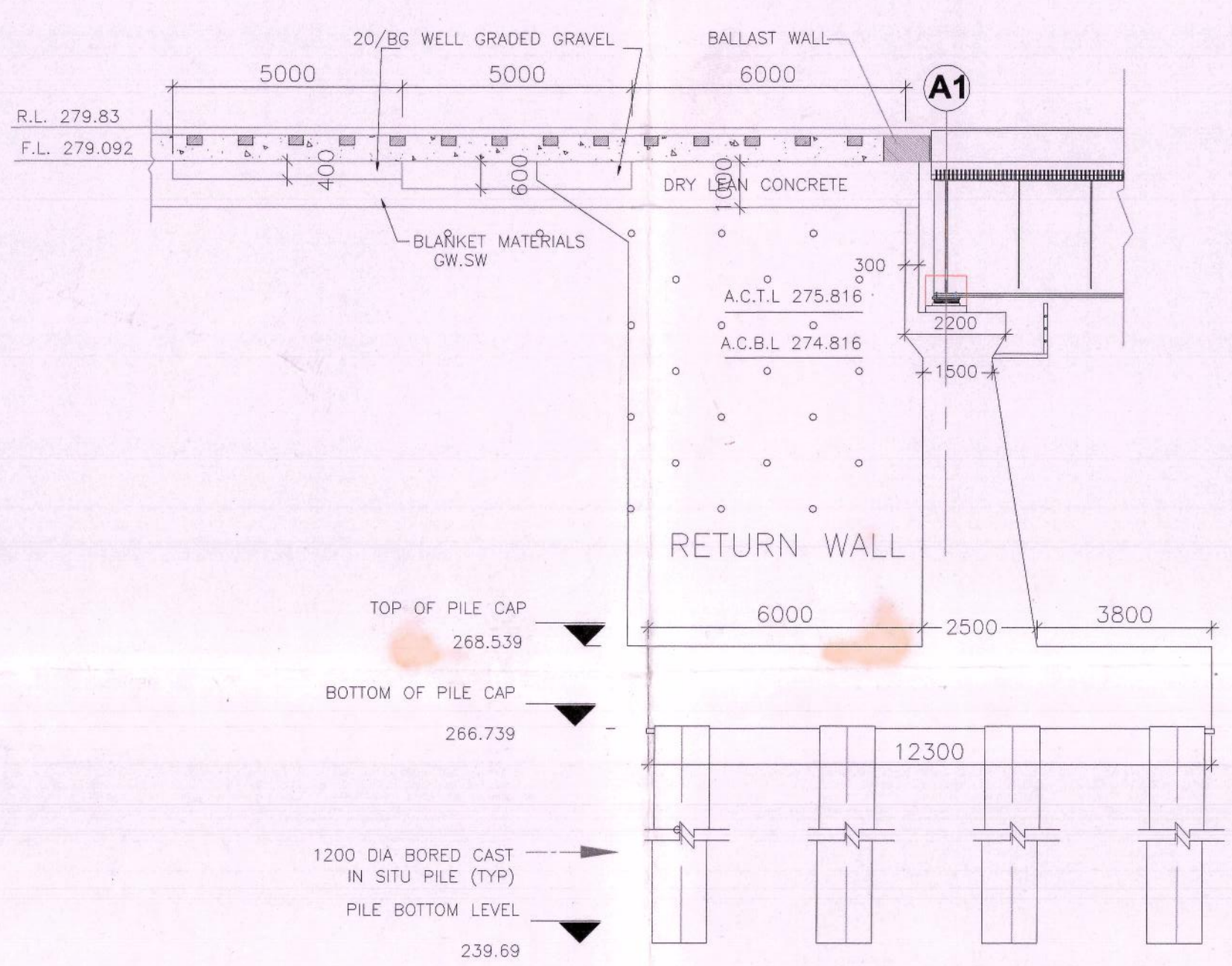
