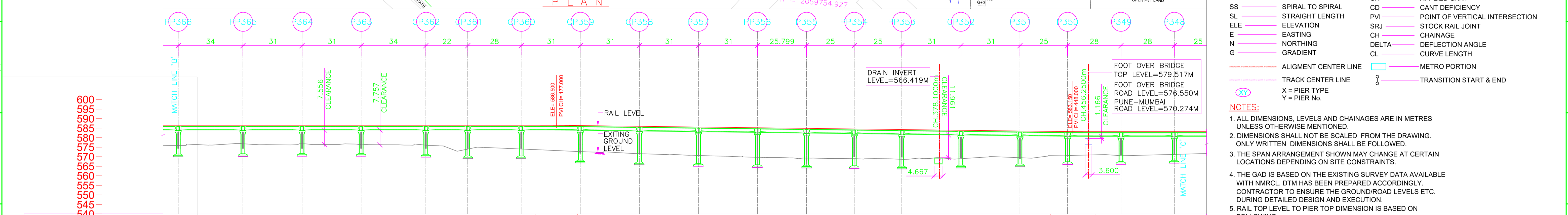
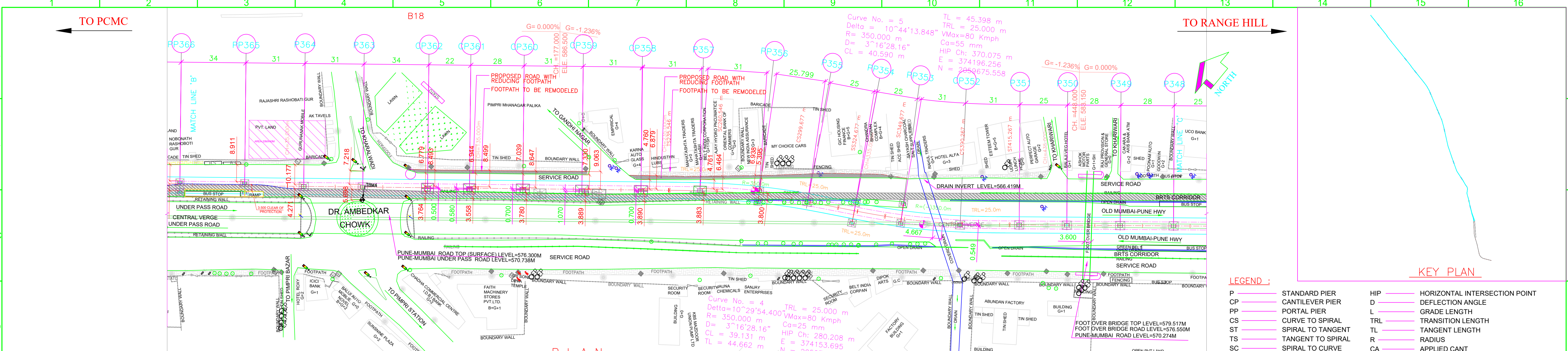
DATE: 29.05.17

STATUS: FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 1-24)

REVISION NO: B15





REV NO	DATE	DESCRIPTION	SIGN
B20	04.07.18	ALIGNMENT MODIFIED TO SAVE ALREADY CAST PIER P351 & CP352	
B19	16.06.18	SPAN MODIFIED BETWEEN CP359 TO PP355	
B18	14.06.18	SPAN MODIFIED AT P362 TO PP365 DUE TO ALREADY CAST FOUNDATION P360 & P359	
B17	13.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 13.06.18	
B16	11.06.18	P358 CONVERT TO CANTILEVER PIER P357 CONVERT TO NORMAL PIER	
B15	08.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 06.06.18	
B14	31.05.18	CP361 TO CP359 ECCENTRICITY MODIFIED	
B13	30.05.18	P361 TO P358 CONVERT TO CANTILEVER PIER	
B12	24.05.18	SPAN MODIFIED AT PP366 TO PP365 DUE TO BUS STOP.	
B11	23.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 17.05.18 & 22.05.18	
B10	15.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 11.05.18 & 14.05.18	

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

REV NO	DATE	DESCRIPTION	SIGN
B20	04.07.18	ALIGNMENT MODIFIED TO SAVE ALREADY CAST PIER P351 & CP352	
B19	16.06.18	SPAN MODIFIED BETWEEN CP359 TO PP355	
B18	14.06.18	SPAN MODIFIED AT P362 TO PP365 DUE TO ALREADY CAST FOUNDATION P360 & P359	
B17	13.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 13.06.18	
B16	11.06.18	P358 CONVERT TO CANTILEVER PIER P357 CONVERT TO NORMAL PIER	
B15	08.06.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 06.06.18	
B14	31.05.18	CP361 TO CP359 ECCENTRICITY MODIFIED	
B13	30.05.18	P361 TO P358 CONVERT TO CANTILEVER PIER	
B12	24.05.18	SPAN MODIFIED AT PP366 TO PP365 DUE TO BUS STOP.	
B11	23.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 17.05.18 & 22.05.18	
B10	15.05.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC. ON 11.05.18 & 14.05.18	

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DDC **CONTRACTOR**

SIGN: SIGN: SIGN: SIGN: SIGN:

DATE: 04.07.18 DATE: 04.07.18 DATE: 04.07.18 DATE: 04.07.18 DATE:

NAME: MPP NAME: PGT NAME: MAJ NAME: VLD NAME:

DRAWN BY DESIGN BY CHECKED BY APPROVED BY

ACCEPTED BY

CONSULTANTS

STRUCICON DESIGNS PVT. LTD.
 SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
 Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

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PROOF CONSULTANT

SIGN: SIGN:

DATE: DATE:

NAME: SHUBHAM GARG NAME: SUBRAMANIAN RAMAN

TANDON CONSULTANTS PVT. LTD.
 STRUCTURAL ENGINEERING SPECIALISTS
 17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014
 Phone No: 4317684, 4319288, 4319090 FAX: 91-11-4318657
 E-MAIL: tmc@tandonline.com; tandon1@tandonline.com
 WEBSITE: www.tandonline.com

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GENERAL CONSULTANT TO PMRP

SIGN: SIGN:

DATE: DATE:

NAME: PRASAD MOHITE NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 0.000m TO 501.3000m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 2-24)

REVISION NO: B20

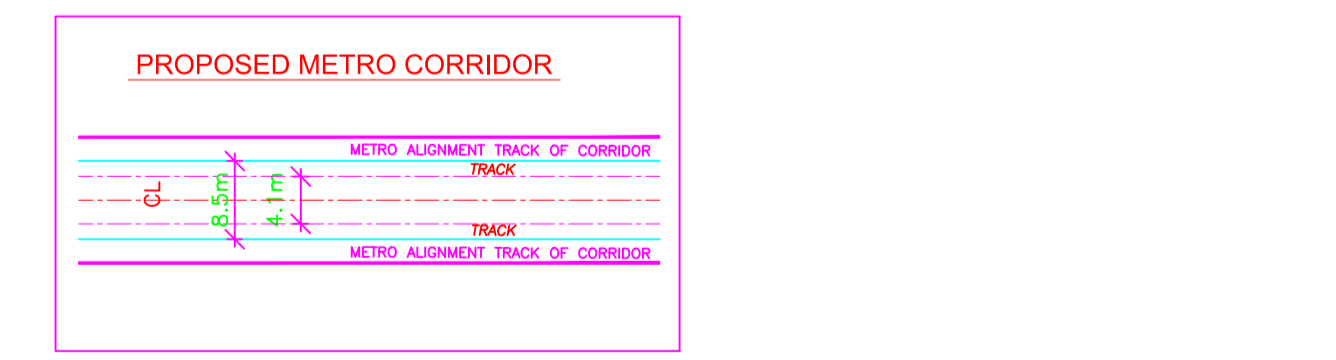
MAHARASHTRA METRO RAIL CORPORATION LTD.

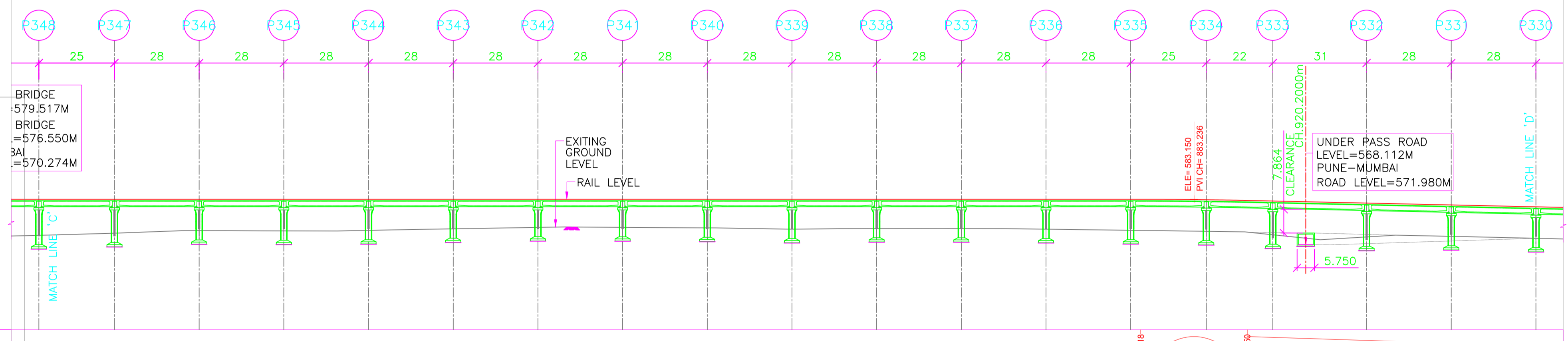
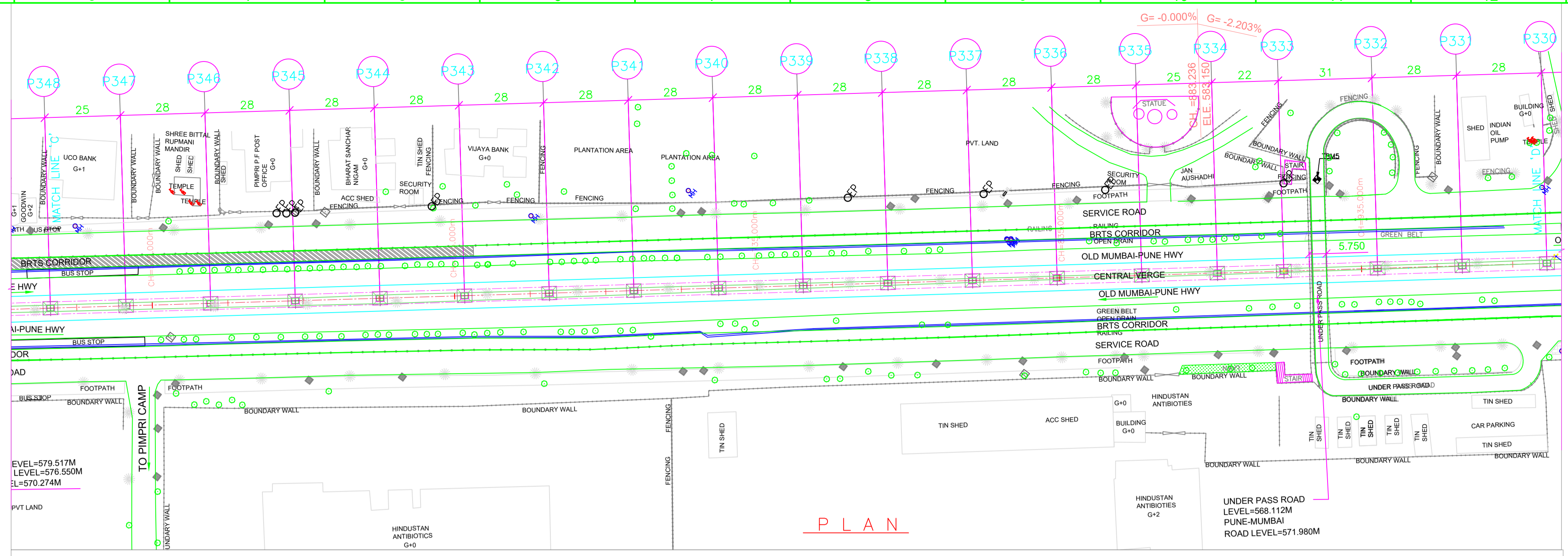
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - ALG ALIGNMENT CENTER LINE
 - TRK TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER NO.
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - METRO PORTION
 - TRANSITION START & END

- NOTES:**
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 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
 RAIL + RAIL PLINTH = 0.467m
 DOWNSTAND + BEARING + PEDESTAL = 0.4m
 DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

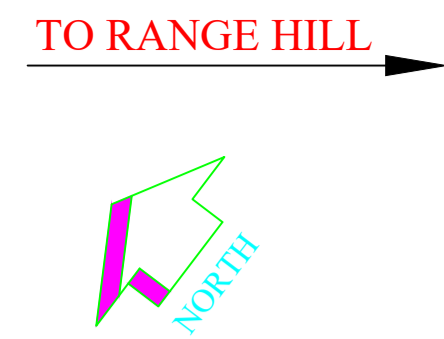
NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.





REV NO	DATE	DESCRIPTION	SIGN
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. G/PMR/PP/DO/ TRK/S/DPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

VERTICAL ALIGNMENT		HORIZONTAL ALIGNMENT	
ELEVATION LEVEL DIFFERENCE AS PER NIT	11.926	11.223	10.359
ELEVATION LEVEL DIFFERENCE AS PER SURVEY	10.453	10.284	9.783
RAIL LEVELS (M)	583.150	583.150	583.150
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	571.256	571.806	572.357
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	571.224	571.927	572.697
PROJECT CHAINAGES	501.3000	526.3000	554.3000
NORTHING	374278.6595	374329.6777	374382.1698
EASTING	2059573.3287	2059553.8844	2059532.1056



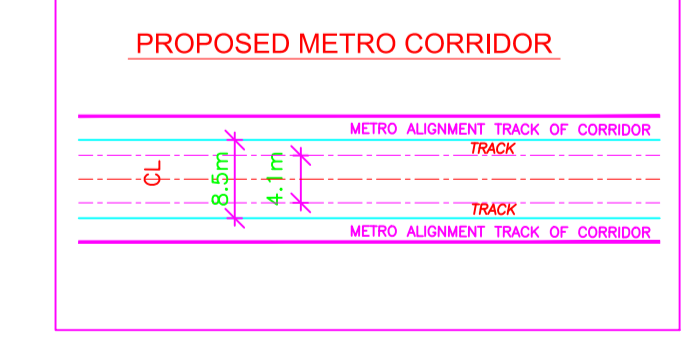
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
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 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - TRANSITION START & END
 - X = PIER TYPE
 - Y = PIER No.

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- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
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B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

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DDC		CONTRACTOR	
SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY

CONSULTANTS
STRUCTION DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

ACCEPTED BY
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PROOF CONSULTANT
SIGN: SHUBHAM GARG
DATE: 29.05.17
NAME: SHUBHAM GARG

GENERAL CONSULTANT TO PMRP
SIGN: SARALA KULKARNI
DATE: 29.05.17
NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

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COUNTER SIGNED BY
MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

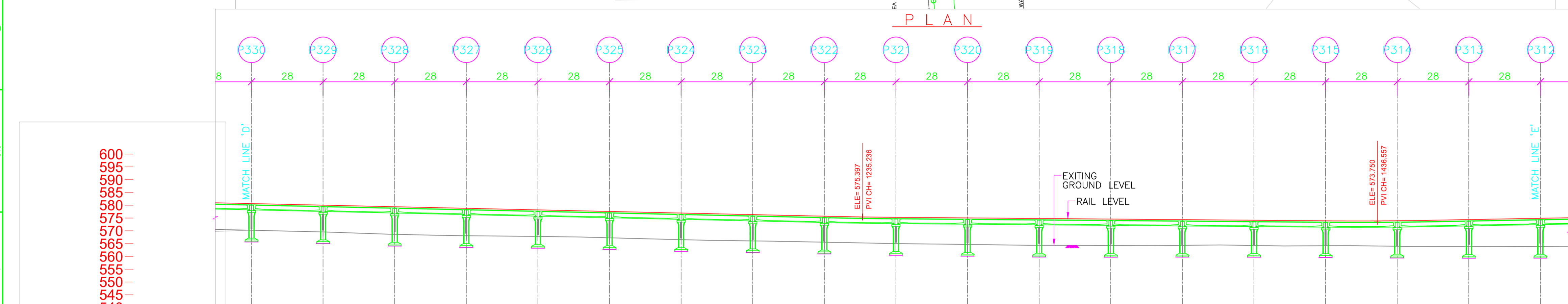
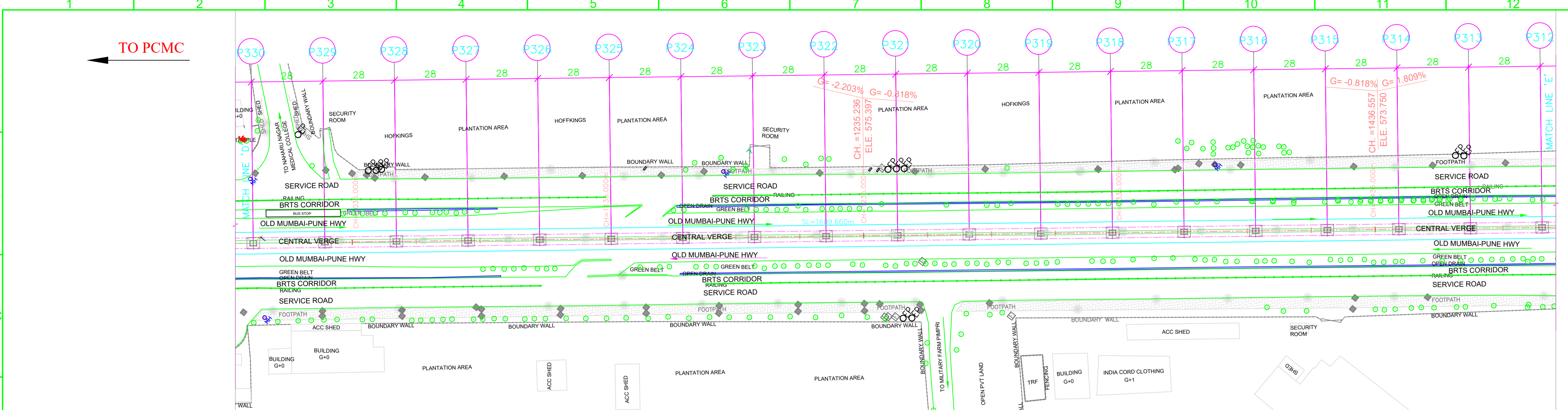
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 501.3000m TO 996.3000m

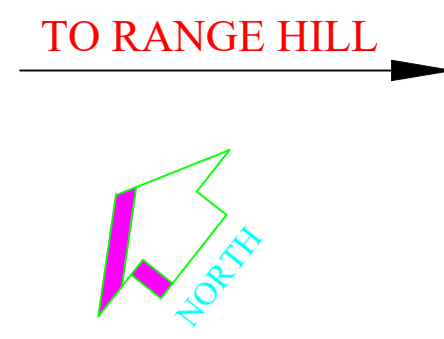
SCALE: 1:1 DATE: 29.05.17 STATUS: FOR APPROVAL

DRG NO: **P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 3-24)**

REVISION NO: **B06**



VERTICAL ALIGNMENT	ELEVATION																			
HORIZONTAL ALIGNMENT	SL 1629.008m																			
ELEVATION LEVEL DIFFERENCE AS PER NIT	10.417	10.471	10.784	10.716	10.390	10.290	10.401	10.283	10.153	10.270	10.369	10.474	10.306	10.041	9.866	9.728	9.978	10.515	10.979	
ELEVATION LEVEL DIFFERENCE AS PER SURVEY																				
RAIL LEVELS (M)	580.660	580.043	579.426	578.810	578.193	577.576	576.959	576.343	575.726	575.109	574.492	573.875	573.258	572.641	572.024	571.407	570.790	570.173	569.556	
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	570.243	569.572	568.901	568.230	567.559	566.888	566.217	565.546	564.875	564.204	563.533	562.862	562.191	561.520	560.849	560.178	559.507	558.836	558.165	
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	570.243	569.572	568.901	568.230	567.559	566.888	566.217	565.546	564.875	564.204	563.533	562.862	562.191	561.520	560.849	560.178	559.507	558.836	558.165	
PROJECT CHAINAGES	996.3000	1024.3000	1052.3000	1080.3000	1108.3000	1136.3000	1164.3000	1192.3000	1220.3000	1248.3000	1276.3000	1304.3000	1332.3000	1360.3000	1388.3000	1416.3000	1444.3000	1472.3000	1500.3000	
NORTHING	374569.9651	374607.5630	374645.1609	374682.7588	374720.3567	374757.9546	374795.5525	374833.1504	374870.7483	374908.3462	374945.9441	374983.5420	375021.1399	375058.7378	375096.3357	375133.9336	375171.5315	375209.1294	375246.7273	
EASTING	2059166.3125	2059166.5337	2059166.7550	2059166.9762	2059167.1975	2059167.4187	2059167.6400	2059167.8612	2059168.0825	2059168.3037	2059168.5250	2059168.7462	2059168.9675	2059170.1887	2059171.4100	2059172.6312	2059173.8525	2059175.0737	2059176.2950	



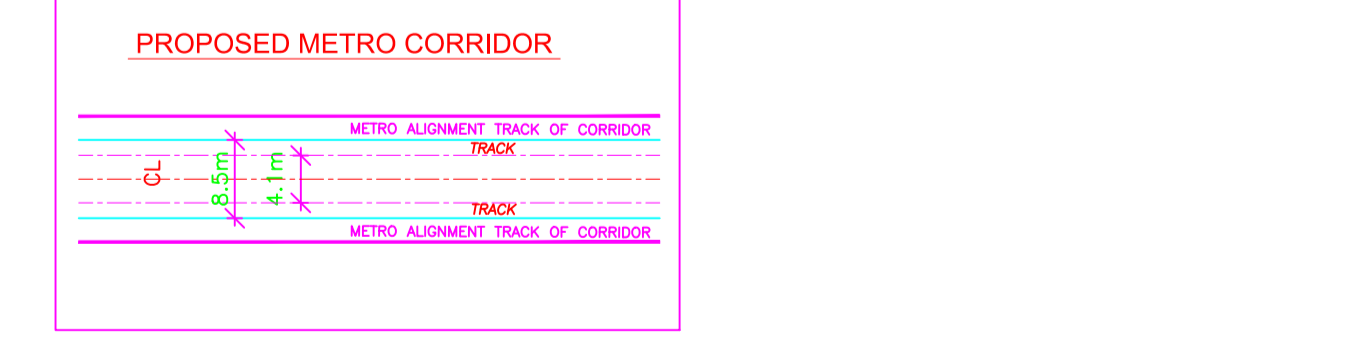
- LEGEND :**
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 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
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'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
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B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

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DDC				CONTRACTOR			
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE:	DATE:	DATE:	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:	NAME:	NAME:	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY			

CONSULTANTS

STRUCTCON DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

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Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

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PROOF CONSULTANT		GENERAL CONSULTANT TO PMRP	
SIGN:	SIGN:	SIGN:	SIGN:
DATE:	DATE:	DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN	NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

