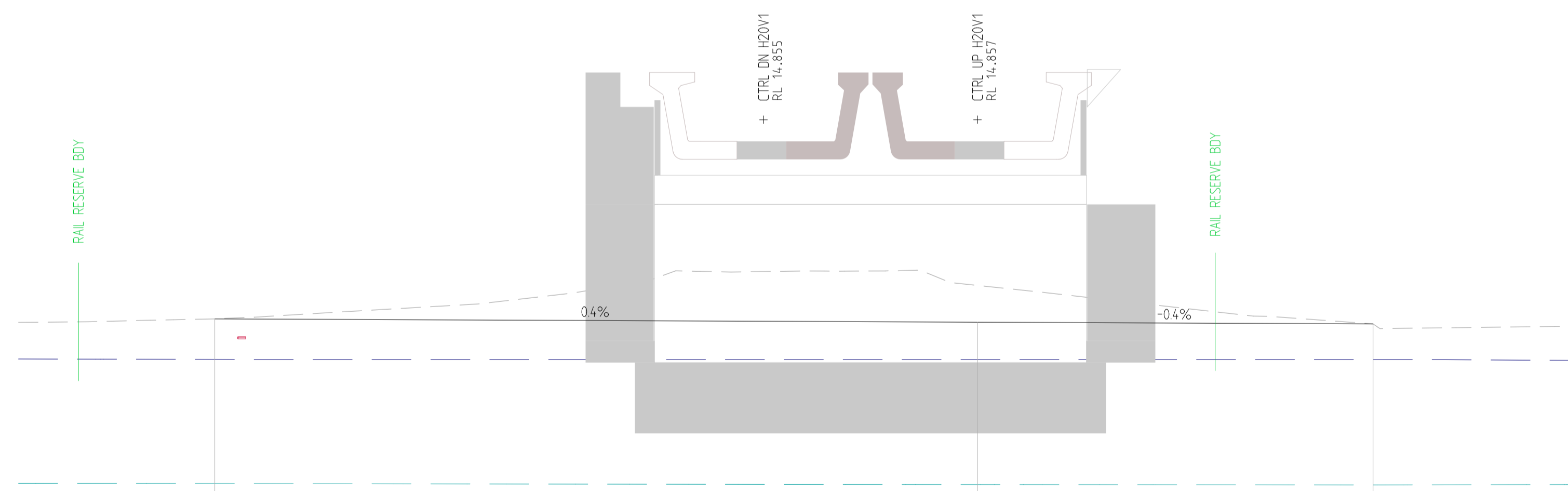


## Appendix P – Pier Cross Section



DATUM 4.0			
STRING NAME	BD99		BD99
DESIGN LEVEL	9.787	9.703	9.659
DGWL ZAEP	8.752	8.750	8.750
EXISTING LEVEL	9.787	10.638	9.659
OFFSET	-19.424	0.000	10.075

CHAINAGE 9215.625

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

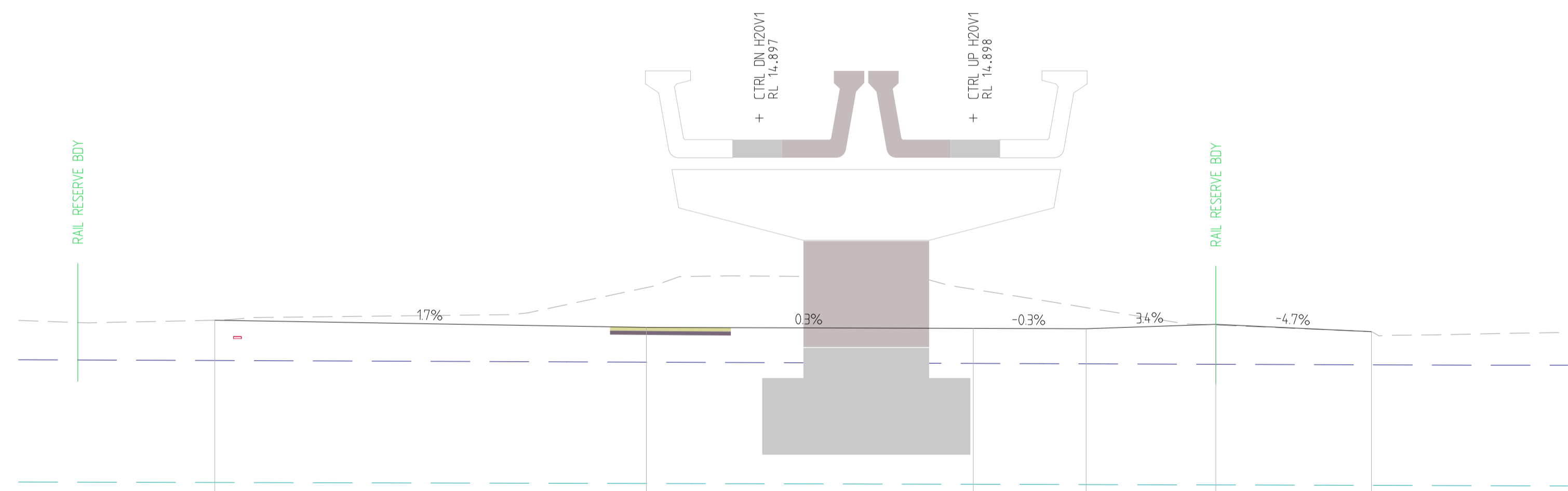
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	IAB1	ICB1	ICB2	ICB3	IAB3	BD99
DESIGN LEVEL	9.753	9.570	9.545	9.536	9.648	9.461
DGWL ZAEP	8.728	8.685	8.654	8.643	8.631	8.617
EXISTING LEVEL	9.753	10.583	10.540	10.074	9.630	9.461
OFFSET	-19316	-8325	0000	2875	6177	10141

CHAINAGE 9244.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

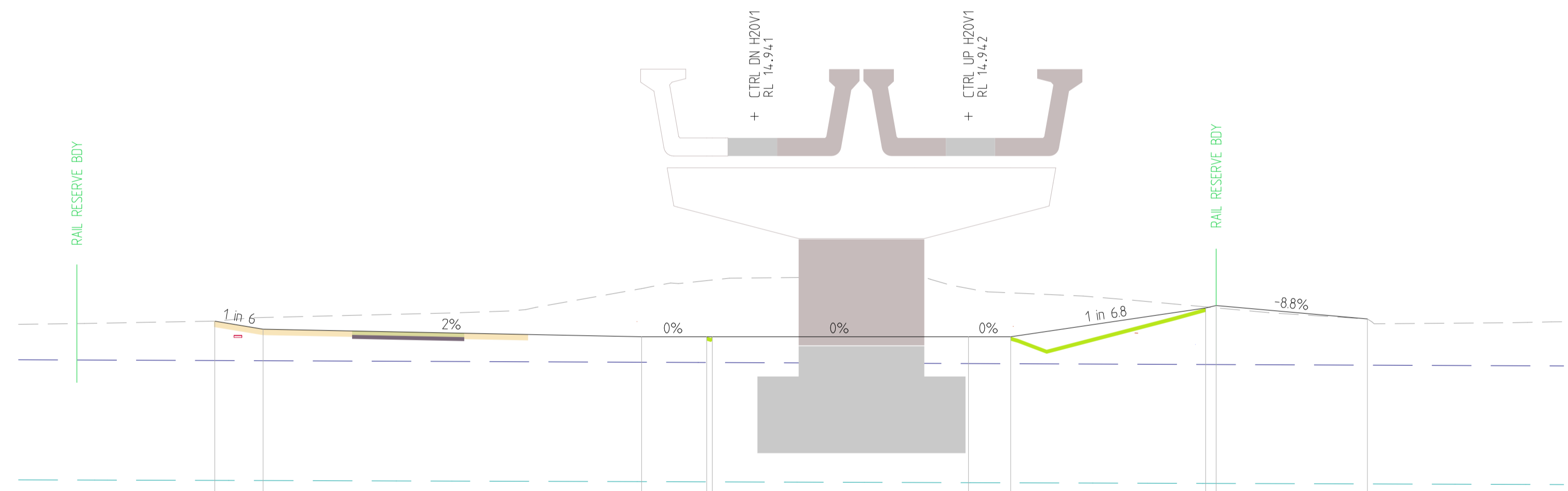
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	IAB1	EVB1	KB1	EVB9	EVB9	EVB9	EVB9	BD99
DESIGN LEVEL	9.729	9.525	9.332	9.332	9.332	9.332	9.332	9.786
DGWL ZAEP	8.727	8.722	8.683	8.677	8.676	8.650	8.646	8.609
EXISTING LEVEL	9.730	9.822	10.558	10.761	10.776	10.560	10.449	10.092
OFFSET	-19.094	-17.965	-8.325	-6.666	-6.525	0.000	10.75	6.504

CHAINAGE 9274.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

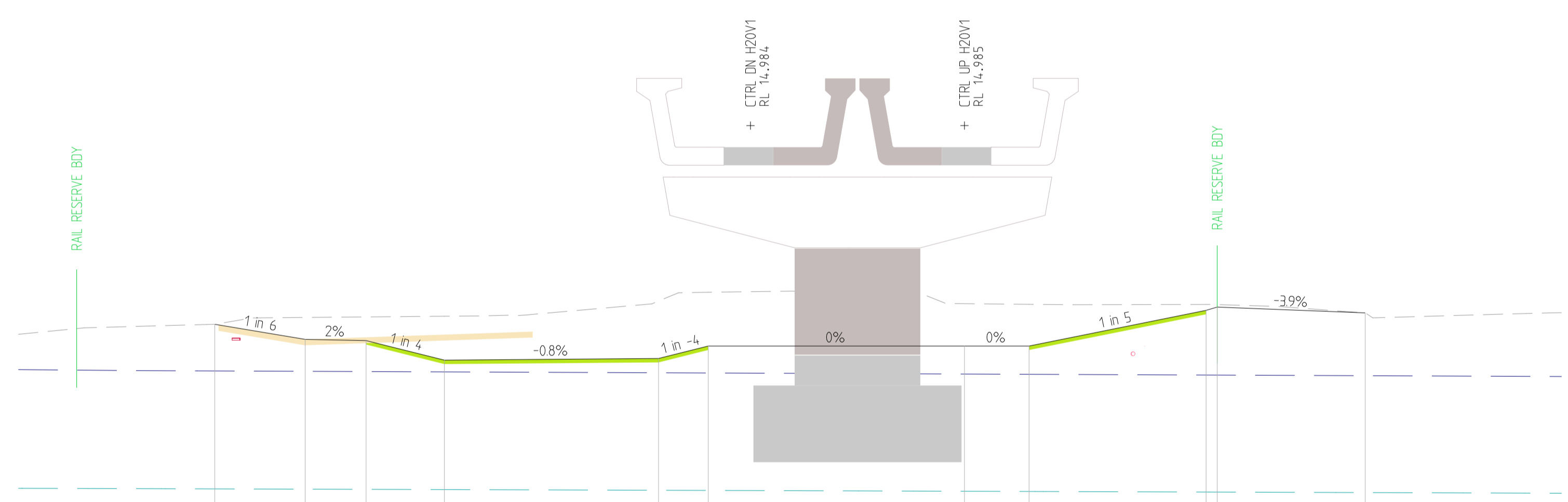
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	IAB1	EVB1	EV99	IF99	IF99	EV99	EV99	EV99	EV99	IABJ	BD99
DESIGN LEVEL	9.928	9.544	9.593	9.016	9.059	9.375	9.375	9.375	9.375	10.293	10.219
DGWL ZAEP	8.741	8.732	8.726	8.717	8.685	8.690	8.662	8.656	8.656	8.637	8.620
EXISTING LEVEL	9.929	10.102	10.116	10.133	10.520	10.743	10.453	10.436	10.436	10.433	10.219
OFFSET	-19.092	-16.790	-15.239	-13.245	-7.791	-6.525	0.000	1.645	1.645	6.653	10.204

CHAINAGE 9304.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

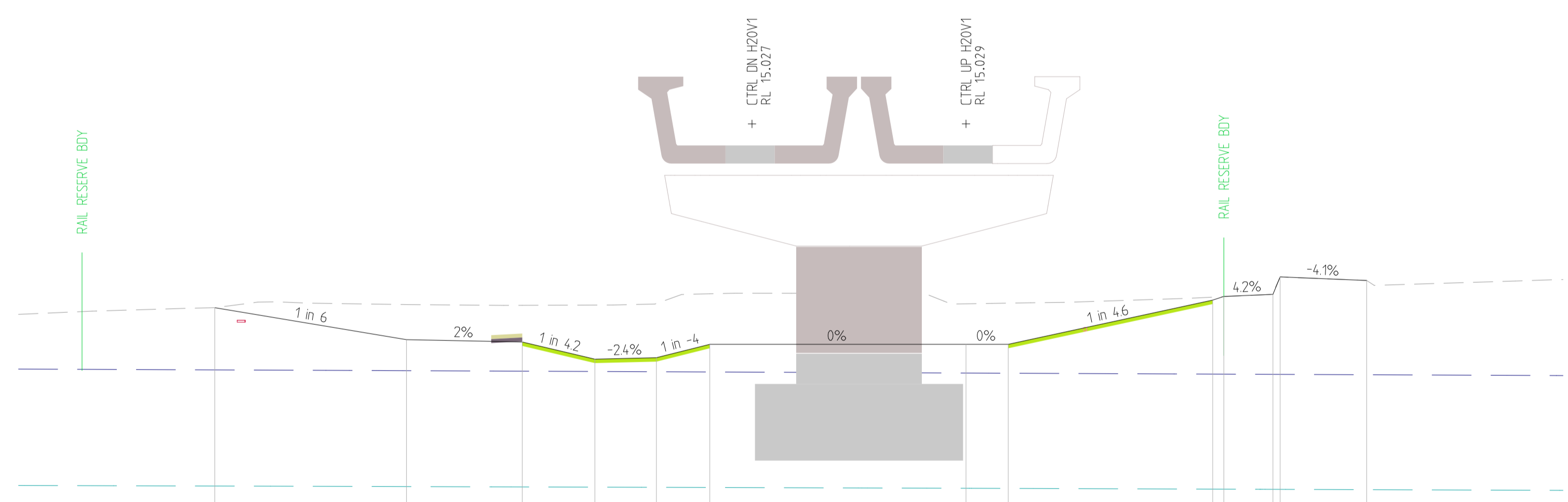
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	IAB1	EV81	EV99	IF99	IF99	EV99	EV99	EV99	EV99	IABJ	WFE99	WTE99	BD99
DESIGN LEVEL	10.351	9.537	9.478	9.041	9.079	9.419	9.419	9.419	10.544	10.637	10.690	11.135	11.013
DGWL ZAEP	8.768	8.748	8.735	8.728	8.721	8.715	8.688	8.683	8.661	8.660	8.655	8.654	8.645
EXISTING LEVEL	10.351	10.430	10.411	10.418	10.457	10.705	10.450	10.466	10.618	10.632	10.690	11.135	11.013
OFFSET	-19.192	-16.250	-11.302	-9.652	-7.885	-6.525	0.000	10.75	6.283	6.567	7.877	8.001	10.205

CHAINAGE 9334.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

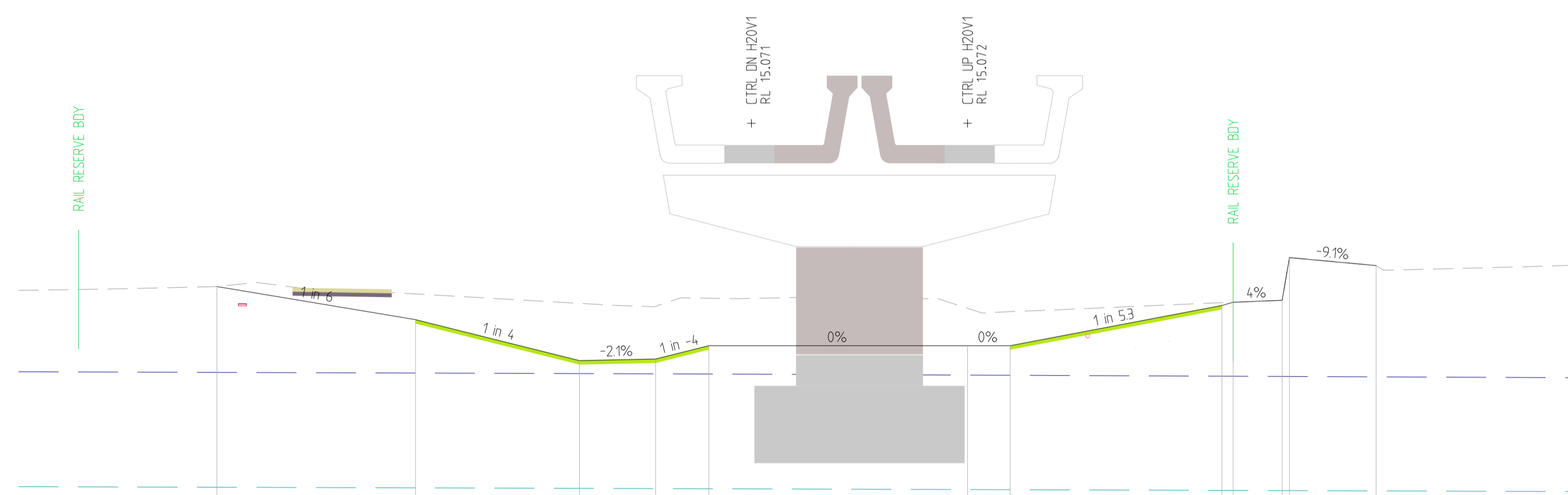
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	IAB1	EV99	IF99	IF99	EV99	EV99	EV99	EV99	WFE99	WTE99	BD99
DESIGN LEVEL	10.954	10.119	9.087	9.427	9.462	9.462	9.462	10.477	10.558	10.607	11.683
DGWL ZAEP	8.789	8.773	8.759	8.753	8.748	8.721	8.716	8.693	8.692	8.687	8.677
EXISTING LEVEL	10.954	10.768	10.531	10.457	10.459	10.405	10.321	10.517	10.558	10.607	11.483
OFFSET	-18.927	-13.920	-9.788	-7.866	-6.525	0.000	10.72	6.413	6.696	7.932	10.301

CHAINAGE 9364.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

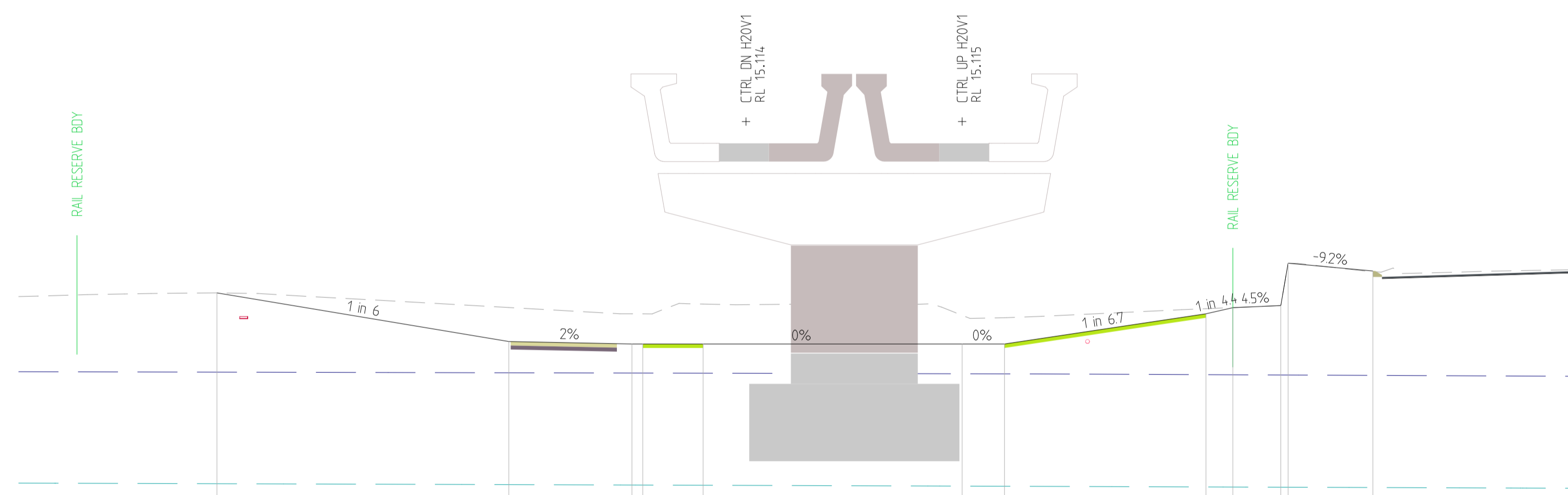
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	IAB1	EV81	CB1 EV99	EV99	EV99	EV99	EV99	EV99	IABJ	WBE99 WTE99	BRD99
DESIGN LEVEL	10.794	9.568	9.505 9.505	9.505	9.505	9.505	9.505	9.505	10.267 10.421	10.475 11.543	11.366
DGWL ZAEP	8.795	8.779	8.773 8.772	8.769	8.754	8.752	8.732	8.729	8.724 8.723	8.713	
EXISTING LEVEL	10.794	10.425	10.267 10.266	10.512	10.229	10.168	10.396	10.424	10.475 11.543	11.332	
OFFSET	-18.789	-11.430	-8.925 -8.052	-6.532	0.000	1.068	6.148	6.826	8.095 8.219	10.357	

CHAINAGE 9394.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

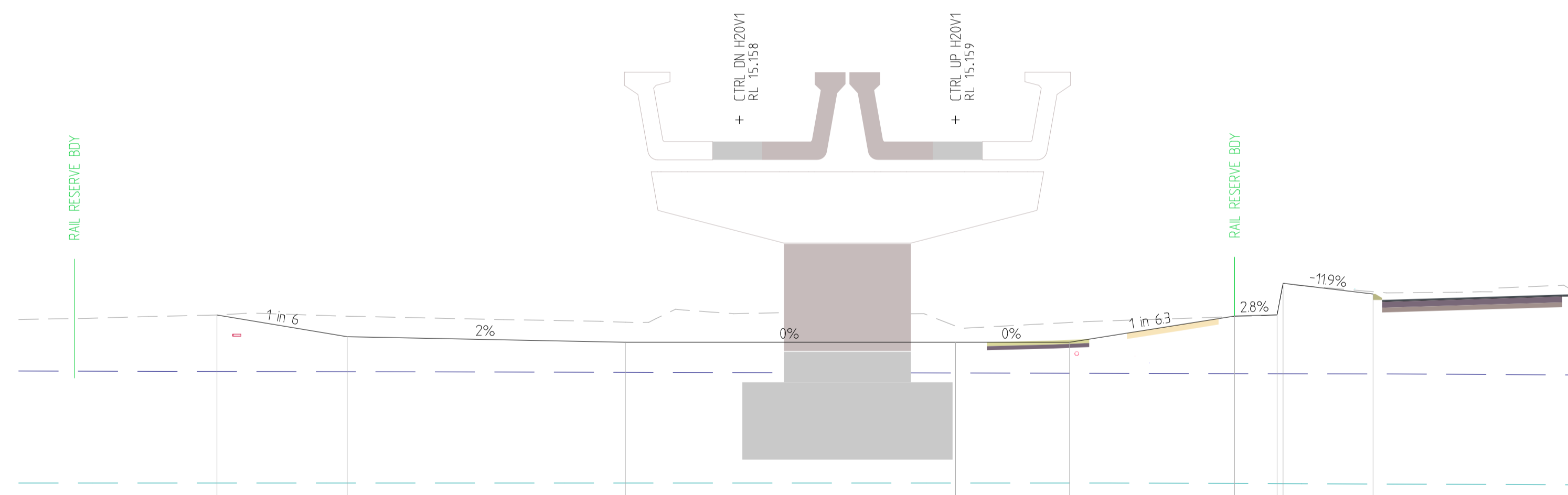
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No: \_\_\_\_\_