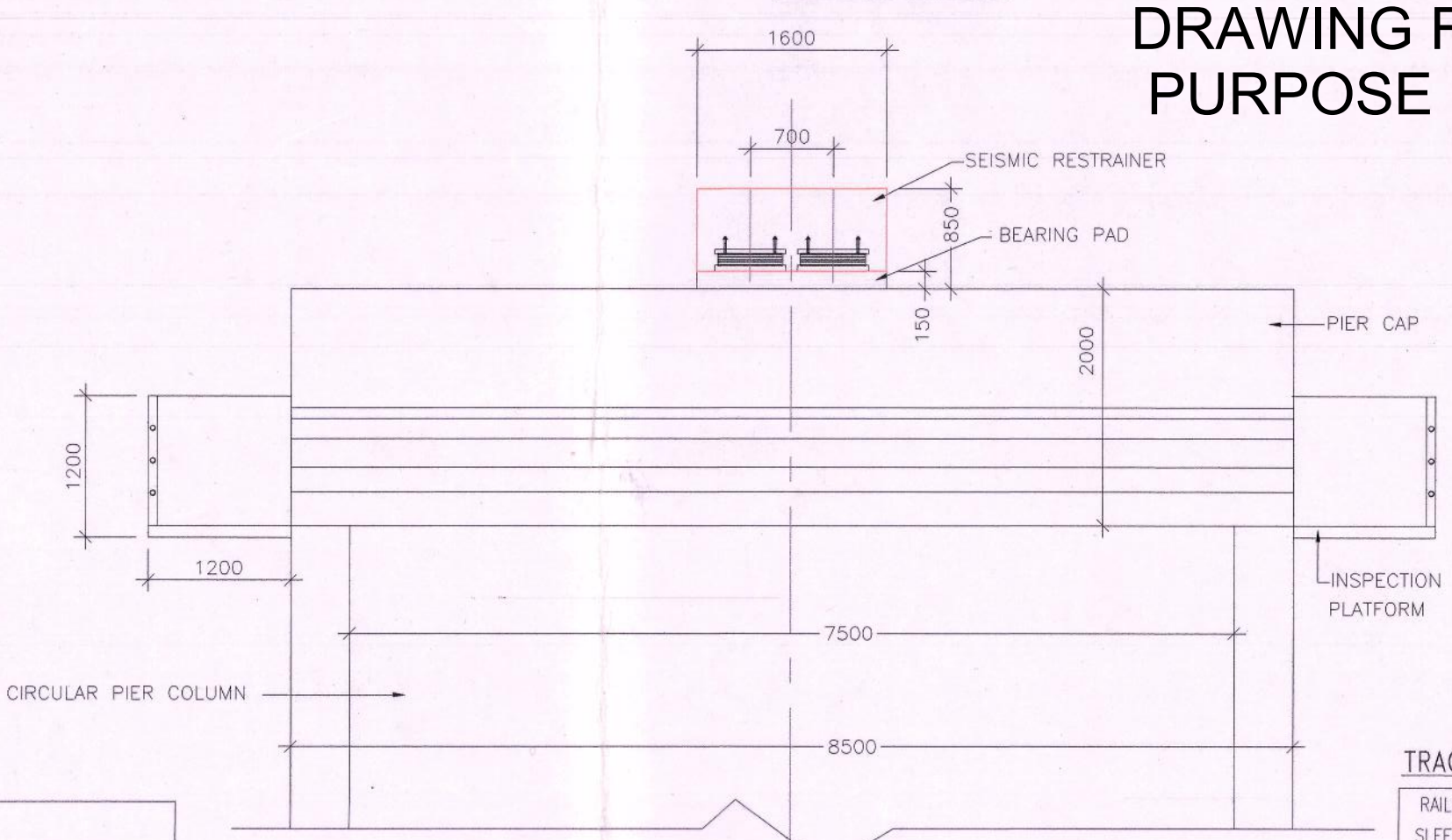