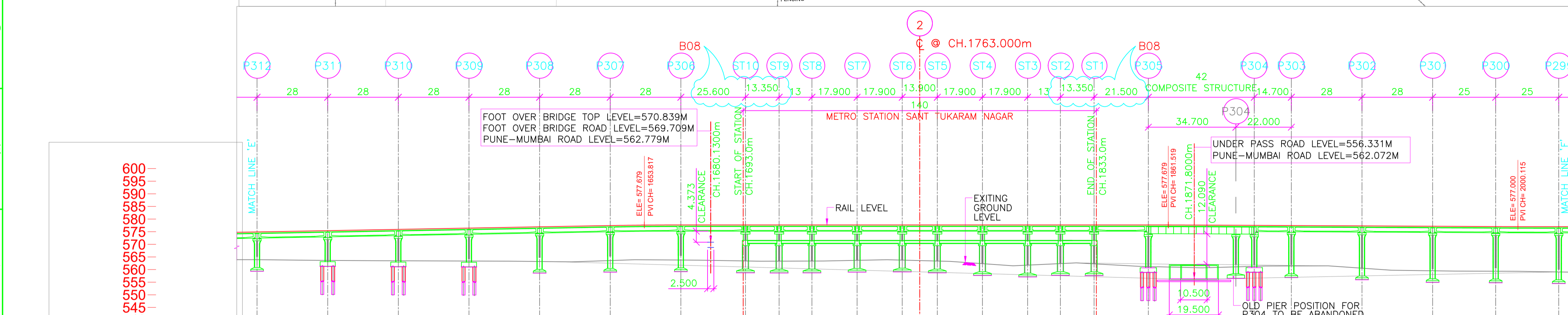
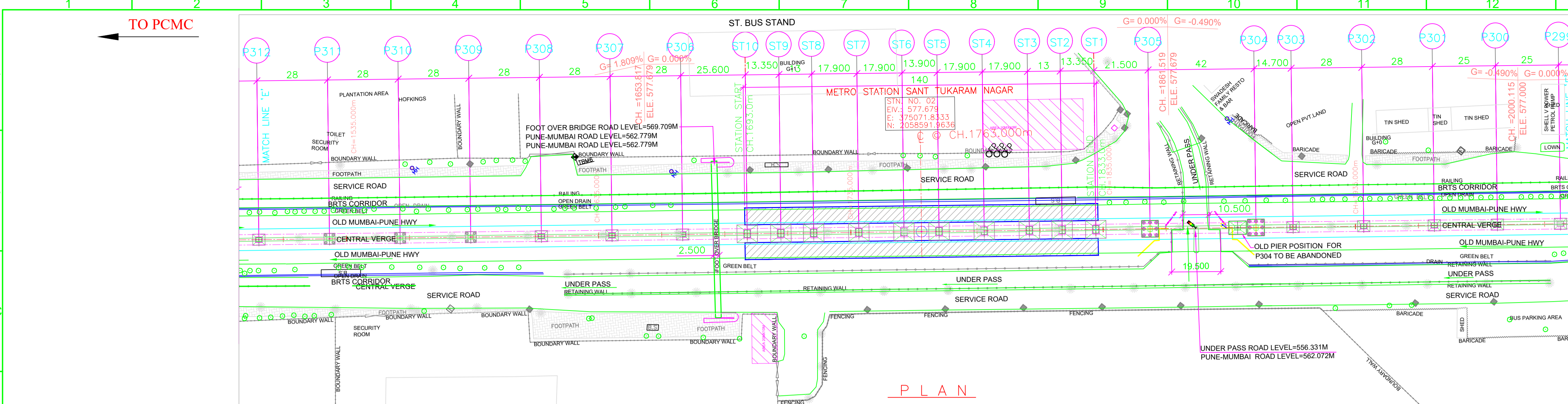
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 996.3000m TO 1500.3000m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 4-24)

REVISION NO: B06



VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT

CH. NO.	RAIL LEVEL (M)	EXISTING GROUND LEVEL (M)
1763.000	562.779	577.679
1770.000	562.779	577.679
1780.000	562.779	577.679
1790.000	562.779	577.679
1800.000	562.779	577.679
1810.000	562.779	577.679
1820.000	562.779	577.679
1830.000	562.779	577.679
1840.000	562.779	577.679
1850.000	562.779	577.679
1860.000	562.779	577.679
1870.000	562.779	577.679
1880.000	562.779	577.679
1890.000	562.779	577.679
1900.000	562.779	577.679
1910.000	562.779	577.679
1920.000	562.779	577.679
1930.000	562.779	577.679
1940.000	562.779	577.679
1950.000	562.779	577.679
1960.000	562.779	577.679
1970.000	562.779	577.679
1980.000	562.779	577.679
1990.000	562.779	577.679
2000.000	562.779	577.679

PROJECT CHAINAGES

NORTHING

EASTING

LEGEND :

P	STANDARD PIER	HIP	HORIZONTAL INTERSECTION POINT
CP	CANTILEVER PIER	D	DEFLECTION ANGLE
PP	PORTAL PIER	L	GRADE LENGTH
CS	CURVE TO SPIRAL	TRL	TRANSITION LENGTH
ST	SPIRAL TO TANGENT	TL	TANGENT LENGTH
TS	TANGENT TO SPIRAL	R	RADIUS
SC	SPIRAL TO CURVE	CA	APPLIED CANT
SS	SPIRAL TO SPIRAL	CD	CANT DEFICIENCY
SL	STRAIGHT LENGTH	PVI	POINT OF VERTICAL INTERSECTION
ELE	ELEVATION	SRJ	STOCK VERTICAL JOINT
E	EASTING	CH	CHAINAGE
N	NORTHING	DELTA	DEFLECTION ANGLE
G	GRADIENT	CL	CURVE LENGTH
- - -	ALIGNMENT CENTER LINE		METRO PORTION
- - -	TRACK CENTER LINE		TRANSITION START & END

NOTES:

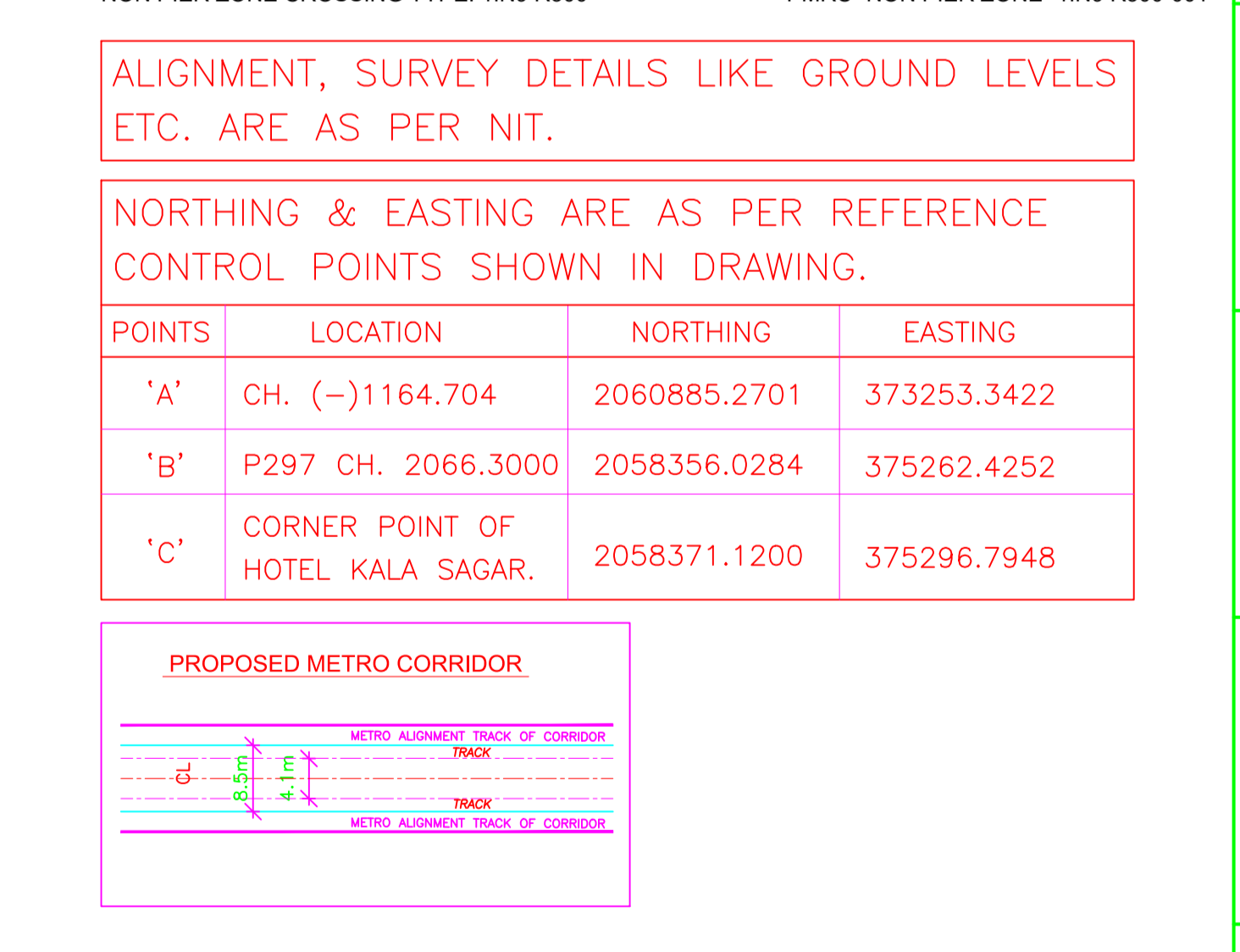
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
- DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
- THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
- RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL +RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
- ALL FOUNDATIONS SHOWN ARE TENTATIVE.

REFERENCE DWG. :
GAD (ALIGNMENT PLAN & VERTICAL PROFILE) : PUNE/PCMC-SG/GAD/ALG/01
FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
NON PIER ZONE CROSSING TYPE: 1IN9 R300
PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	27.03.18	SPAN MODIFIED AT P304 TO ST11 DUE TO UNDER PASS	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17. SPAN MODIFIED AT P305 TO P303 DUE TO UNDER PASS	
B04	04.11.17	REVISED AS PER LETTER NO. G/PMRP/PPD/TRKSDPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC CONTRACTOR

SIGN: DATE: 04.07.18 NAME: MPP

SIGN: DATE: 04.07.18 NAME: PGT

SIGN: DATE: 04.07.18 NAME: MAJ

SIGN: DATE: 04.07.18 NAME: VLD

SIGN: DATE: 04.07.18 NAME: []

DRAWN BY DESIGN BY CHECKED BY APPROVED BY

ACCEPTED BY

CONSULTANTS
STRUCTCON DESIGNS PVT. LTD.
 SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
 Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

PROOF CONSULTANT
 SIGN: DATE: [] NAME: SHUBHAM GARG

GENERAL CONSULTANT TO PMRP
 SIGN: DATE: [] NAME: PRASAD MOHITE

SIGN: DATE: [] NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

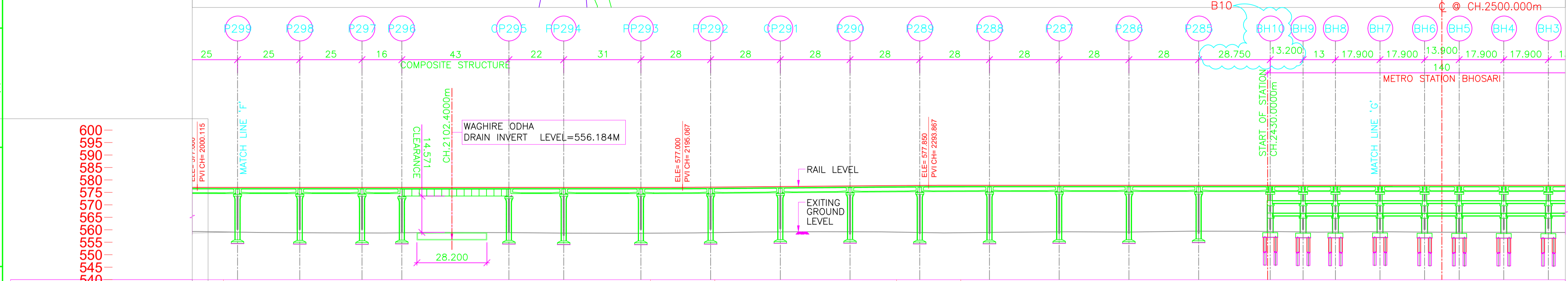
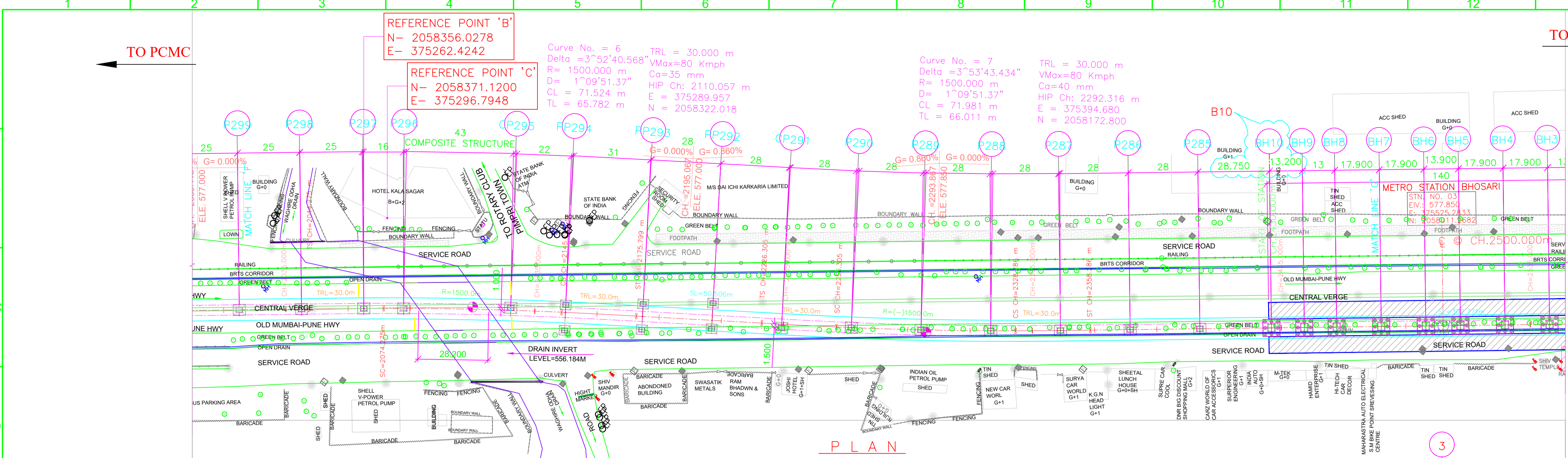
TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 1900.3000m TO 2016.3000m

SCALE: 1:1 DATE: 29.05.17 STATUS: FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 5-24)

REVISION NO: B08

plot scale 50mm



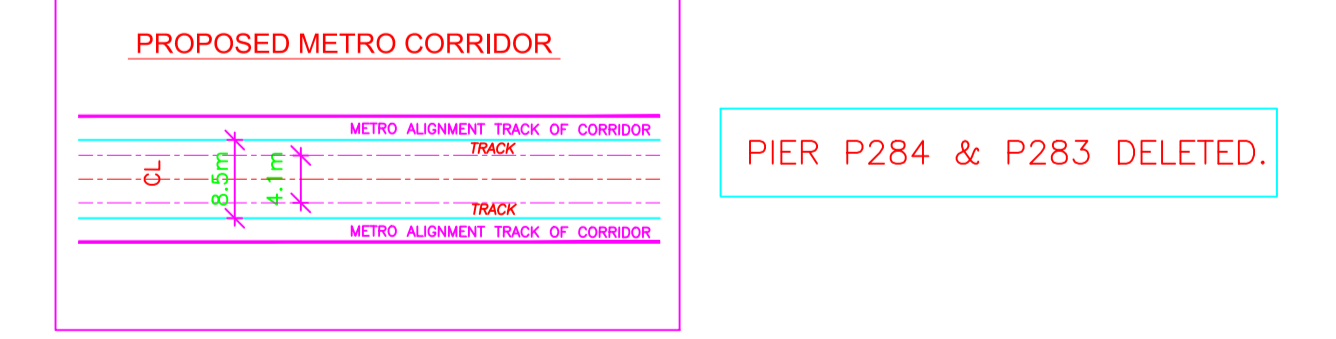
VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	ELEVATION LEVEL DIFFERENCE AS PER NIT	ELEVATION LEVEL DIFFERENCE AS PER SURVEY	RAIL LEVELS (M)	GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	PROJECT CHAINAGES	NORTHING	EASTING
1.066 m	2010.648	17.943	18.177	577.000	559.120	559.057	2016.3000	375231.0312	375246.7436
L=171.515 m G=0.000%	2144.275	18.273	18.221	577.000	558.796	558.823	2066.3000	375262.4252	375272.3545
L=25.809 m R=3000.000	2145.799	18.349	18.387	577.000	558.843	558.879	2125.3000	375298.3744	375313.7476
L=72.992 m G=0.860%	2175.799	18.186	18.371	577.338	559.151	559.207	2147.3000	375361.3536	375391.1918
L=25.809 m R=3000.000	2226.305	18.895	18.903	577.850	558.910	558.947	2206.3000	375445.2674	375454.1918
L=1061.348 m G=0.000%	2228.286	18.741	18.691	577.850	559.159	559.109	2374.3000	375446.2513	375488.4049
	2228.286	18.413	18.516	577.850	559.437	559.334	2402.3000	375463.8559	375490.2314
	2228.286	18.530	18.530	577.850	559.320	559.320	2444.2900	375481.9321	375490.2314
	2228.286	18.709	18.709	577.850	559.141	559.141	2457.2900	375529.6530	375529.6530
	2228.286	18.740	18.625	577.850	559.110	559.225	2457.2900	375509.6592	375520.9136
	2228.286	18.625	18.776	577.850	559.074	559.074	2469.0500	375520.9136	375525.2833
	2228.286	18.776	18.834	577.850	559.016	559.016	2506.9900	375525.2833	375529.6530
	2228.286	18.834	18.841	577.850	559.009	559.009	2524.8900	375529.6530	375540.9073
	2228.286	18.841	18.858	577.850	558.992	558.992	2542.7900	375540.9073	375552.1616
	2228.286	18.858	18.916	577.850	558.934	558.934	2542.7900	375552.1616	375552.1616

- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER NO.
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - METRO PORTION
 - TRANSITION START & END
- NOTES:**
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DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE - 1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B10	15.06.18	SPAN MODIFIED BETWEEN P258 TO BH9	
B09	15.05.18	BHOSARI STATION 50m SHIFTED TOWARDS PCMC MAIL RECEIVED FROM GC ON 14.05.18 PIER P284 & P283 DELETED.	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	15.02.18	SPAN MODIFIED AT P296 TO CP295 DUE TO WALLA WIDTH.	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17. SPAN MODIFIED AT P296 DUE TO WALLA WIDTH.	
B04	04.11.17	REVISED AS PER LETTER NO. G/PMRP/POI/TRK/SPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

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DDC CONTRACTOR

SIGN: _____ DATE: 04.07.18

NAME: MPP DATE: 04.07.18

DESIGN BY: _____ CHECKED BY: _____ APPROVED BY: _____

ACCEPTED BY

CONSULTANTS

STRUCHION DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

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Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014
Phone No: 4317684, 4319288, 4319080 FAX: 91-11-4318057
E-MAIL: m@tandon.com; tandon1@tandononline.com
WEBSITE: www.tpl.com

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PROOF CONSULTANT

SIGN: _____ DATE: _____

NAME: SHUBHAM GARG

GENERAL CONSULTANT TO PMRP

SIGN: _____ DATE: _____

NAME: PRASAD MOHITE

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

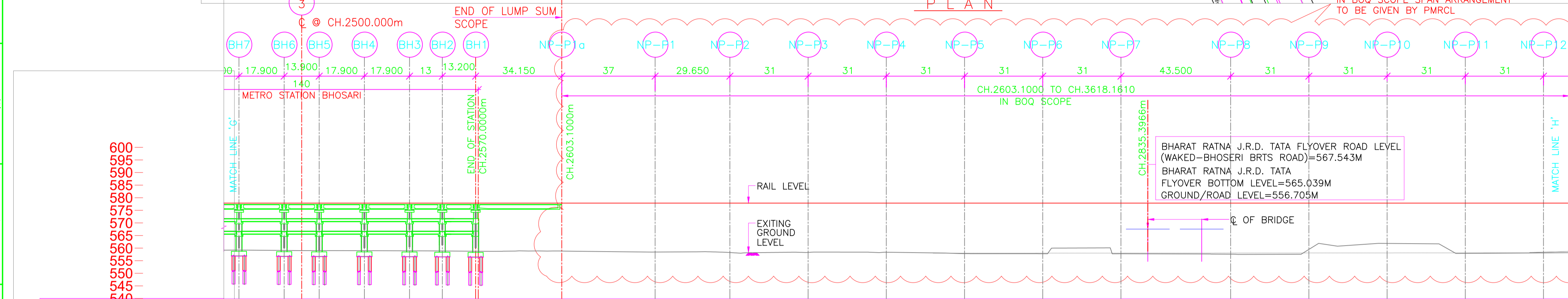
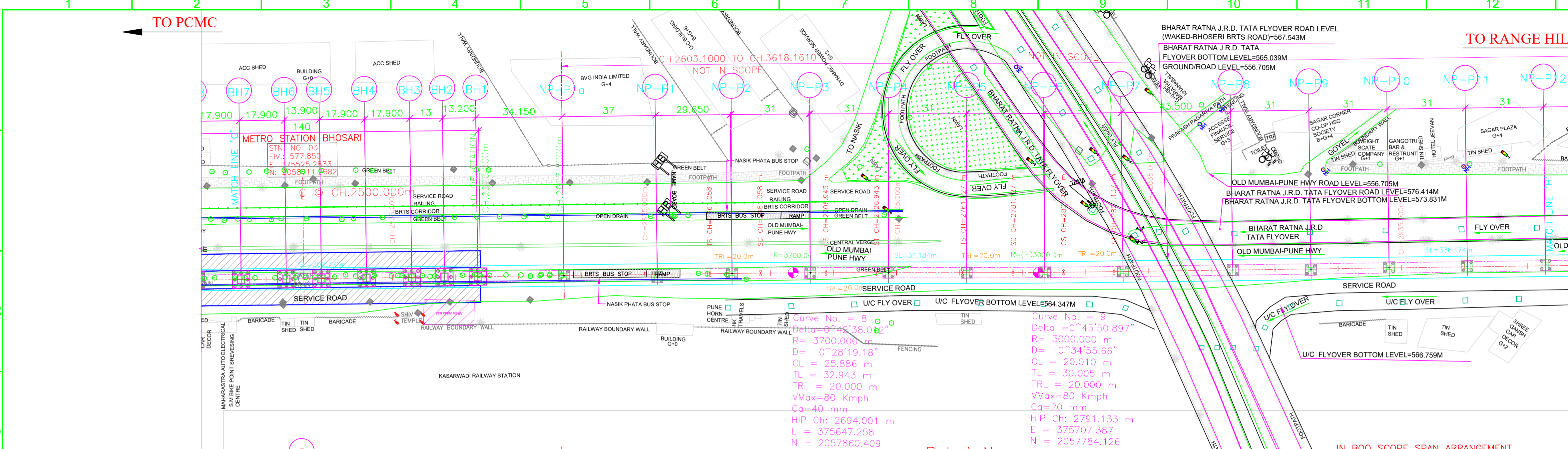
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 2016.3000m TO 2500.0000m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 6-24)

REVISION NO: B10



HORIZONTAL ALIGNMENT

SL302.771m*

SL336.174m*

ELEVATION

CH	RAIL LEVEL (M)	GROUND LEVEL (M) AS PER SURVEY	PROJECT CHAINAGES	NORTHING	EASTING
17.900	577.850	559.225	2467.2600	375609.6562	2057600.5921
18.834	577.850	559.074	2493.0500	375552.9135	2057580.16727
18.841	577.850	559.016	2500.0000	375525.2833	2057501.12682
18.858	577.850	559.009	2506.9500	375529.6530	2057500.5637
18.916	577.850	559.992	2524.8500	375540.3073	2057591.9443
18.984	577.850	559.934	2542.7500	375552.1616	2057578.0249
19.084	577.850	558.866	2555.7500	375560.3352	2057567.9158
19.092	577.850	558.766	2568.9500	375568.6344	2057567.0512
19.010	577.850	558.758	2570.0000	375569.1060	2057593.0960
19.408	577.850	558.243	2689.7500	375632.0090	2057879.2660
19.607	577.850	558.305	2700.7500	375651.4050	2057855.0830
19.491	577.850	558.359	2731.7500	375670.6260	2057850.7620
20.048	577.850	557.802	2762.7500	375689.9160	2057806.4160
20.076	577.850	557.774	2793.7500	375709.0780	2057782.1260
20.080	577.850	557.770	2824.7500	375728.5480	2057758.0030
20.271	577.850	557.579	2868.2500	375755.9300	2057724.2020
18.368	577.850	558.462	2899.2500	375775.4430	2057700.1140
15.983	577.850	561.867	2930.2500	375775.2220	2057689.9360
19.937	577.850	557.913	2981.2500	375794.6660	2057676.0280
19.752	577.850	558.088	2992.2500	375795.1120	2057676.1520
	577.850	558.098	2992.2500	375834.2670	2057628.0810
	577.850	558.098	2992.2500	375834.2670	2057628.0810

- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - TRANSITION START & END
 - X = PIER TYPE
 - Y = PIER NO.