Rev: \_\_\_\_\_





DATUM 4.0

STRING NAME	IAB1	EV01	IC01		IC01	IAB1	WEE99	WTE99	IBRDW99
DESIGN LEVEL	10.236	9.689	9.549		9.549	10.209	10.240	11.037	10.766
DGWL ZAEP	8.814	8.807	8.792		8.774	8.759	8.756	8.756	8.751
EXISTING LEVEL	10.236	10.206	10.054		9.958	10.195	10.240	11.037	10.823
OFFSET	-18.623	-15.340	-8.325		0.000	2.875	7.037	8.108	8.258

CHAINAGE 9424.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

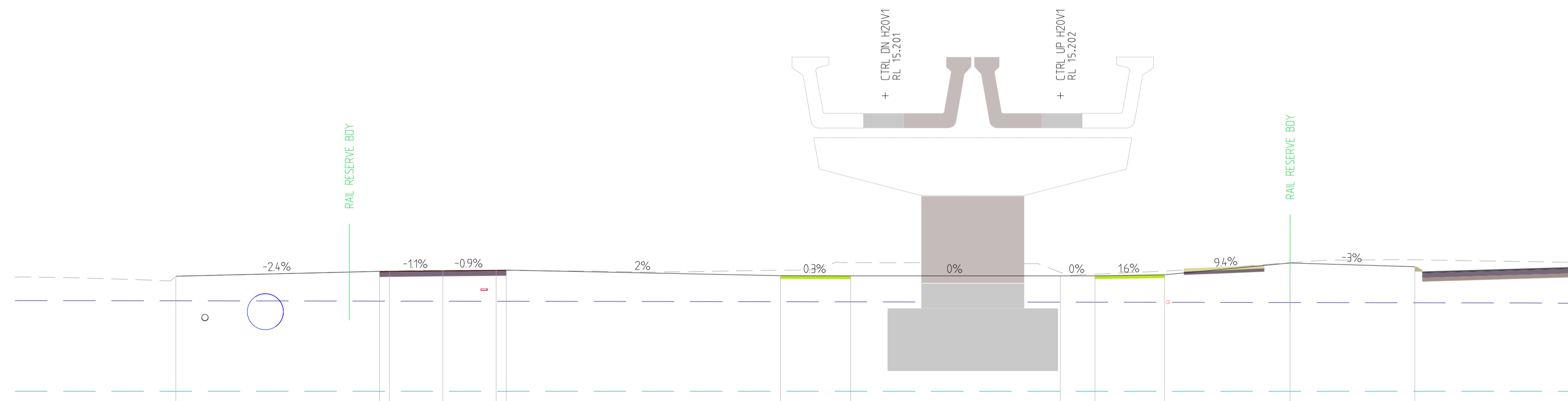
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	BD99	CEH1 LEH1	LAH1	LEHJ CEHJ	EV99	EV99	EV99	EV99	EV99	MBJ	9.6784BRDW99
DESIGN LEVEL	9.582	9.733 9.737	9.755	9.770 9.773	9.598	9.592	9.592	9.592	9.627	9.993	9.6784
DGWL ZAEP	8.816	8.807 8.807	8.804	8.802 8.801	8.788	8.785	8.774	8.772	8.769	8.762	8.756
EXISTING LEVEL	9.582	9.734 9.740	9.760	9.768 9.764	9.765	10.005	9.699	9.642	9.743	10.001	10.094
OFFSET	-27159	-2183 -20875	-9272	-17554 -17237	-8770	-6525	0.000	1075	3241	7146	11028

CHAINAGE 9454.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

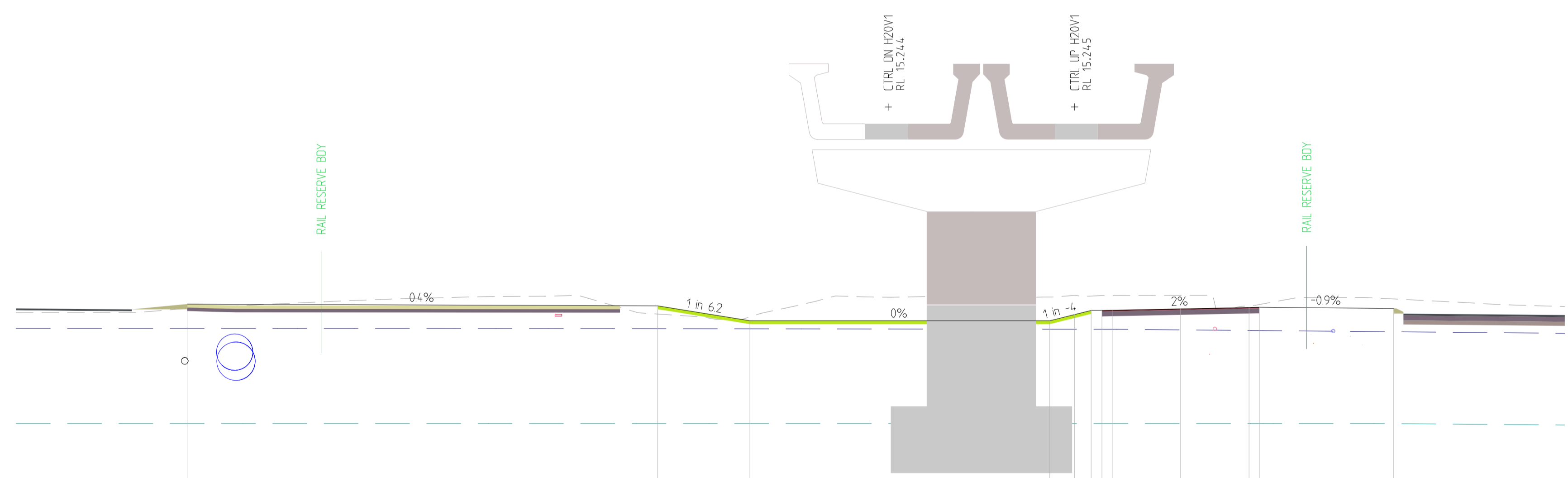
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 30

STRING NAME	94874BRDW99	EY99	IF99	IF99	IF99	EY99	CEH1	LEH1	LAH1	LEH1	CEH1	93604BRDW99
DESIGN LEVEL	9.487	9.435	9.001	9.001	9.001	9.182	9.301	9.302	9.346	9.388	9.396	9.360
DGWL ZAEP	8.779	8.768	8.765	8.753	8.753	8.752	8.751	8.750	8.734	8.716	8.713	8.679
EXISTING LEVEL	9.359	9.196	9.113	9.493	9.493	9.741	9.736	9.737	9.741	9.438	9.474	9.637
OFFSET	-25.942	-12.186	-9.493	-0.727	-0.727	0.000	0.481	0.797	3.097	5.897	5.397	9.326

CHAINAGE 94.84.355

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

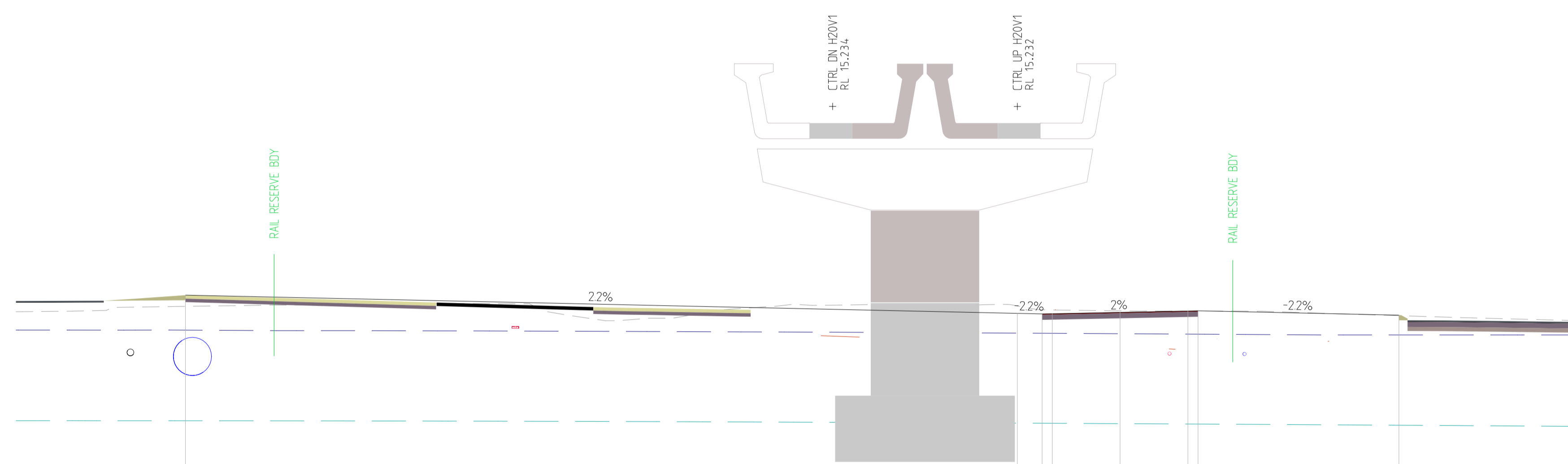
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



DATUM 30

STRING NAME	96734BRDW99											
DESIGN LEVEL					9186	9100	9126		9166	9206	9272	90844BRDW99
DGWL ZAEP	8.642				8.554	8.550	8.548		8.537	8.525	8.523	8.500
EXISTING LEVEL	9.343				9.356	9.243	9.236		9.210	9.205	9.205	9.068
OFFSET	-24.542				0.000	0.730	1.050		3.090	5.090	5.390	11256

CHAINAGE 9515.505

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

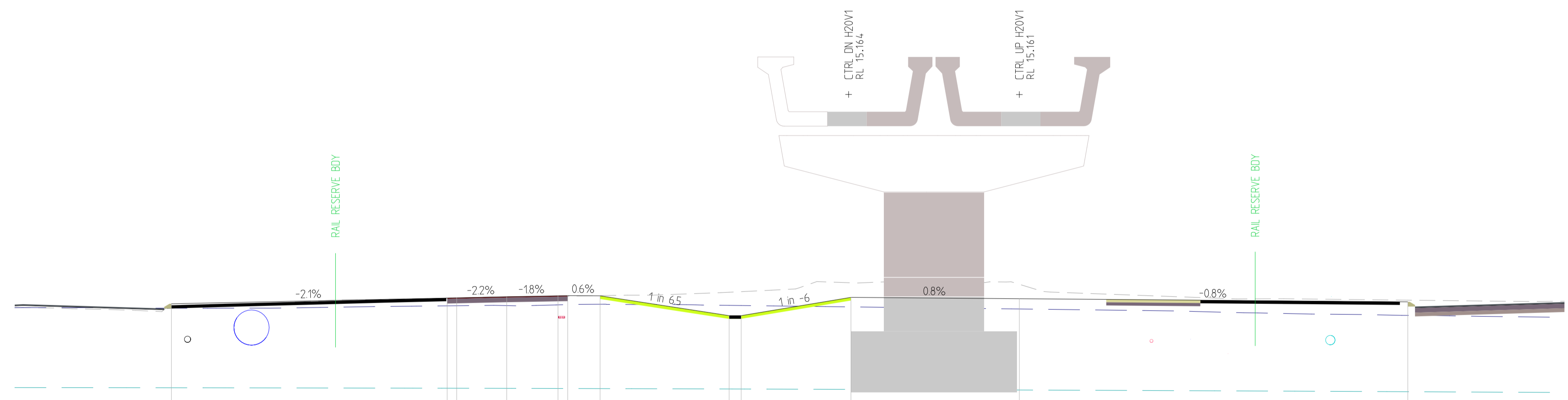
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0

STRING NAME	8475EBRDW99	CEH2 LEH2	LAH2	LEHK CEHK	IA06	IF06 IF06	IA06	8541EBRDW99
DESIGN LEVEL	8475	8662 8659	8705	8734 8759	8733	8100 8100	8684	8641
DGWL ZAEP	8.338	8.413 8.416	8.421	8.444 8.454	8.464	8.429 8.424	8.380	8.313
EXISTING LEVEL	8.364	8.660 8.668	8.700	8.718 8.724	8.741	8.847 8.866	9.149	9.101
OFFSET	-27.068	-18.265 -17.961	-16.364	-14.727 -14.477	-13.383	-9.264 -8.879	-5.375	0.000

CHAINAGE 9545.505

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

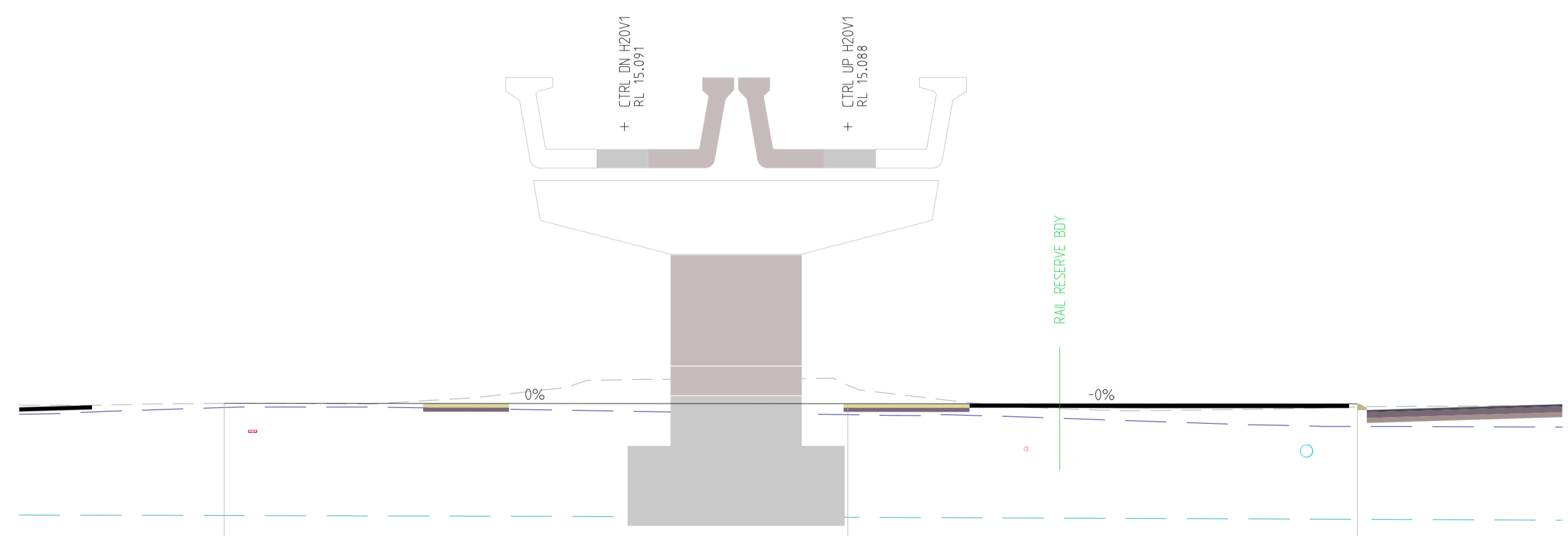
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0				
STRING NAME		8.339 (P East)		8.325 (BRDW99)
DESIGN LEVEL		8.238	8.062	7.774
DGWL ZAEP		8.339	8.781	8.251
EXISTING LEVEL		-15.220	0.000	12.496
OFFSET				

CHAINAGE 9575.505

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

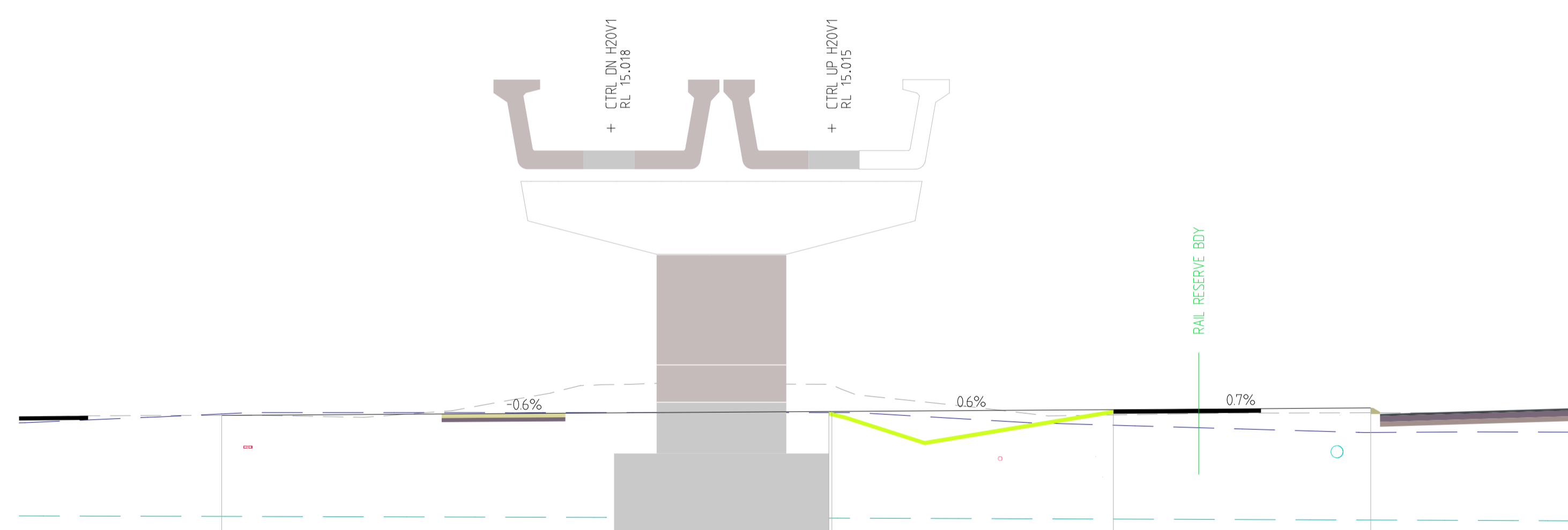
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0					
STRING NAME		B998 (QP East)	1A07	1A07	8115 (BRD)W99
DESIGN LEVEL		8026	8026	8072	8115
DGWL ZAEP		7.966	8.000	7.688	7.508
EXISTING LEVEL		7.930	8.697	7.942	7.997
OFFSET		-15056	-0075	6946	13296

CHAINAGE 9605.505

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

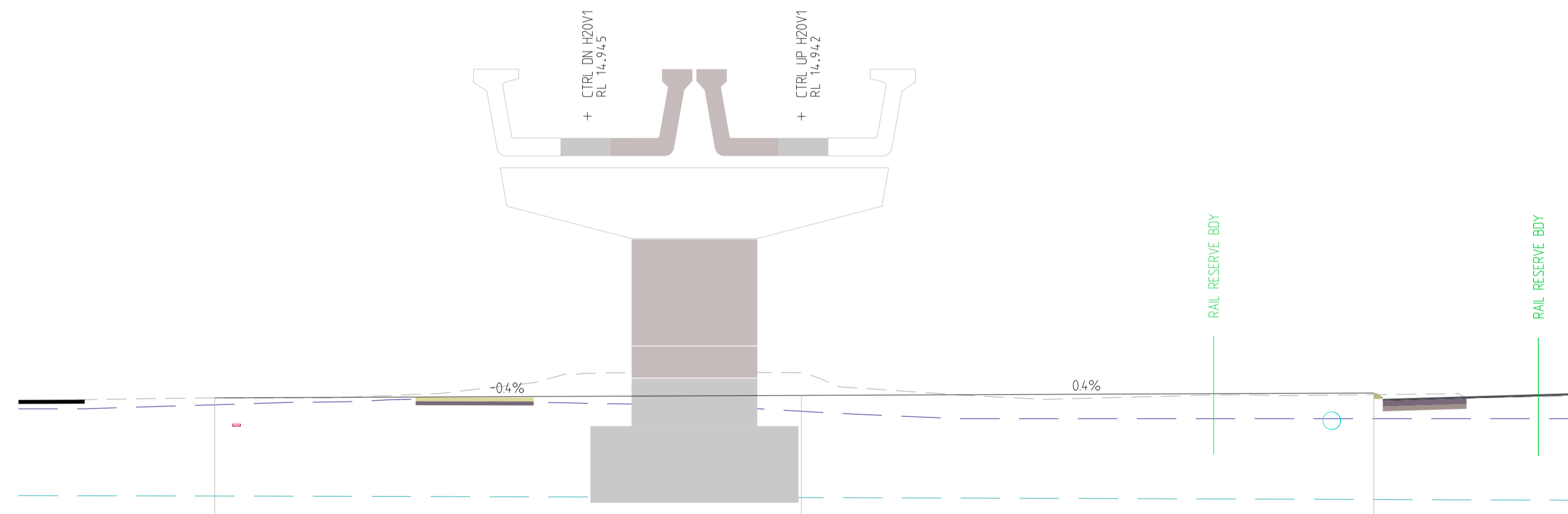
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 4.0			
STRING NAME	7.603	7.862	7.9034BRDW99
DESIGN LEVEL	7.603	7.862	7.9034BRDW99
DGWL ZAEP	7.603	7.439	7.250
EXISTING LEVEL	7.779	8.419	7.862
OFFSET	-14.940	0.000	14.577

CHAINAGE 9635.505

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

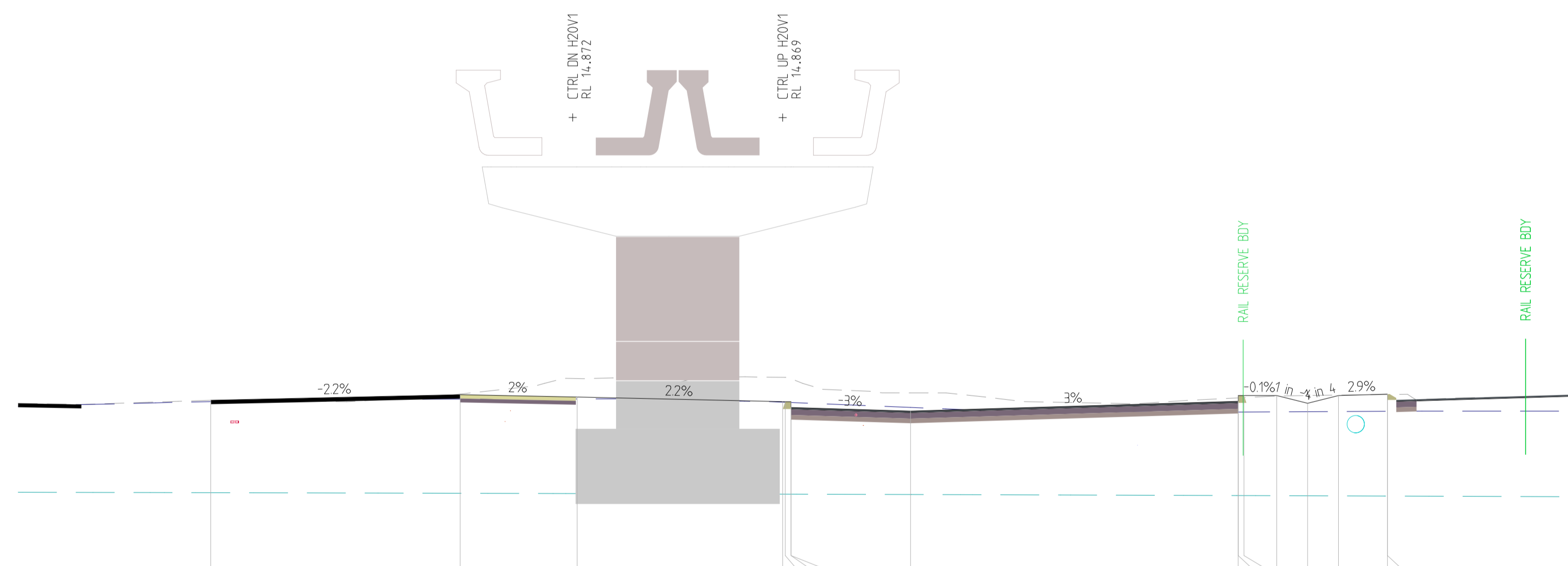
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:





DATUM 30

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
BDBP OP East	7.496	7.496	7.531	-14.805
CP099	7.676	7.561	7.691	-8.371
CP099	7.615	7.586	8.095	-5.385
CR01 CI01 CF01	7.655 7.654 7.653	7.482 7.473 7.473	8.177 8.091 8.091	0.000 0.277 0.218
CH01	7.250	7.346	7.723	3.320
CF0J CB0J TE0A	7.504 7.654 7.653	7.225 7.224 7.230	7.592 7.600 7.639	11.824 11.973 12.825
IF01	7.453	7.235	7.655	13.626
EV0A	7.653	7.239	7.665	14.427
8BD0W89 TE0AJ	7.690 7.690	7.245 7.245	7.680 7.680	15.698 15.698

CHAINAGE 9665.51

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

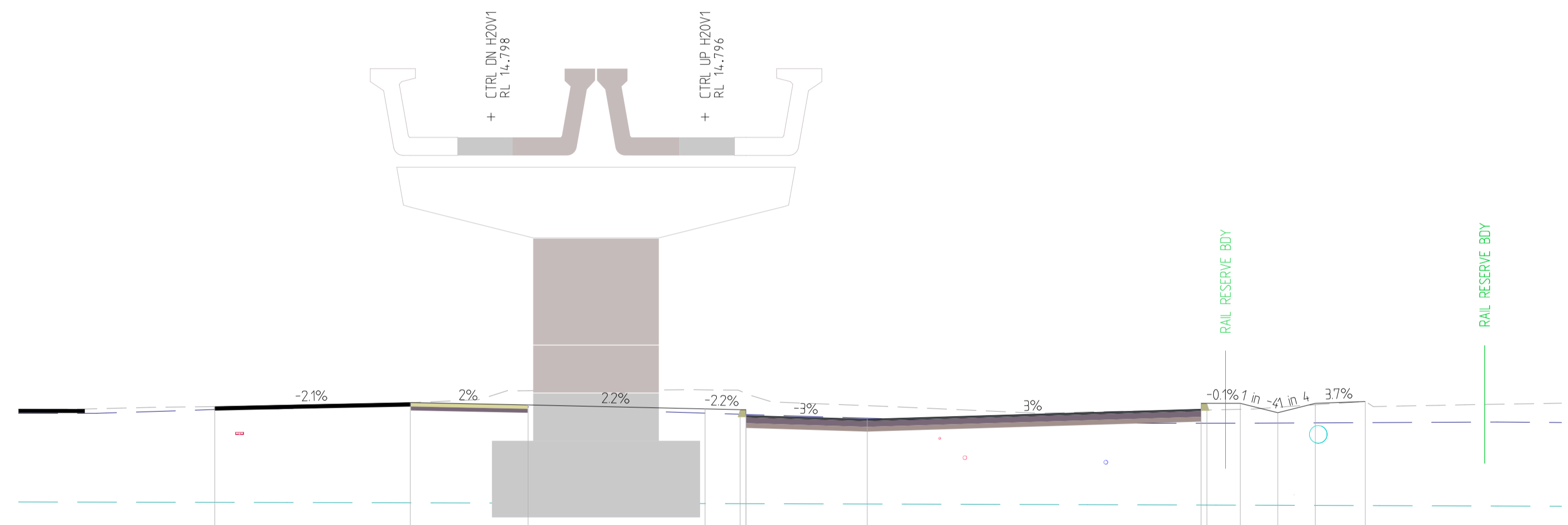
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No: \_\_\_\_\_

Rev: \_\_\_\_\_



DATUM 30

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
B909 IQ East	7.349	7.421	7.471	-12.485
CP099	7.524	7.467	7.520	-7.506
CP099	7.464	7.415	7.826	-4.507
7.363	7.254	7.847	7.871	0.000
7.323	7.227	7.820	7.820	0.993
7.343	7.222	7.758	7.758	10.42
7.193	7.222	7.758	7.758	100.3
CH01	7.101	7.126	7.445	4.871
CF01	7.266	7.404	7.404	14.586
CF01	7.505	7.332	7.332	12.622
CF01	7.505	7.332	7.332	12.633
CF01	7.505	7.332	7.332	12.782
CF01	7.504	7.352	7.352	13.652
IF01	7.266	7.002	7.404	14.586
EVOA	7.504	7.007	7.469	15.541
TBD09	7.551	7.013	7.551	16.815

CHAINAGE 9695.509

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

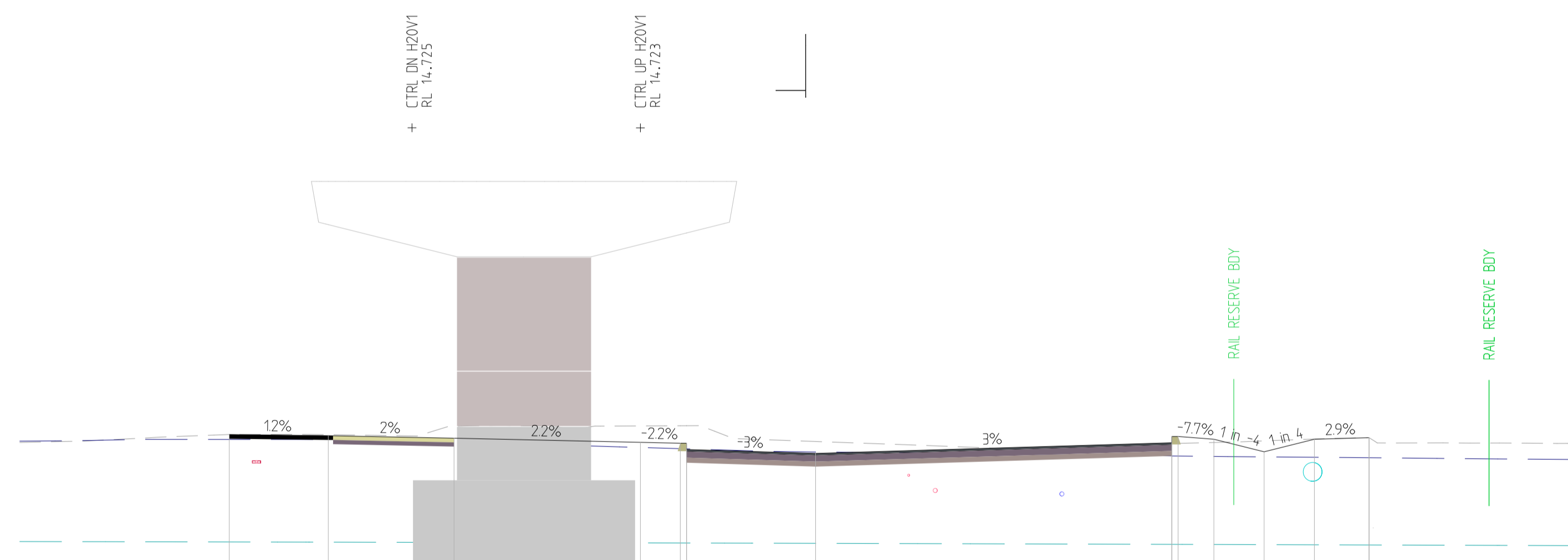
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 30

STRING NAME	CP099	CP099	CP099	CP099	CH01	CF01	CB01	TE0A	PF01	EV0A	TB0A9	TB0A9
DESIGN LEVEL	7.284	7.282	7.227	7.215	6.951	7.095	7.084	7.289	6.989	7.289	7.327	7.327
DGWL ZAEP	7.284	7.282	7.227	7.093	6.985	6.888	7.084	6.888	6.868	6.859	6.848	6.848
EXISTING LEVEL	7.402	7.399	7.597	7.607	7.235	7.187	7.611	7.190	7.250	7.295	7.327	7.327
OFFSET	-9.812	-7.449	-4.447	0.000	4.181	12.692	0.852	13.666	14.885	16.085	17.390	17.390

CHAINAGE 9725.511

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
 AT ORIGINAL PLOT SIZE  
 0 10 20 30 40 50 100mm  
 This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality  
 Contractor No: \_\_\_\_\_

VALIDATION  
 SIGNATURE  
 DATE APPROVED

REFERENCES

SCALE  
 DATUM  
 HORIZONTAL: PCG20  
 VERTICAL: AHD71

DESIGNED  
 DRAWN  
 CHECKED  
 APPROVED  
 DATE

Government Western Australia  
 Public Transport Authority  
 PTA Drawing No: \_\_\_\_\_  
 Rev: \_\_\_\_\_



DATUM 30

STRING NAME	CP East	CP099	CP099	CP01	CP01	CH01	CF0J	CF0J	CF0J	TEQA	HF01	EVOA	TD0A9	TD0A9
DESIGN LEVEL	8.89%	7.233	7.173	7.075	7.053	6.811	7.066	6.819	6.817	7.037	6.688	7.036	7.083	7.083
DGWL ZAEP	7.187	7.194	7.146	7.039	7.014	6.952	6.819	6.817	6.805	6.784	6.763	6.743	6.743	6.743
EXISTING LEVEL	7.374	7.303	7.425	7.396	7.414	7.107	7.052	7.053	7.041	7.077	7.074	7.083	7.083	7.083
OFFSET	-9.859	-7.425	-4.424	0.000	0.976	4.226	12.727	12.877	13.727	15.120	16.514	17.819	17.819	17.819

CHAINAGE 9753.712

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

CAD DRAWING PATHNAME

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

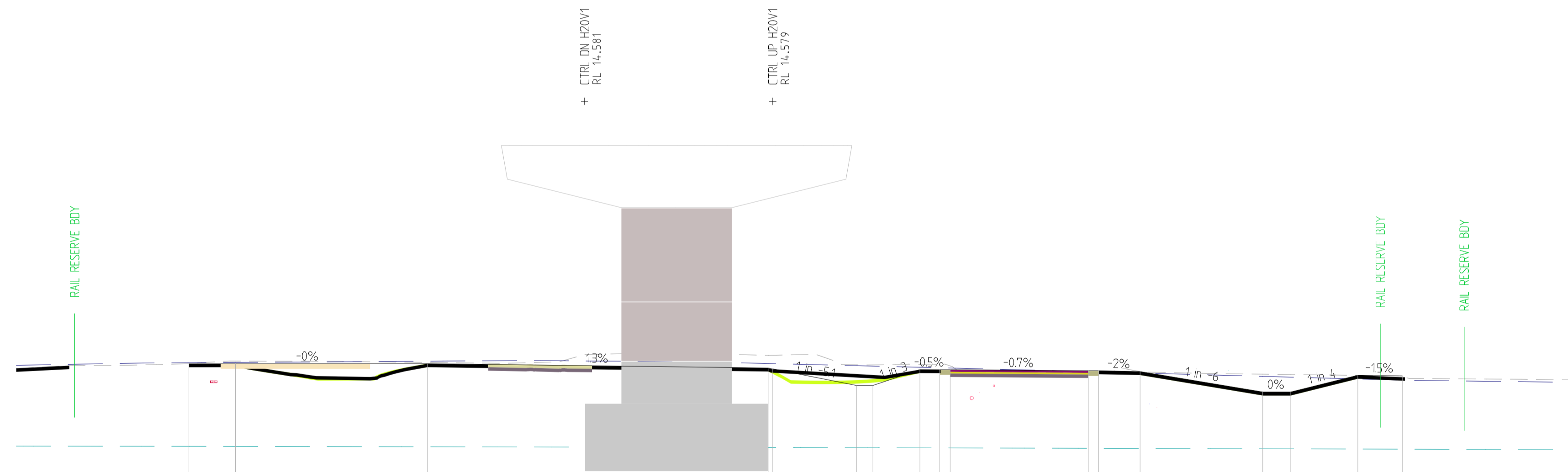
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



DATUM 20

STRING NAME		8999 QP East	IA09	IA09	IA08	IF08	IF08	IA08	CB01	CF01	CB01	IA10	IF10	IF10	IA10	BD99
DESIGN LEVEL		6979	6979	6982	6856	6350	6350	6809	6806	6776	6776	6752	6160	6160	6645	6626
DGWL ZAEP		7.008	7.017	7.053	6.986	6.923	6.911	6.877	6.866	6.754	6.746	6.711	6.613	6.591	6.538	6.503
EXISTING LEVEL		6.979	7.056	7.016	7.220	6.947	6.945	6.956	6.966	6.715	6.712	6.759	6.676	6.666	6.642	6.626
OFFSET		-16.909	-15.560	-10.001	-0.194	2.024	2.900	4.262	4.837	9.977	9.437	10.638	14.191	15.001	16.944	18.230

CHAINAGE 9784.448

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

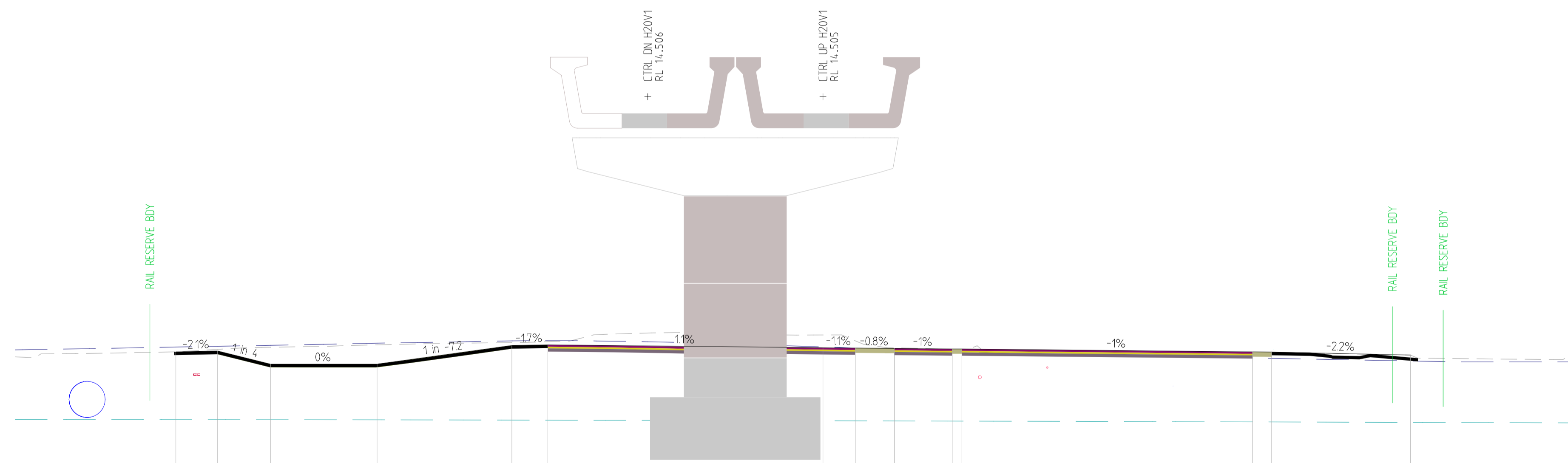
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	IA09	IF09	IF09	IA09	CH0P2	CB01	CF01	CB01	CF01	CF0J	CB0J	BD99
DESIGN LEVEL	6.563	6.590	6.180	6.180	6.762	6.680	6.671	6.653	6.653	6.562	6.557	6.462
DGWL ZAEP	6.712	6.736	6.766	6.833	6.903	6.980	6.638	6.576	6.565	6.388	6.358	6.278
EXISTING LEVEL	6.563	6.640	6.705	6.780	6.853	6.905	6.688	6.643	6.618	6.532	6.527	6.462
OFFSET	-20.033	-18.812	-17.189	-13.872	-9.678	-8.560	0.000	1005	2.222	4.022	4.322	18.282

CHAINAGE 9815.177

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

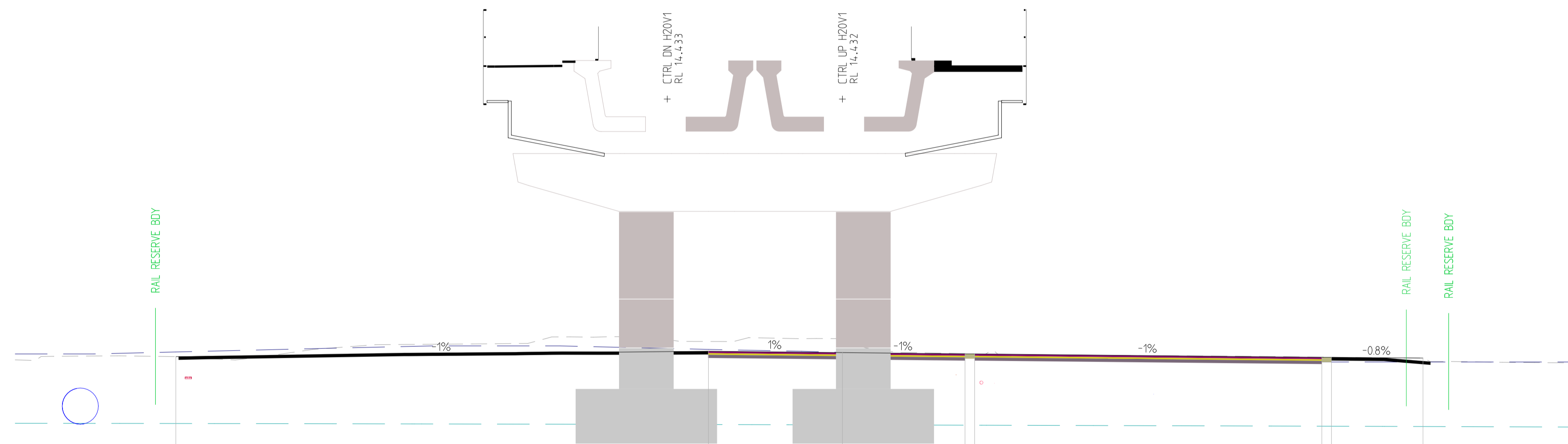
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20	
STRING NAME	8096 OP East
DESIGN LEVEL	6585
DGWL ZAEP	6.562
EXISTING LEVEL	6.416
OFFSET	-20738

CHAP2	6.585	6.541	6.888	-4.167
	6.542	6.548	6.976	0.000
CB01	6.503	6.455	6.513	3.855
CB01	6.372	6.250	6.489	4.115
CB01	6.372	6.250	6.402	14.215
BD99	6.372	6.250	6.372	18.062

CHAINAGE 9845.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

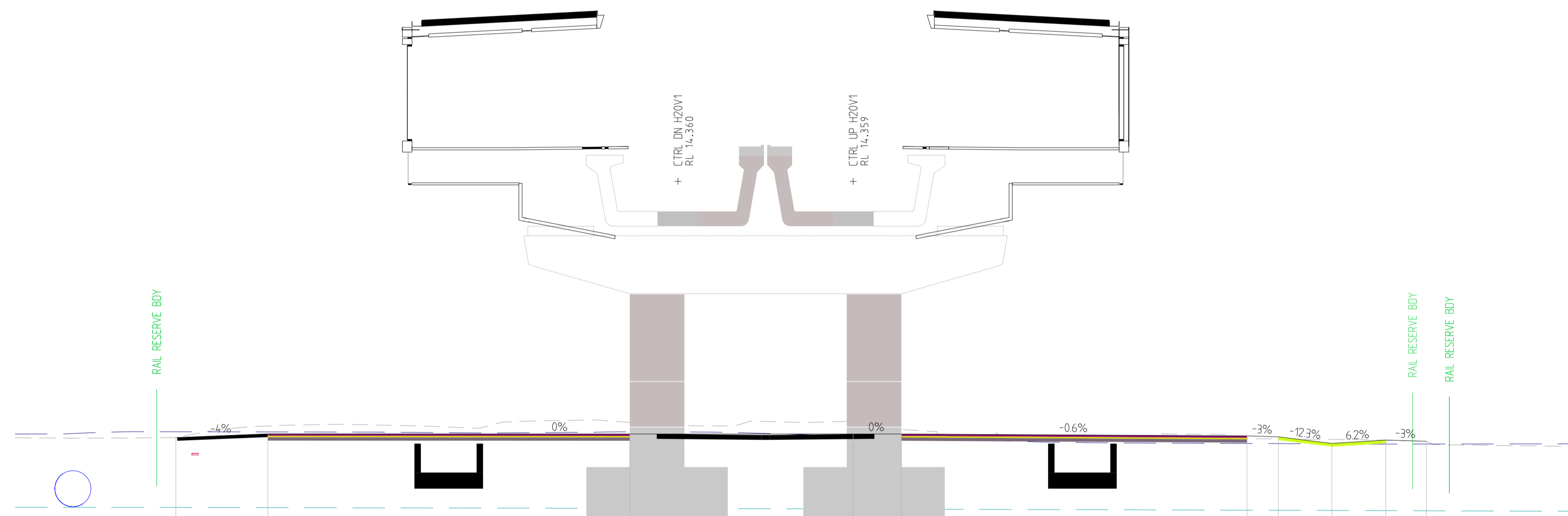
APPROVED

DATE

Government Western Australia  
 Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	8989 IQ East	CHQP2	CHQP1	CHQP1	CHQP2	IA13	IF13	IA13	BD99
DESIGN LEVEL	6389	6505	6500	6500	6440	6411	6206	6311	6273
DGWL ZAEP	6570	6564	6569	6432	6205	6201	6193	6187	6188
EXISTING LEVEL	6389	6750	6858	6897	6354	6348	6331	6305	6273
OFFSET	-21072	-18220	-6950	0000	12254	13228	14894	16571	17831

CHAINAGE 9875.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

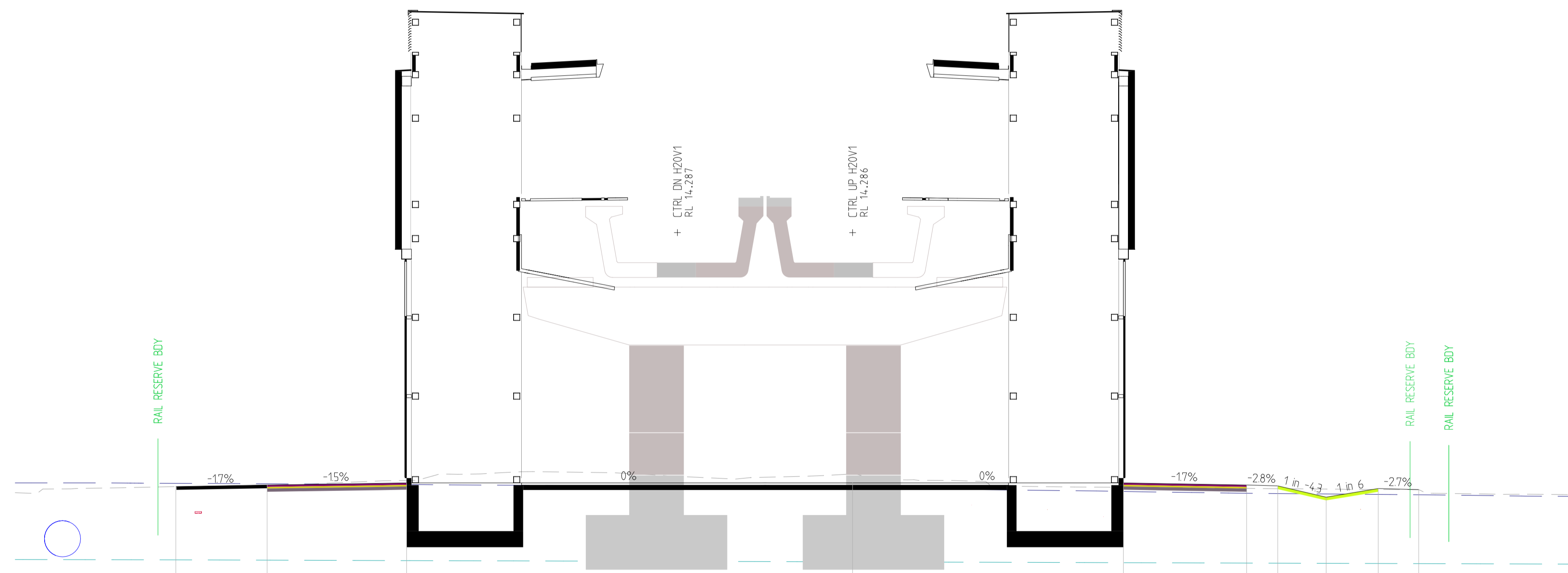
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:





DATUM 20

STRING NAME	8986 OP East	CHOP2	CHOP1		CHOP1	CHOP2	IA13	IF13	IA13	BD99
DESIGN LEVEL	6.486	6.472	6.451	6.500	6.500	6.435	6.407	6.056	6.325	6.291
DGWL ZAEP	6.486	6.472	6.451	6.331	6.331	6.177	6.168	6.156	6.142	6.130
EXISTING LEVEL	6.386	6.388	6.574	6.779	6.364	6.329	6.320	6.308	6.295	6.291
OFFSET	-21055	-18215	-13875	0000	8425	12259	13227	14734	16353	17163

CHAINAGE 9905.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

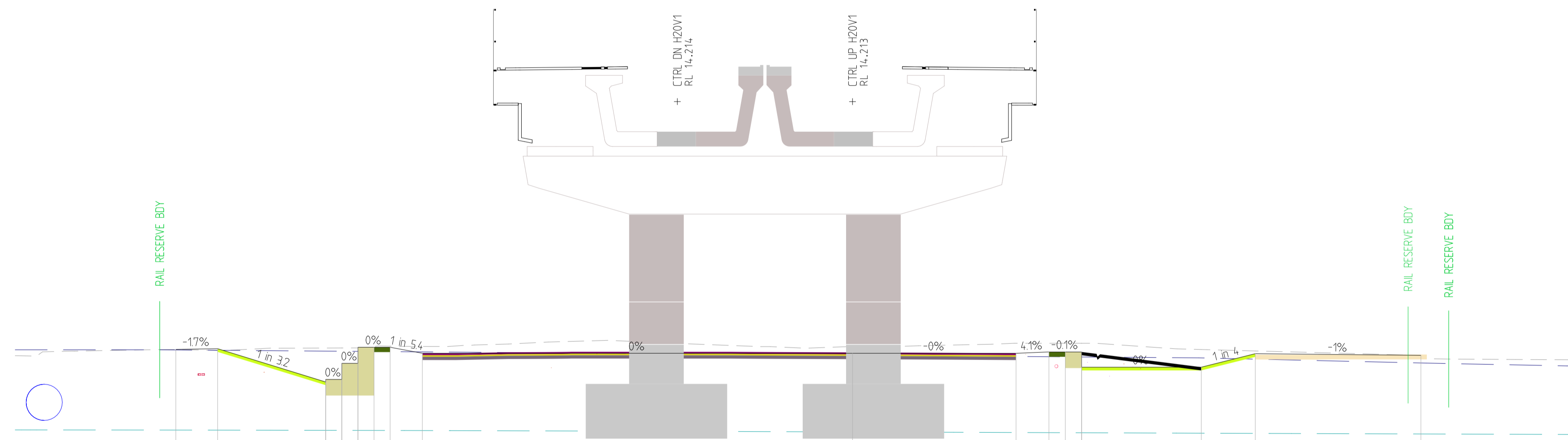
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
BB92 QP East	6.495	6.485	6.512	-21052
IA12	6.535	6.485	6.480	-19752
IF12	5.500	6.459	6.555	-16390
WT12	5.579	6.459	6.555	-16389
WB12	6.079	6.459	6.557	-16389
WB11	6.079	6.451	6.559	-15388
WB12	6.079	6.451	6.559	-15387
WT12	6.579	6.451	6.579	-14386
EV12	6.579	6.444	6.673	-14385
CHOP2	6.393	6.436	6.603	-13384
	6.392	6.332	6.604	0.000
CHOP2	6.391	6.293	6.703	5.088
EV13	6.433	6.285	6.703	6.111
WT11	6.433	6.281	6.703	6.620
WT13	6.432	6.277	6.703	7.128
IF13	5.960	6.277	6.703	7.129
IF13	5.960	6.248	6.509	10.850
IA13	6.380	6.210	6.464	12.500
W4628 elements	6.328	6.328	6.328	17.683

CHAINAGE 9935.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

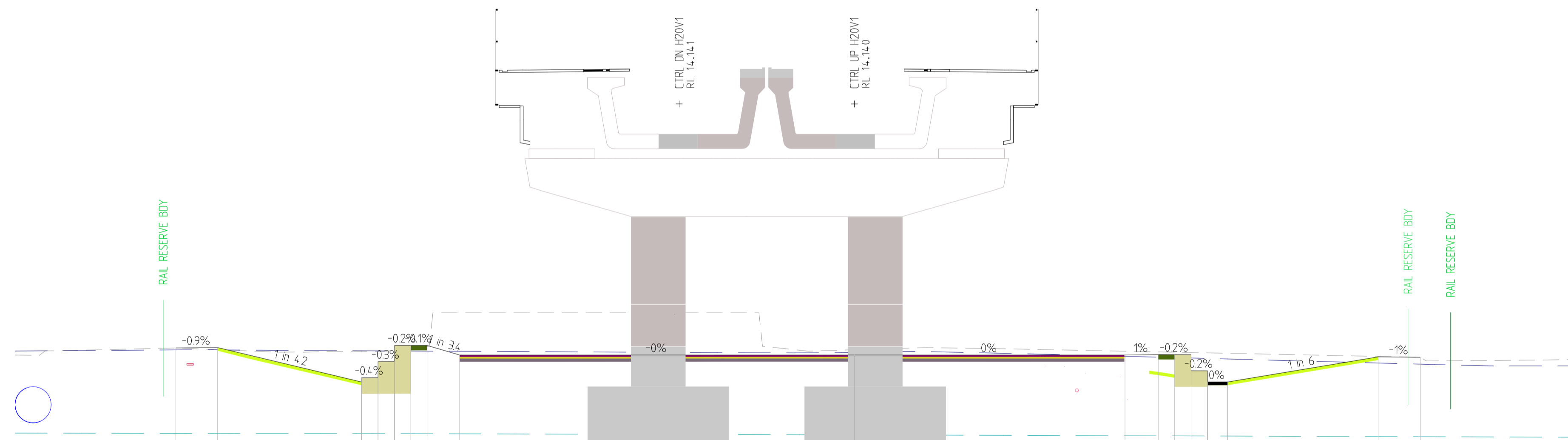
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
B508 IP East	6598	6.498	6.558	-21.09
IAT2	6570	6.498	6.505	-19.809
W1E12	5500	6.470	6.442	-15.372
W1E11	5500	6.470	6.441	-14.879
W1E10	5500	6.467	6.441	-14.868
W1E09	5500	6.467	6.441	-14.868
W1E08	5500	6.465	6.438	-14.307
W1E07	5500	6.465	6.438	-14.307
W1E06	5500	6.462	6.434	-13.759
W1E05	5500	6.460	6.403	-13.291
W1E04	5500	6.455	6.449	-12.279
CHOP2	6398	6.423	6.502	0.000
CHOP2	6399	6.287	6.457	8.422
EVI3	6349	6.271	6.436	9.454
W1I13	6348	6.259	6.426	9.966
W1I12	6347	6.246	6.415	10.477
W1I11	6347	6.232	6.405	10.987
W1I10	6347	6.232	6.405	10.988
W1I09	5500	6.232	6.405	10.988
W1I08	5500	6.232	6.392	11.613
IAT3	6281	6.090	6.295	16.298
W6206	6406	6.268	6.268	17.607

CHAINAGE 9965.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.  
 CONTRACTOR No:

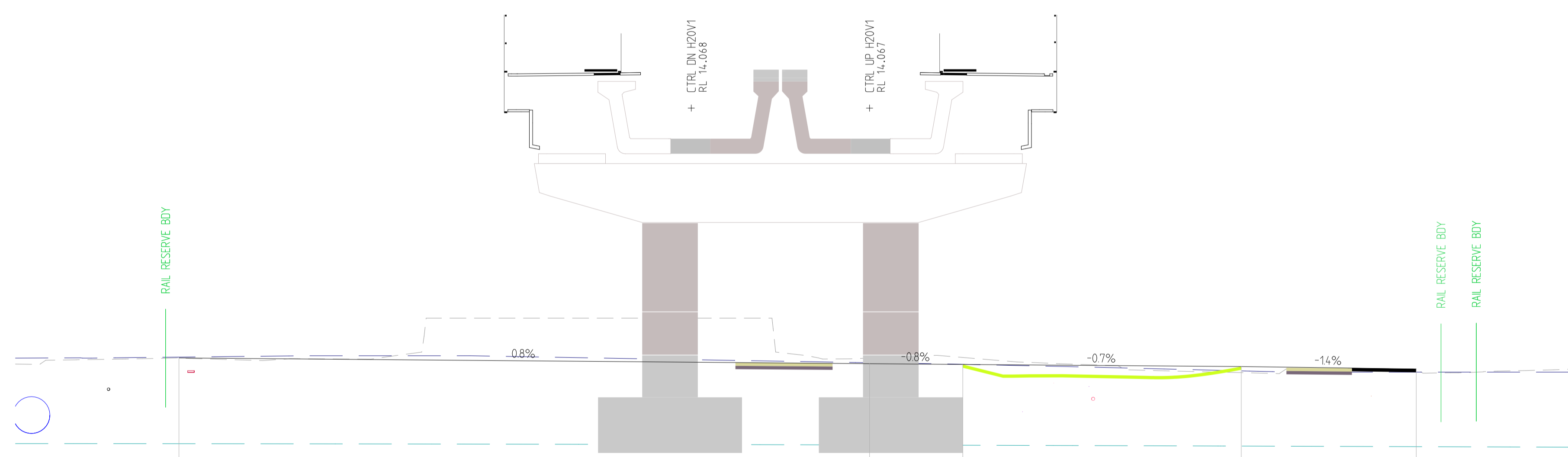
ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality

SIGNATURE	DATE APPROVED	VALIDATION	REFERENCES	SCALE	DESIGNED
				DATUM HORIZONTAL: PCG20 VERTICAL: AHD71	DRAWN CHECKED APPROVED DATE

Government Western Australia  
 Public Transport Authority

PTA Drawing No: \_\_\_\_\_ Rev: \_\_\_\_\_

Vault Template Revised Date : 26th November 2019 10:30am



DATUM 20		STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
		8009 IQ East	6.258	6.458	6.433	-2113
		IA16	6.234	6.239	6.447	2850
		IA16	6.770	6.037	5.985	11364
		BD09	6.097	6.000	6.097	16713

CHAINAGE 9995.181

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

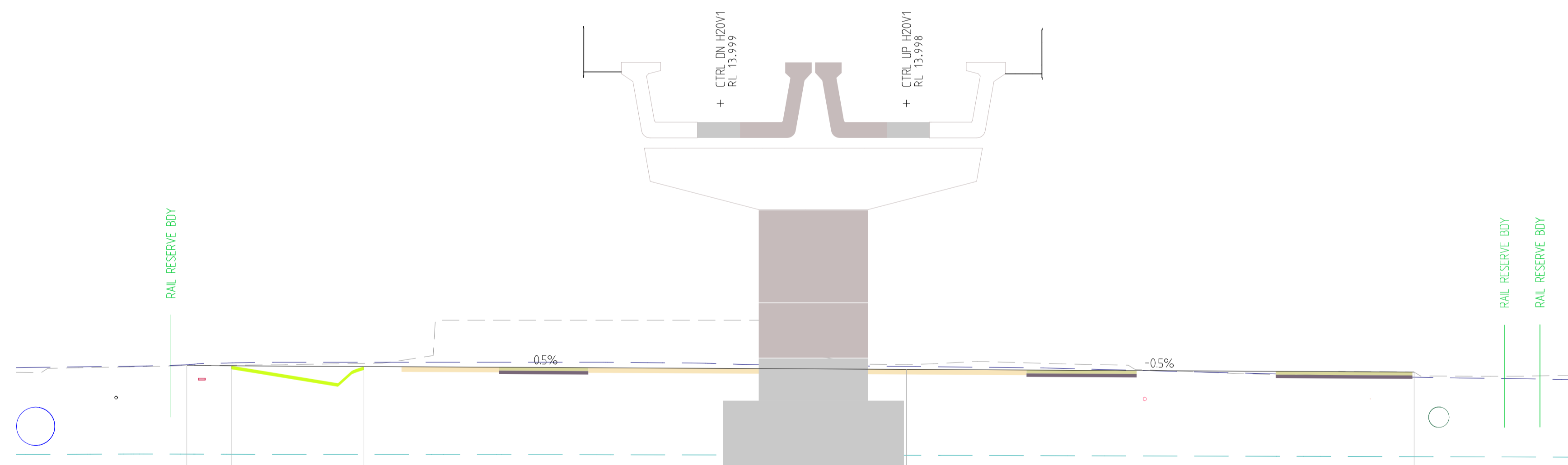
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20					
STRING NAME		BB9P QP East	IA15	IA15	BD99
DESIGN LEVEL		6.344	6.311	6.291	6.207
DGWL ZAEP		6.344	6.397	6.416	6.291
EXISTING LEVEL		6.317	6.329	6.382	6.347
OFFSET		-21072	-19771	-15887	0000

CHAINAGE 10023.381

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1 AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

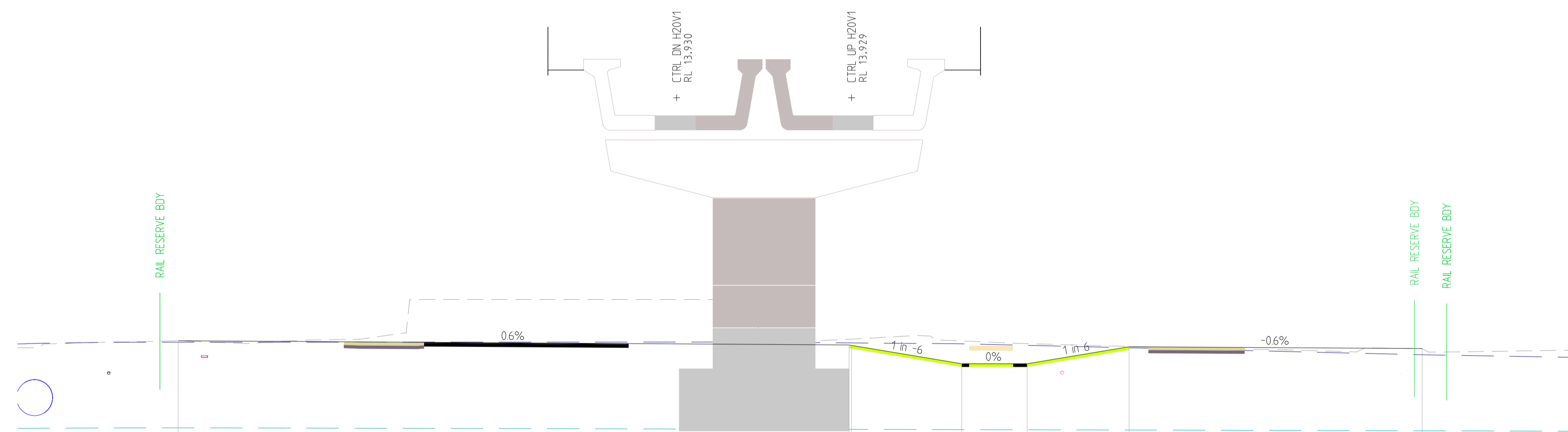
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
B896 OP East	6.320	6.320	6.366	-20.995
IA17	6.235 6.223	6.239 6.228	6.412 6.416	-0.075 0.000
IF17	5.650	6.271	6.359	34.35
IF17	5.650	6.223	6.277	5.472
IA17	6.180	6.148	6.189	8.650
BD99	6.123	5.931	6.123	17.783

CHAINAGE 10051.608

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

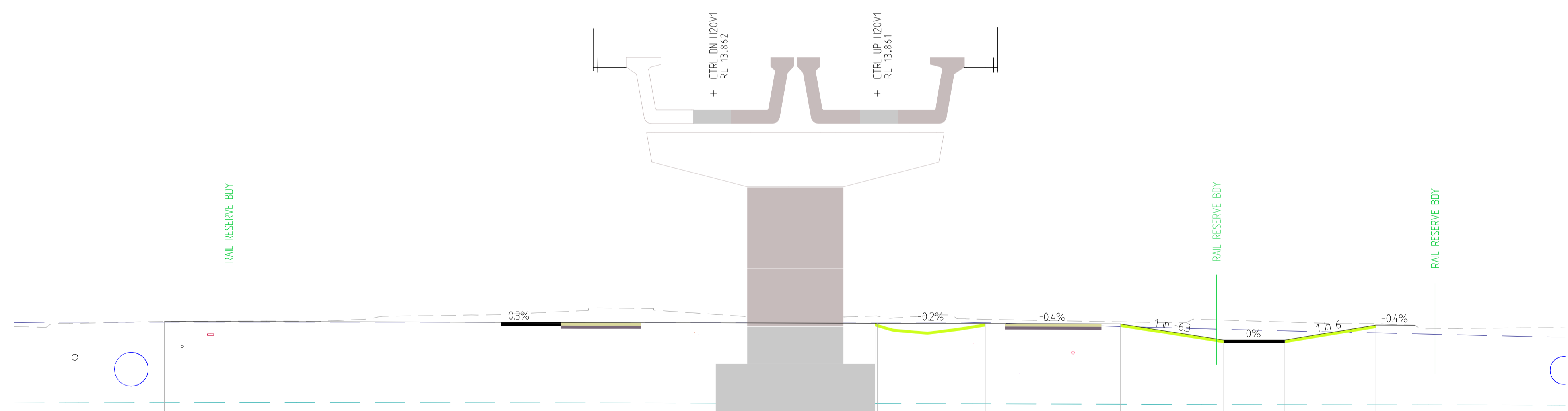
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 10

STRING NAME	BD99	IA17	IA17	IA18	IF18	IF18	IA18	BD99
DESIGN LEVEL	6.275	6.213 6.213	6.207	6.190	5.650	5.650	6.153	6.147
DGWL ZAEP	6.250	6.250 6.250	6.229	6.106	6.012	5.961	5.889	5.857
EXISTING LEVEL	6.275	6.452 6.449	6.343	6.259	6.317	6.254	6.202	6.147
OFFSET	-23712	-0.075 0.000	3593	8.091	11522	13558	16577	17885

CHAINAGE 10079.781

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

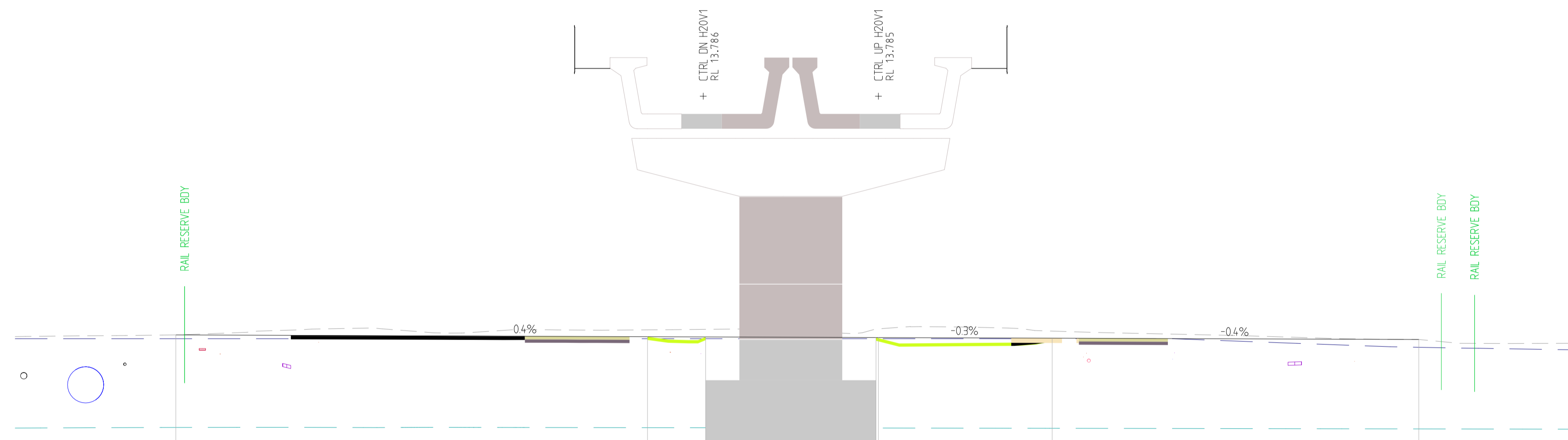
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	BD99	1A20	1A20	1A20	1A20	BD99
DESIGN LEVEL	6.368	6.372	6.305	6.286 6.286	6.267	6.225
DGWL ZAEP	6.250	6.250	6.250	6.250 6.250	6.250	5.983
EXISTING LEVEL	6.368	6.574	6.540	6.551 6.557	6.487	6.225
OFFSET	-21858	-7184	-5375	-0075 0000	5406	16872

CHAINAGE 10110.931

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

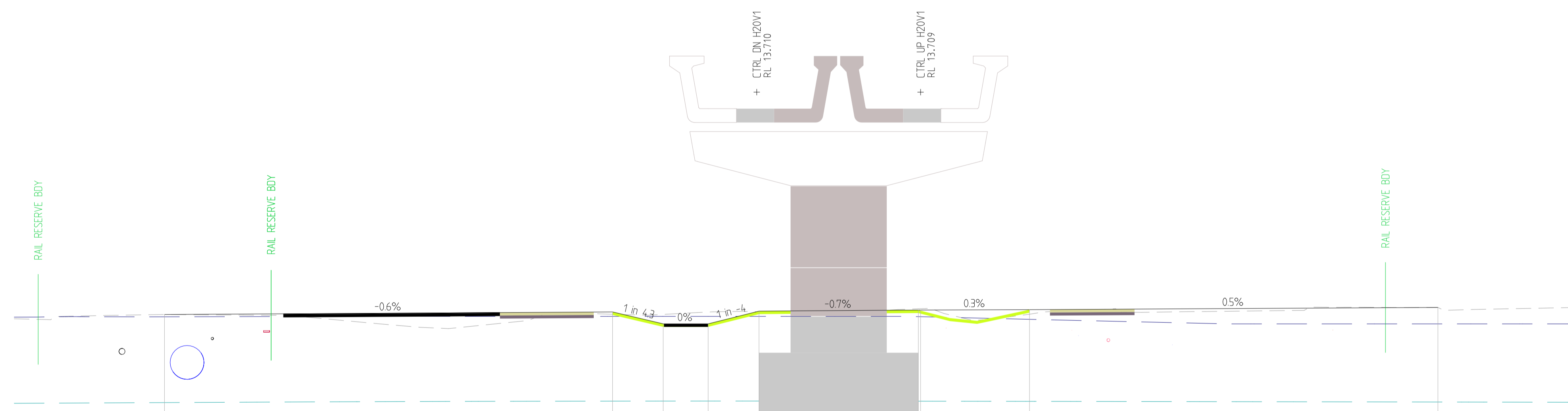
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:





DATUM 20

STRING NAME	BD99	IA21	IF21	IF21	IA21	IA21	IA21	IA21	BD99
DESIGN LEVEL	6.313	6.398	6.002	6.002	6.424	6.461	6.461	6.473	6.547
DGWL ZAEP	6.235	6.250	6.250	6.250	6.250	6.241	6.240	6.152	6.000
EXISTING LEVEL	6.313	6.320	6.315	6.394	6.404	6.502	6.505	6.321	6.547
OFFSET	-25760	-10245	-8561	-7065	-5375	-0075	0000	3623	17208