SECTION AT ABUTMENT A1 / A2
SCALE 1:125



DETAIL OF 'A'



TYP. DETAIL OF PIER CAP

TRACK PARAMETERS:-

RAILS	60.34 Kg RAILS
SLEEPERS ON APPROACHES	PSC
SLEEPERS ON BRIDGE	PSC
BALLAST CUSHION	300 mm
FORMATION WIDTH	7850 mm
GRADIENT	NIL
SKREW ANGLE	NIL

GEOTECHNICAL INFORMATION

NB.01
CH: 26596.50

DEPTH (M)	STRATA	LOG	ROD VALUE
0.00-0.50	Brownish grey silty sand with gravels, stone pieces etc.		NILL
0.50-1.15	Greyish yellow silty sand with gravels, stone pieces etc.		NILL
1.15-1.75	Completely weathered product of rock		NILL
1.75-3.25 & 4.78-5.50 & 7.03-7.73	Highly weathered light grey coloured medium grained quartzite, highly fractured (fissile, very intensely) from top to bottom of the run, cores are broken into pieces		NILL
3.25-4.78 & 5.50-7.03 & 7.75-8.50	Completely weathered product of rock		NILL
8.50-11.50 & 12.25-13.00 & 14.50-15.25	Highly weathered light grey coloured medium grained quartzite, highly fractured (fissile, very intensely) from top to bottom of the run, cores are broken into pieces		NILL
11.50-12.25 & 13.00-14.50	Completely weathered product of rock		NILL

GEOTECHNICAL INFORMATION

NB.02
CH: 26614.80

DEPTH (M)	STRATA	LOG	ROD VALUE
0.00-0.50	Brownish grey silty sand with gravels, stone pieces etc.		NILL
0.50-1.03	Greyish yellow silty sand mixed with gravels, stone pieces etc.		NILL
1.03-6.28	Completely weathered product of rock		NILL
6.28-7.75	Highly weathered light grey coloured medium grained quartzite, highly fractured (fissile, very close-spaced, very intensely) from top to bottom of the run, cores are broken into pieces		NILL
7.75-10.75 & 11.50-15.40	Highly weathered greyish-green coloured fine grained chlorite-schist, possessing schistose structures by parallel arrangement of folky minerals, highly fractured from top to bottom of the run due to presence of close-spaced foliation joint dipping 60°/c axis, another set of sub-vertical joint with moderate spacing present, joint planes slightly rough and fe-stained		NILL
10.75-11.50	Moderately weathered greyish-green coloured fine grained chlorite-schist, moderately fractured due to presence of one set foliation joint dipping 60°/c axis, joint planes non-stained		NILL

GEOTECHNICAL INFORMATION

NB.05
CH: 26669.71

DEPTH (M)	STRATA	LOG	ROD VALUE
0.00-0.85	Greyish yellow silty sand mixed with stone pieces etc.		NILL
0.85-3.75	Highly weathered greyish-green coloured fine grained chlorite-schist, highly fractured, cores broken into pieces		NILL
3.75-4.50	Completely weathered product of rock		NILL
4.50-5.25	Highly weathered greenish-grey coloured fine grained chlorite-schist, highly fractured, cores are broken into pieces		NILL
5.25-6.00	Completely weathered product of rock		NILL
6.00-12.00	Highly weathered greenish-grey coloured fine grained chlorite-schist, highly fractured, cores are broken into pieces		NILL
12.00-15.00 & 15.93-18.00	Highly weathered greenish-grey coloured fine to medium grained quartzite-chlorite-sericite schist, highly fractured due to presence of close-spaced sub-vertical joints, cores are broken into pieces		NILL
15.00-15.93 & 18.00-18.86 & 19.50-20.32	Completely weathered product of rock		NILL
20.32-24.00 & 24.80-25.19	Highly weathered greenish-grey coloured fine to medium grained quartzite-chlorite-sericite schist, highly fractured due to presence of close-spaced sub-vertical joints, cores are broken into pieces		NILL
24.00-24.80	Completely weathered product of rock		NILL