- NOTES:**
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 DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

PROPOSED METRO CORRIDOR

REV NO	DATE	DESCRIPTION	SIGN
B12	25.06.18	NASIK PHATA BOQ PORTION ALIGNMENT ADDED RECEIVED ON 21.05.18	
B11	15.06.18	SPAN MODIFIED BETWEEN BH10 TO END OF SCOPE.	
B10	24.05.18	NASIK PHATA BUS STOP ADDED.	
B09	15.05.18	BHOSARI STATION 50m SHIFTED TOWARDS PCMC MAIL RECEIVED FROM GC ON 14.05.18	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	27.03.18	NASIK PHATA BOQ PORTION ALIGNMENT MODIFIED & CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GC/PMR/PPDO/ TRKSDPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	

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DDC

SIGN: DATE: 04.07.18

CONTRACTOR

SIGN: DATE: 04.07.18

PROOF CONSULTANT

SIGN: DATE: 04.07.18

GENERAL CONSULTANT TO PMRP

SIGN: DATE: 04.07.18

CONSULTANTS

STRUCSTON DESIGNS PVT. LTD.
 SUASHISH IT PARK, A104, 1ST FLOOR, DATAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

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 Phone No: 4317684, 4319288, 4319090 FAX: 91-11-4318057
 E-MAIL: mct@tsonl.com ; tandon1@mantranline.com
 WEBSITE: www.tpl.com

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COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 000.0000m TO 3000.0000m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

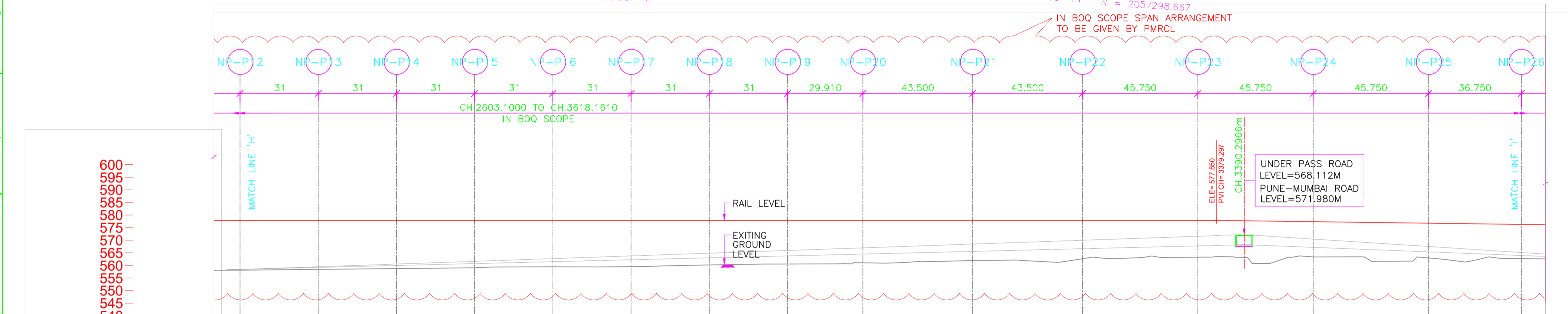
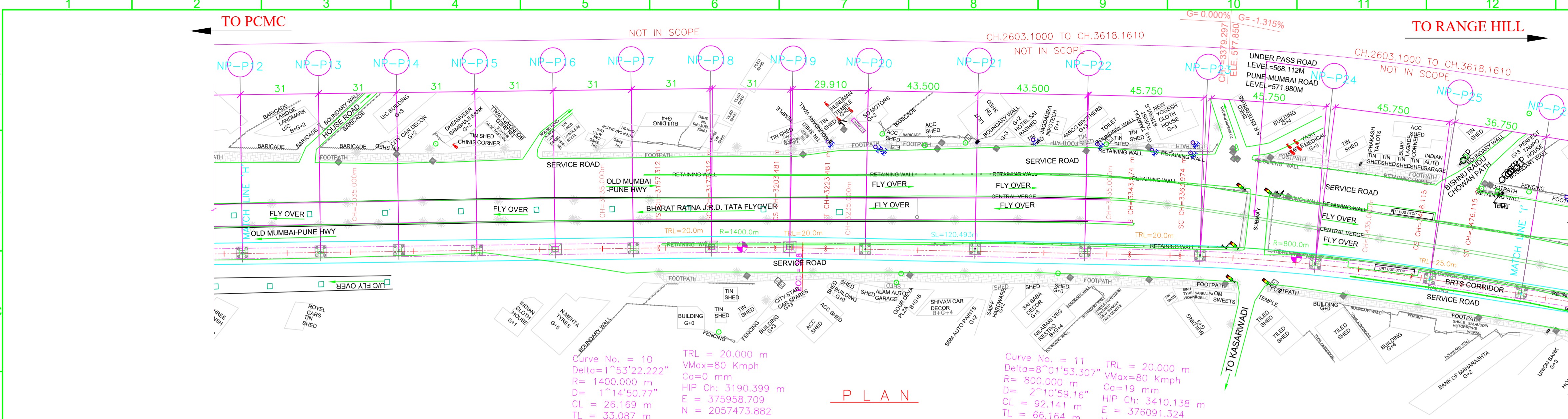
DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 7-24)

REVISION NO: B12

MAHARASHTRA METRO RAIL CORPORATION LTD.

PROPOSED METRO CORRIDOR

REVISION NO: B12



HORIZONTAL ALIGNMENT

L=336.174m

PIER NO.	PIER TYPE	CHAINAGE (M)	NORTHING	EASTING	RAIL LEVEL (M)	GROUND LEVEL (M) AS PER SURVEY
NP-P2	PIER	2992.2500	375833.9830	375834.2670	577.850	558.098
NP-P3	PIER	3023.2500	375853.4960	375853.8640	577.850	558.428
NP-P4	PIER	3054.2500	375873.0090	375873.4590	577.850	558.723
NP-P5	PIER	3085.2500	375892.5230	375892.9730	577.850	559.063
NP-P6	PIER	3116.2500	375912.0360	375912.4860	577.850	559.435
NP-P7	PIER	3147.2500	375931.5490	375931.9990	577.850	559.811
NP-P8	PIER	3178.2500	375951.0620	375951.5120	577.850	560.171
NP-P9	PIER	3209.2500	375970.5750	375971.0250	577.850	560.543
NP-P10	PIER	3240.2500	375990.0880	375990.5380	577.850	560.925
NP-P11	PIER	3271.2500	376009.6010	376010.0510	577.850	561.325
NP-P12	PIER	3302.2500	376029.1140	376029.5640	577.850	561.745
NP-P13	PIER	3333.2500	376048.6270	376049.0770	577.850	562.185
NP-P14	PIER	3364.2500	376068.1400	376068.5900	577.850	562.645
NP-P15	PIER	3395.2500	376087.6530	376088.1030	577.850	563.125
NP-P16	PIER	3426.2500	376107.1660	376107.6160	577.850	563.625
NP-P17	PIER	3457.2500	376126.6790	376127.1290	577.850	564.145
NP-P18	PIER	3488.2500	376146.1920	376146.6420	577.850	564.685
NP-P19	PIER	3519.2500	376165.7050	376166.1550	577.850	565.245
NP-P20	PIER	3550.2500	376185.2180	376185.6680	577.850	565.825
NP-P21	PIER	3581.2500	376204.7310	376205.1810	577.850	566.425
NP-P22	PIER	3612.2500	376224.2440	376224.6940	577.850	567.045
NP-P23	PIER	3643.2500	376243.7570	376244.2070	577.850	567.685
NP-P24	PIER	3674.2500	376263.2700	376263.7200	577.850	568.345
NP-P25	PIER	3705.2500	376282.7830	376283.2330	577.850	569.025
NP-P26	PIER	3736.2500	376302.2960	376302.7460	577.850	569.725

ELEVATION

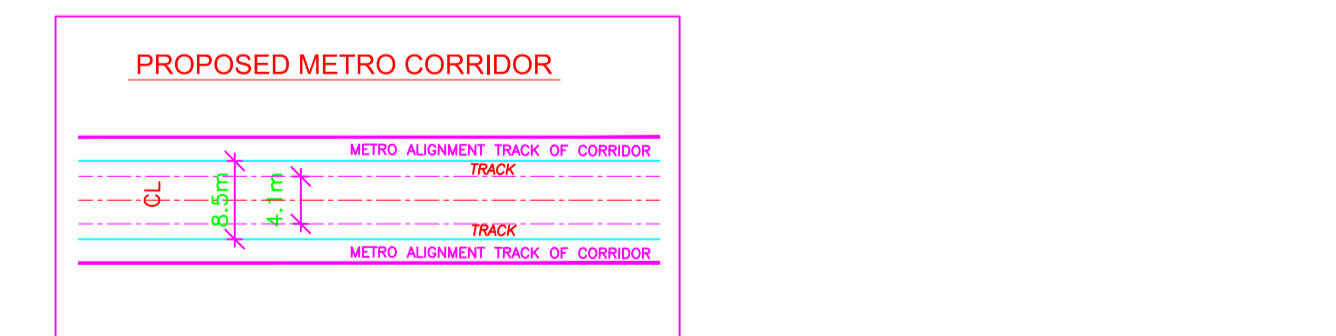
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER NO.
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - ST TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - METRO PORTION
 - TRANSITION START & END

- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
 RAIL + RAIL PLINTH = 0.467m.
 DOWNSTAND + BEARING + PEDESTAL = 0.4m.
 DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMCG-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE - 1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B08	25.06.18	NASIK PHATA BOG PORTION ALIGNMENT ADDED RECEIVED ON 21.05.18	
B07	27.03.18	NASIK PHATA BOG PORTION ALIGNMENT MODIFIED & CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GCP/PMR/PP/01/ TRK/S/PL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC

SIGN: DATE: 04.07.18

CONTRACTOR

SIGN: DATE: 04.07.18

PROOF CONSULTANT

SIGN: DATE: 04.07.18

GENERAL CONSULTANT TO PMRP

SIGN: DATE: 04.07.18

CONSULTANTS

STRUCTION DESIGNS PVT. LTD.
 SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
 Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

TANDON CONSULTANTS PVT. LTD.
 STRUCTURAL ENGINEERING SPECIALISTS
 17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014
 Phone No: 4317684, 4319288, 4319090 FAX: 91-11-4318057
 E-MAIL: mct@vsnl.com ; tandon1@mantranline.com
 WEBSITE: www.tpl.com

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED/REVIEWED** AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND ISSUED AS 'GOOD FOR CONSTRUCTION'/BEING GIVEN NO OBJECTION

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 3000.0000m TO 3500.0000m

SCALE: 1:1

DATE: 29.05.17

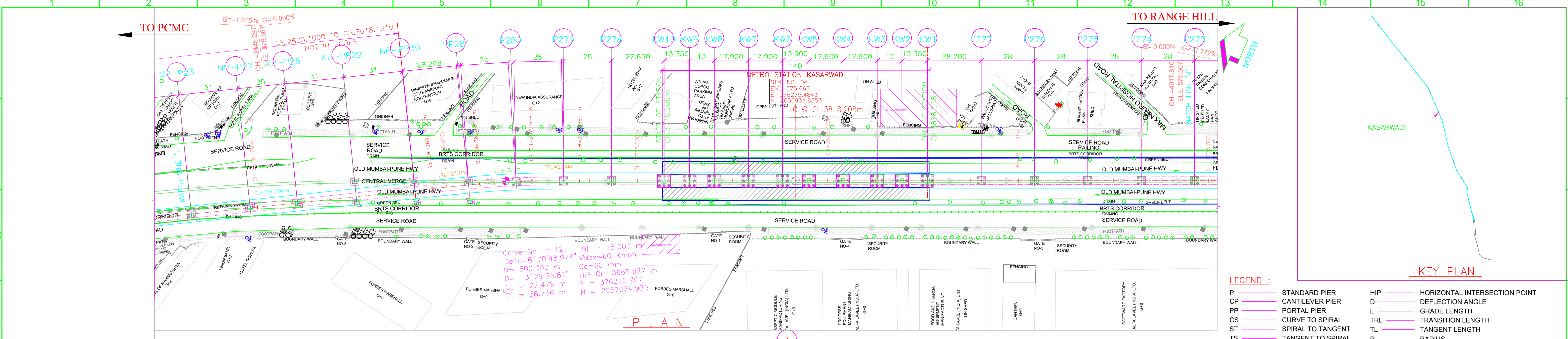
STATUS: FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 8-24)

REVISION NO: B08

plot scale 1:1000

15m



PLAN

KEY PLAN

LEGEND :

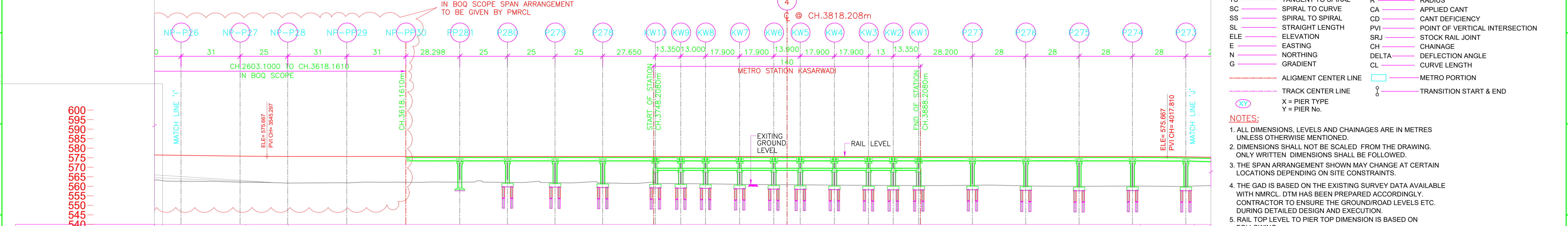
P	STANDARD PIER	HIP	HORIZONTAL INTERSECTION POINT
CP	CANTILEVER PIER	D	DEFLECTION ANGLE
PP	PORTAL PIER	L	GRADE LENGTH
CS	CURVE TO SPIRAL	TRL	TRANSITION LENGTH
ST	SPIRAL TO TANGENT	TL	TANGENT LENGTH
TS	TANGENT TO SPIRAL	R	RADIUS
SC	SPIRAL TO CURVE	CA	APPLIED CANT
SS	SPIRAL TO SPIRAL	CD	CANT DEFICIENCY
SL	STRAIGHT LENGTH	PVI	POINT OF VERTICAL INTERSECTION
ELE	ELEVATION	SRJ	STOCK RAIL JOINT
E	EASTING	CH	CHAINAGE
N	NORTHING	DELTA	DEFLECTION ANGLE
G	GRADIENT	CL	CURVE LENGTH
	ALIGNMENT CENTER LINE	☐	METRO PORTION
	TRACK CENTER LINE	⊗	TRANSITION START & END
XY	X = PIER TYPE Y = PIER No.		

NOTES:

1. ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
2. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
4. THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
5. RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
6. ALL FOUNDATIONS SHOWN ARE TENTATIVE.

REFERENCE DWG.

GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001



ELEVATION

	3500.1600 PIER	3531.1000 PIER	3556.1000 PIER	PIER PA 3587.1000	PIER PB 3618.1000	PIER PA 3646.4980	PIER PB 3677.4980	PIER PA 3714.4980	PIER PB 3745.4980	PIER PA 3776.4980	PIER PB 3807.4980	PIER PA 3838.4980	PIER PB 3869.4980	PIER PA 3900.4980	PIER PB 3931.4980	PIER PA 3962.4980	PIER PB 3993.4980	PIER PA 4024.4980	PIER PB 4055.4980	
RAIL LEVELS (M)	576.261	575.853	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	575.667	
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	562.680	562.123	561.686	561.924	562.124	562.190	562.022	561.888	561.712	561.513	561.504	561.395	561.285	561.042	560.864	560.812	560.760	560.616	560.513	
PROJECT CHAINAGES	3500.1600	3531.1000	3556.1000	3587.1000	3618.1000	3646.4980	3677.4980	3714.4980	3745.4980	3776.4980	3807.4980	3838.4980	3869.4980	3900.4980	3931.4980	3962.4980	3993.4980	4024.4980	4055.4980	
NORTHING	376155.1810	376162.4070	376169.6330	376176.8590	376184.0850	376191.3110	376198.5370	376205.7630	376212.9890	376220.2150	376227.4410	376234.6670	376241.8930	376249.1190	376256.3450	376263.5710	376270.7970	376278.0230	376285.2490	376292.4750
EASTING	2057219.8390	2057192.7460	2057165.6530	2057138.5600	2057111.4670	2057084.3740	2057057.2810	2057030.1880	2057003.0950	2056975.9950	2056948.8920	2056921.7900	2056894.6870	2056867.5850	2056840.4820	2056813.3750	2056786.2700	2056759.1650	2056732.0600	2056704.9550

REV NO	DATE	DESCRIPTION	SIGN
B11	25.06.18	NASIK PHATA BOQ PORTION ALIGNMENT ADDED RECEIVED ON 21.05.18	
B10	06.06.18	NASIK PHATA BOQ PORTION ALIGNMENT ADDED RECEIVED ON 24.05.18	
B09	14.05.18	PP282 & PP281 PIER LOCATION MODIFIED AS PER SITE VISIT ON 11.05.18	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	27.03.18	NASIK PHATA BOQ PORTION ALIGNMENT MODIFIED & CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B06	25.01.18	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B05	18.12.17	REVISED AS PER LETTER NO. G/PMR/PP/01/ TRK/SDPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
R04	04.11.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B03	14.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC		CONTRACTOR	
SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD
DRAWN BY		DESIGN BY	
CHECKED BY		APPROVED BY	

ACCEPTED BY

CONSULTANTS

STRUTCON DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

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COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROOF CONSULTANT		GENERAL CONSULTANT TO PMRP	
SIGN:	SIGN:	SIGN:	SIGN:
DATE:	DATE:	DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN	NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014
Phone No: 4317684, 4319288, 4319000 FAX: 91-11-4316057
E-MAIL: mct@tsonl.com ; tandon1@mantranonline.com
WEBSITE: www.tsonl.com

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

PROJECT: **PUNE METRO RAIL PROJECT**
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

LOCATION: **CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL**

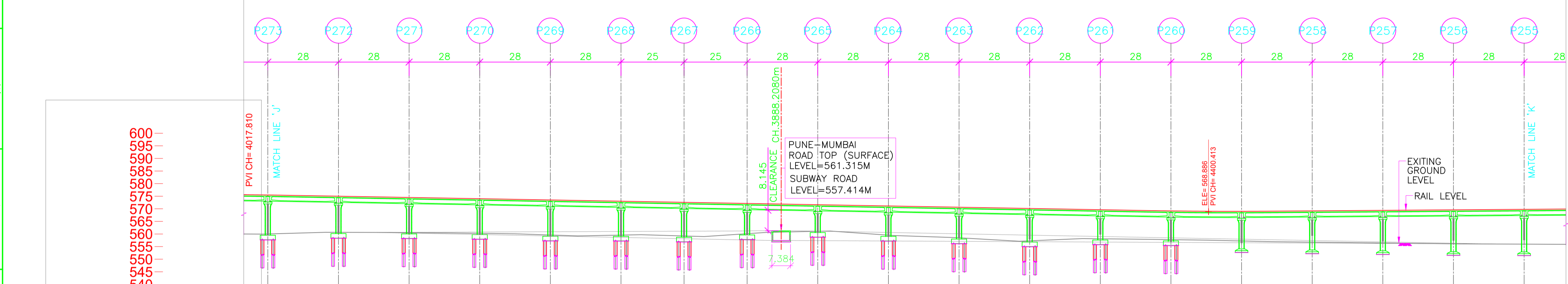
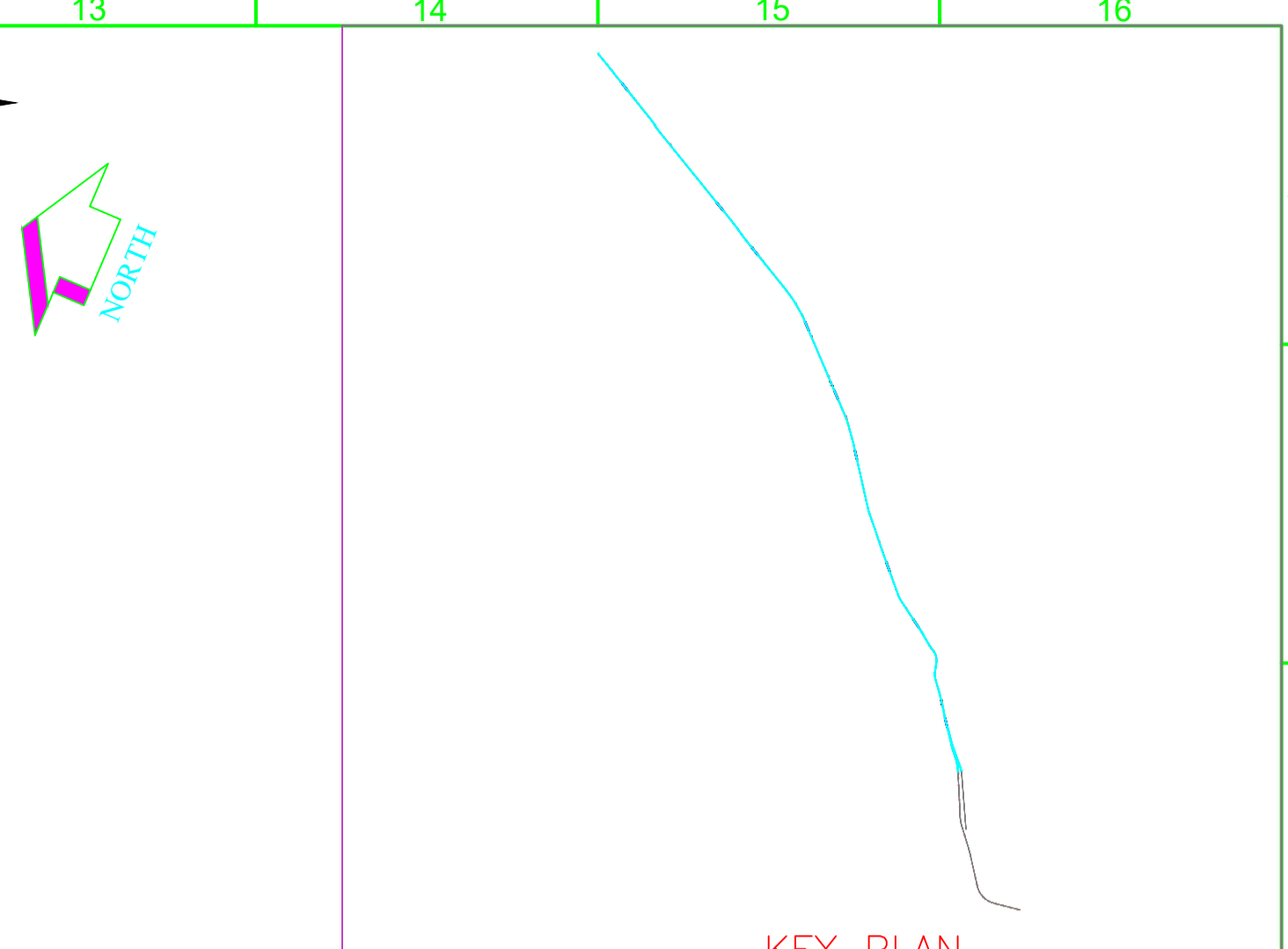
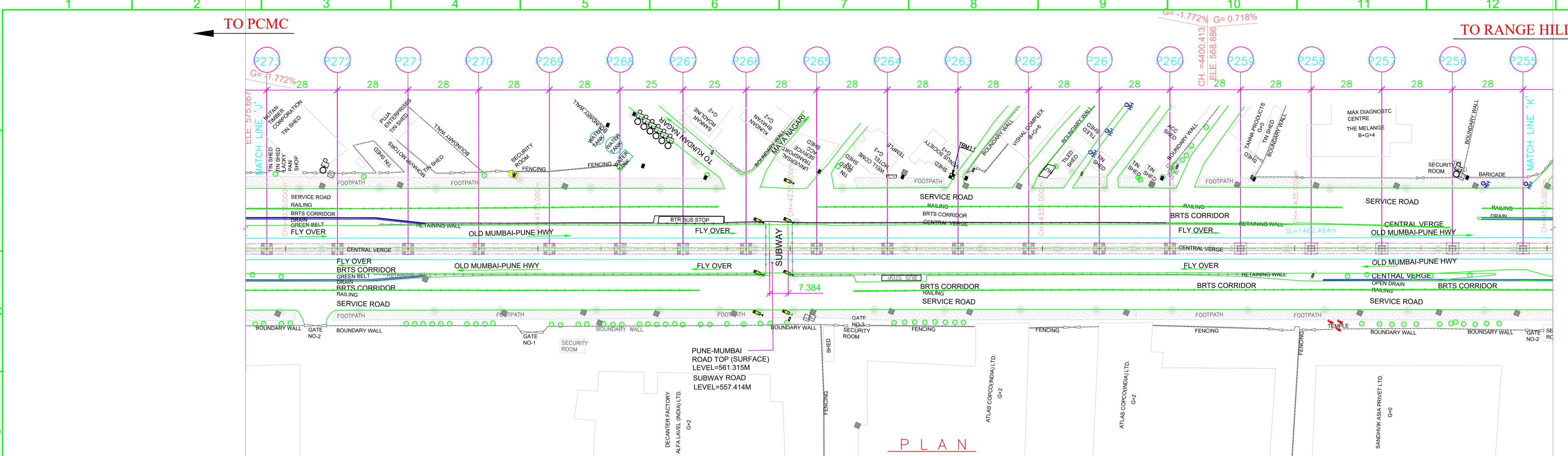
TITLE: **GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 3500.1610m TO 4027.5080m**

SCALE: 1:1 DATE: 29.05.17 STATUS: FOR APPROVAL

DRG NO: **P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 9-24)**

महामेट्रो PUNE METRO

REVISION NO: **B11**



POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

LEGEND :

- P STANDARD PIER
- CP CANTILEVER PIER
- PP PORTAL PIER
- CS CURVE TO SPIRAL
- ST SPIRAL TO TANGENT
- TS TANGENT TO SPIRAL
- SC SPIRAL TO CURVE
- SS SPIRAL TO SPIRAL
- SL STRAIGHT LENGTH
- ELE ELEVATION
- E EASTING
- N NORTHING
- G GRADIENT
- HIP HORIZONTAL INTERSECTION POINT
- D DEFLECTION ANGLE
- L GRADE LENGTH
- TRL TRANSITION LENGTH
- TL TANGENT LENGTH
- R RADIUS
- CA APPLIED CANT
- CD CANT DEFICIENCY
- PVI POINT OF VERTICAL INTERSECTION
- SRJ STOCK RAIL JOINT
- CH CHAINAGE
- DELTA DEFLECTION ANGLE
- CL CURVE LENGTH
- ALGMENT CENTER LINE
- TRACK CENTER LINE
- METRO PORTION
- XY X = PIER TYPE, Y = PIER NO.