CHAINAGE 10142.081

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

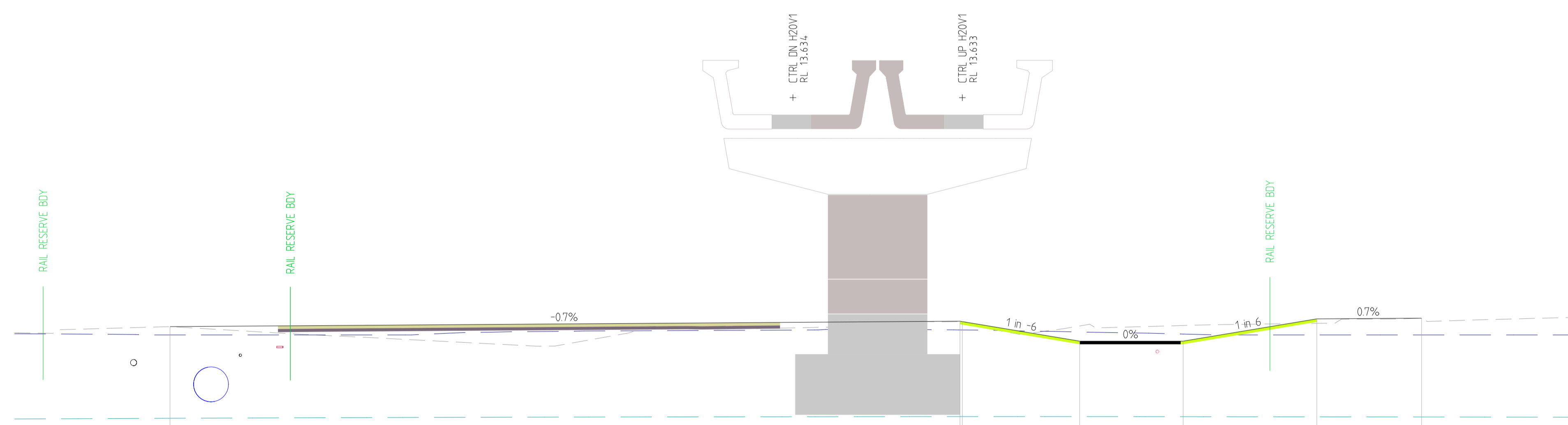
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	BD99	1A22	#F22	#F22	1A22	BD99
DESIGN LEVEL	6.267	6.442 6.429	5.800	5.800	6.517	6.539
DGWL ZAEP	6.000	6.160 6.160	6.094	6.028	6.000	6.000
EXISTING LEVEL	6.267	6.428 6.429	6.288	6.303	6.373	6.539
OFFSET	-25.492	-0.075 0.000	3.775	7.705	11.405	14.775

CHAINAGE 10173.231

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

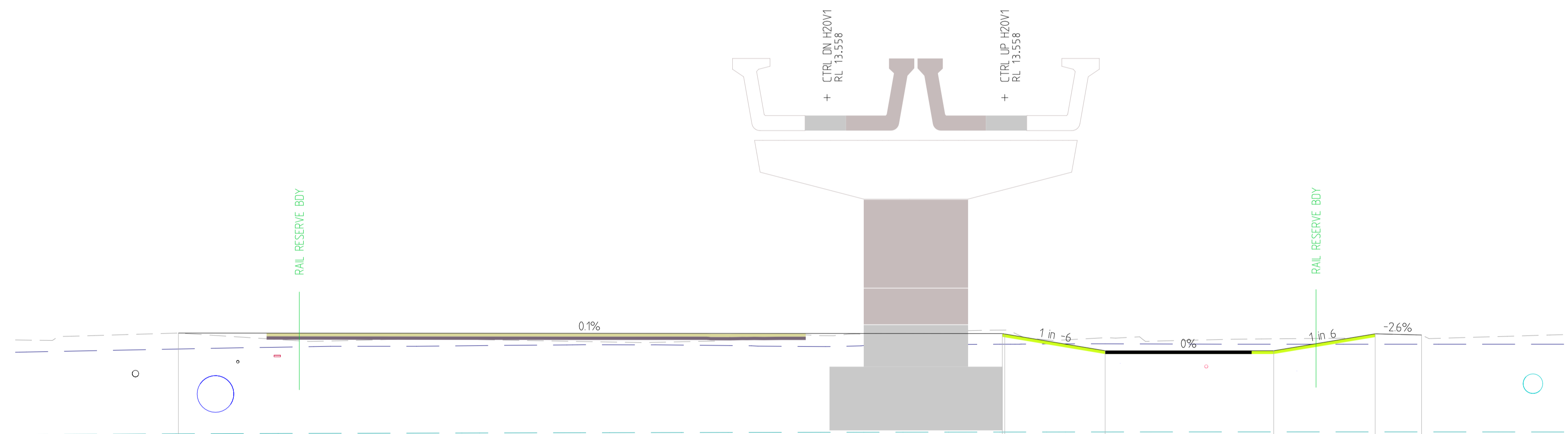
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	BD99	IA22	IF22	IF22	IA22	BD99
DESIGN LEVEL	6.342	6.326 6.513	5.800	5.800	6.319	6.282
DGWL ZAEP	5.852	6.000 6.000	6.012	6.000	6.000	6.000
EXISTING LEVEL	6.342	6.433 6.453	6.199	6.165	6.318	6.282
OFFSET	-25.348	-0.075 0.000	3.080	8.251	11.362	12.786

CHAINAGE 10204.408

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE  
A1

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

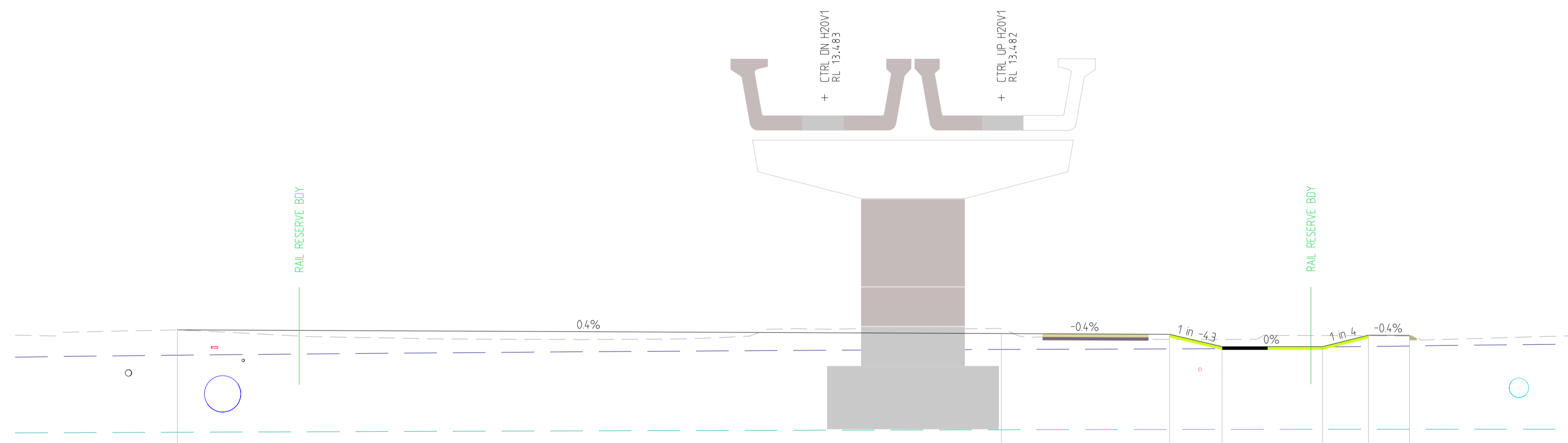
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	BD99	IA22	IF22	IF22	IA22	61474BRB099
DESIGN LEVEL	6.317	6.203	6.180	5.800	5.800	6.152
DGWL ZAEP	5.534	5.712	5.729	5.733	5.789	5.804
EXISTING LEVEL	6.317	6.361	6.070	6.020	6.140	6.136
OFFSET	-25.412	0.000	5.088	6.807	9.911	11.320

CHAINAGE 10235.531

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

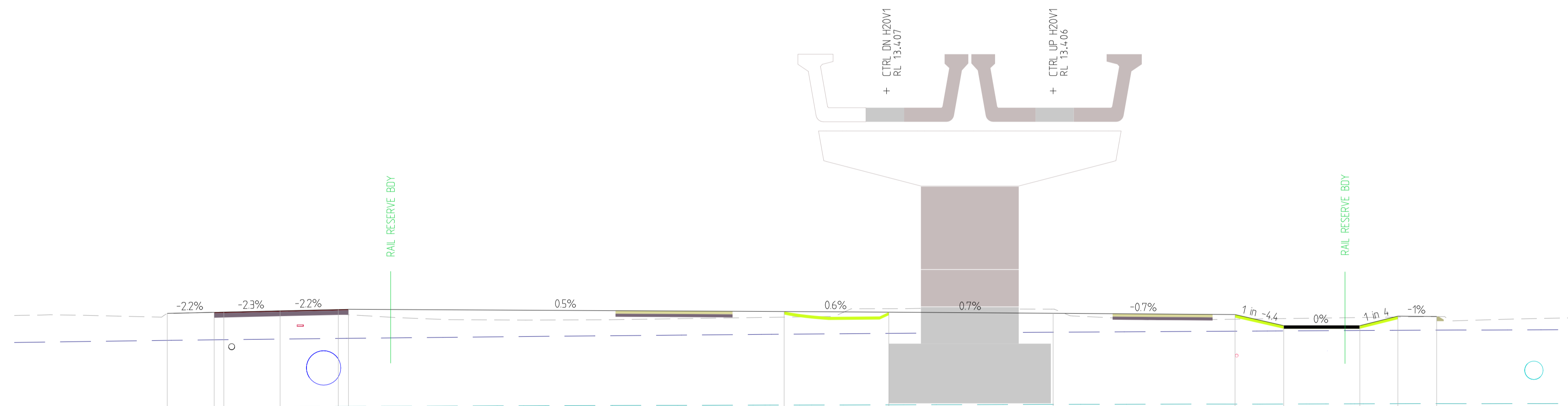
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 20

STRING NAME	BD99	CEFF LEF1	LAF1	LEFF LEF1	IA23	IA23		IA24	IF24	IF24	IA24	6.028 (BR)BD99
DESIGN LEVEL	6.131	6.165 6.172	6.215	6.257 6.264	6.191	6.171	6.134	6.092	5.730	5.730	6.041	6.028
DGWL ZAEP	5.248	5.266 5.270	5.290	5.311 5.315	5.450	5.477	5.515	5.548	5.557	5.571	5.577	5.584
EXISTING LEVEL	6.131	6.170 6.172	6.209	6.103 6.085	6.008	6.284	6.269	5.940	5.961	5.995	6.011	6.026
OFFSET	-28.982	-27.146 -27.129	-25.289	-23.866 -23.053	-8.800	-5.375	0.000	5.951	7.544	10.034	11.277	12.547

CHAINAGE 10266.681

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

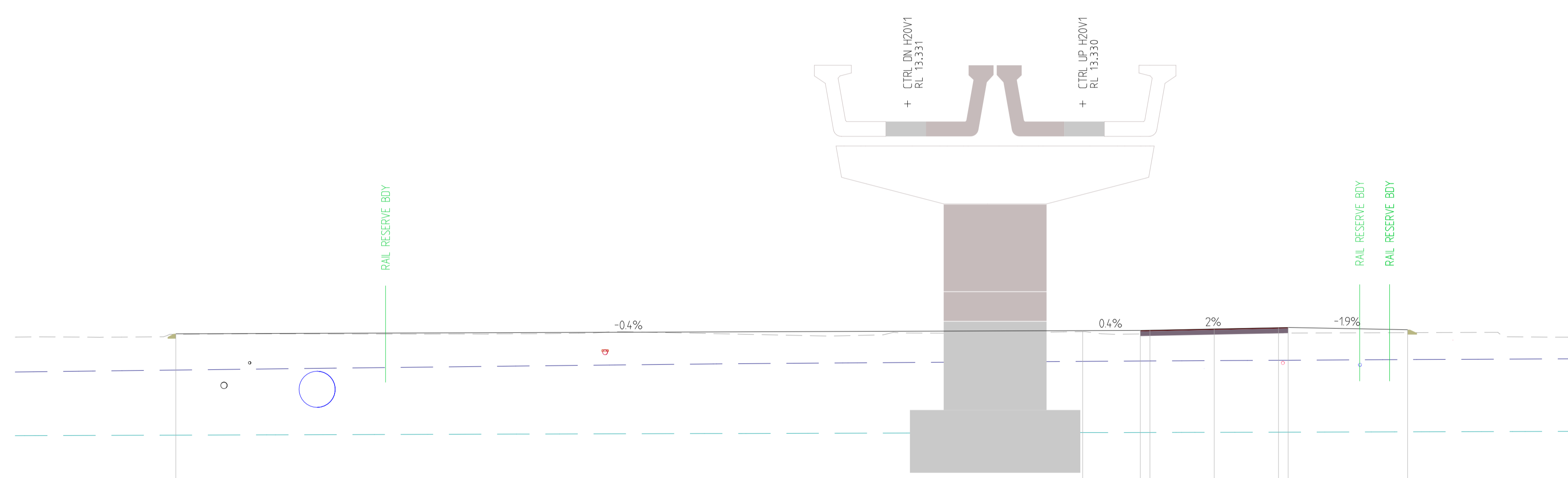
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 00

STRING NAME	6.1834BRB099			LEF1 LEF1	LAF1	LEF1 LEF1	6.3064BRB099
DESIGN LEVEL				6.280	6.286 6.292	6.332	6.372 6.376
DGWL ZAEP	5.053			5.323	5.335 5.337	5.348	5.357 5.358
EXISTING LEVEL	6.166			6.247	6.176 6.179	6.197	6.203 6.204
OFFSET	-28.275			0.000	1.791 2.091	4.091	6.091 6.391

CHAINAGE 10297.831

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality

Contractor No:

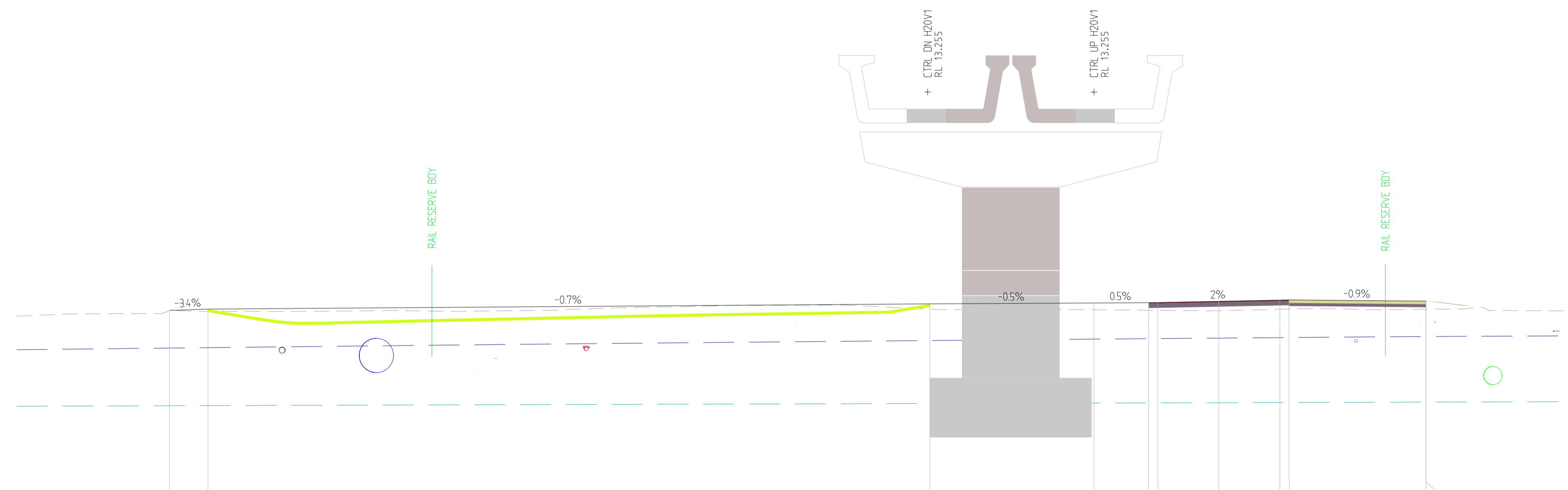
VALIDATION  
 SIGNATURE  
 DATE APPROVED

REFERENCES  
 SCALE  
 DATUM  
 HORIZONTAL: PCG20  
 VERTICAL: AHD71

DESIGNED  
 DRAWN  
 CHECKED  
 APPROVED  
 DATE

Government Western Australia  
 Public Transport Authority

PTA Drawing No: \_\_\_\_\_ Rev: \_\_\_\_\_



STRING NAME	6.107	6.150	6.323	6.351	6.360	6.366	6.406	6.446	6.452	6.472	6.488	6.499
DESIGN LEVEL	6.107	6.150	6.323	6.351	6.360	6.366	6.406	6.446	6.452	6.472	6.488	6.499
DGWL ZAEP	4.875	4.889	5.122	5.168	5.183	5.185	5.201	5.218	5.220	5.253	5.253	5.253
EXISTING LEVEL	6.107	6.075	6.149	6.129	6.113	6.111	6.097	6.146	6.153	6.147	6.147	6.147
OFFSET	-30.294	-29.031	-5.375	0.000	1.791	2.091	4.091	6.091	6.391	10.879	10.879	10.879

CHAINAGE 10328.981

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

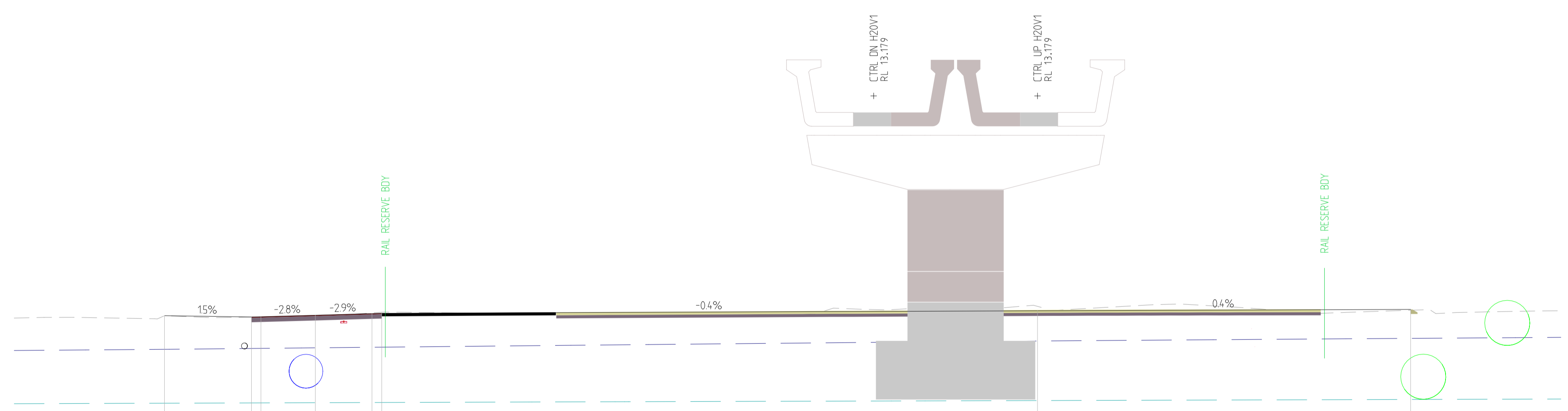
ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality  
 Contractor No:

SIGNATURE	VALIDATION
DATE APPROVED	REFERENCES

DATUM	SCALE
HORIZONTAL: PCG20	DESIGNED
VERTICAL: AHD71	DRAWN
	CHECKED
	APPROVED
	DATE

PTA Drawing No:	Rev:
-----------------	------

Government Western Australia  
 Public Transport Authority



DATUM 10

STRING NAME	RK	CEFF LEFF	LAF2	LEFF CEFF		6077 (BR)B099
DESIGN LEVEL	5.868	5.825 5.834	5.884	5.939 5.948	6.030	
DGWL ZAEP	4.749	4.778 4.781	4.799	4.817 4.821	5.026	5.113
EXISTING LEVEL	5.868	5.823 5.829	5.868	5.951 5.983	6.178	6.049
OFFSET	-29.039	-26.945 -25.831	-24.021	-22.037 -21.813	0.000	12.411

CHAINAGE 10360.158

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

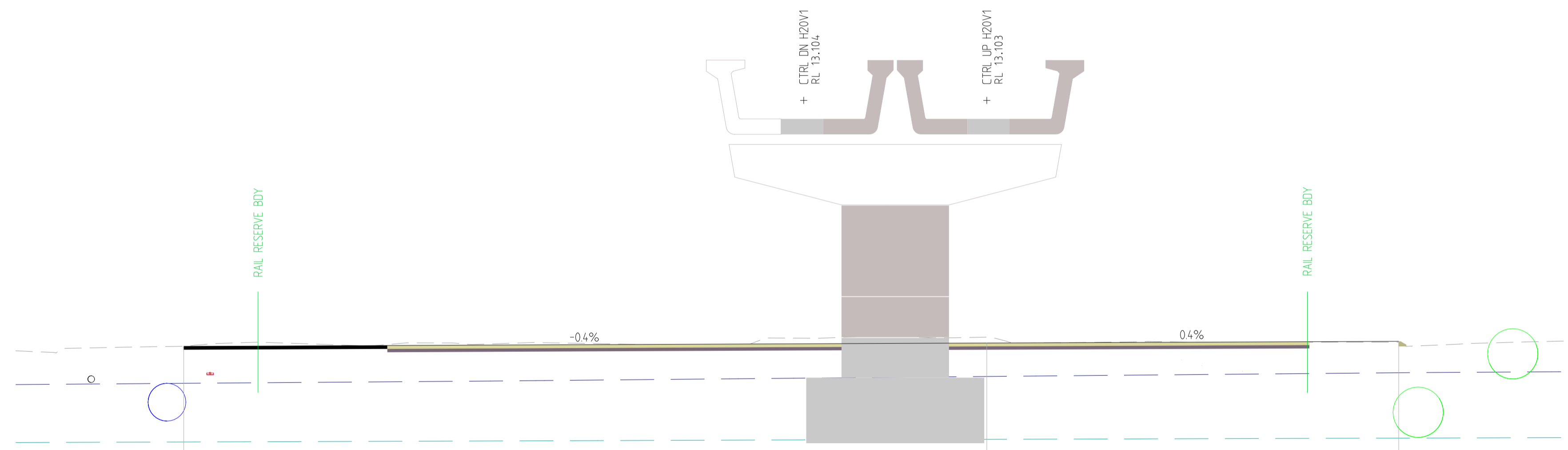
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:





DATUM 10				
STRING NAME	BD99			
DESIGN LEVEL	5.784		5.882	5.932
DGWL ZAEP	4.682		4.886	4.997
EXISTING LEVEL	5.784		6.057	5.908
OFFSET	-23.906		0.000	12.262

CHAINAGE 10391.281

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

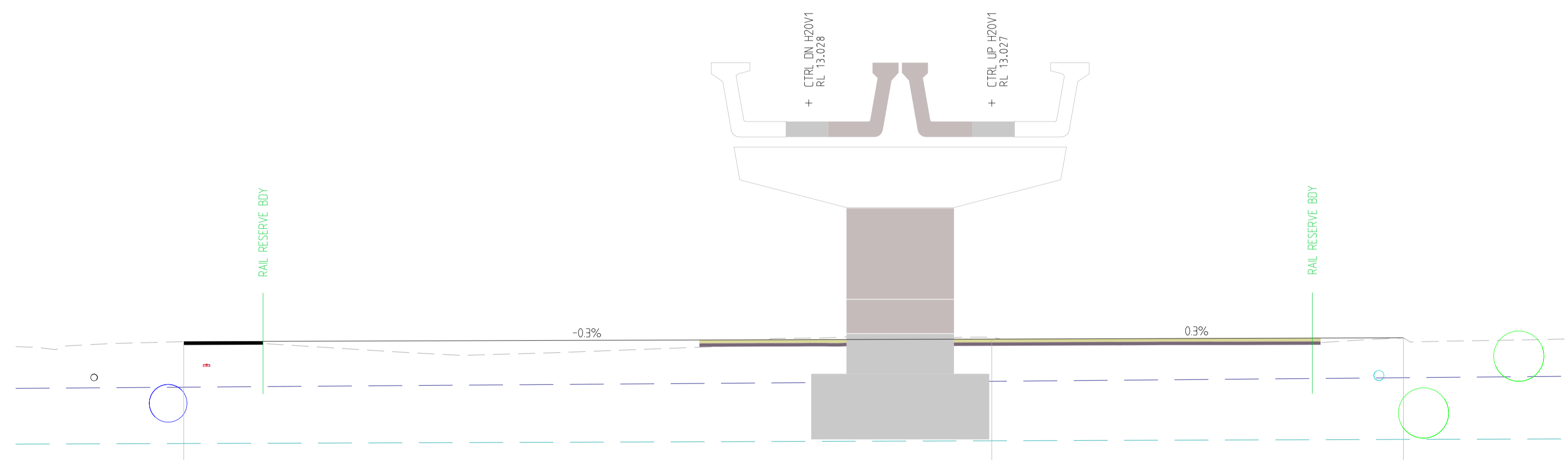
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