RELEVANT CODES FOLLOWED FOR DESIGN ARE AS FOLLOWS:-

- IRS BRIDGE RULES WITH ALL LATEST A & C SLIP.
- IRS BRIDGE SUBSTRUCTURE & FOUNDATION CODE WITH ALL LATEST A & C SLIP.
- IRS CONCRETE BRIDGE CODE WITH ALL LATEST A & C SLIP.
- IRS STEEL BRIDGE CODE WITH ALL LATEST A & C SLIP.
- IRS MANUAL ON THE DESIGN AND CONSTRUCTION OF WELL AND PILE FOUNDATIONS (1985).
- IRS WELDED BRIDGE CODE WITH ALL LATEST A & C SLIP.
- SEISMIC CODE - (S1893, PART-III, (DRAFT)
- IS 456 : 2000, IS 1300, IS : 800-2007, IS : 875-1987, IS : 2911

HYDRAULIC DATA:-

- DESIGN DISCHARGE = 249.6 Cumecs.
- FREE BOARD REQUIRED = 5 m
- FREE BOARD PROVIDED = 5 m
- LACEY'S REGIME = 76m
- LINEAR WATERWAY PROVIDED > LACEY'S REGIME
- AS NO SUBSTRUCTURE (PIER) IS LOCATED ON RIVER BED, SCOUR CALCULATION NOT SIGNIFICANT FOR THE DESIGN.
- MAXIMUM MEAN WATER CURRENT = 6.0 m/sec.
- H.F.L. = 239.72 m
- L.W.L. = ASSUME AT BED LEV.

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS.
- FOR OTHER NOTES REFER SEPARATE DRAWING NO. D2-PEMS/NFR/IRCON/SIVOK-RANGPO/GAD/BR.10 (Sheet 1 of 2)

GEOTECHNICAL INFORMATION

NB.03
CH: 26633.10

DEPTH (M)	STRATA	LOG	ROD VALUE
0.00-1.00	Greyish yellow silty sand mixed with gravels, stone pieces etc.		NILL
1.00-2.95	Greyish yellow silty sand with traces of kankars		NILL
4.00-4.05	Greyish yellow silty sand with gravels		NILL
4.05-4.75	Greyish sand mixed with fragmented rock pieces		NILL
4.75-5.50 & 6.30-7.75	Highly weathered light grey coloured medium grained quartzite, highly fractured (fissile, very intensely) from top to bottom of the run, cores are broken into pieces		NILL
5.50-6.30	Completely weathered product of rock		NILL
7.75-8.50	Completely weathered product of rock		NILL
8.50-9.25 & 10.03-11.50 & 12.28-13.00	Highly weathered greenish-grey coloured fine to medium grained quartzite-schist, highly fractured (fissile, very close-spaced, very intensely) from top to bottom of the run, cores are broken into pieces		NILL
9.25-10.03	Completely weathered product of rock		NILL
11.50-12.28	Completely weathered product of rock		NILL
13.00-13.78	Completely weathered product of rock		NILL
13.78-14.50	Highly weathered greenish-grey coloured fine grained chlorite-schist, possessing schistose structure, highly fractured from top to bottom of the run, cores are broken into pieces		NILL
14.50-15.33	Completely weathered product of rock		NILL

GEOTECHNICAL INFORMATION

NB.04
CH: 26651.41

DEPTH (M)	STRATA	LOG	ROD VALUE
0.00-0.50	Grey sand mixed with stone pieces etc.		NILL
0.50-0.75	Highly weathered greenish-grey coloured fine grained quartzite-gneiss, highly fractured due to presence of two sets fe-stained joint, cores are broken into pieces.		NILL
0.75-3.00	Moderately weathered grey coloured fine to medium grained quartzite-gneiss, foliated, foliation planes dipping sub-vertically, fractured due to presence of foliation joint, joint planes slightly rough, wavy and non-stained		27
1.50-2.25	Highly weathered grey coloured fine to medium grained quartzite-gneiss, highly fractured, cores are broken into pieces		43
2.25-3.00	Highly weathered grey coloured fine to medium grained quartzite-gneiss, highly fractured, cores are broken into pieces		37
3.00-4.50	Moderately weathered grey coloured fine to medium grained quartzite-gneiss, highly fractured, cores are broken into pieces		NILL
4.50-5.25	Moderately weathered grey coloured fine to medium grained quartzite-gneiss, foliated, foliation planes dipping sub-horizontally, moderately fractured non-jointed		15
5.25-6.00	Highly weathered greyish-green coloured fine grained chlorite-schist, highly fractured, cores broken into pieces		NILL
6.00-6.75	Highly weathered greyish-green coloured fine grained chlorite-schist, highly fractured, cores broken into pieces upto depth 6.60m, rest highly weathered grey coloured fine to medium grained quartzite-gneiss		NILL
6.75-7.50	Highly weathered greyish-green coloured fine grained chlorite-schist, highly fractured, cores broken into pieces		NILL
7.50-8.25	Moderately weathered greenish-grey coloured fine grained chlorite-schist, fractured due to presence of sub-vertical non-stained joint		NILL
8.25-9.00	Highly weathered greyish-green coloured fine grained chlorite-schist, highly fractured, cores broken into pieces		NILL
9.00-15.14	Highly weathered greenish-grey coloured fine grained chlorite-schist, possessing schistose structure, highly fractured from top to bottom of the run, due to presence of close-spaced sub-vertical joint, joint planes smooth and non-stained		NILL

DEPTH OF CONSTRUCTION

APPROACH & BRIDGE PORTION	
RAIL HEIGHT	172 mm
G / PAD	6 mm
PSC SLEEPER AT RAIL SEAT	210 mm
BALLAST CUSHION	350 mm
TOTAL	738 mm

LEGENDS:-

RAIL LEVEL	: R.L.
FORMATION LEVEL	: F.L.
GROUND LEVEL	: G.L.
NATURAL SOIL LEVEL	: N.S.L.
CHAINAGE	: CH.
ABUTMENT CAP TOP LEVEL	: A.C.T.L.
ABUTMENT CAP BOTTOM LEVEL	: A.C.B.L.
PIER CAP BOTTOM LEVEL	: P.C.B.L.
TOP OF FOUNDATION	: T.O.F.
BOTTOM OF FOUNDATION	: B.O.F.
BOTTOM OF GIRDER	: B.G.
BOUNDARY OF ACQUIRED LAND	: ---

IRCON	N. F. Railway								
JGM/SRRP	CGM/PH/SRRP	XEN/CON/NJP N.F.RAILWAY	DY.CE/CON/NJP N.F.RAILWAY	SSE/C/D/MLG N.F.RAILWAY	SSE/DRG/CON/MLG N.F.RAILWAY	AXEN/CON/D-3/MLG N.F.RAILWAY	DY.CE/CON/D-1/MLG N.F.RAILWAY	CE/CON-3/MLG N.F.RAILWAY	

CLIENT: IRCON International Ltd

DESIGNER: PEMS, D2 Consult - PEMS JV

PROJECT TITLE: DETAILED DESIGN CONSULTANCY OF ALL STRUCTURES INCLUDING TUNNELS, BRIDGES/VIADUCTS, STATION YARD & ASSOCIATED WORKS & CONSTRUCTION SUPERVISION OF TUNNELS BETWEEN CH:26.570 TO CH: 33.530 KM IN CONNECTION WITH CONSTRUCTION OF SIVOK TO RANGPO NEW SINGLE BG RAILWAY LINE PROJECT

Rev. No.	Description	Date	Scale	AS SHOWN	LOCATION: TAR KHOLA
R5	REVISED AS PER COMMENTS	27.06.2020	Drawn	PV	DRAWING TITLE: GENERAL ARRANGEMENTS DRAWING Bridge No.10 4x30.5m Composite Girder (Sheet 2 of 2)
R4	REVISED AS PER COMMENTS	21.01.2019	Checked	ND	
R3	REVISED AS PER COMMENTS	10.10.2018	Approved	B.B.SARAN	
R2	REVISED AS PER COMMENTS	09.05.2018			
R1	REVISED AS PER COMMENTS	28.09.2015	Date	25.05.2015	
RO	INITIAL SUBMISSION	25.05.2015			

DRAWING NO: D2-PEMS/NFR/IRCON/SIVOK-RANGPO/GAD/BR.10 Rev. no. R5