NOTES:

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- THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
- RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING: RAIL + RAIL PLINTH = 0.467m. DOWNSTAND + BEARING + PEDESTAL = 0.4m. DEPTH OF BOX GIRDER = 2.0m.
- ALL FOUNDATIONS SHOWN ARE TENTATIVE.

REFERENCE DWG.

- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
- FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
- NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

PROPOSED METRO CORRIDOR

REV NO	DATE	DESCRIPTION	SIGN
B08	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B07	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B06	10.01.18	VERTICAL ALIGNMENT MODIFIED AS PER MAIL RECEIVED ON 10.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17 & HOLD FOR CROSS OVER ADDED.	
B04	04.11.17	REVISED AS PER LETTER NO. G/PMRP/POI/TRK/SPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFC FROM THE ALREADY APPROVED CR DWG NO. "....." REV "...." APPROVED ON DATE

DDC

SIGN: _____ DATE: 04.07.18

CONTRACTOR

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

PROOF CONSULTANT

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

GENERAL CONSULTANT TO PMRP

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

MAHARASHTRA METRO RAIL CORPORATION LTD.

SIGN: _____ DATE: 04.07.18

SYSTRA-AECOM-EGIS-RITES

The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

PROOF CONSULTANT

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

GENERAL CONSULTANT TO PMRP

SIGN: _____ DATE: 04.07.18

SIGN: _____ DATE: 04.07.18

MAHARASHTRA METRO RAIL CORPORATION LTD.

SIGN: _____ DATE: 04.07.18

SYSTRA-AECOM-EGIS-RITES

The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT

The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 4027.5080m TO 4525.5080m

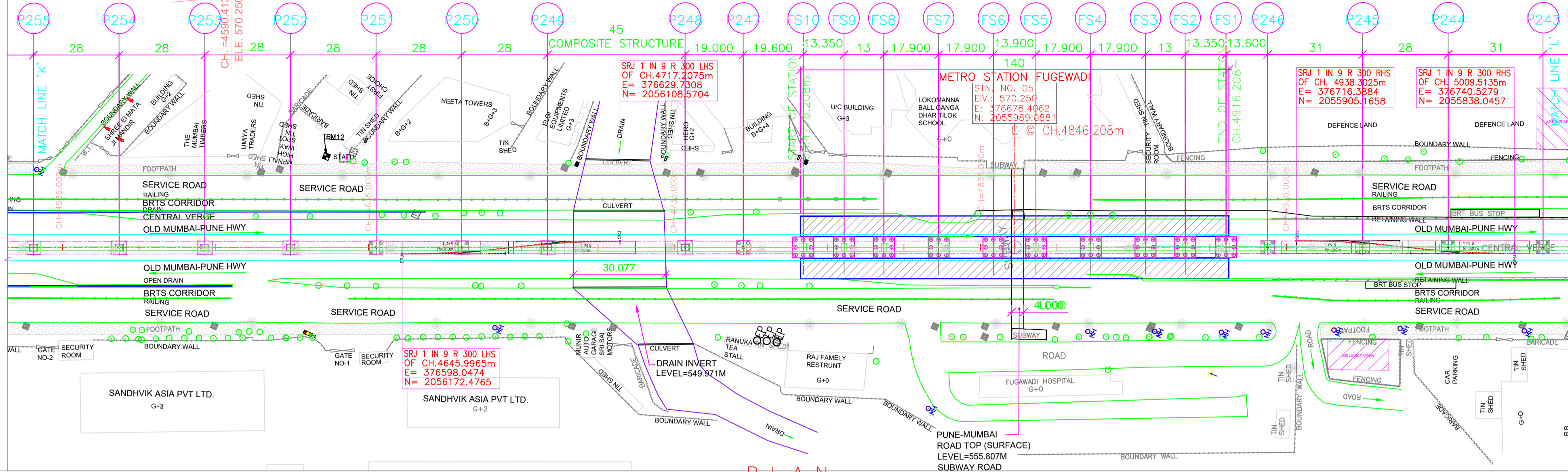
SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 10-24)

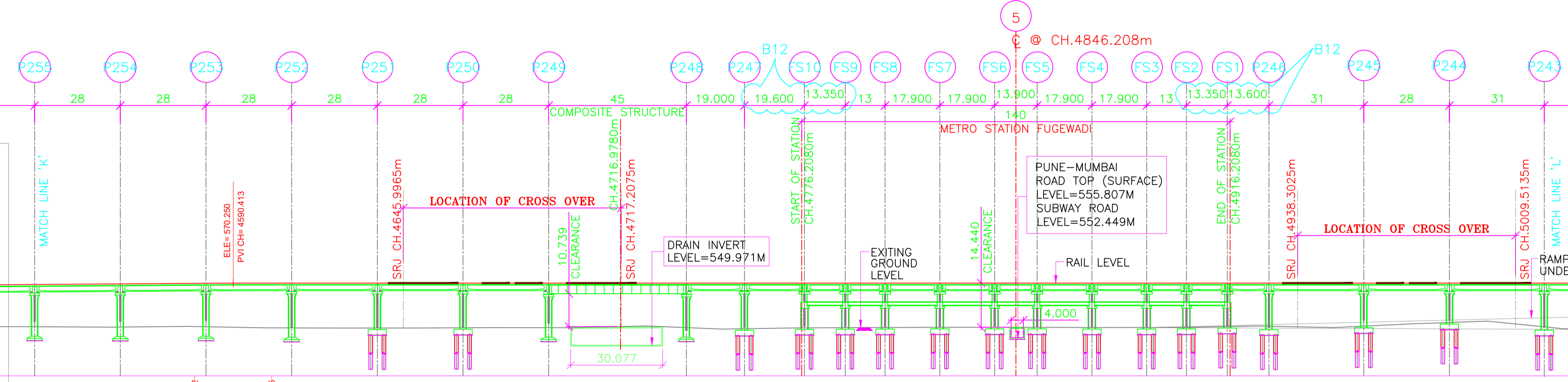
REVISION NO: B08

TO PCMC

TO RANGE HILL



PLAN



VERTICAL ALIGNMENT

HORIZONTAL ALIGNMENT

ELEVATION LEVEL DIFFERENCE AS PER NIT	ELEVATION LEVEL DIFFERENCE AS PER SURVEY	RAIL LEVELS (M)	GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	PROJECT CHAINAGES	NORTHING	EASTING
13.793	14.100	569.704	555.991	555.991	4525.5090	376552.7087	2056284.1281
14.198	14.643	569.985	555.895	555.895	4553.5090	376565.6832	2056258.3685
14.198	14.643	570.184	555.986	555.986	4581.5090	376574.6577	2056232.6088
14.643	14.643	570.250	555.607	555.607	4609.5090	376586.6323	2056206.8491
14.689	14.689	570.250	555.561	555.561	4637.5090	376598.6068	2056181.0895
14.603	14.603	570.250	555.647	555.647	4665.5090	376607.5815	2056155.3268
14.576	14.576	570.250	555.674	555.674	4693.5090	376616.5562	2056129.5702
14.553	14.553	570.250	555.697	555.697	4738.5090	376636.1935	2056088.1707
14.927	14.927	570.250	555.323	555.323	4757.5090	376684.6405	2056070.6910
14.624	14.624	570.250	555.622	555.622	4776.2090	376651.3227	2056052.6592
14.441	14.441	570.250	555.626	555.626	4777.1090	376651.3227	2056052.6592
14.565	14.565	570.250	555.685	555.685	4790.4590	376656.5551	2056040.3774
14.512	14.512	570.250	555.738	555.738	4803.4590	376661.6505	2056028.4175
14.460	14.460	570.250	555.790	555.790	4821.3590	376668.6663	2056011.9488
14.443	14.443	570.250	555.807	555.807	4839.2590	376675.6822	2055995.4820
14.441	14.441	570.250	555.809	555.809	4846.2090	376678.4062	2055989.0881
14.449	14.449	570.250	555.801	555.801	4853.1590	376681.1303	2055982.6942
14.516	14.516	570.250	555.734	555.734	4871.0590	376688.1461	2055966.2264
14.501	14.501	570.250	555.749	555.749	4888.9590	376695.1620	2055946.7586
14.445	14.445	570.250	555.805	555.805	4901.9590	376700.2573	2055937.7988
14.198	14.198	570.250	556.052	556.052	4915.3090	376705.4896	2055925.5169
14.181	14.181	570.250	556.069	556.069	4916.2090	376705.4896	2055925.5169
14.081	14.081	570.250	556.169	556.169	4928.9090	376710.8203	2055913.0051
14.064	14.064	570.250	556.186	556.186	4959.9090	376722.9706	2055884.4655
12.882	12.882	570.250	557.368	557.368	4987.9090	376733.9452	2055856.7258
14.294	14.294	570.250	555.956	555.956	5018.9090	376746.0952	2055830.2062

ELEVATION

LEGEND :

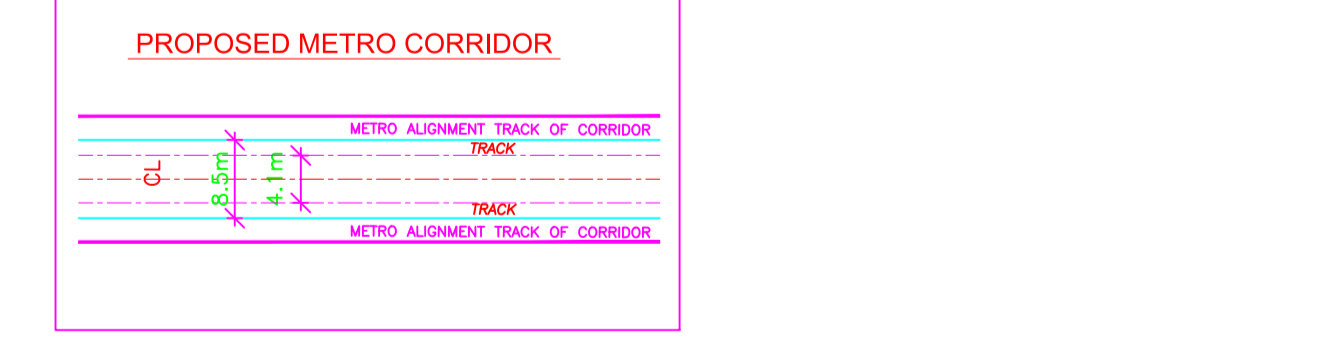
P	STANDARD PIER	HIP	HORIZONTAL INTERSECTION POINT
CP	CANTILEVER PIER	D	DEFLECTION ANGLE
PP	PORTAL PIER	L	GRADE LENGTH
CS	CURVE TO SPIRAL	TRL	TRANSITION LENGTH
ST	SPIRAL TO TANGENT	TL	TANGENT LENGTH
TS	TANGENT TO SPIRAL	R	RADIUS
SC	SPIRAL TO CURVE	CA	APPLIED CANT
SS	SPIRAL TO SPIRAL	CD	CANT DEFICIENCY
SL	STRAIGHT LENGTH	PVI	POINT OF VERTICAL INTERSECTION
ELE	ELEVATION	SRJ	STOCK RAIL JOINT
E	EASTING	CH	CHAINAGE
N	NORTHING	DELTA	DEFLECTION ANGLE
G	GRADIENT	CL	CURVE LENGTH
---	ALIGNMENT CENTER LINE	□	METRO PORTION
---	TRACK CENTER LINE	⊗	TRANSITION START & END
XY	X = PIER TYPE, Y = PIER NO.		

- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC -NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B12	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B11	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASKI PHATA	
B10	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B09	12.01.18	CROSS OVER LOCATION MODIFIED AS MARKED.	
B08	10.01.18	VERTICAL ALIGNMENT MODIFIED AS PER MAIL RECEIVED ON 10.01.18	
B07	02.01.18	SPAN MODIFIED AT FS10 TO P251 DUE TO CROSS OVER.	
B06	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17 & SPAN MODIFIED AT FS1 TO P242 DUE TO CROSS OVER.	
B05	04.11.17	REVISED AS PER LETTER NO. GCP/PMR/PP/DO/TKRSD/PL20170238 DATED 01.11.17 & STATION SPANS MODIFIED.	
B04	17.10.17	P245: NORTHING EASTING MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL. AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

DDC

SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

CONTRACTOR

CONSULTANTS
STRUCTURALS DESIGN PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

PROOF CONSULTANT

SIGN:	SIGN:
DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTN. NEW DELHI-110 014
Phone No: 4317884, 4319288, 4319090 FAX: 91-11-4319657
E-MAIL: mct@tandonline.com ; tandon1@tandonline.com
WEBSITE: www.tandonline.com

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED/REVIEWED** AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND ISSUED AS 'GOOD FOR CONSTRUCTION' BEING GIVEN NO OBJECTION.

GENERAL CONSULTANT TO PMRP

SIGN:	SIGN:
DATE:	DATE:
NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

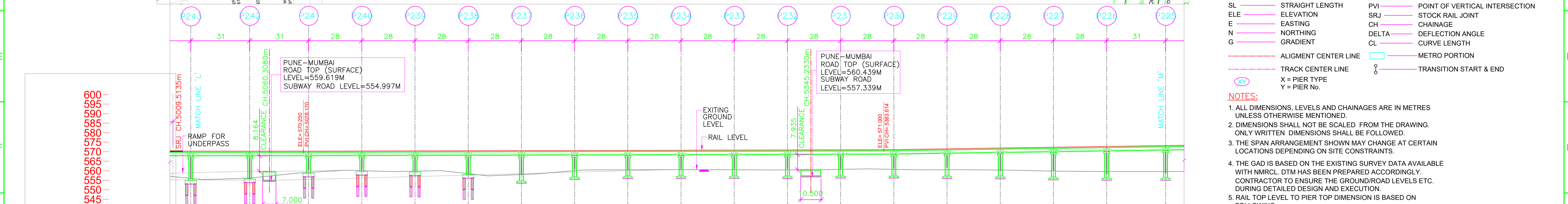
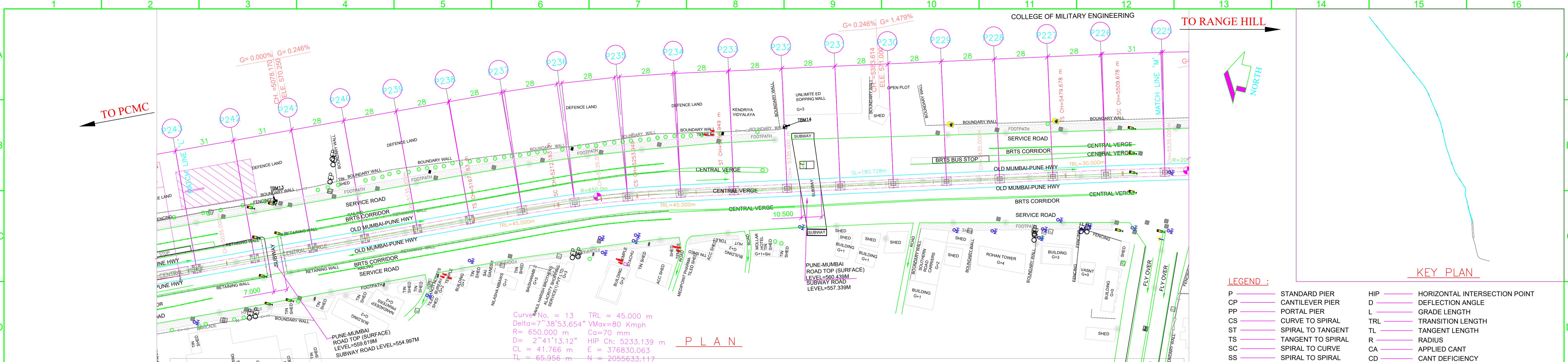
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 4525.5080m TO 5018.9080m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 11-24)

REVISION NO: B12



HORIZONTAL ALIGNMENT

SL 1462.494m	TRL = 45.000m	R = 650.000m CL = 41.766m	TRL = 45.000m	SL 180.728m	TRL = 30.000m	R = 2055633.117m
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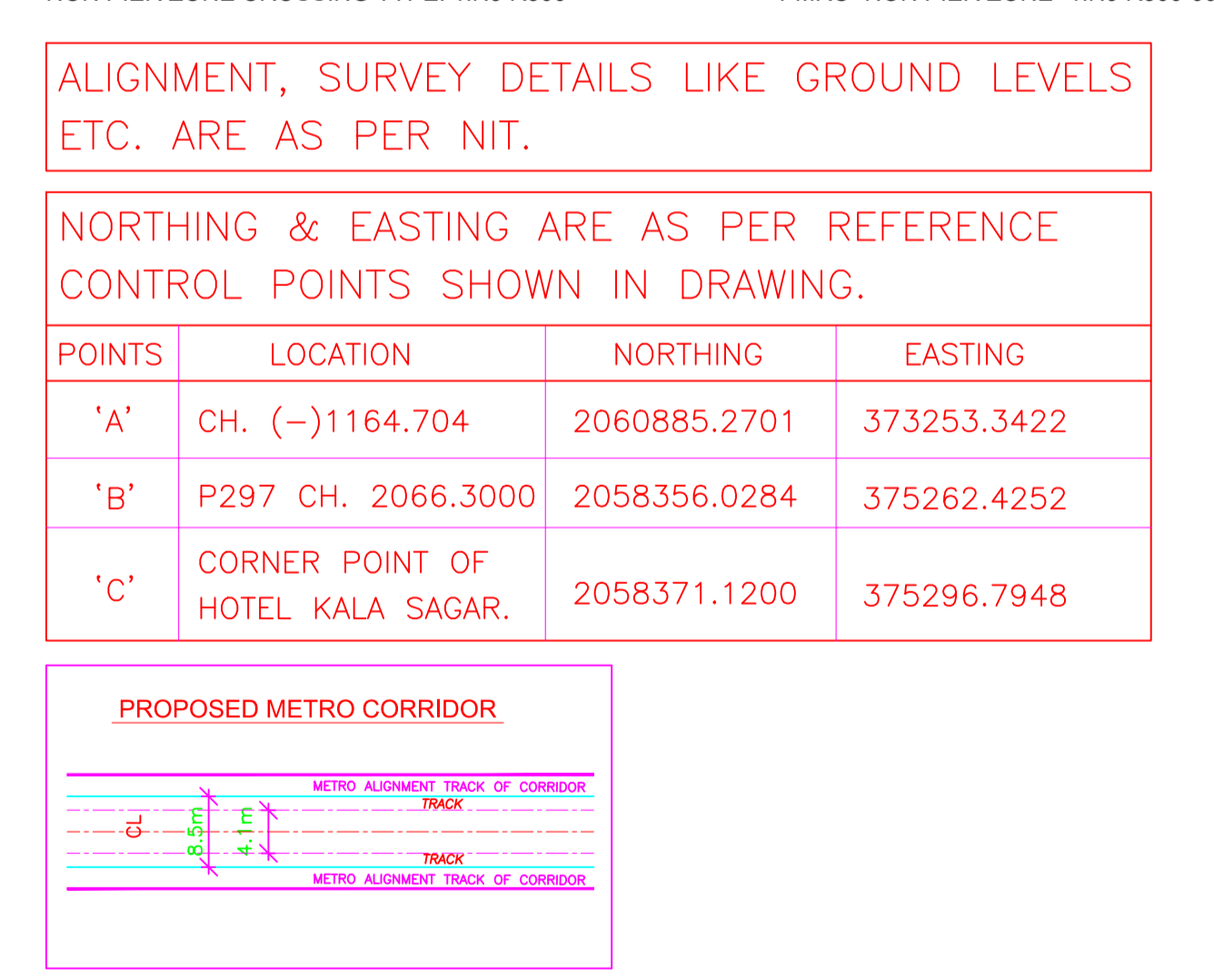
ELEVATION LEVEL	14.294	14.119	11.148	10.311	10.625	12.018	12.529	10.585	10.207	10.177	10.318	10.440	10.231	10.380	10.991	11.561	12.531	13.178	13.619	
DIFFERENCE AS PER NIT																				
ELEVATION LEVEL	570.250	570.250	570.260	570.325	570.394	570.463	570.532	570.600	570.669	570.738	570.807	570.875	570.944	571.013	571.082	571.151	571.220	571.289	571.358	571.427
DIFFERENCE AS PER SURVEY																				
RAIL LEVELS (M)	570.250	570.250	570.260	570.325	570.394	570.463	570.532	570.600	570.669	570.738	570.807	570.875	570.944	571.013	571.082	571.151	571.220	571.289	571.358	571.427
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	555.956	556.131	555.113	560.014	559.770	558.445	558.002	560.016	560.462	560.561	560.489	560.436	560.714	560.707	560.501	560.346	559.790	559.556	559.574	559.574
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	555.956	556.131	555.113	560.014	559.770	558.445	558.002	560.016	560.462	560.561	560.489	560.436	560.714	560.707	560.501	560.346	559.790	559.556	559.574	559.574
PROJECT CHAINAGES	5018.9080	5049.9080	5080.9080	5108.9080	5136.9080	5164.9080	5192.9080	5220.9080	5248.9080	5276.9080	5304.9080	5332.9080	5360.9080	5388.9080	5416.9080	5444.9080	5472.9080	5500.9080	5528.9080	5556.9080
NORTHING	376746.0955	376756.2459	376770.3963	376781.3708	376792.3463	376803.3199	376814.2956	376824.4546	376833.6110	376841.6658	376849.1931	376856.6417	376864.0902	376871.5387	376878.9872	376886.4357	376893.8843	376901.3072	376908.7267	376916.1462
EASTING	2055683.2082	2055680.6866	2055773.1670	2055747.4073	2055721.6477	2055695.8880	2055670.0906	2055644.0358	2055617.5776	2055590.7686	2055563.7939	2055536.8028	2055510.8117	2055483.8206	2055456.8295	2055429.8384	2055402.8473	2055375.8492	2055348.8781	2055321.9070

- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIPI HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALG ALIGNMENT CENTER LINE
 - TRC TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER No.
 - NOTES: 1. ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED. 2. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. 3. THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS. 4. THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION. 5. RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING: RAIL + RAIL PLINTH = 0.467m. DOWNSTAND + BEARING + PEDESTAL = 0.4m. DEPTH OF BOX GIRDER = 2.0m. 6. ALL FOUNDATIONS SHOWN ARE TENTATIVE. REFERENCE DWG. GAD (ALIGNMENT PLAN & VERTICAL PROFILE) FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR. NON PIER ZONE CROSSING TYPE: 1IN9 R300. PUNE/PCMC-SG/GAD/ALG/01. PMRC - NON PIER ZONE - 1IN9 R300-001.