DATUM 10		BD99		RK
STRING NAME		BD99		RK
DESIGN LEVEL		5.929	6.004	6.042
DGWL ZAEP		4.573	4.747	4.854
EXISTING LEVEL		5.929	6.061	6.042
OFFSET		-24.055	0.000	12.255

CHAINAGE 104.22.431

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
 AT ORIGINAL PLOT SIZE  
 0 10 20 30 40 50 100mm  
 This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality  
 Contractor No:

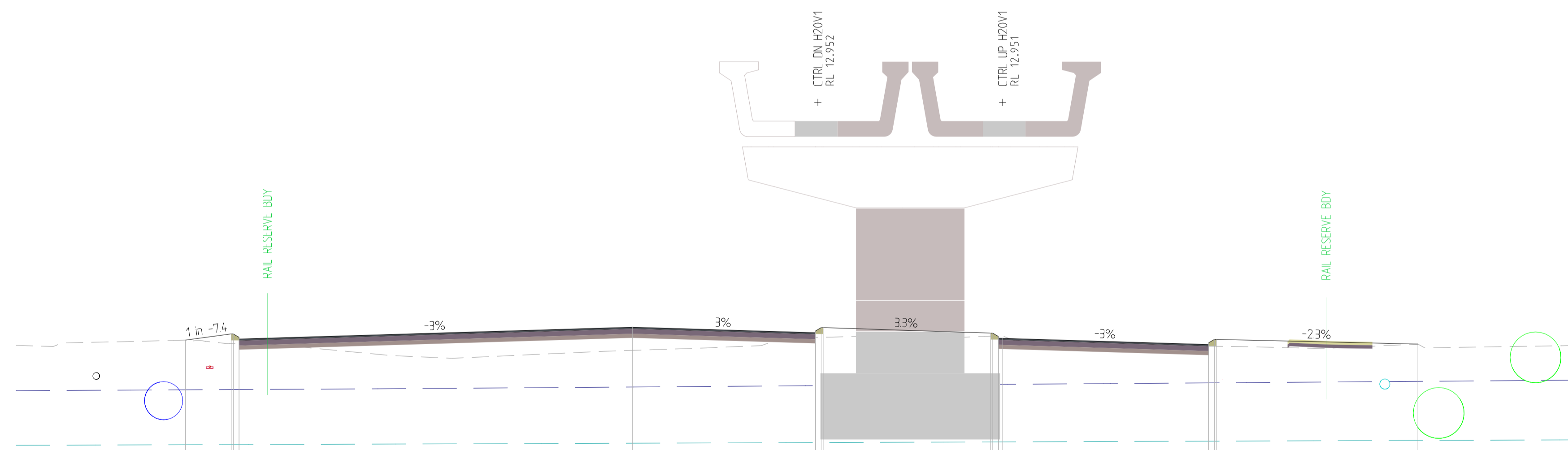
SIGNATURE  
 DATE APPROVED

VALIDATION  
 REFERENCES

SCALE  
 DATUM  
 HORIZONTAL: PCG20  
 VERTICAL: AHD71

DESIGNED  
 DRAWN  
 CHECKED  
 APPROVED  
 DATE

Government Western Australia  
 Public Transport Authority  
 PTA Drawing No:  
 Rev:



STRING NAME	BD99	CBCJ	CHC1	CFCC	CFCC	CFCC	RK
DESIGN LEVEL	5.940	6.123 6.123 6.023 5.973	6.321	6.159 6.009 6.309	6.147 6.047 5.993	5.811 5.861 5.961	5.823
DGWL ZAEP	4.473	4.480 4.481 4.481	4.556	4.595 4.595 4.597	4.632 4.634 4.634	4.678 4.679 4.680	4.722
EXISTING LEVEL	5.940	5.840 5.825 5.825	5.637	6.021 6.003 6.004	6.057 6.065 6.060	5.759 5.757 5.756	5.823
OFFSET	-24.107	-22.755 -22.679 -22.625	-10.923	-5.923 -5.923 -5.923	-0.363 -0.124 0.000	6.077 6.247 6.307	12.250

CHAINAGE 10453.581

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

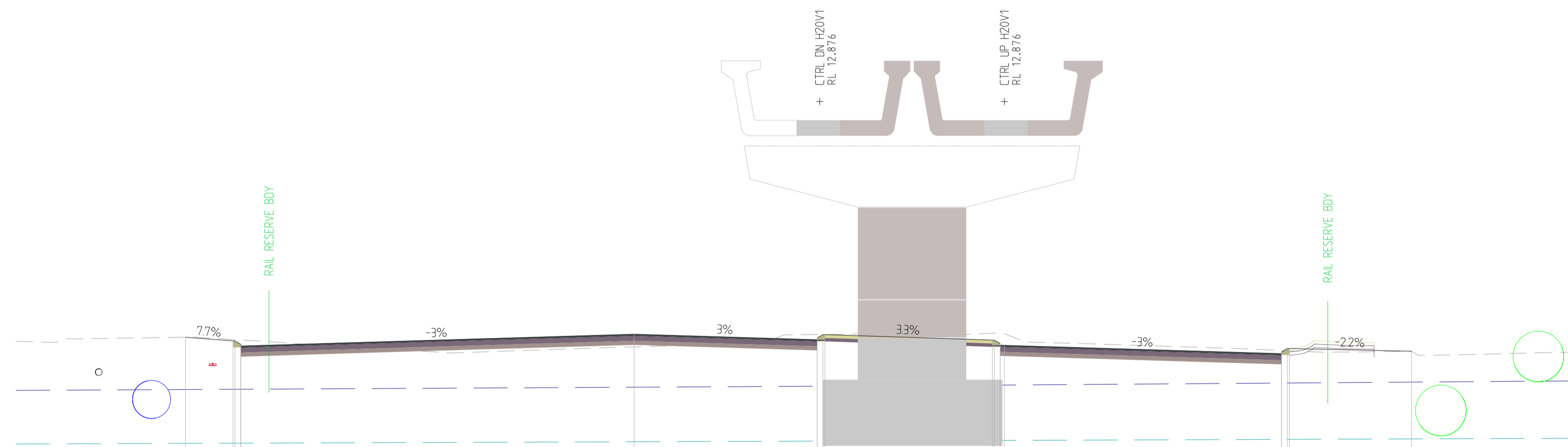
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	BD99	CBCU CUC CFCU	CHC1	CFC1 CUC1 CFC1	CBC1	CFCU	RK
DESIGN LEVEL	5.931	5.823 5.823 5.823 5.823	6.021	5.859 5.847 5.847 5.847	5.847 5.847 5.847 5.847	5.648 5.498 5.598 5.598	5.519
DGWL ZAEP	4.390	4.388 4.388 4.388 4.388	4.459	4.487 4.487 4.488 4.488	4.520 4.520 4.521 4.521	4.581 4.581 4.583 4.583	4.609
EXISTING LEVEL	5.931	5.862 5.859 5.859 5.849	5.646	6.010 6.010 6.010 6.010	6.019 6.051 6.057 6.057	5.542 5.542 5.534 5.532	5.519
OFFSET	-24.160	-22.757 -22.671 -22.671 -22.671	-10.925	-5.525 -5.524 -5.525	-0.955 -0.955 -0.926 -0.926	8.975 8.975 8.945 8.405	12.014

CHAINAGE 10484.731

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

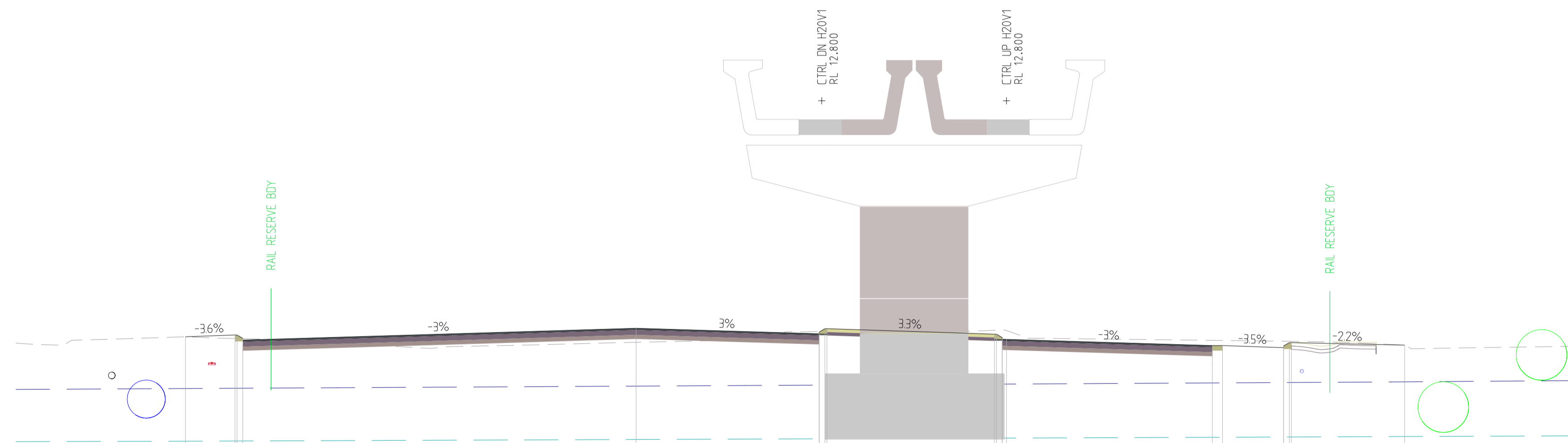
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	BD99	CBCJ CUC CFCJ	CHC1	CFC1 CUC CUC CUC	CFC1 CUC CUC CFC1	CFC1 CUC	CFCJ CUC CUC CUC	RK
DESIGN LEVEL	5.833	5.886 5.886 5.796	6.084	5.972 5.972 6.072	5.900 5.900 5.800 5.760	5.574 5.574	5.511 5.561 5.661	5.587
DGWL ZAEP	4.305	4.313 4.313 4.314	4.377	4.406 4.406 4.407	4.432 4.432 4.436 4.436	4.470 4.472	4.482 4.482 4.483 4.483	4.503
EXISTING LEVEL	5.833	5.782 5.781 5.777	5.671	5.990 5.890 5.893 5.894	6.074 6.074 6.032 6.032	5.727 5.724	5.702 5.702 5.699 5.698	5.587
OFFSET	-24.221	-22.759 -22.659 -22.559	-10.927	-5.527 -5.526 -5.297	-0.397 -0.397 -0.128 -0.127	6.073 6.373	8.472 8.472 8.343 8.403	11.746

CHAINAGE 10515.881

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

DATUM  
HORIZONTAL: PCG20  
VERTICAL: AHD71

SCALE

DESIGNED

DRAWN

CHECKED

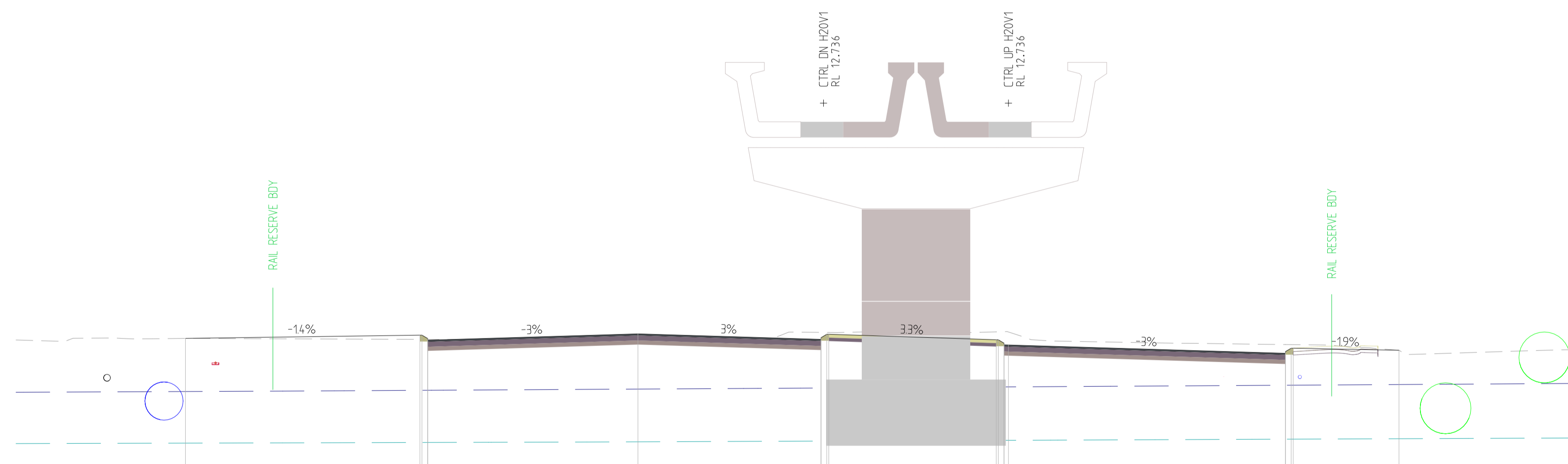
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	BD99	CBCU CUCU CFCU	CHC1	CFC1 CUC1 CFC1	CBC1 CUC1 CFC1	RK
DESIGN LEVEL	5.804	5.899 5.900 5.901 5.91	5.937	5.775 5.825 5.925	5.763 5.814 5.663	5.454
DGWL 2AEP	4.238	4.273 4.273 4.274 4.274	4.310	4.341 4.341 4.342 4.343	4.372 4.374 4.374 4.374	4.444
EXISTING LEVEL	5.804	5.774 5.774 5.773 5.773	5.667	5.980 5.980 5.979 5.978	5.996 6.002 6.002 5.992	5.454
OFFSET	-24.279	-17.362 -17.302 -17.360 -17.362	-10.990	-5.590 -5.529 -5.360 -5.300	-0.360 -0.391 -0.180 0.000	11521

CHAINAGE 10542.244

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

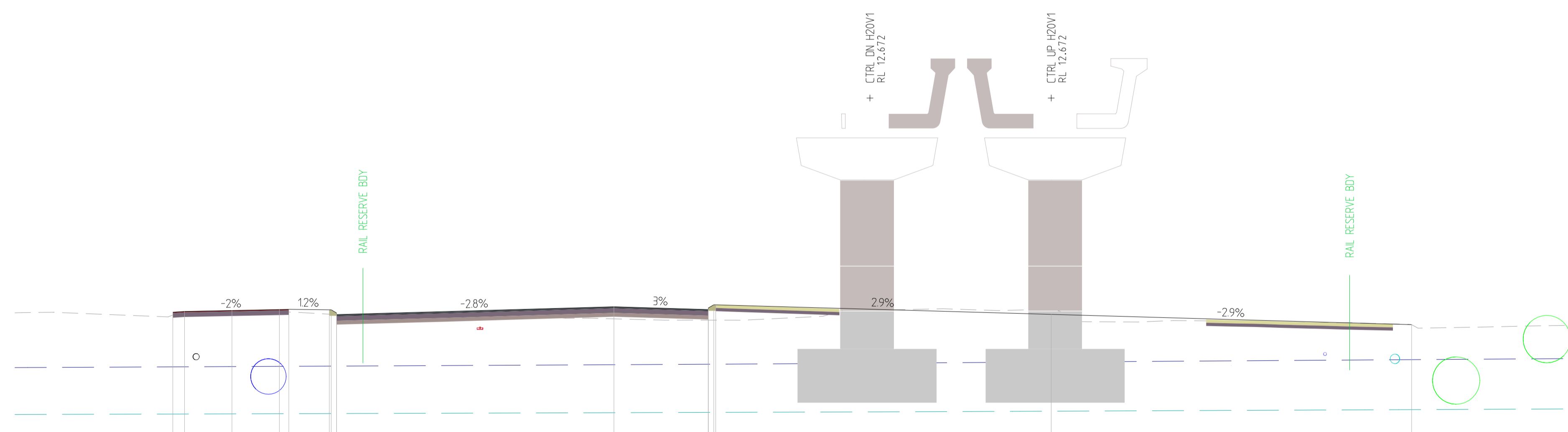
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



STRING NAME	CEC2 LEC2	LAC2	LEC2 CEC2	CBC1 CBC1 CBC1 CBC1	CHC1	CEC1 CBC1 CBC1 CBC1		RK
DESIGN LEVEL	5.895 5.919	5.949	5.979 5.965	5.970 5.970 5.970 5.820	6.067	5.979 6.029 6.028	5.825	5.500
DGWL ZAEP	4.164 4.166	4.173	4.180 4.181	4.187 4.188 4.188 4.188	4.232	4.247 4.247 4.248 4.248	4.316	4.392
EXISTING LEVEL	5.805 5.840	5.865	5.908 5.899	5.831 5.838 5.838 5.818	5.683	5.642 5.642 5.642 5.642	5.974	5.500
OFFSET	-27.801 -27.430	-25.930	-24.430 -24.180	-22.848 -22.699 -22.699 -22.668	-13.841	-10.855 -10.854 -10.618	0.000	11.408

CHAINAGE 10568.482

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

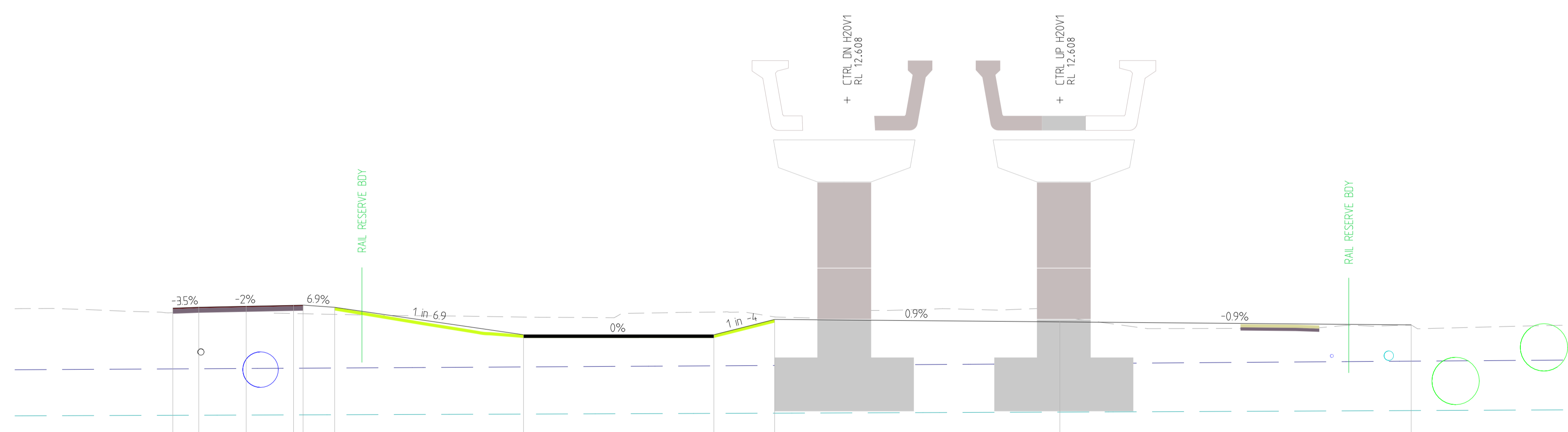
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	CEC2	LEC2	LAC2	CECK	CECK	IA28	IF28	IF28	IA28		RK
DESIGN LEVEL	6.023	6.052	6.082	6.112	6.118	6.049	5.980	5.980	5.665	5.588	5.492
DGWL ZAEP	4.099	4.104	4.112	4.121	4.122	4.128	4.182	4.196	4.208	4.265	4.344
EXISTING LEVEL	5.879	5.975	5.993	5.852	5.845	5.824	5.740	5.898	5.744	5.822	5.492
OFFSET	-28.075	-27.254	-25.754	-24.253	-23.953	-22.953	-16.976	-10.951	-9.027	0.000	11.020

CHAINAGE 10594.782

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

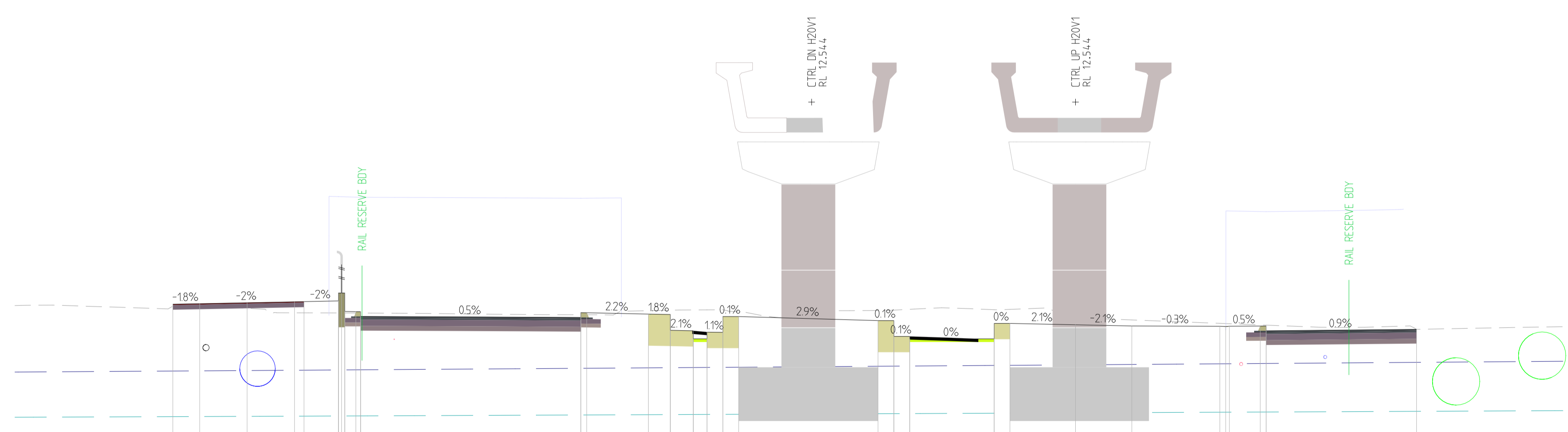
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

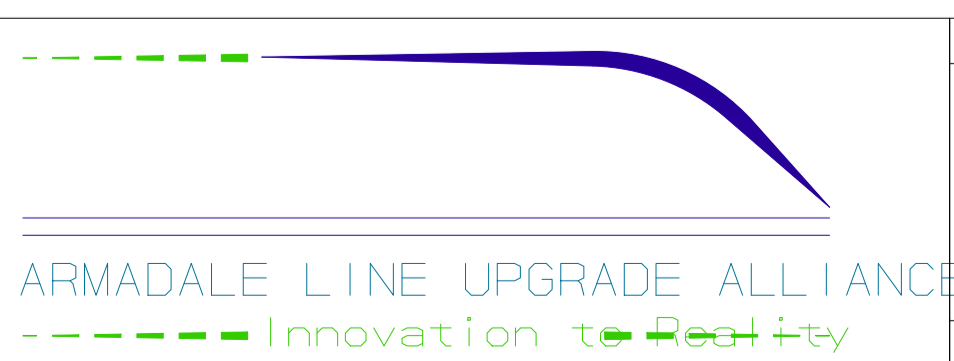
Rev:





STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	6.148	4.032	6.085	-28.570
LEC2	6.163	4.037	6.099	-27.720
LAC2	6.193	4.047	6.017	-26.220
LEC6	6.223	4.057	5.874	-24.479
ESC6	6.251	4.066	5.870	-23.331
WBC6	6.251	4.066	5.870	-23.330
WTC6	6.251	4.066	5.870	-23.329
WBC7	6.251	4.067	5.869	-23.327
WTC7	6.251	4.067	5.869	-23.326
WBC8	6.251	4.067	5.869	-23.325
WTC8	6.251	4.067	5.869	-23.324
WBC9	6.251	4.070	5.867	-22.778
WTC9	6.251	4.071	5.867	-22.627
CEC1	5.729	4.118	5.813	-6.658
CEC1	5.877	4.119	5.813	-15.471
CEC1	5.877	4.119	5.813	-15.471
MEB29	5.834	4.133	5.942	-13.519
W1229	5.857	4.138	5.957	-12.826
W1229	5.906	4.143	5.966	-12.097
W1229	5.955	4.148	5.968	-11.664
W1229	5.955	4.148	5.970	-11.662
W1229	5.957	4.149	5.970	-11.651
W1229	5.956	4.152	5.971	-10.660
MEB29	5.628	4.183	5.948	-6.251
W1229	5.627	4.187	5.960	-5.750
W1229	5.627	4.187	5.960	-5.749
W1229	5.627	4.190	5.986	-5.248
W1229	5.627	4.190	5.986	-5.247
MEB29	5.050	4.209	5.973	-2.576
W1229	5.050	4.212	5.983	-2.575
MEB29	5.050	4.212	5.983	-2.075
CP99	5.495	4.227	5.718	0.000
CP99	5.458	4.240	5.649	1.783
CEC1	5.448	4.260	5.541	4.568
CEC1	5.447	4.261	5.534	4.754
CEC1	5.450	4.262	5.529	4.871
CEC1	5.455	4.270	5.491	5.847
CEC1	5.456	4.271	5.484	6.033
CEC1	5.460	4.271	5.484	6.004
CH99	5.351	4.306	5.351	10.795

CHAINAGE 10621.082



REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
ORIG SIZE						
A1						

CAD DRAWING PATHNAME

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

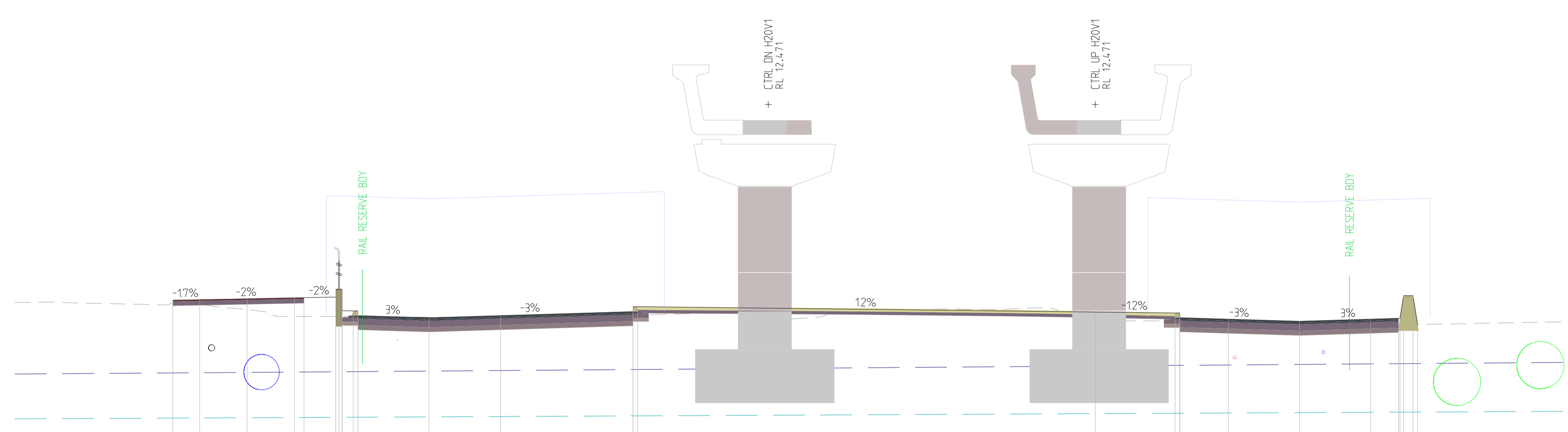
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	6.273	3.971	6.203	-29.955
LEC2	6.267	3.977	6.136	-28.345
LAC2	6.317	3.988	5.979	-26.844
CECK	6.307	3.988	5.760	-25.344
CECK	6.353	4.000	5.758	-25.044
ESCK	6.373	4.008	5.756	-24.038
WBCK	6.373	4.008	5.756	-24.037
WICK	6.253	4.008	5.756	-24.036
WTCU	6.623	4.009	5.756	-23.836
WBUC	5.942	4.009	5.756	-23.835
WUCU	5.942	4.013	5.753	-23.935
CECU	5.785	4.013	5.753	-23.335
IFCU	5.777	4.030	5.736	-21.085
LEC1	5.785	4.047	5.714	-18.820
CECU	5.911	4.079	5.805	-14.633
CECU	6.070	4.080	5.805	-14.632
CECU	6.070	4.080	5.809	-14.463
CECU	5.899	4.191	5.826	0.000
CECU	5.869	4.210	5.612	2.577
CECU	5.869	4.211	5.611	2.677
CECU	5.719	4.211	5.611	2.676
LEC1	5.673	4.223	5.593	4.213
IFC1	5.606	4.240	5.568	6.467
LEC1	5.674	4.258	5.585	8.777
CECU	5.700	4.264	5.610	9.600
CECU	5.700	4.264	5.610	9.600
B3C1	6.448	4.266	5.614	9.759
B3C1	6.448	4.268	5.588	10.059
B2C1	6.448	4.269	5.503	10.205
B2C1	5.503	4.269	5.503	10.205

CHAINAGE 10651.082

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

DATE

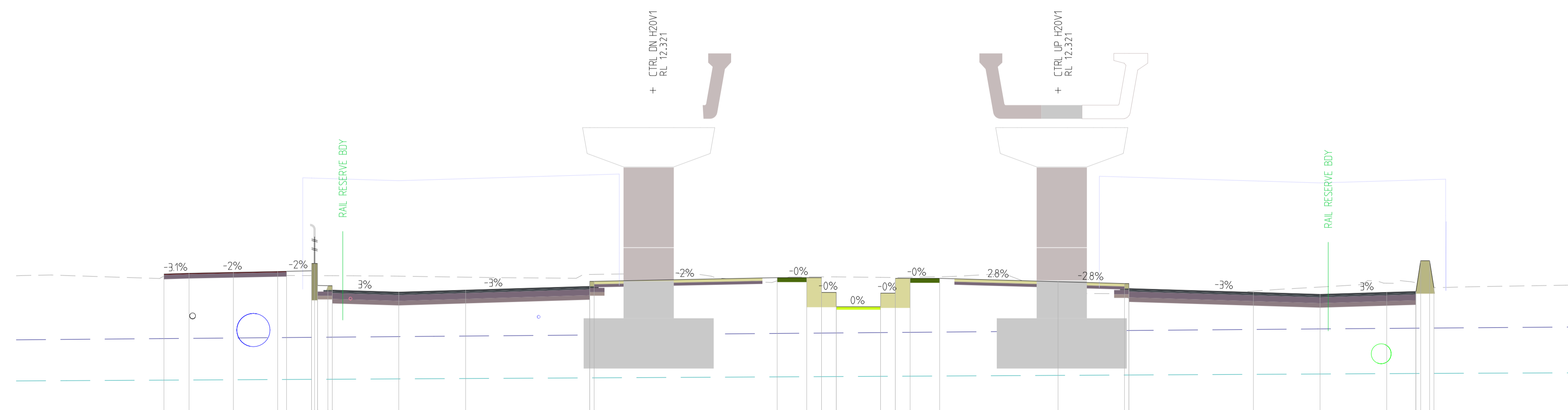
Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am





STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	6.106	3.923	6.036	-30.268
LEC2	6.183	3.930	6.091	-29.418
LAC2	6.163	3.943	6.128	-27.918
LECK	6.193	3.956	6.058	-26.418
ESCK	6.216	3.965	6.054	-25.271
W1E30	6.246	3.965	6.054	-24.720
F1E30	6.466	3.966	6.053	-25.169
W1E30	6.466	3.967	6.052	-25.069
CBCU	5.773	3.970	6.051	-24.918
CECU	5.773	3.971	6.051	-24.569
CECU	5.963	3.970	6.035	-22.318
LEC1	5.564	4.009	6.001	-20.055
CECU	5.620	4.044	6.093	-15.854
CBCU	5.860	4.045	6.095	-15.702
EV30	5.985	4.097	5.878	-9.508
W1E30	5.985	4.106	6.009	-8.508
W1E30	6.011	4.110	6.011	-8.008
W1E30	5.485	4.110	6.011	-8.007
W1E30	5.000	4.114	6.011	-7.506
W1E30	5.000	4.126	5.994	-6.000
W1E30	5.461	4.131	5.989	-6.009
W1E30	5.981	4.131	5.988	-5.509
W1E30	5.981	4.135	5.988	-5.008
EV30	5.961	4.143	6.017	-4.008
LEC1	5.489	4.232	5.579	6.613
IFC1	5.420	4.251	5.668	8.870
LEC1	5.487	4.268	5.797	11.126
B1C1	5.577	4.275	5.815	12.109
B2C1	6.559	4.275	6.559	12.146
B3C1	6.559	4.276	6.559	12.276
B2C1	6.559	4.279	6.559	12.578
B1C1	5.644	4.280	5.644	12.725

CHAINAGE 10712.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

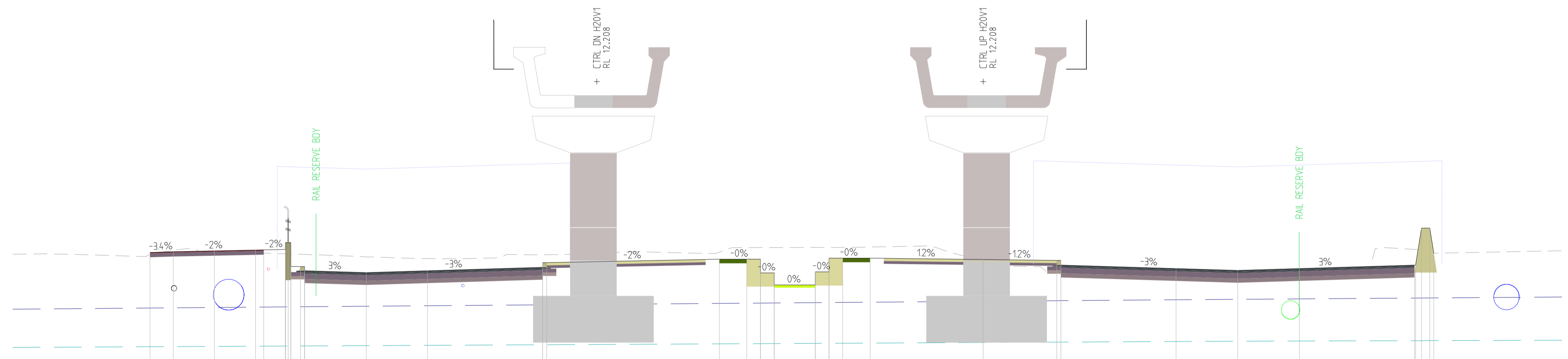
DATE

Government Western Australia Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



DATUM 10

STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
LEC2	5.982	3.959	5.921	-30.992
LEC2	6.011	3.966	6.054	-29.552
LAC2	6.041	3.979	5.996	-28.042
LECK	6.077	3.994	5.966	-26.542
LECK	6.077	3.994	5.966	-26.542
ESCK	6.093	4.001	5.933	-25.154
WTKK	6.093	4.001	5.933	-25.154
FNEJ	6.343	4.002	5.930	-25.352
WBCU	5.977	4.003	5.924	-25.252
WBCU	5.977	4.003	5.924	-25.252
CBCU	5.468	4.005	5.916	-24.901
CBCU	5.468	4.006	5.911	-24.752
IFCU	5.250	4.004	5.882	-22.591
IFCU	5.250	4.004	5.882	-22.591
LEC1	5.377	4.042	5.761	-20.270
CECJ	5.443	4.075	5.901	-16.970
CBCJ	5.613	4.075	5.901	-16.970
CBCJ	5.613	4.077	5.902	-15.970
EV30	5.799	4.127	5.992	-9.623
WT130	5.799	4.135	6.161	-8.623
WT230	5.799	4.139	6.162	-8.123
WT330	5.239	4.139	6.162	-9.122
WT430	4.800	4.143	6.162	-7.621
WT30	4.900	4.155	6.166	-6.021
WT130	5.277	4.159	6.164	-6.024
WT130	5.777	4.159	6.164	-5.623
WT130	5.777	4.169	6.167	-5.223
EV30	5.777	4.171	6.181	-4.123
5.777	4.171	6.181	6.181	-4.123
5.727	4.204	6.185	5.685	0.000
CBCU	5.694	4.226	5.299	2.686
CBCU	5.694	4.227	5.297	2.687
CBCU	5.624	4.227	5.297	2.686
LEC1	5.998	4.260	5.254	7.086
IFC1	5.930	4.276	5.240	9.286
LEC1	5.998	4.292	5.233	11.586
LECJ	5.524	4.322	6.095	15.736
B3C1	6.079	4.324	6.093	16.586
B3C1	6.079	4.324	6.079	16.587
B2C1	6.038	4.326	6.038	16.291
B2C1	6.038	4.327	6.038	16.438
B2C1	5.956	4.327	5.956	16.438

CHAINAGE 10742.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE  
A1

0 10 20 30 40 50 100mm  
AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No: \_\_\_\_\_

SIGNATURE  
DATE APPROVED

VALIDATION  
REFERENCES

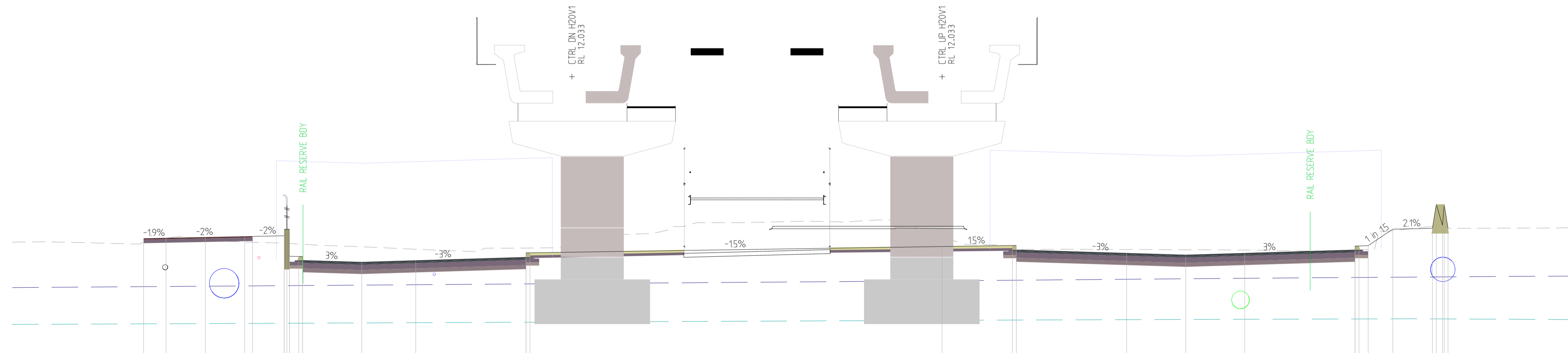
SCALE  
DATUM  
HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED  
DRAWN  
CHECKED  
APPROVED  
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No: \_\_\_\_\_ Rev: \_\_\_\_\_

Vault Template Revised Date : 26th November 2019 10:30am



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.866	4.034	5.743	-30.413
LEC2	5.882	4.040	5.887	-29.563
LAC2	5.972	4.051	5.794	-28.063
LECK	5.972	4.061	5.736	-26.563
CECK	5.948	4.064	5.727	-26.263
SECK	5.973	4.072	5.690	-25.059
WTEK	6.223	4.072	5.690	-25.057
PNEU	6.222	4.073	5.685	-24.957
WBCU	5.779	4.074	5.679	-24.867
WBCU	5.791	4.074	5.679	-24.867
CBUC	5.184	4.076	5.661	-24.506
CEUC	5.184	4.077	5.653	-24.327
CEUC	5.184	4.077	5.653	-24.327
UEUC	4.967	4.093	5.553	-22.106
LEC1	5.028	4.108	5.460	-20.050
CFCU	5.154	4.138	5.505	-15.849
CFCU	5.324	4.139	5.508	-15.699
CEUC	5.563	4.256	5.936	0.000
CBCU	5.604	4.279	5.454	2.677
CFCU	5.604	4.280	5.454	2.626
CFCU	5.454	4.280	5.454	2.627
LEC1	5.308	4.316	5.451	7.027
IFC1	5.240	4.335	5.439	9.277
LEC1	5.308	4.354	5.430	11.527
CEUC	6.274	4.384	5.433	15.727
CEUC	6.274	4.384	5.433	15.727
CEUC	6.274	4.384	5.433	15.727
EVC1	6.274	4.393	5.442	16.227
EVC1	6.274	4.393	6.168	17.166
BACC	6.256	4.403	6.331	18.674
BACC	6.256	4.404	6.347	18.620
BACC	6.256	4.404	6.372	19.058
BACC	6.256	4.406	6.372	19.058
BACC	6.256	4.408	6.357	19.269
BACC	6.257	4.408	6.257	19.269

CHAINAGE 10772.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
 0 10 20 30 40 50 100mm  
 AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality

Contractor No:

SIGNATURE  
 DATE APPROVED

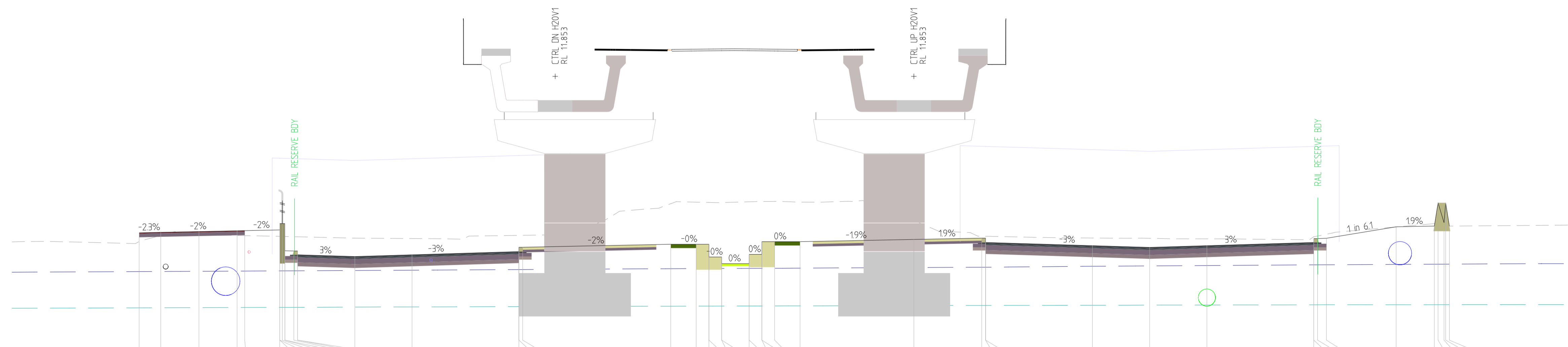
VALIDATION  
 REFERENCES

SCALE  
 DATUM  
 HORIZONTAL: PCG20  
 VERTICAL: AHD71

DESIGNED  
 DRAWN  
 CHECKED  
 APPROVED  
 DATE

Government Western Australia  
 Public Transport Authority

PTA Drawing No: \_\_\_\_\_  
 Rev: \_\_\_\_\_



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.711	4.190	5.370	-30.455
LEC2	5.731	4.193	5.606	-29.605
LAC2	5.761	4.200	5.618	-28.105
LEC3	5.791	4.208	5.606	-26.605
CEC4	5.797	4.210	5.601	-26.305
ESCK	5.824	4.217	5.572	-24.928
WBCK	5.824	4.217	5.572	-24.927
FNCO	6.074	4.218	5.526	-24.829
WTCU	6.074	4.218	5.566	-24.726
WBUC	5.906	4.220	5.559	-24.727
WBCU	5.906	4.220	5.559	-24.727
CTCU	4.999	4.221	5.554	-24.226
CECU	4.849	4.221	5.554	-24.226
IFCU	4.781	4.232	5.503	-21.975
LEC1	4.849	4.244	5.486	-49.728
CECU	4.975	4.268	5.611	-15.628
CBUC	5.145	4.289	5.614	-15.374
EV31	5.263	4.302	6.854	-9.557
WT131	5.263	4.308	6.915	-8.557
WT231	5.263	4.311	6.904	-8.657
WT331	4.763	4.311	6.904	-8.656
WT431	4.763	4.312	6.900	-7.556
IF31	4.500	4.312	6.900	-7.555
IF31	4.500	4.315	6.929	-6.477
WT431	4.864	4.317	6.929	-5.976
WT531	4.864	4.317	6.940	-5.976
WT631	5.364	4.317	6.940	-5.975
WT131	5.364	4.318	6.943	-5.475
EV31	5.364	4.325	6.917	-4.475
5451	5.451	4.348	6.198	0.000
CBUC	5.503	4.360	5.578	2.669
CECU	5.503	4.361	5.575	2.819
5333	5.533	4.361	5.575	2.819
LEC1	5.207	4.388	5.508	7.019
IFC1	5.140	4.412	5.496	9.269
LEC1	5.207	4.426	5.474	11.519
CECU	5.333	4.455	5.555	15.719
CBUC	5.483	4.455	5.535	15.720
EVCU	5.497	4.457	5.656	16.979
EV1	5.948	4.471	5.941	18.959
B3C1	5.976	4.470	6.072	20.160
B3C1	6.085	4.480	6.085	20.606
B099	6.106	4.481	6.106	20.841
B2C1	6.106	4.483	6.106	20.841
B2C1	5.975	4.483	5.975	21.053