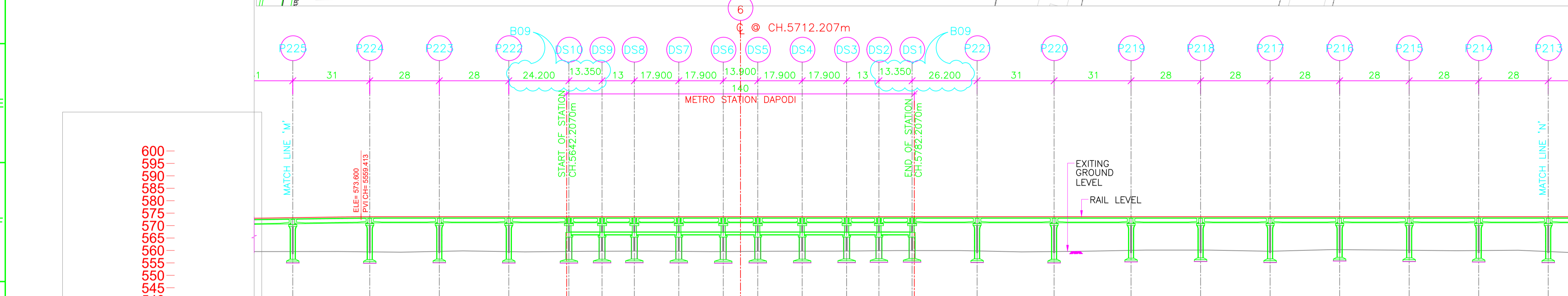
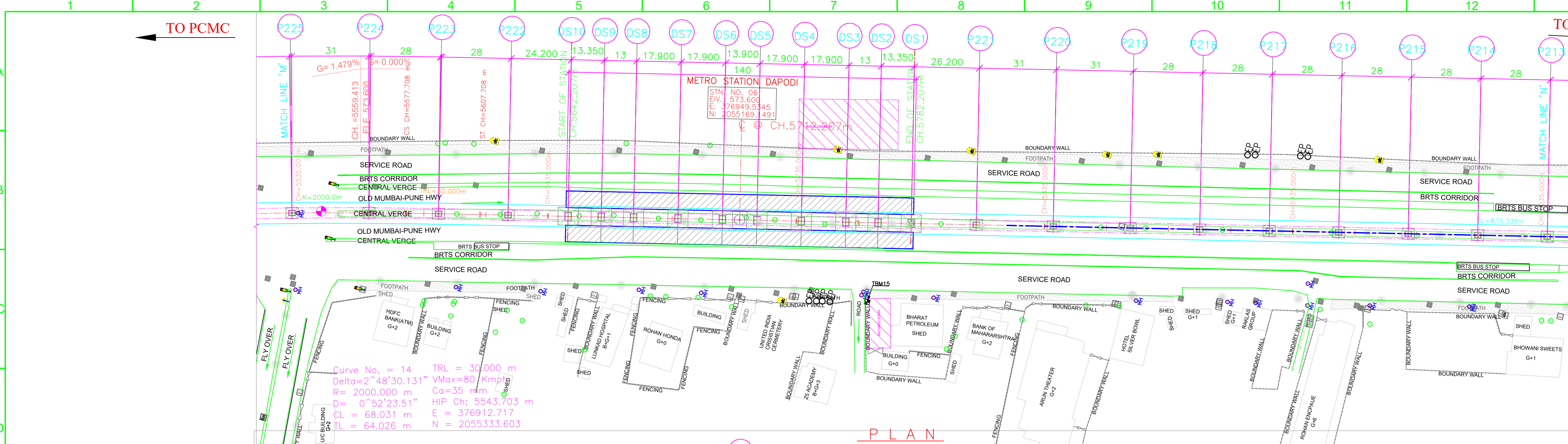
ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



<p>THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.</p>	<p>THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.</p>				<p>THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED/REVIEWED AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND ISSUED AS 'GOOD FOR CONSTRUCTION'/BEING GIVEN NO OBJECTION</p>				<p>COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.</p>		<p>PROJECT: PUNE METRO RAIL PROJECT The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India</p>										
	<p>DDC</p>		<p>CONTRACTOR</p>		<p>PROOF CONSULTANT</p>		<p>GENERAL CONSULTANT TO PMRP</p>		<p>CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.</p>		<p>LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL</p>		<p>TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 5018.9080m TO 5531.9080m</p>								
<p>B07 27.03.18 CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA</p>	<p>B06 25.01.18 MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18</p>	<p>B05 18.12.17 NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17</p>	<p>B04 04.11.17 REVISED AS PER LETTER NO. GCI/PMRP/DPD/ TRN/SDPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED</p>	<p>B03 14.10.17 MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL</p>	<p>B02 12.10.17 REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SIGN: DATE: 04.07.18</p>	<p>SCALE: 1:1</p>	<p>DATE: 29.05.17</p>	<p>STATUS: FOR APPROVAL</p>	<p>REVISION NO: B07</p>						
<p>CONTRACTOR: STRUTCON DESIGNS PVT. LTD. SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066</p>		<p>CONTRACTOR: NCC Limited Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045</p>		<p>PROOF CONSULTANT: TANDON CONSULTANTS PVT. LTD. STRUCTURAL ENGINEERING SPECIALISTS 17, LINK ROAD, JANGPURA EXTRA, NEW DELHI-110 014 Phone No: 4317084, 4319288, 4310509 FAX: 91-11-4316057 E-MAIL: tandon@tandon.com; tandon1@mantraonline.com WEBSITE: www.tandon.com</p>		<p>GENERAL CONSULTANT TO PMRP: SYSTRA-AECOM-EGIS-RITES The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India</p>		<p>CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.</p>		<p>LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL</p>		<p>TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 5018.9080m TO 5531.9080m</p>		<p>SCALE: 1:1</p>		<p>DATE: 29.05.17</p>		<p>STATUS: FOR APPROVAL</p>		<p>REVISION NO: B07</p>	



STATIONING	RAIL LEVEL (M)	GROUND LEVEL (M) AS PER SURVEY	GROUND LEVEL (M) AS PER NIT	NORTHING	EASTING
5531.9090	573.193	559.574	559.574	376909.2267	2055344.8781
5562.9090	573.578	559.454	559.454	376916.6825	2055314.7884
5590.9090	573.600	559.647	559.647	376923.0215	2055287.5156
5618.9090	573.600	559.551	559.551	376929.1515	2055260.1949
5642.2070	573.600	559.601	559.601	376934.4383	2055236.5799
5643.1070	573.600	559.602	559.602	376934.4383	2055236.5799
5656.4570	573.600	559.689	559.689	376937.3549	2055223.5524
5669.4570	573.600	559.740	559.740	376940.1950	2055210.8664
5687.3570	573.600	559.659	559.659	376944.1056	2055193.3988
5705.2570	573.600	559.573	559.573	376948.0162	2055175.9312
5712.2070	573.600	559.614	559.614	376949.5545	2055169.1491
5719.1570	573.600	559.655	559.655	376951.0529	2055162.3670
5737.0570	573.600	559.714	559.714	376954.9635	2055144.8994
5754.9570	573.600	559.782	559.782	376958.8741	2055127.4318
5767.9570	573.600	559.905	559.905	376961.7142	2055114.7458
5781.3070	573.600	559.972	559.972	376964.6307	2055101.7183
5782.2070	573.600	559.971	559.971	376964.6307	2055101.7183
5807.5090	573.600	559.812	559.812	376970.3546	2055076.1512
5838.5090	573.600	559.572	559.572	376977.1272	2055045.9000
5869.5090	573.600	560.044	560.044	376983.8997	2055015.6489
5897.5090	573.600	560.156	560.156	376990.0168	2054986.3251
5925.5090	573.600	559.694	559.694	376996.1540	2054961.0014
5953.5090	573.600	560.332	560.332	377002.2511	2054933.6777
5981.5090	573.600	560.105	560.105	377008.3883	2054906.3540
6009.5090	573.600	559.970	559.970	377014.4854	2054879.0303
6037.5090	573.600	559.572	559.572	377020.6226	2054851.7066

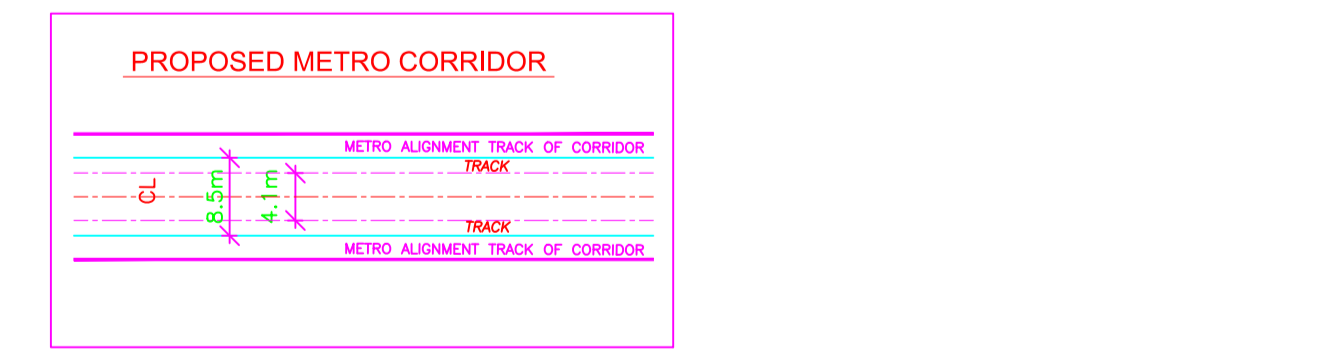
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - TRANSITION START & END
 - X = PIER TYPE
 - Y = PIER No.

- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE - 1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B09	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B08	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B07	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B06	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B05	04.11.17	REVISED AS PER LETTER NO. G/PMRP/DO/ TRK/SPL/2017/0230 DATED 01.11.17 & STATION SPANS MODIFIED	
B04	17.10.17	MODIFIED AS PER SITE CONDITION	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. *P1B01-NCC-CV-BAS-PP1-DGA-01 (SHEET 13-24) REV B05 * APPROVED ON DATE 28.11.17

DDC CONTRACTOR

SIGN: _____ DATE: 04.07.18

NAME: MPP DESIGN BY: PGT CHECKED BY: MAJ APPROVED BY: VLD

CONSULTANTS: **STRUTCHON DESIGN PVT. LTD.**
SUASHISH IT PARK, A104, 1ST FLOOR, DATAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

PROOF CONSULTANT

SIGN: _____ DATE: _____

NAME: SHUBHAM GARG

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTRA, NEW DELHI-110 014
Phone No: 4317684, 4319288, 4310509 FAX: 91-11-4316057
E-MAIL: m@tandonline.com; tandonline@mantraonline.com
WEBSITE: www.tandonline.com

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GENERAL CONSULTANT TO PMRP

SIGN: _____ DATE: _____

NAME: PRASAD MOHITE

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

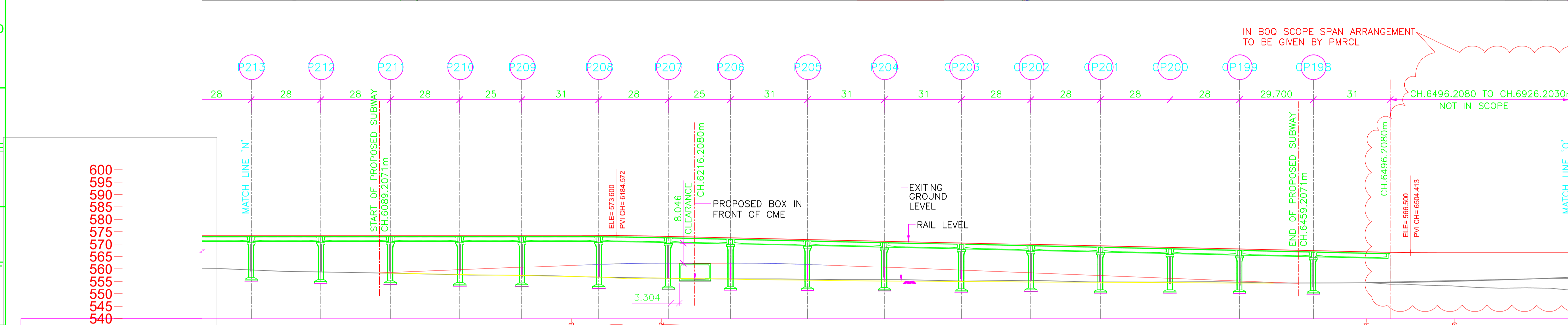
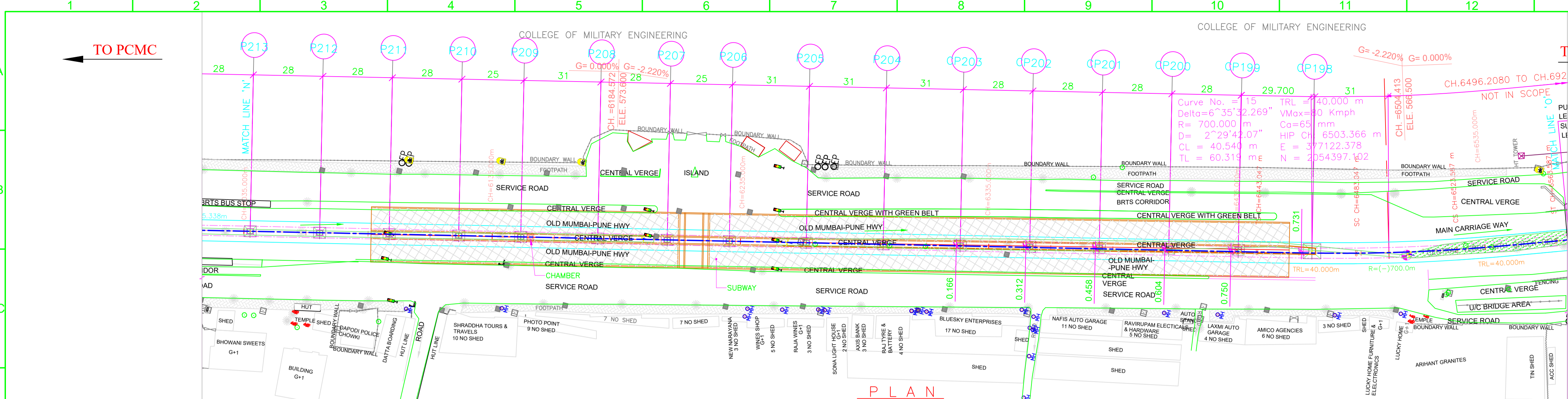
CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 5531.9080m TO 6037.5080m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-001 (SHEET 13-24) **REVISION NO:** B09



POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

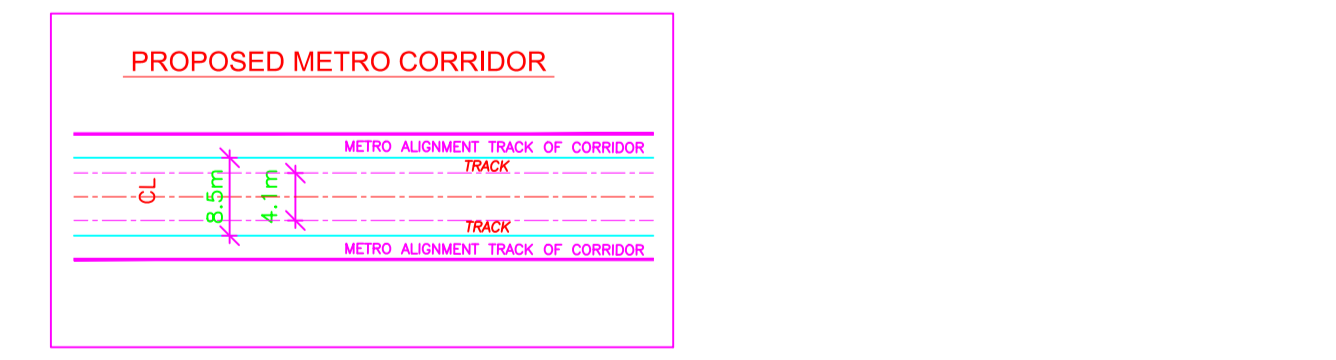
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALIGNMENT CENTER LINE
 - TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER No.
 - APPROACH RAMP

- NOTES:**
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 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
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RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B10	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B09	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWINGS RECEIVED ON 18.01.18	
B08	10.01.18	AS MARKED.	
B07	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B06	04.11.17	REVISED AS PER LETTER NO. GCP/MPRP/POD/ TRK/SPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED.	
B05	17.10.17	MODIFIED AS PER SITE CONDITION.	
B04	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B03	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17.	
B02	10.10.17	CME ALIGNMENT ADDED AS PER PMRCL.	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFCD FROM THE ALREADY APPROVED CR DWG NO. "-----REV ----" APPROVED ON DATE -----

DDC CONTRACTOR

SIGN: DATE: 04.07.18

NAME: MPP NAME: PGT NAME: MAJ NAME: VLD NAME:

DRAWN BY DESIGN BY CHECKED BY APPROVED BY

ACCEPTED BY

CONSULTANTS

STRUCTON DESIGNS PVT. LTD.
SUASHISH I PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC NCC Limited
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E-MAIL: mct@tandoni.com ; tandon1@mantraonline.com
WEBSITE: www.tcpl.com

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PROOF CONSULTANT

SIGN: DATE:

NAME: SHUBHAM GARG

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GENERAL CONSULTANT TO PMRP

SIGN: DATE:

NAME: PRASAD MOHITE

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

GENERAL CONSULTANT TO PMRP

SIGN: DATE:

NAME: SARALA KULKARNI

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 6037.5080m TO 6550.4130m

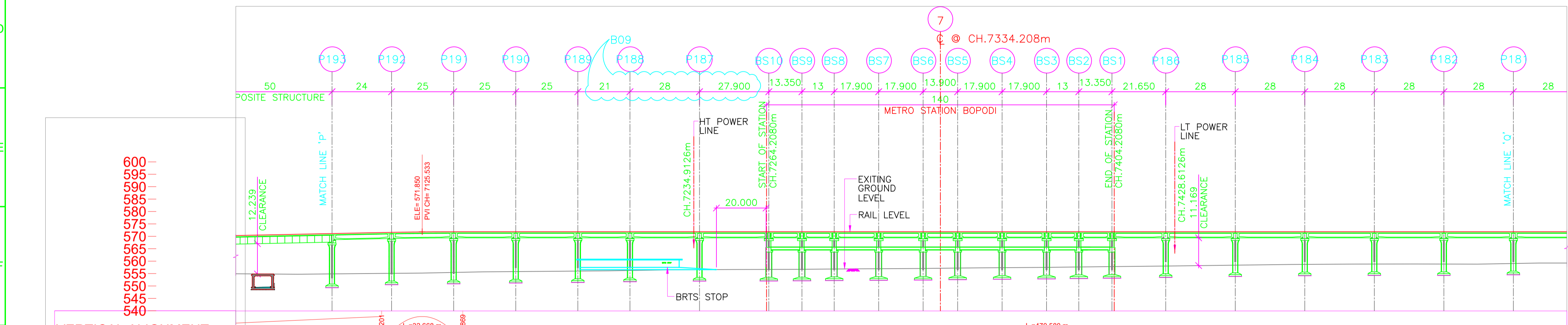
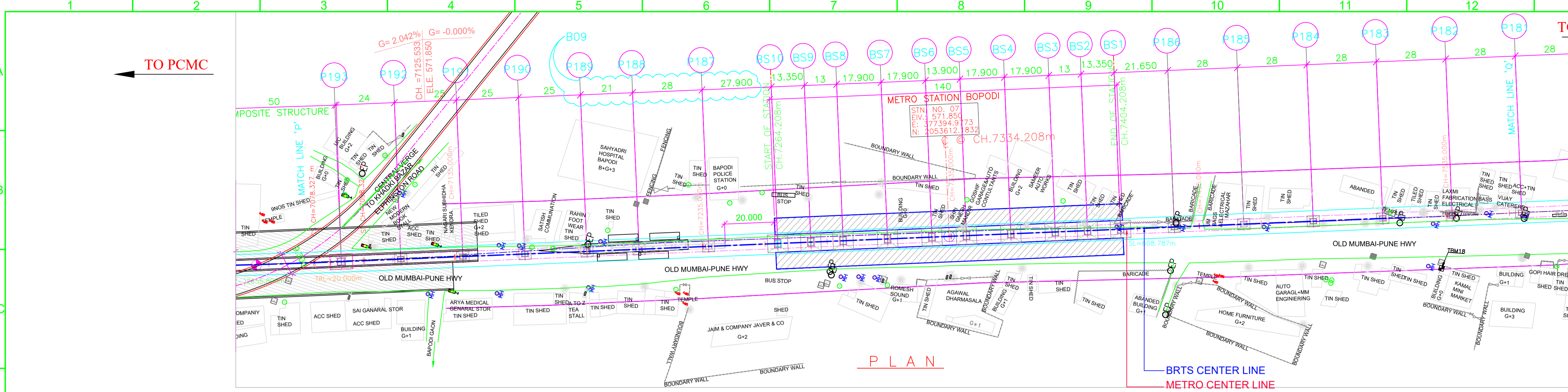
SCALE: 1:1

DATE: 29.05.17

STATUS: FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 14-24)

REVISION NO: B10



POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

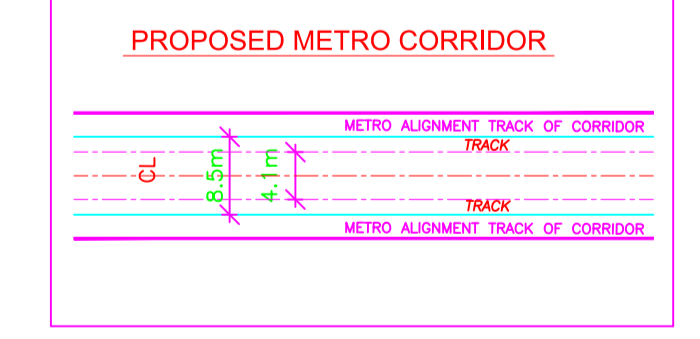
- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - CS CURVE TO SPIRAL
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALGMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - TRANSITION START & END
 - X = PIER TYPE
 - Y = PIER No.

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 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
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DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B09	28.04.18	PIER NO BS10 TO P188 SPAN MODIFIED DUE TO CHANGE IN LOCATION OF STAIR, LIFT & BRTS SHELTER.	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	27.03.18	METRO ALIGNMENT MODIFIED TO SUIT BTRS ALIGNMENT & CHAINAGES MODIFIED DUE TO CHANGE IN NASKI PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17 & SPAN MODIFIED AT P181 TO P184 FOR AVOID TREE CUTTINGS.	
B04	04.11.17	REVISED AS PER LETTER NO. G/PMR/PP/DO/ TR/S/DP/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

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DDC

SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY

CONSULTANTS

STRUCTCON DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
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Phone No. 4317684, 4319288, 4310509 FAX: 91-11-4316057
E-MAIL: mt@tandonline.com; tandon1@mantraonline.com
WEBSITE: www.tandonline.com

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PROOF CONSULTANT

SIGN:	SIGN:
DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED/REVIEWED** AND FOUND SUITABLE FOR CONSTRUCTION/BEING GIVEN NO OBJECTION

GENERAL CONSULTANT TO PMRP

SIGN:	SIGN:
DATE:	DATE:
NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 7085.2080m TO 7564.9580m

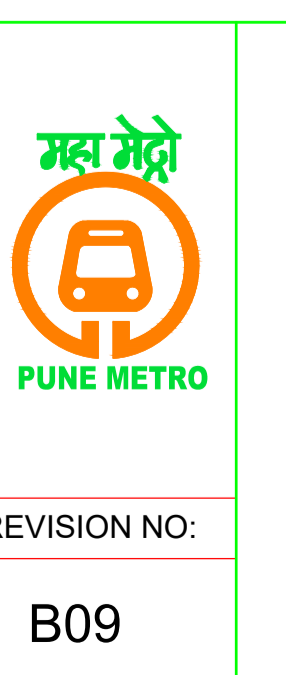
SCALE: 1:1

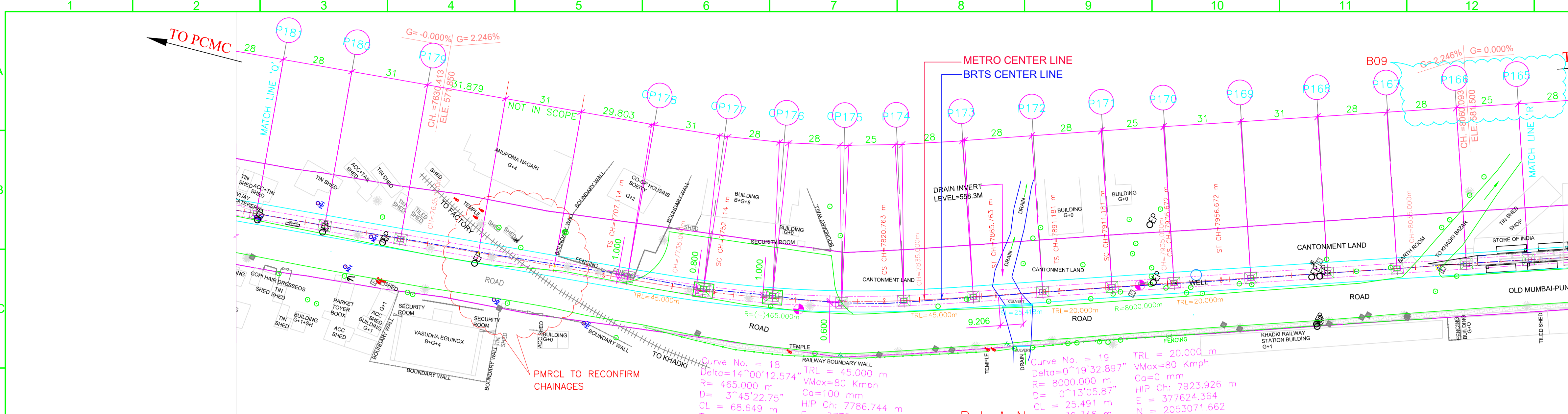
DATE: 29.05.17

STATUS: FOR APPROVAL

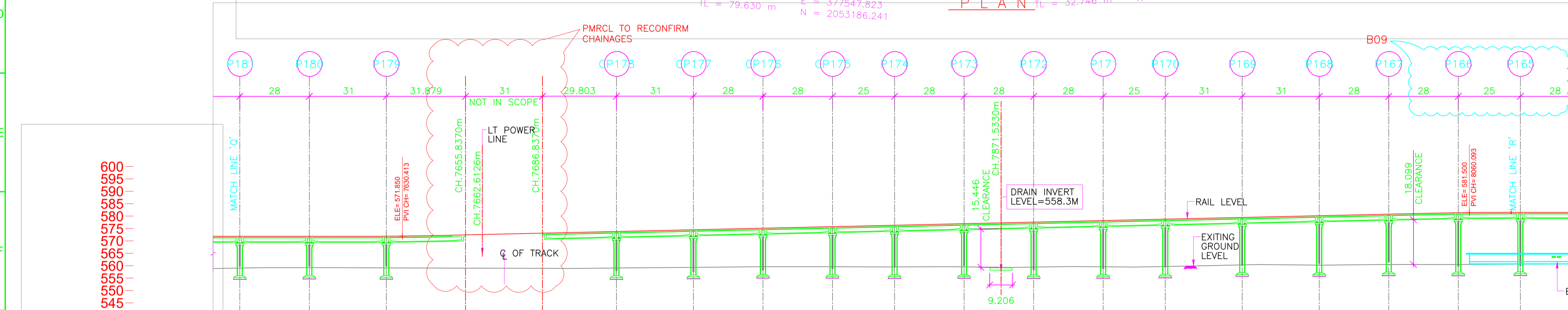
DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-001 (SHEET 16-24)

REVISION NO: B09





- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
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DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE - 1IN9 R300-001



VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	ELEVATION LEVEL DIFFERENCE AS PER NIT	ELEVATION LEVEL DIFFERENCE AS PER SURVEY	RAIL LEVELS (M)	GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	PROJECT CHAINAGES	NORTHING	EASTING
L=35.925m R=1600.000	7812.448	12.807	12.807	571.850	559.043	559.043	7564.9580	377472.9142	2053394.9934
L=394.882m G=2.246%	7848.379	12.829	12.829	571.850	559.221	559.221	7592.9580	377482.3713	2053398.6388
	7864.379	12.766	12.766	571.891	559.126	559.126	7623.9580	377492.8417	2053399.4606
	7868.379	13.407	13.407	574.421	559.014	559.014	7655.8370	377503.6090	2053399.4650
	7872.114	14.176	14.176	573.117	558.941	558.941	7686.8370	377514.0740	2053280.2750
	7872.114	14.724	14.724	573.787	559.063	559.063	7716.6400	377524.1520	2053232.2274
	7872.114	15.154	15.154	574.483	559.329	559.329	7747.6400	377535.6546	2053223.5312
	7872.114	15.515	15.515	575.112	559.596	559.596	7776.6400	377546.9800	2053197.5946
	7872.114	16.141	16.141	575.740	559.600	559.600	7803.6400	377558.6037	2053172.3909
	7872.114	16.797	16.797	576.302	559.505	559.505	7828.6400	377571.7759	2053151.1186
	7872.114	17.400	17.400	576.931	559.531	559.531	7856.6400	377586.9931	2053127.6160
	7872.114	18.117	18.117	577.560	559.443	559.443	7884.6400	377602.5414	2053104.3298
	7872.114	18.621	18.621	578.188	559.567	559.567	7912.6400	377618.0863	2053081.0412
	7872.114	19.067	19.067	578.750	559.683	559.683	7937.6400	377631.9109	2053050.2114
	7872.114	19.127	19.127	579.446	560.319	560.319	7968.6400	377648.9898	2053034.3404
	7872.114	19.906	19.906	580.142	560.236	560.236	7999.6400	377666.0628	2053008.4654
	7872.114	20.280	20.280	580.771	560.491	560.491	8027.6400	377681.4835	2052985.0945
	7872.114	20.857	20.857	581.349	560.491	560.491	8055.6400	377696.9042	2052961.7236
	7872.114	20.882	20.882	581.500	560.618	560.618	8080.6400	377710.6727	2052940.6586

ELEVATION

REV NO	DATE	DESCRIPTION	SIGN
B09	14.06.18	PIER NO P164 TO P167 SPAN MODIFIED DUE TO CHANGE IN KHADKI BRTS BUS STOP.	
B08	28.04.18	PIER NO P175 TO P178 MODIFIED TO NORMAL PIER TO CANTILEVER PIER DUE TO BRTS ALIGNMENT.	
B07	27.03.18	METRO ALIGNMENT MODIFIED TO SUIT BRTS ALIGNMENT & CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17 & SPAN MODIFIED AT P167 TO P171 FOR AVOID WELL & TRANSFORMER	
B04	04.11.17	REVISED AS PER LETTER NO. GCP/PMRP/PDO/ TRK/SP/01/17/0208 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.			
DDC		CONTRACTOR	
SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY
CONSULTANTS STRUCTCON DESIGNS PVT. LTD. SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066			
NCC Limited Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045			

PROOF CONSULTANT		GENERAL CONSULTANT TO PMRP	
SIGN:	SIGN:	SIGN:	SIGN:
DATE:	DATE:	DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN	NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.		THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED/REVIEWED AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND ISSUED AS 'GOOD FOR CONSTRUCTION'/BEING GIVEN NO OBJECTION	
TANDON CONSULTANTS PVT. LTD. STRUCTURAL ENGINEERING SPECIALISTS 17, LINK ROAD, JANGPURA EXTN, NEW DELHI-110 014 Phone No: 4317084, 4319288, 4310509 FAX: 91-11-4316057 E-MAIL: mt@vsnl.com ; tandon1@mantraonline.com WEBSITE: www.tcpl.com		SYSTRA-AECOM-EGIS-RITES The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India	

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

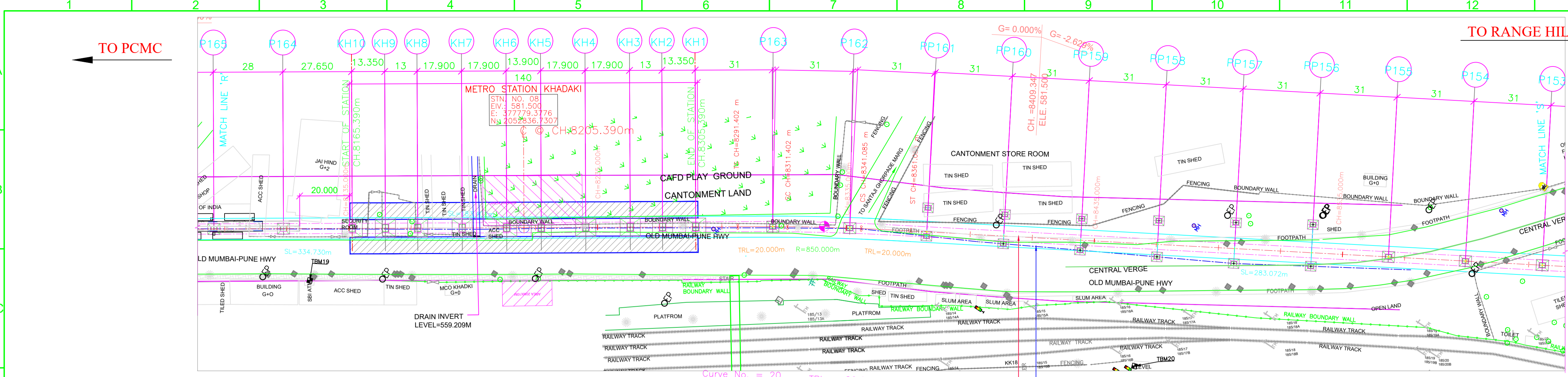
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 7564.9580m TO 8083.6400m

SCALE: 1:1 **DATE:** 29.05.17 **STATUS:** FOR APPROVAL

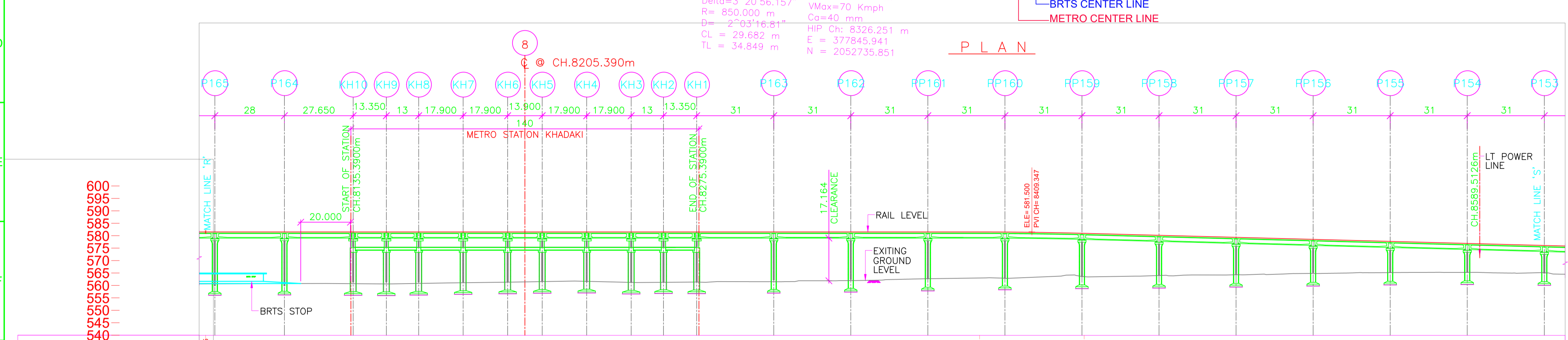
DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-001 (SHEET 17-24)

REVISION NO: B09



- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SS SPIRAL TO CURVE
 - SC SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - TL TANGENT LENGTH
 - TS TANGENT TO SPIRAL
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - ALGMENT CENTER LINE
 - TRACK CENTER LINE
 - METRO PORTION
 - TRANSITION START & END

- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC-NON PIER ZONE -1IN9 R300-001

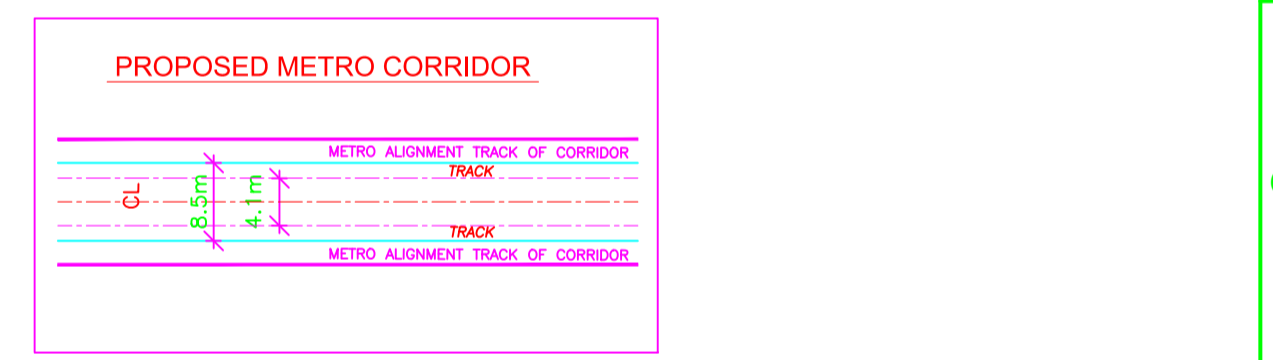


VERTICAL ALIGNMENT	L=311.385 m G=0.000%		L=42.048 m R=1600.000		L=281.287 m G=-2.629%	
HORIZONTAL ALIGNMENT	SL=334.730m					
ELEVATION LEVEL DIFFERENCE AS PER NIT	20.882	20.758	20.794	20.802	20.912	20.707
ELEVATION LEVEL DIFFERENCE AS PER SURVEY	20.882	20.758	20.794	20.802	20.912	20.707
RAIL LEVELS (M)	581.500	581.500	581.500	581.500	581.500	581.500
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	560.618	560.742	560.706	560.698	560.588	560.793
GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	560.618	560.742	560.706	560.698	560.588	560.793
PROJECT CHAINAGES	8080.6400	8108.6400	8136.2900	8149.6400	8162.6400	8180.5400
NORTHING	377710.6727	377726.0935	377741.3215	377748.6738	377756.8335	377766.6917
EASTING	2052940.8566	2052937.4857	2052984.4069	2052983.2640	2052872.4132	2052857.4725

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT

	FOR GAD APPROVAL	SIGNATURE
TOPOGRAPHIC SURVEY IS VERIFIED AND FOUND CORRECT. ALIGNMENT SATISFIED CODAL REQUIREMENTS. PIER ARRANGEMENT IS SATISFACTORY. THE GAD IS RECOMMENDED FOR APPROVAL	SURVEY EXPERT	
	CHIEF RESIDENT ENG.	
	ALIGNMENT EXPERT	
	CHIEF STRUCTURAL EXPERT (VIADUCT & DESIGN)	
	CHIEF SIGNALING	
PMRCL	CHIEF TRACTION	
	PD/DY, PD	
APPROVED	ACPM, R1	
	CPM, R1	
	DGM (VIADUCT & DESIGN)	
	JGM (STATION DESIGN)	
	GM (DESIGN)	
	AGM (PLG)	
	GM (PLG)	

REV NO	DATE	DESCRIPTION	SIGN
B10	15.08.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC ON 10.08.18	
B09	14.06.18	PIER NO P164 TO P167 SPAN MODIFIED DUE TO CHANGE IN KHADAKI BRTS BUS STOP	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31 03.18	
B07	27.03.18	METRO ALIGNMENT MODIFIED TO SUIT BRTS ALIGNMENT & CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17 & HOLD ADDED.	
B04	04.11.17	REVISED AS PER LETER NO. GCPM/P/PP/D/ TRK/S/PL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GCD FROM THE ALREADY APPROVED OR DWG NO. _____ REV _____ APPROVED ON DATE _____

DDC / CONTRACTOR		CONTRACTOR		PROOF CONSULTANT	
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE:	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME: ---	NAME: ---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)

CONSULTANTS

STRUCTCON DESIGNS PVT. LTD.
SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, Opp. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

NCC Limited
Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045

TANDON CONSULTANTS PVT. LTD.
STRUCTURAL ENGINEERING SPECIALISTS
17, LINK ROAD, JANGPURA EXTN. NEW DELHI-110 014
Phone No. 4317884, 4319288, 4319099 FAX: 91-11-4316657
E-MAIL: tmc@tandon.com; tandon1@tandononline.com
WEBSITE: www.tandon.com

SYSTRA-AECOM-EGIS-RITES
(GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

Proof checked & Approved by GC

Being Given No Objection

Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: PUNE METRO

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 8080.6400m TO 8603.6900m

SCALE: 1:1 DATE: 29.05.2018 STATUS: FOR APPROVAL

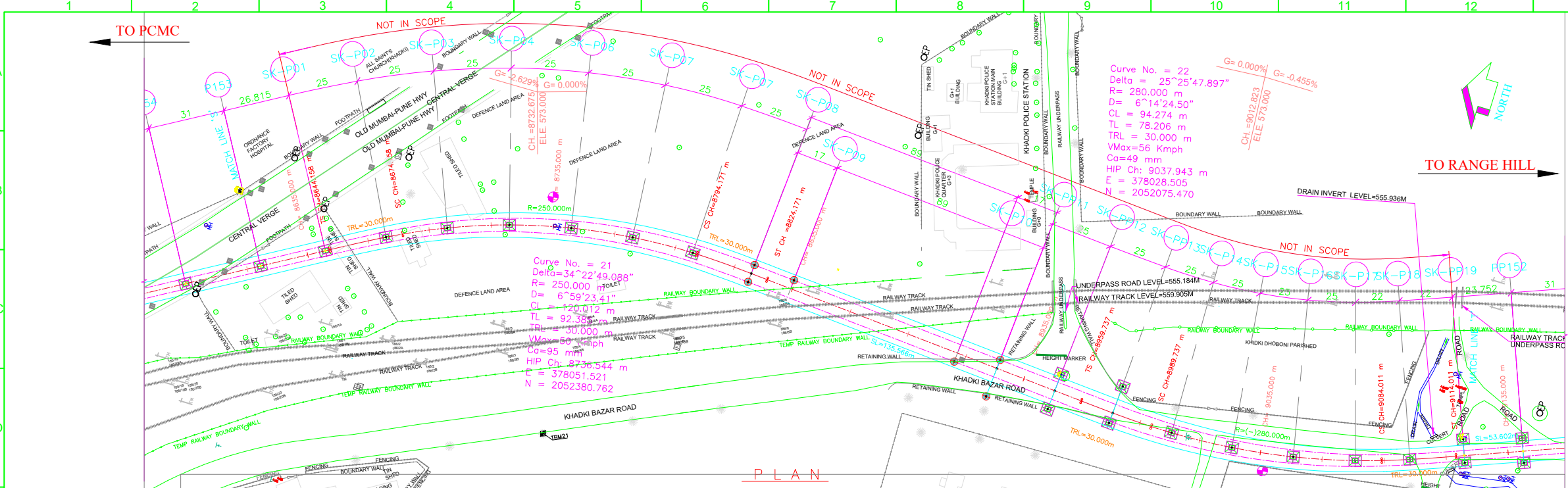
DRG NO: P/B01-NCC/COV-BAS-PP1_D/GA0001(SHEET-24)

REVISION NO: B10

PUNE METRO RAIL PROJECT
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

MAHARASHTRA METRO RAIL CORPORATION LTD.

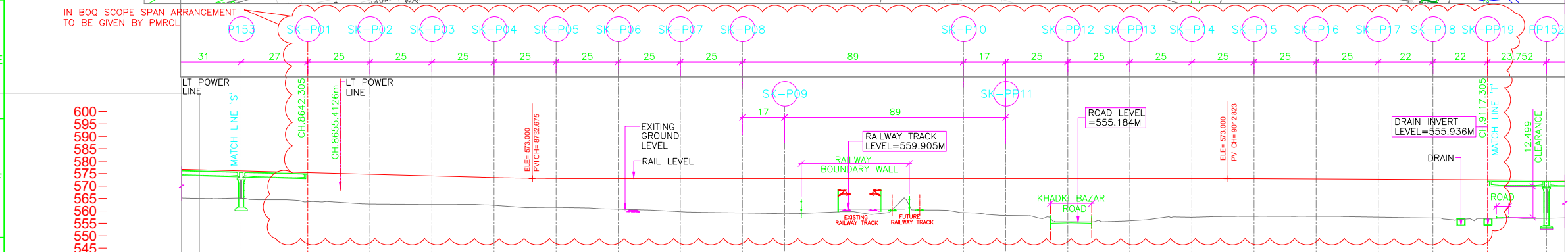
REVISION NO: B10



LEGEND :

P	STANDARD PIER	HIP	HORIZONTAL INTERSECTION POINT
CP	CANTILEVER PIER	D	DEFLECTION ANGLE
PP	PORTAL PIER	L	GRADE LENGTH
CS	CURVE TO SPIRAL	TRL	TRANSITION LENGTH
ST	SPIRAL TO TANGENT	TL	TANGENT LENGTH
TS	TANGENT TO SPIRAL	R	RADIUS
SC	SPIRAL TO CURVE	CA	APPLIED CANT
SS	SPIRAL TO SPIRAL	CD	CANT DEFICIENCY
SL	STRAIGHT LENGTH	PVI	POINT OF VERTICAL INTERSECTION
ELE	ELEVATION	SRJ	STOCK RAIL JOINT
E	EASTING	CH	CHAINAGE
N	NORTHING	DELTA	DEFLECTION ANGLE
G	GRADIENT	CL	CURVE LENGTH
---	ALIGNMENT CENTER LINE	---	METRO PORTION
---	TRACK CENTER LINE	---	TRANSITION START & END
(X)	X = PIER TYPE		
(Y)	Y = PIER No.		

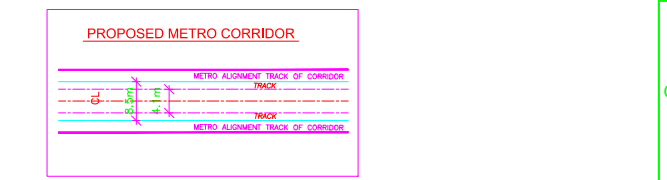
- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
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 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
 RAIL + RAIL PLINTH = 0.467m.
 DOWNSTAND + BEARING + PEDESTAL = 0.4m.
 DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
 GAD (ALIGNMENT PLAN & VERTICAL PROFILE) --- PUNE/PCMC-SG/GAD/ALG/01
 FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 NON PIER ZONE CROSSING TYPE: 1IN9 R300 --- PMRC-NON PIER ZONE -1IN9 R300-001



ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT		
	FOR GAD APPROVAL	SIGNATURE
TOPOGRAPHIC SURVEY IS VERIFIED AND FOUND CORRECT. ALIGNMENT SATISFIED CODAL REQUIREMENTS. PIER ARRANGEMENT IS SATISFACTORY. THE GAD IS RECOMMENDED FOR APPROVAL	SURVEY EXPERT	
	CHIEF RESIDENT ENG.	
	ALIGNMENT EXPERT	
	CHIEF STRUCTURAL EXPERT (VIADUCT & DESIGN)	
	CHIEF SIGNALING	
PMRCL	CHIEF TRACTION	
	PD/DY. PD	
APPROVED	ACPM, R1	
	CPM, R1	
	DGM (VIADUCT & DESIGN)	
	JGM (STATION DESIGN)	
	GM (DESIGN)	
	AGM (PLG)	
	GM (PLG)	

REV NO	DATE	DESCRIPTION	SIGN
B08	15.08.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC ON 10.08.18	
B07	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GCPMP/PP/01/TRK/SOPL/2017/029 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

PROJECT: PUNE METRO RAIL PROJECT
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: MAHARASHTRA METRO RAIL CORPORATION LTD.

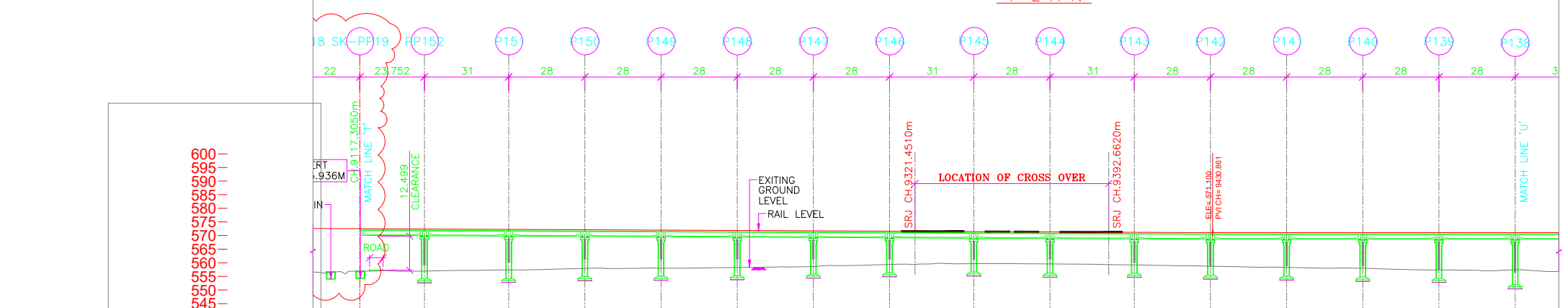
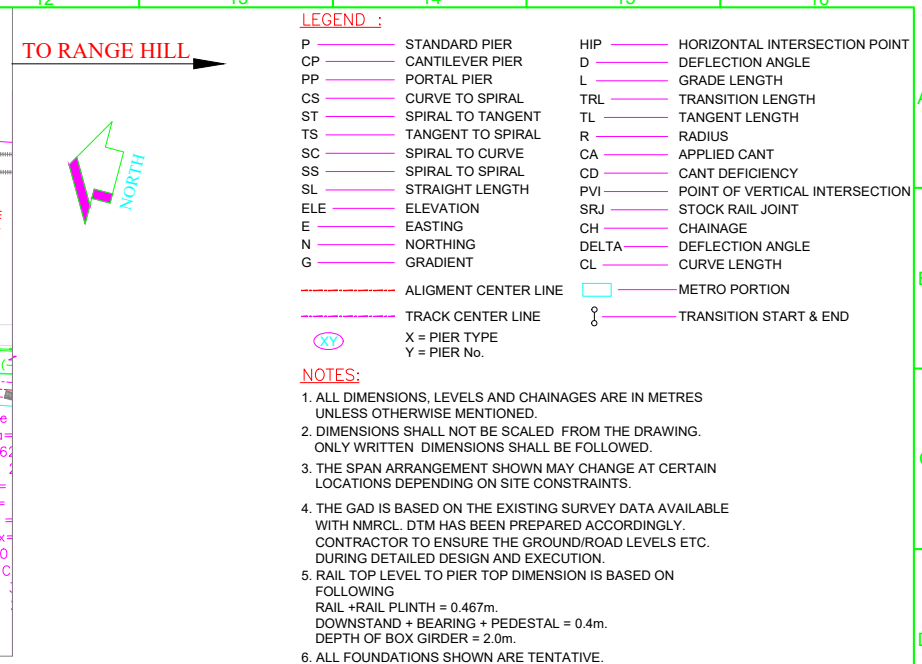
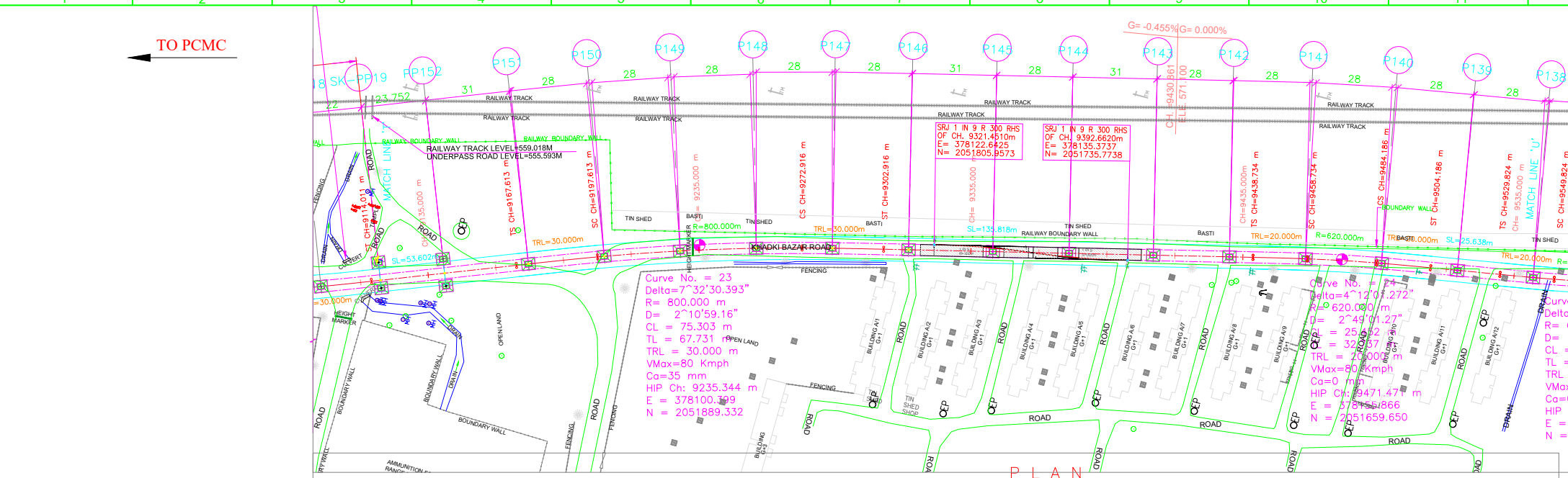
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 8603.6900m TO 9126.4150m

SCALE: 1:1 **DATE:** 29.05.2018 **STATUS:** FOR APPROVAL

DRG NO: P/B01-NCC/COV-BAS-PP1-DCA-00001(SHEET-19-24)

REVISION NO: B08



LEGEND :

- P STANDARD PIER
- CP CANTILEVER PIER
- PP PORTAL PIER
- CS CURVE TO SPIRAL
- ST SPIRAL TO TANGENT
- TS TANGENT TO SPIRAL
- SC SPIRAL TO CURVE
- SS SPIRAL TO SPIRAL
- SL STRAIGHT LENGTH
- ELE ELEVATION
- E EASTING
- N NORTHING
- G GRADIENT
- HIP HORIZONTAL INTERSECTION POINT
- D DEFLECTION ANGLE
- L GRADE LENGTH
- TRL TRANSITION LENGTH
- TL TANGENT LENGTH
- R RADIUS
- CA APPLIED CANT
- CD CANT DEFICIENCY
- PVI POINT OF VERTICAL INTERSECTION
- SRJ STOCK RAIL JOINT
- CH CHAINAGE
- DELTA DEFLECTION ANGLE
- CL CURVE LENGTH
- ALIGNMENT CENTER LINE
- TRACK CENTER LINE
- METRO PORTION
- TRANSITION START & END

NOTES:

- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
- DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
- THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
- RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
- ALL FOUNDATIONS SHOWN ARE TENTATIVE.

REFERENCE DWG.

GAD (ALIGNMENT PLAN & VERTICAL PROFILE) — PUNE/PCMC-SG/GAD/ALG/01
FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR

NON PIER ZONE CROSSING TYPE: 1IN9 R300 — PMRC-NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948

STATIONING	RAIL LEVELS (M)	GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	PROJECT CHAINAGES	NORTHING	EASTING
22	572.525	556.958	572.009	PIER PA 9117.3050 PIER PB 9117.3050	378057.8698	2051996.4423
23	572.417	557.009	572.009	PIER PA 9141.0570 PIER PB 9141.0570	378066.4278	2051977.2656
24	572.276	557.390	572.009	PIER PA 9172.0570 PIER PB 9172.0570	378071.3323	2051979.1799
25	572.149	557.964	572.009	PIER PA 9200.0570 PIER PB 9200.0570	378062.0040	2051975.5769
26	572.022	558.052	572.009	PIER PA 9228.0570 PIER PB 9228.0570	378077.5965	2051948.3674
27	571.894	558.293	571.894	PIER PA 9256.0570 PIER PB 9256.0570	378088.5174	2051895.6699
28	571.767	558.633	571.767	PIER PA 9284.0570 PIER PB 9284.0570	378104.6365	2051868.8750
29	571.640	559.412	571.640	PIER PA 9312.0570 PIER PB 9312.0570	378118.4445	2051814.6081
30	571.489	559.716	571.489	PIER PA 9340.0570 PIER PB 9340.0570	378125.7219	2051784.4743
31	571.372	559.629	571.372	PIER PA 9371.0570 PIER PB 9371.0570	378139.5718	2051727.1230
32	571.231	559.266	571.231	PIER PA 9402.0570 PIER PB 9402.0570	378146.1447	2051699.9054
33	571.114	558.742	571.114	PIER PA 9430.0570 PIER PB 9430.0570	378152.6233	2051672.6655
34	571.000	558.329	571.000	PIER PA 9468.0570 PIER PB 9468.0570	378158.1075	2051645.2223
35	571.000	557.400	571.000	PIER PA 9514.0570 PIER PB 9514.0570	378162.8083	2051617.6098
36	571.000	557.475	571.000	PIER PA 9542.0570 PIER PB 9542.0570	378167.3943	2051590.9880
37	571.000	557.475	571.000	PIER PA 9570.0570 PIER PB 9570.0570	378171.9803	2051564.3662

ELEVATION

REV NO	DATE	DESCRIPTION	SIGN
B08	15.08.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC ON 10.08.18	
B07	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GCPMP/PP/01/TRKSD/PL/2017/02/26 DATED 01.11.17 & STATION SPANS MODIFIED.	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL.	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

DDC / CONTRACTOR				CONTRACTOR			
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME: ---	NAME: ---	NAME: ---	NAME: ---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY

CONTRACTOR				PROOF CONSULTANT			
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18
NAME: ---	NAME: ---	NAME: ---	NAME: ---	NAME: ---	NAME: ---	NAME: ---	NAME: ---
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY	REVIEWED BY (STRUCT. ENGG.)	APPROVED BY (TEAM LEADER)	REVIEWED BY

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFD FROM THE ALREADY APPROVED CR DWG NO. "-----" REV "-----" APPROVED ON DATE "-----"

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN **PROOF CHECKED** INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

Proof checked & Approved by GC
 Being Given No Objection
 Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

LOCATION: **CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL**

TITLE: **GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 9126.4150m TO 9549.4150m**

SCALE: 1:1 DATE: 29.05.2018 STATUS: FOR APPROVAL REVISION NO: B08

DRG NO: **PUNE-NCC-CV-BAS-PP1-DCA-0001(SHEET-20-24)**

TO PCMC

TO RANGE HILL

LEGEND :

- P STANDARD PIER
- CP CANTILEVER PIER
- PP PORTAL PIER
- CS CURVE TO SPIRAL
- ST SPIRAL TO TANGENT
- TS TANGENT TO SPIRAL
- SC SPIRAL TO CURVE
- SS SPIRAL TO SPIRAL
- SL STRAIGHT LENGTH
- ELE ELEVATION
- E EASTING
- N NORTHING
- G GRADIENT
- HIP HORIZONTAL INTERSECTION POINT
- D DEFLECTION ANGLE
- L GRADE LENGTH
- TRL TRANSITION LENGTH
- TL TANGENT LENGTH
- R RADIUS
- CA APPLIED CANT
- PVI POINT OF VERTICAL INTERSECTION
- SRJ STOCK RAIL JOINT
- CH CHAINAGE
- CL DELTA
- CL CURVE LENGTH
- CANT DEFICIENCY
- ALIGNMENT CENTER LINE
- TRACK CENTER LINE
- X = PIER TYPE
- Y = PIER No.

NOTES:

- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
- DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
- THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRC DTM. HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
- RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
- ALL FOUNDATIONS SHOWN ARE TENTATIVE.

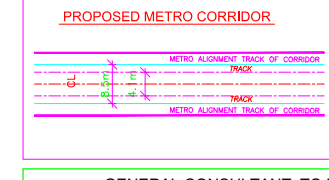
REFERENCE DWG.

GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC-NON PIER ZONE -1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



600
595
590
585
580
575
570
565
560
555
550
545
540

VERTICAL ALIGNMENT	HORIZONTAL ALIGNMENT	ELEVATION LEVEL DIFFERENCE AS PER NIT	ELEVATION LEVEL DIFFERENCE AS PER SURVEY	RAIL LEVELS (M)	GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	GROUND LEVEL (M) ALONG CENTER LINE AS PER NIT	PROJECT CHAINAGES	NORTHING	EASTING
Curve No. = 25 Delta=4°10'46.478" R= 620.000 m D= 2°49'01.27" CL = 25.221 m TL = 32.625 m TRL = 20.000 m VMax=80 Kmph Ca=0 mm HIP Ch: 9562.449 m E = 378170.602 N = 2051569.865	TRL=20.000m R=(-)1620.000m CL=25.227m SL397.613m	13.825	14.518	571.100	557.475	556.582	9542.0570	378167.3943	2051569.8680
							9573.0570	378173.3231	2051569.5633
							9602.8070	378180.3682	2051529.7345
							9603.7070	378186.5642	2051462.5586
							9617.0570	378183.4974	2051516.7564
							9630.0570	378186.5445	2051504.1186
							9647.9570	378190.7402	2051486.7173
							9665.0570	378194.9359	2051469.3159
							9672.8070	378198.5642	2051462.5586
							9679.7570	378198.1940	2051455.8032
							9697.0570	378202.3897	2051439.4019
							9715.5570	378206.5854	2051421.0005
							9728.5570	378209.6325	2051405.3627
							9741.8070	378212.7617	2051395.3946
							9742.8070	378212.9459	2051365.5865
							9800.5570	378226.5096	2051338.3985
							9831.5570	378233.7753	2051308.2321
							9859.5570	378240.3363	2051281.0122
							9887.5570	378246.9014	2051253.7922
							9918.5570	378254.1677	2051223.6559
							9946.5570	378260.7308	2051196.4359
							9971.5570	378266.5907	2051172.1324
							9999.5570	378273.1562	2051144.9135
							10007.5570	378280.2441	2051117.8270
							10055.5570	378286.5095	2051091.0767

ELEVATION

REV NO	DATE	DESCRIPTION	SIGN
B09	15.08.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC ON 10.08.18	
B08	07.03.18	STATION END SPAN MODIFIED AS PER MAIL 31.03.18	
B07	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GCPMR/P/POI/TRK-S/D/L/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

DDC / CONTRACTOR				CONTRACTOR					PROOF CONSULTANT							
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE: 15.08.18	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:	NAME:
DRAWN BY				DESIGN BY				CHECKED BY				APPROVED BY				
<p>CONTRACTOR: NCC Limited Office no. 03, 3rd floor, "Purushottam Plaza", Opp. Baner Telephone Exchange, Baner-Balewadi Road, Baner, Pune - 411045</p>																
<p>PROOF CONSULTANT: TANDON CONSULTANTS PVT. LTD. STRUCTURAL ENGINEERING SPECIALISTS 17 LINK ROAD, JANGPURA EXTN. NEW DELHI-110 014 Phone No: 4317694, 4319288, 4310509 FAX: 91-11-4316057 E-MAIL: tct@tsonline.com; tandon1@gmail.com; tandon@tsonline.com WEBSITE: www.tclpl.com</p>								<p>PROOF CONSULTANT: SYSTRA-AECOM-EGIS-RITES (GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT)</p>								

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR.

IT IS CERTIFIED THAT THERE IS NO CHANGE IN THIS GFD FROM THE ALREADY APPROVED CR DWG NO. "....." REV "...." APPROVED ON DATE "....."

THIS DRAWING INCLUDING ITS DESIGN AND DETAILING HAS BEEN PROOF CHECKED INDEPENDENTLY AND FOUND SUITABLE FOR THE EXECUTION PURPOSE AND IS RECOMMENDED FOR GFC / NO OBJECTION.

Proof checked & Approved by GC
 Being Given No Objection
 Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

LOCATION: CORRIDOR 1 - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

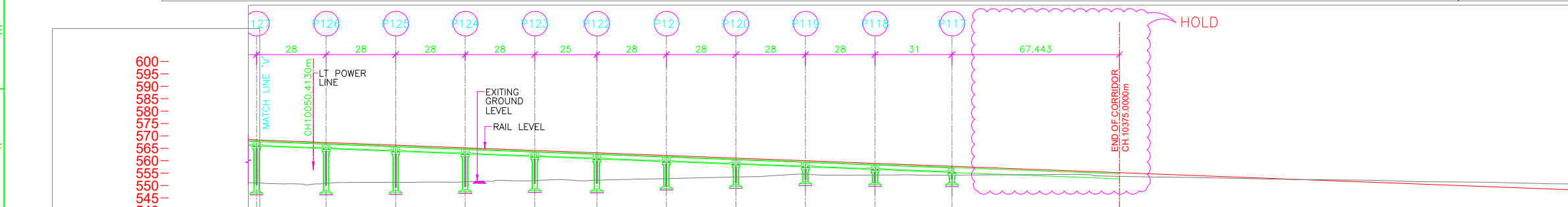
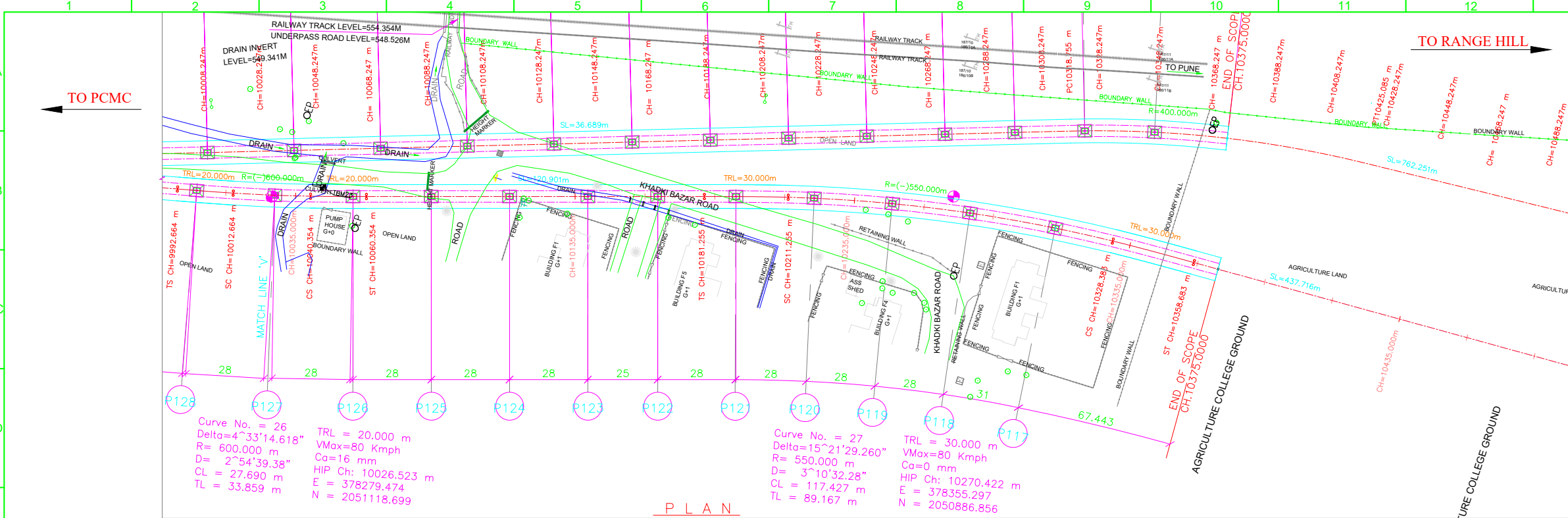
TITLE: **GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 9549.4150m TO 10034.9150m**

SCALE: 1:1 | DATE: 29.05.2018 | STATUS: FOR APPROVAL

DRG NO: **PUNE-NCC-GV-BAS-PP1-DCA-0001(SHEET 21/24)**

REVISION NO: **B09**

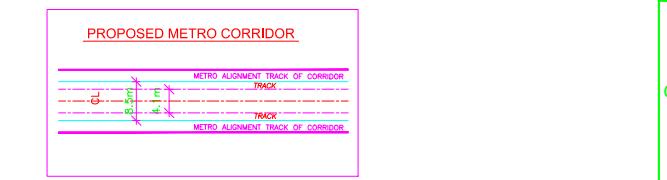
GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT		
	FOR GAD APPROVAL	SIGNATURE
TOPOGRAPHIC SURVEY IS VERIFIED AND FOUND CORRECT. ALIGNMENT SATISFIED CODAL REQUIREMENTS. PIER ARRANGEMENT IS SATISFACTORY. THE GAD IS RECOMMENDED FOR APPROVAL	SURVEY EXPERT	
	CHIEF RESIDENT ENG.	
	ALIGNMENT EXPERT	
	CHIEF STRUCTURAL EXPERT (VIADUCT & DESIGN)	
PMRCL APPROVED	CHIEF SIGNALING	
	CHIEF TRACTION	
	PD/DY. PD	
	ACPM, R1	
	CPM, R1	
	DGM (VIADUCT & DESIGN)	
	JGM (STATION DESIGN)	
	GM (DESIGN)	
	AGM (PLG)	
	GM (PLG)	



ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



GENERAL CONSULTANT TO PUNE METRO RAIL PROJECT

	FOR GAD APPROVAL	SIGNATURE
TOPOGRAPHIC SURVEY IS VERIFIED AND FOUND CORRECT. ALIGNMENT SATISFIED CODAL REQUIREMENTS. PIER ARRANGEMENT IS SATISFACTORY. THE GAD IS RECOMMENDED FOR APPROVAL	SURVEY EXPERT CHIEF RESIDENT ENG. ALIGNMENT EXPERT CHIEF STRUCTURAL EXPERT (VIADUCT & DESIGN) CHIEF SIGNALING CHIEF TRACTION PD/DY. PD	
PMRCL APPROVED	ACPM, R1 CPM, R1 DGM (VIADUCT & DESIGN) JGM (STATION DESIGN) GM (DESIGN) AGM (PLG) GM (PLG)	

ELEVATION

REV NO	DATE	DESCRIPTION	SIGN
B08	15.08.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED FROM GC ON 10.08.18	
B07	27.03.18	CHAINAGES MODIFIED DUE TO CHANGE IN NASIK PHATA	
B06	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	
B05	18.12.17	NON PIER ZONE ADDED AS PER MAIL RECEIVED ON 05.12.17	
B04	04.11.17	REVISED AS PER LETTER NO. GCPMR/PP/01/TRKSDPL/2017/0236 DATED 01.11.17 & STATION SPANS MODIFIED	
B03	14.10.17	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 12.10.17 FROM PMRCL	
B02	12.10.17	REVISED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 28.09.17 FROM PMRCL AND FURTHER DISCUSSION ON 10.10.17	

THE RESPONSIBILITY OF CONTROL, CHECK & VERIFICATION OF ACCURACY, CORRECTNESS, COMPLETENESS, INTEGRATION & FULL COMPLIANCE OF THE CONTRACT PROVISIONS IN RESPECT OF DESIGN, ANALYSIS AND DRAWINGS RESTS WITH THE DETAILED DESIGN CONSULTANT / DETAILED DESIGN CONSULTANT & CONTRACTOR. IT IS CERTIFIED THAT THERE IS NO CHANGE FROM THE ALREADY APPROVED CR DWG NO. "-----" REV "-----" APPROVED ON DATE "-----"

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□ Proof checked & Approved by GC
□ Being Given No Objection
□ Issued As Good For Construction.

COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

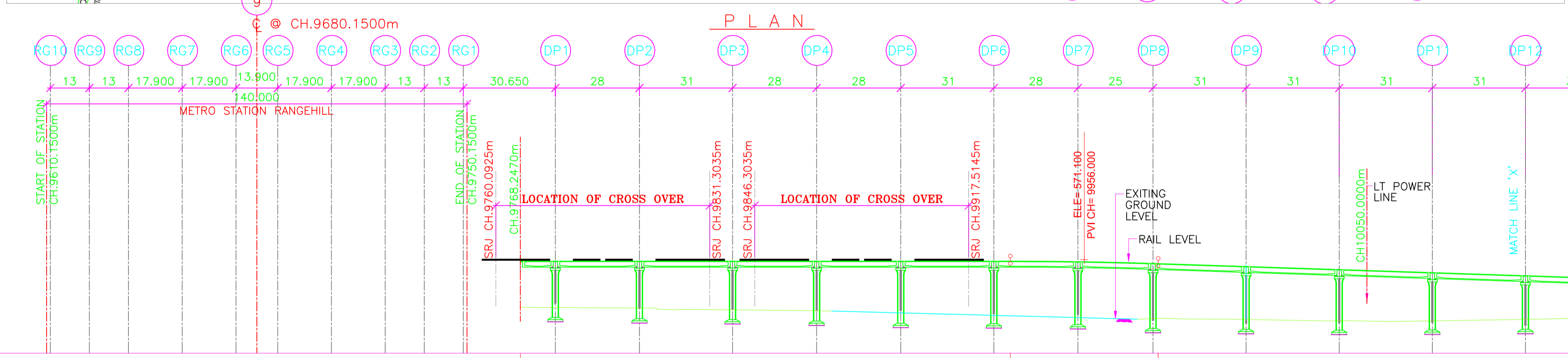
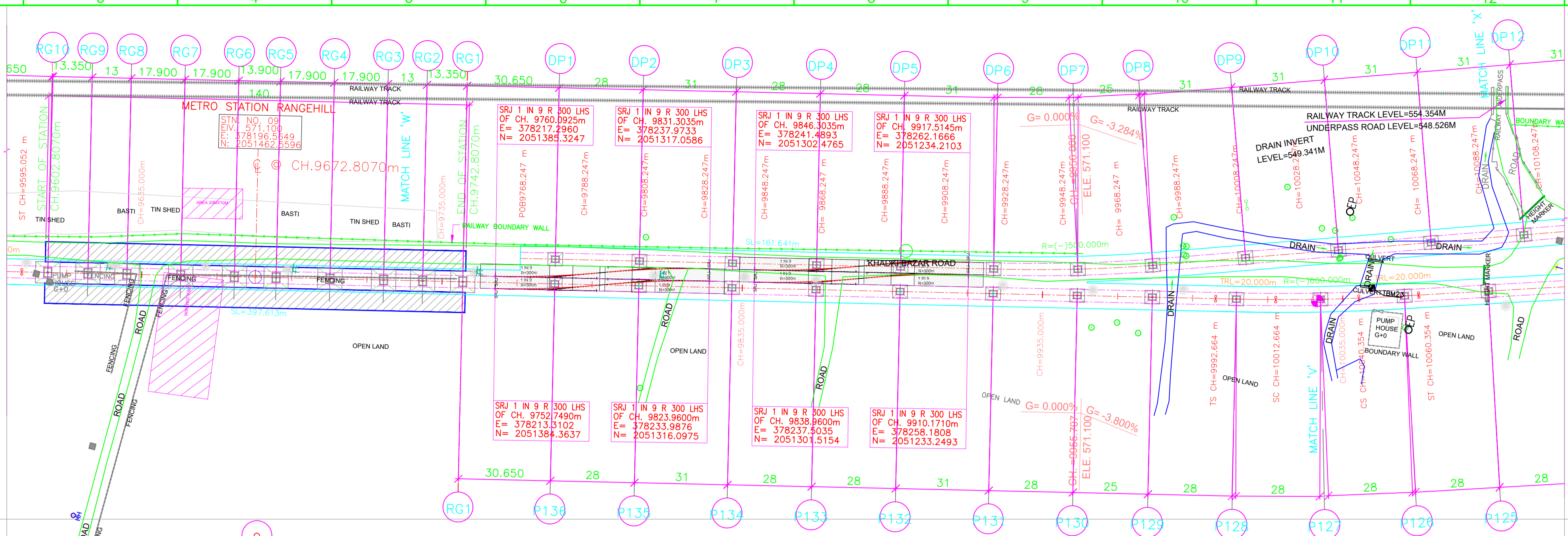
LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCMC - RANGE HILL

TITLE: **GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 10034.9150m TO 10375.0000m**

SCALE: 1:1 DATE: 29.05.2018 STATUS: FOR APPROVAL

DRG NO: **P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 22-24)**

REVISION NO: **B08**



VERTICAL ALIGNMENT	$L = 163.130 \text{ m}$ $G = 0.000\%$												
HORIZONTAL ALIGNMENT	$SL 161.641 \text{ m}^*$ $R = -500.000 \text{ m}$ $CL = 52.178 \text{ m}$												
ELEVATION LEVEL DIFFERENCE AS PER NIT	15.808	15.914	16.081	16.689	16.978	17.689	18.518	19.098	18.837	18.135	17.445	16.546	15.038
ELEVATION LEVEL DIFFERENCE AS PER SURVEY													
RAIL LEVELS (M)	571.100	571.100	571.100	571.100	571.100	571.100	571.100	570.931	570.347	569.330	568.312	567.294	566.276
GROUND LEVEL (M) ALONG CENTER LINE AS PER SURVEY	555.292	555.186	555.019	554.411	554.122	553.411	552.582	551.833	551.510	551.195	550.867	550.748	551.238
PROJECT CHAINAGES	9768.247	9779.900	9807.900	9838.900	9866.900	9894.900	9925.900	9953.900	9978.900	10009.900	10040.900	10071.900	10102.900
NORTHING	375225.1860	375227.9175	375234.4806	375241.7469	375248.3099	375254.8730	375262.1383	375269.2606	375276.8773	375287.2336	375297.5997	375307.9657	375318.3319
EASTING	2051378.8933	2051367.5105	2051340.2906	2051310.1542	2051285.9342	2051255.7143	2051225.5779	2051196.5020	2051174.8933	2051145.4744	2051116.2569	2051087.0434	2051057.8278

LEGEND :

P	STANDARD PIER	HIP	HORIZONTAL INTERSECTION POINT
CP	CANTILEVER PIER	D	DEFLECTION ANGLE
PP	PORTAL PIER	L	GRADE LENGTH
CS	CURVE TO SPIRAL	TRL	TRANSITION LENGTH
ST	SPIRAL TO TANGENT	TL	TANGENT LENGTH
TS	TANGENT TO SPIRAL	R	RADIUS
SC	SPIRAL TO CURVE	CA	APPLIED CANT
SS	SPIRAL TO SPIRAL	CD	CANT DEFICIENCY
SL	STRAIGHT LENGTH	PVI	POINT OF VERTICAL INTERSECTION
ELE	ELEVATION	SRJ	STOCK RAIL JOINT
E	EASTING	CH	CHAINAGE
N	NORTHING	DELTA	DEFLECTION ANGLE
G	GRADIENT	CL	CURVE LENGTH
	ALIGNMENT CENTER LINE		METRO PORTION
	TRACK CENTER LINE		TRANSITION START & END
XY	X = PIER TYPE		
	Y = PIER No.		

NOTES:

- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
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- THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
- RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
- ALL FOUNDATIONS SHOWN ARE TENTATIVE.

REFERENCE DWG.

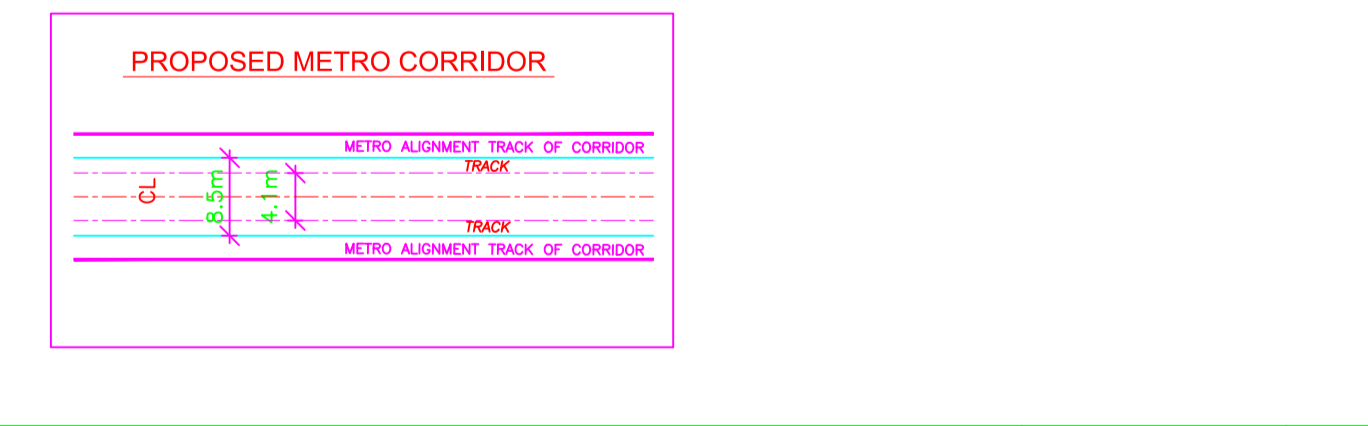
GAD (ALIGNMENT PLAN & VERTICAL PROFILE) — PUNE/PCM-SG/GAD/ALG/01
FOR PCM-RANGE HILL (NORTH-SOUTH) CORRIDOR

NON PIER ZONE CROSSING TYPE: 1IN9 R300 — PMRC - NON PIER ZONE - 1IN9 R300-001

ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

POINTS	LOCATION	NORTHING	EASTING
'A'	CH. (-)1164.704	2060885.2701	373253.3422
'B'	P297 CH. 2066.3000	2058356.0284	375262.4252
'C'	CORNER POINT OF HOTEL KALA SAGAR.	2058371.1200	375296.7948



REV NO	DATE	DESCRIPTION	SIGN
B02	25.01.18	MODIFIED AS PER REVISED ALIGNMENT DRAWING RECEIVED ON 18.01.18	

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DDC				CONTRACTOR			
SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:	SIGN:
DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE: 04.07.18	DATE:	DATE:	DATE:	DATE:
NAME: MPP	NAME: PGT	NAME: MAJ	NAME: VLD	NAME:	NAME:	NAME:	NAME:
DRAWN BY	DESIGN BY	CHECKED BY	APPROVED BY	ACCEPTED BY			

CONSULTANTS
STRUCTCON DESIGNS PVT. LTD.
 SUASHISH IT PARK, A104, 1ST FLOOR, DATTAPADA ROAD, OPP. TATA STEEL, BORIVALI (EAST), MUMBAI-400066

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PROOF CONSULTANT		GENERAL CONSULTANT TO PMRP	
SIGN:	SIGN:	SIGN:	SIGN:
DATE:	DATE:	DATE:	DATE:
NAME: SHUBHAM GARG	NAME: SUBRAMANIAN RAMAN	NAME: PRASAD MOHITE	NAME: SARALA KULKARNI

SYSTRA-AECOM-EGIS-RITES
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

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COUNTER SIGNED BY MAHARASHTRA METRO RAIL CORPORATION LTD.

PROJECT: **PUNE METRO RAIL PROJECT**
 The Orion Building, 1st Floor, Opposite Don Bosco Center, Near Saint Mira's Girls College, Koregaon Park, Pune - 411001, MH, India

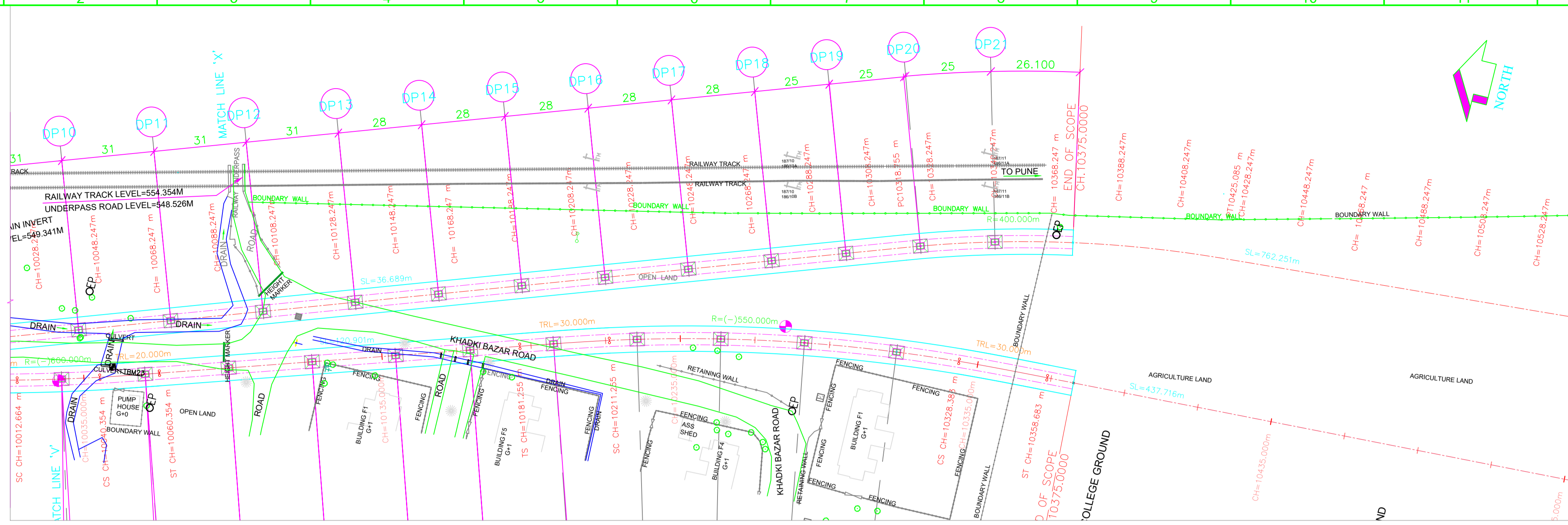
CLIENT: **MAHARASHTRA METRO RAIL CORPORATION LTD.**

LOCATION: CORRIDOR I - ELEVATED CORRIDOR FROM PCM - RANGE HILL

TITLE: **GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 9768.247 TO 10102.900**

SCALE: 1:1 DATE: 29.05.17 STATUS: FOR APPROVAL REVISION NO:

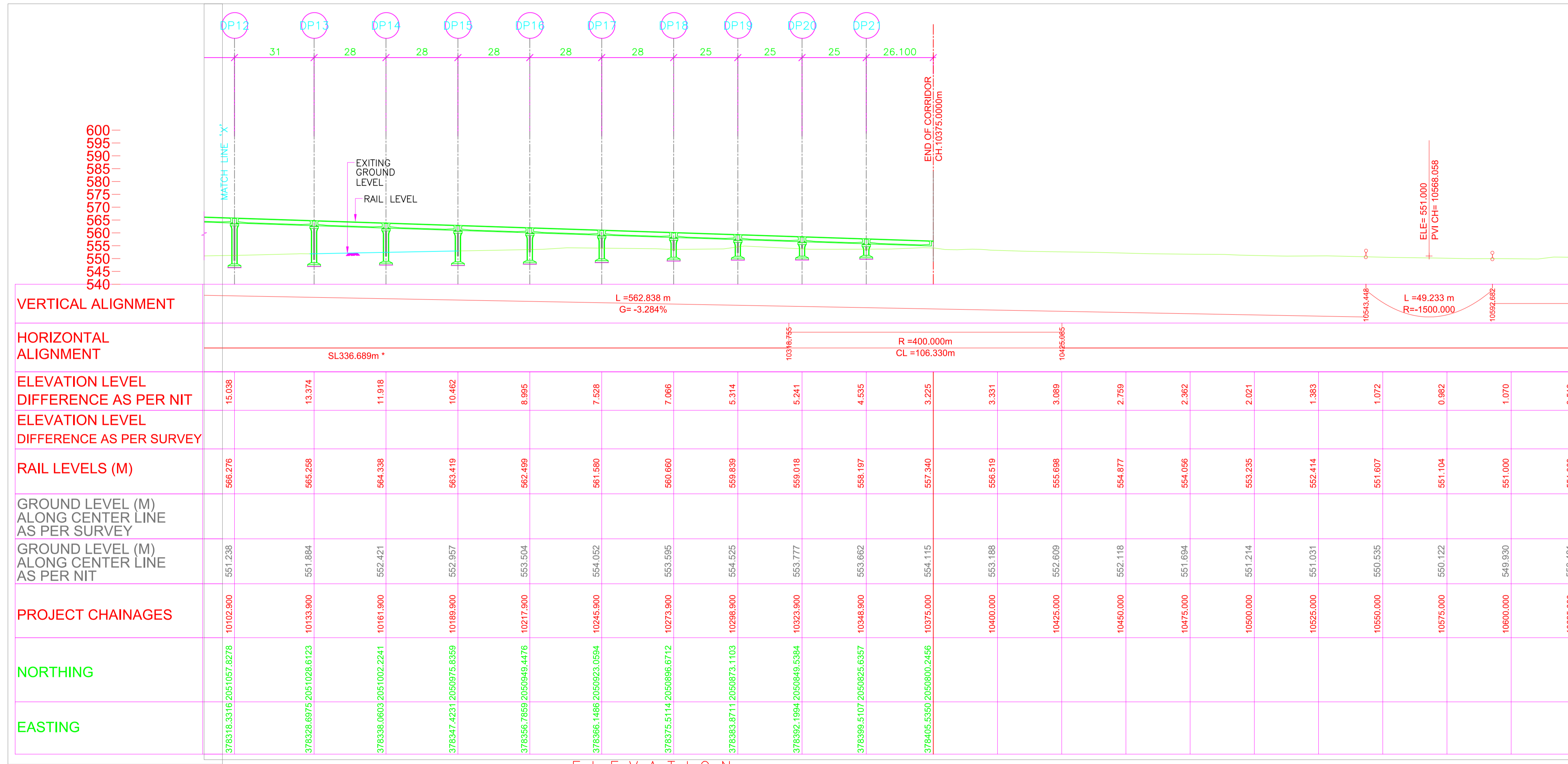
DRG NO: **P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 23-24)** B02



KEY PLAN

- LEGEND :**
- P STANDARD PIER
 - CP CANTILEVER PIER
 - PP PORTAL PIER
 - CS CURVE TO SPIRAL
 - ST SPIRAL TO TANGENT
 - TS TANGENT TO SPIRAL
 - SC SPIRAL TO CURVE
 - SS SPIRAL TO SPIRAL
 - SL STRAIGHT LENGTH
 - ELE ELEVATION
 - E EASTING
 - N NORTHING
 - G GRADIENT
 - ALG ALIGNMENT CENTER LINE
 - TRC TRACK CENTER LINE
 - XY X = PIER TYPE, Y = PIER No.
 - HIP HORIZONTAL INTERSECTION POINT
 - D DEFLECTION ANGLE
 - L GRADE LENGTH
 - TRL TRANSITION LENGTH
 - ST TANGENT LENGTH
 - R RADIUS
 - CA APPLIED CANT
 - CD CANT DEFICIENCY
 - PVI POINT OF VERTICAL INTERSECTION
 - SRJ STOCK RAIL JOINT
 - CH CHAINAGE
 - DELTA DEFLECTION ANGLE
 - CL CURVE LENGTH
 - METRO PORTION
 - TRANSITION START & END

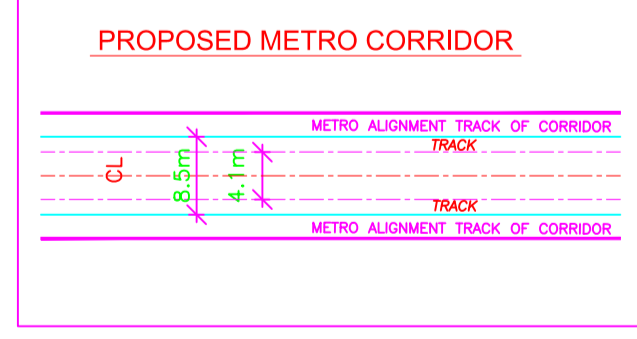
- NOTES:**
- ALL DIMENSIONS, LEVELS AND CHAINAGES ARE IN METRES UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THE SPAN ARRANGEMENT SHOWN MAY CHANGE AT CERTAIN LOCATIONS DEPENDING ON SITE CONSTRAINTS.
 - THE GAD IS BASED ON THE EXISTING SURVEY DATA AVAILABLE WITH NMRL. DTM HAS BEEN PREPARED ACCORDINGLY. CONTRACTOR TO ENSURE THE GROUND/ROAD LEVELS ETC. DURING DETAILED DESIGN AND EXECUTION.
 - RAIL TOP LEVEL TO PIER TOP DIMENSION IS BASED ON FOLLOWING:
RAIL + RAIL PLINTH = 0.467m.
DOWNSTAND + BEARING + PEDESTAL = 0.4m.
DEPTH OF BOX GIRDER = 2.0m.
 - ALL FOUNDATIONS SHOWN ARE TENTATIVE.
- REFERENCE DWG.**
- GAD (ALIGNMENT PLAN & VERTICAL PROFILE) PUNE/PCMC-SG/GAD/ALG/01
 - FOR PCMC-RANGE HILL (NORTH-SOUTH) CORRIDOR
 - NON PIER ZONE CROSSING TYPE: 1IN9 R300 PMRC - NON PIER ZONE -1IN9 R300-001



ALIGNMENT, SURVEY DETAILS LIKE GROUND LEVELS ETC. ARE AS PER NIT.

NORTHING & EASTING ARE AS PER REFERENCE CONTROL POINTS SHOWN IN DRAWING.

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 SIGN: SHUBHAM GARG
 DATE: []
 NAME: SHUBHAM GARG

GENERAL CONSULTANT TO PMRP
 SIGN: SUBRAMANIAN RAMAN
 DATE: []
 NAME: SUBRAMANIAN RAMAN

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TITLE: GENERAL ARRANGEMENT : PLAN & ELEVATION FROM CH. 10102.900 TO 10375.000

SCALE: 1:1 DATE: 29.05.17 STATUS: FOR APPROVAL

DRG NO: P1B01-NCC-CV-BAS-PP1_DGA-0001 (SHEET 24-24)

REVISION NO: **B02**

plot scale 1:1 50mm