CHAINAGE 10802.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

VALIDATION

SIGNATURE

DATE APPROVED

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

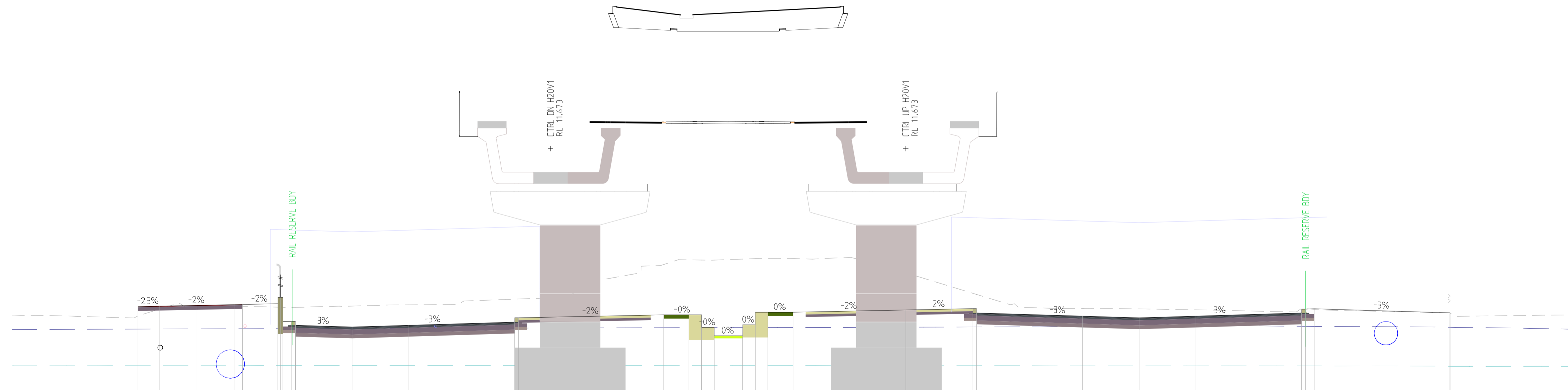
APPROVED

DATE

Government Western Australia  
Public Transport Authority

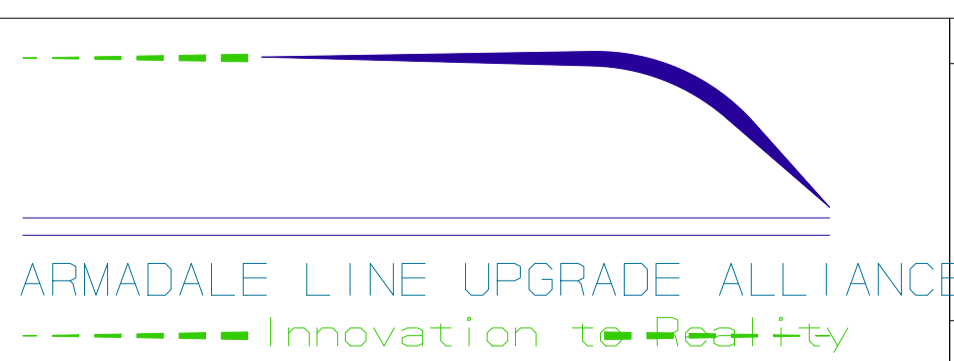
PTA Drawing No:

Rev:



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.408	4.517	5.036	-30.482
LEC2	5.427	4.520	5.305	-29.612
LAC2	5.458	4.524	5.428	-28.132
LEC3	5.488	4.528	5.413	-26.637
CEC3	5.494	4.529	5.410	-26.332
ESCK	5.522	4.532	5.386	-24.928
WBCK	5.522	4.532	5.385	-24.927
ENCK	5.522	4.532	5.383	-24.925
WICK	5.522	4.532	5.383	-24.925
WTCU	5.577	4.533	5.381	-24.726
WBCT	4.826	4.533	5.381	-24.726
WTCU	4.826	4.533	5.381	-24.726
CECU	4.819	4.534	5.381	-24.726
IFCU	4.669	4.534	5.381	-24.726
LEC1	4.669	4.545	5.478	-19.725
CECU	4.795	4.556	5.704	-15.525
CECU	4.795	4.556	5.704	-15.525
CECU	4.795	4.556	5.716	-15.313
EV31	5.082	4.570	7.076	-9.608
WT131	5.082	4.573	7.260	-8.608
WT231	5.082	4.574	7.253	-8.108
WB131	4.952	4.574	7.253	-8.107
WT131	4.952	4.575	7.251	-7.607
IF31	4.250	4.575	7.251	-7.606
IF31	4.250	4.577	7.292	-6.477
WT131	4.665	4.576	7.372	-5.976
WT231	4.665	4.576	7.372	-5.976
WT231	5.185	4.579	7.310	-5.275
WT131	5.185	4.580	7.323	-5.475
EV31	5.185	4.583	7.313	-4.475
CECU	5.275	4.592	6.745	0.000
CECU	5.328	4.599	5.935	2.662
CECU	5.158	4.600	5.899	2.812
LEC1	5.032	4.613	5.331	7.002
IFC1	4.965	4.625	5.316	9.262
LEC1	5.032	4.634	5.280	11.512
CECU	5.158	4.630	5.327	15.712
CECU	5.328	4.630	5.377	15.013
CECU	5.322	4.627	5.300	16.272
BD99	5.161	4.590	5.161	2.1591
BWB1	5.161	4.589	5.151	2.1609

CHAINAGE 10832.715



Contractor No:

VALIDATION  
SIGNATURE  
DATE APPROVED

REFERENCES

SCALE  
DATUM  
HORIZONTAL: PCG20  
VERTICAL: AHD71

DESIGNED  
DRAWN  
CHECKED  
APPROVED  
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No: \_\_\_\_\_ Rev: \_\_\_\_\_

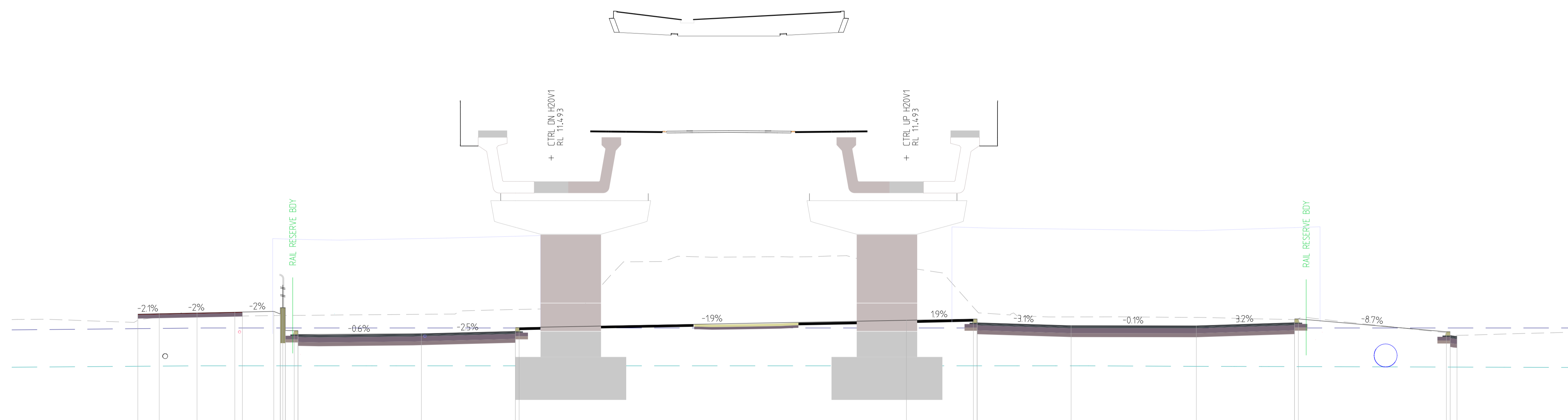
REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.





STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.298	4.723	5.056	-30.508
LEC2	5.316	4.732	5.183	-29.658
LAC2	5.346	4.747	5.200	-28.158
LEC6	5.376	4.750	5.220	-26.658
LEC8	5.382	4.750	5.225	-26.358
ESCK	5.407	4.750	5.242	-25.111
WTKK	5.514	4.750	5.245	-24.862
FNEJ	5.553	4.750	5.246	-24.753
WIBU	5.253	4.750	5.248	-24.623
WIBU	5.253	4.750	5.248	-24.623
CECU	4.642	4.750	5.249	-24.300
CECU	4.642	4.750	5.250	-24.151
CECU	4.452	4.750	5.250	-24.150
LEC1	4.522	4.750	5.293	-19.254
CECU	4.665	4.750	5.483	-15.523
CECU	4.765	4.750	5.486	-15.373
CECU	5.055	4.750	7.147	0.000
CECU	5.105	4.750	5.571	2.655
CECU	4.955	4.750	5.408	2.804
CECU	4.955	4.750	5.407	2.805
LEC1	4.841	4.750	5.188	6.556
LEC1	4.835	4.750	5.169	11.505
CECU	4.959	4.750	5.084	15.402
CECU	5.109	4.750	5.113	15.403
CECU	5.109	4.750	5.113	15.554
CECU	4.599	4.750	4.736	21.620
CECU	4.449	4.750	4.555	21.891
CH99	4.444	4.750	4.459	21.852

CHAINAGE 10862.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

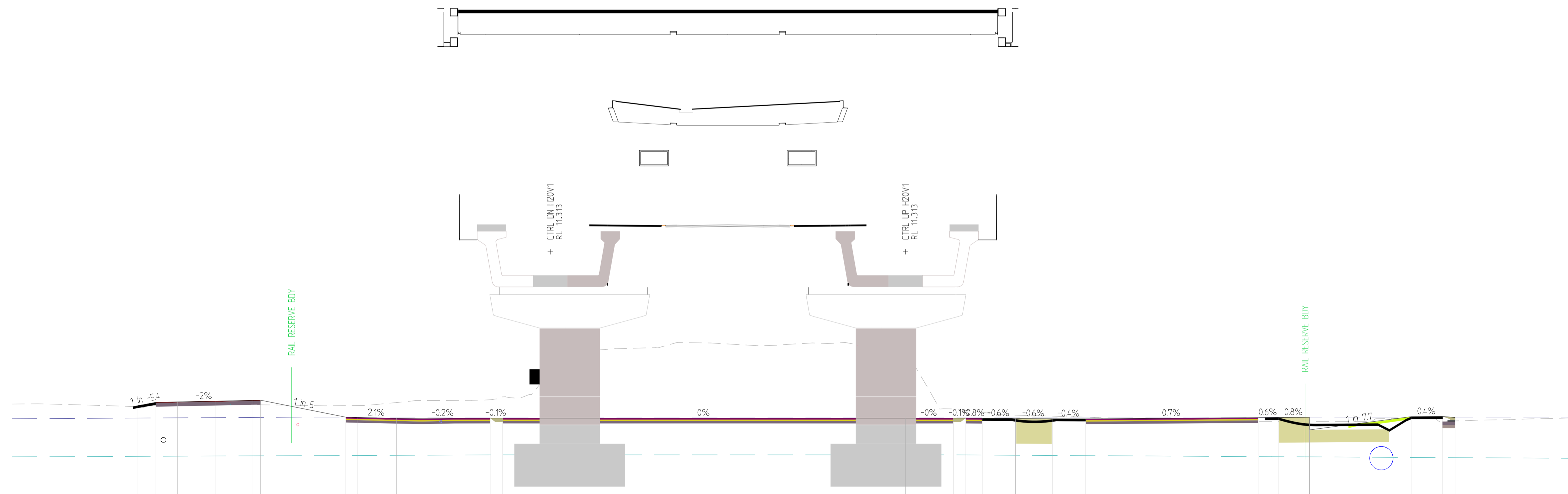
APPROVED

DATE

Government of Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
BD99	5.205	4.712	5.182	-30.469
CEC2	5.338	4.715	5.202	-29.753
LEC2	5.355	4.720	5.217	-28.902
LAC2	5.385	4.729	5.237	-27.400
LECK	5.415	4.738	5.240	-25.898
CECK	5.421	4.739	5.237	-25.597
CPC1	4.746	4.750	5.207	-22.213
CP699	4.755	4.750	5.211	-21.764
CR61	4.702	4.750	5.327	-20.210
CB61	4.709	4.750	5.439	-16.486
CF61	4.709	4.750	5.552	-15.983
CEC1	4.709	4.750	7.272	0.000
CEC1	4.709	4.750	5.066	1.893
CB61	4.709	4.750	5.009	2.396
CPC3	4.703	4.750	4.936	3.041
MEM33	4.695	4.750	4.827	4.370
MEM33	4.687	4.750	4.787	5.824
CPC3	4.681	4.750	4.749	7.158
CPC3	4.729	4.750	4.571	13.994
MEM33	4.734	4.750	4.573	14.817
WT233	4.744	4.750	4.573	16.033
WD133	4.744	4.750	4.573	16.040
IA33	4.769	4.750	4.712	20.072
CB61	4.774	4.750	4.586	21.325
CEC1	4.750	4.750	4.597	21.881
CF61	4.624	4.750	4.597	21.872

CHAINAGE 10892.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PTA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

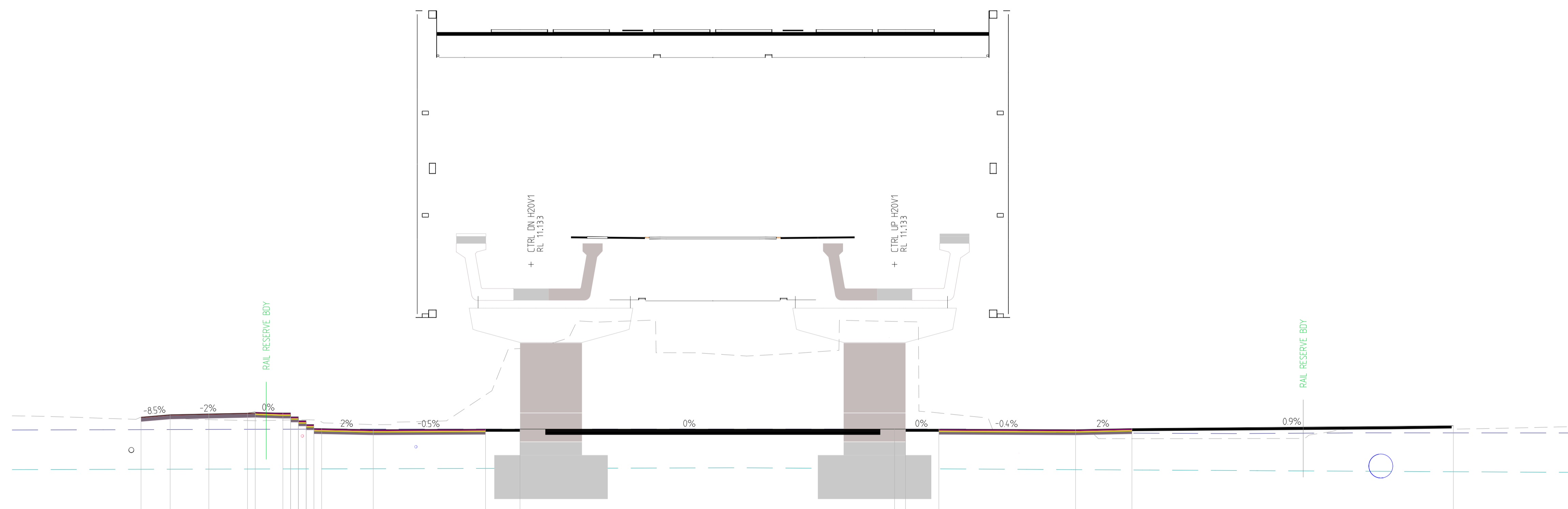
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.214	4.729	5.214	-29.228
LEC2	5.300	4.732	5.169	-28.098
LAC2	5.340	4.737	5.117	-26.598
LECK	5.370	4.741	5.081	-25.098
LECR	5.472	4.742	5.074	-24.798
LECR	5.472	4.742	5.074	-24.798
SIC9	5.376	4.745	5.099	-23.726
SIC8	5.376	4.746	5.105	-23.726
SIC7	5.276	4.747	5.109	-23.726
SIC6	5.276	4.747	5.110	-23.726
SIC5	5.076	4.747	5.112	-23.726
SIC4	4.976	4.748	5.112	-23.726
SIC3	4.926	4.748	5.104	-22.523
SIC2	4.926	4.748	5.104	-22.523
SIC1	4.776	4.748	5.104	-22.523
LPC1	4.776	4.749	5.078	-22.222
CHC1	4.750	4.750	4.923	-20.222
CFE99	4.750	4.750	6.073	-15.866
CHCN99	4.750	4.750	7.872	-14.528
CHCN99	4.750	4.750	8.873	0.000
CHCN99	4.750	4.750	8.915	0.425
CFE99	4.750	4.750	5.376	1.718
CHC2	4.729	4.610	4.545	7.020
CPC1	4.773	4.594	4.379	9.208
RK	4.879	4.603	4.879	21.675

CHAINAGE 10922.715

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

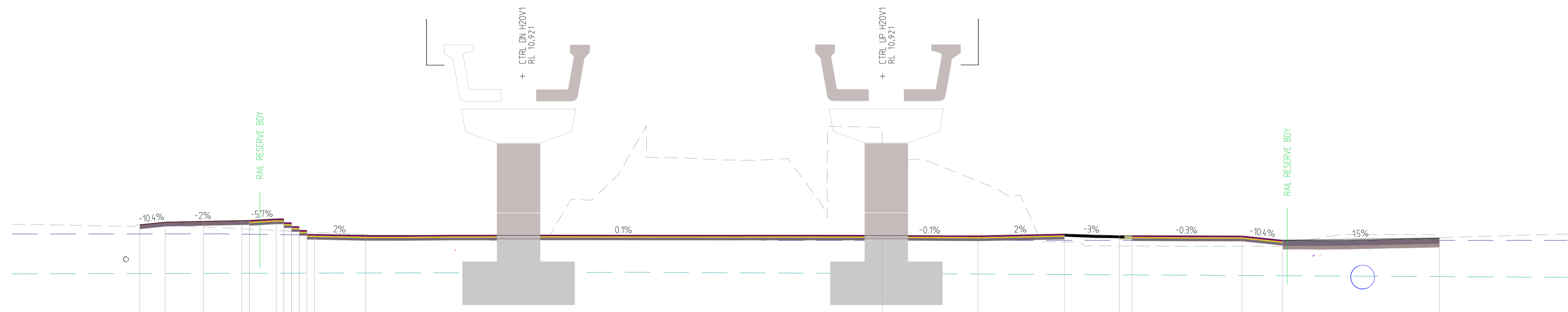
APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	DESIGN LEVEL	DGWL ZAEP	EXISTING LEVEL	OFFSET
CEC2	5.115	4.752	5.115	-29.080
LEC2	5.219	4.753	5.077	-28.085
LAC2	5.249	4.753	5.026	-26.585
LEC1	5.272	4.753	4.953	-25.084
LEC1	5.285	4.739	4.938	-24.784
SIC8	5.344	4.727	4.887	-23.738
SIC7	5.394	4.723	4.873	-23.437
SIC6	5.404	4.719	4.859	-23.137
SIC5	5.414	4.716	4.844	-22.835
SIC3	4.894	4.716	4.844	-22.835
SIC2	4.879	4.712	4.829	-22.532
PCC1	4.758	4.708	4.815	-22.234
CHC1	4.698	4.684	4.718	-20.234
CHC2	4.685	4.500	6.855	0.000
MDC2	4.682	4.500	6.813	3736
CHC1	4.685	4.500PC MK255 TO MDC2	4.440	7120
CHC1	4.685	4.500	4.279	9273
CHC1	4.688	4.500	4.278	9765
CHC998	4.675	4.500	4.269	14.071
CHC99A	4.509	4.500	4.268	15.667
CH99	4.598	4.500	4.598	21807

CHAINAGE 10953.865

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1

0 10 20 30 40 50 100mm

AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE

Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

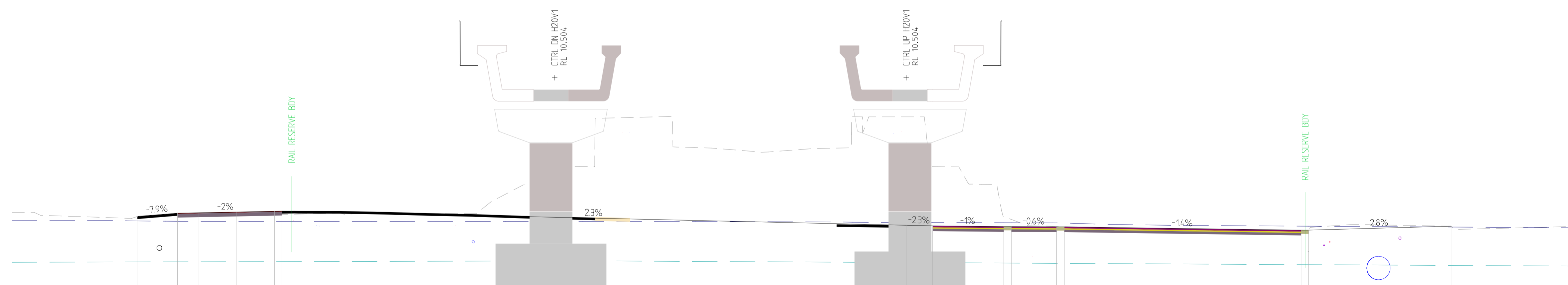
DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev:

Vault Template Revised Date : 26th November 2019 10:30am



STRING NAME	BD99	CEC2	LEC2	LAC2	LECK	CECK	CPC2	CEC1	CEC1	CEC1	CEC1	RK
DESIGN LEVEL	5.014	5.138	5.155	5.185	5.275	5.221	4.660	4.636	4.609	4.598	4.598	4.623
DGWL ZAEP	4.829	4.818	4.817	4.816	4.817	4.817	4.770	4.766	4.759	4.752	4.750	4.589
EXISTING LEVEL	5.014	5.032	5.041	5.058	5.083	5.089	8.955	6.983	5.001	4.610	4.610	4.623
OFFSET	-30.496	-28.921	-28.071	-26.571	-25.071	-24.771	0.000	1.051	3.876	5.976	6.276	15.676

CHAINAGE 10985.015

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1  
 0 10 20 30 40 50 100mm  
 AT ORIGINAL PLOT SIZE

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
 Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM  
 HORIZONTAL: PCG20  
 VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

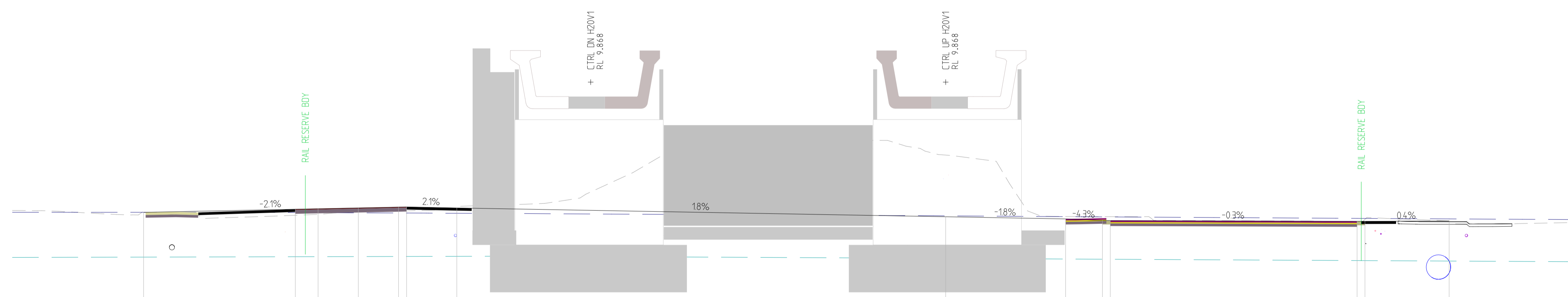
APPROVED

DATE

Government Western Australia  
 Public Transport Authority

PTA Drawing No:

Rev:



STRING NAME	BD99	LEC2	LEC2	LAC2	LECK	LECK	CPC99		CPC2	CPC1	CPC1	CFCU	CBCU	RK
DESIGN LEVEL	4.916	5.035	5.053	5.085	5.117	5.123	5.084		4.749	4.666	4.606	4.575	4.575	4.589
DGWL ZAEP	4.918	4.908	4.905	4.896	4.891	4.891	4.880		4.784	4.752	4.744	4.687	4.685	4.667
EXISTING LEVEL	4.916	4.805	4.839	4.828	4.966	4.973	5.114		7.094	4.757	4.752	4.575	4.649	4.589
OFFSET	-30.549	-24.772	-23.904	-22.372	-20.840	-20.533	-18.620		0.000	4.569	5.969	15.669	15.969	19.776

CHAINAGE 11015.202

REV	DATE	AMENDMENT	DSN	DRN	CHK	APP
A1						

ORIG SIZE A1 AT ORIGINAL PLOT SIZE

0 10 20 30 40 50 100mm

This document must not be copied without PFA's written permission, and the contents thereof must not be imparted to a third party nor be used for any unauthorised purpose.

ARMADALE LINE UPGRADE ALLIANCE  
Innovation to Reality

Contractor No:

SIGNATURE

DATE APPROVED

VALIDATION

REFERENCES

SCALE

DATUM

HORIZONTAL: PCG20

VERTICAL: AHD71

DESIGNED

DRAWN

CHECKED

APPROVED

DATE

Government Western Australia  
Public Transport Authority

PTA Drawing No:

Rev: