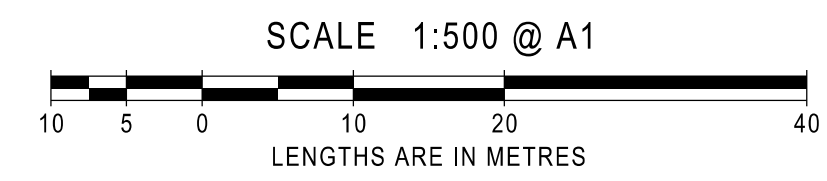
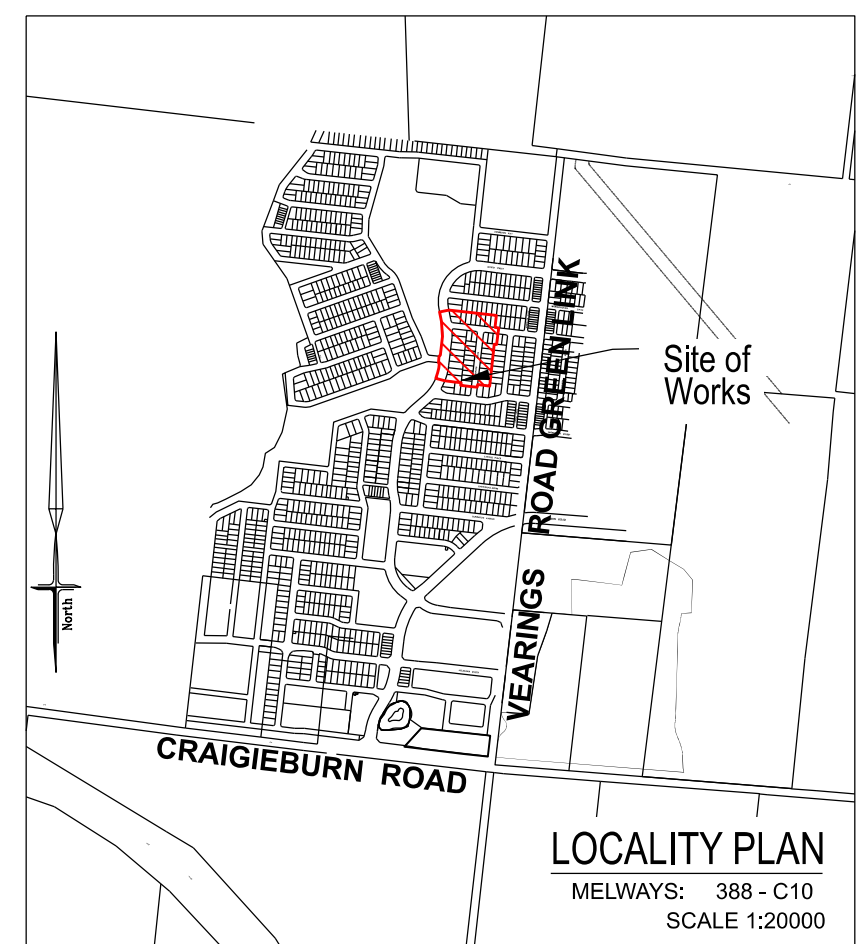
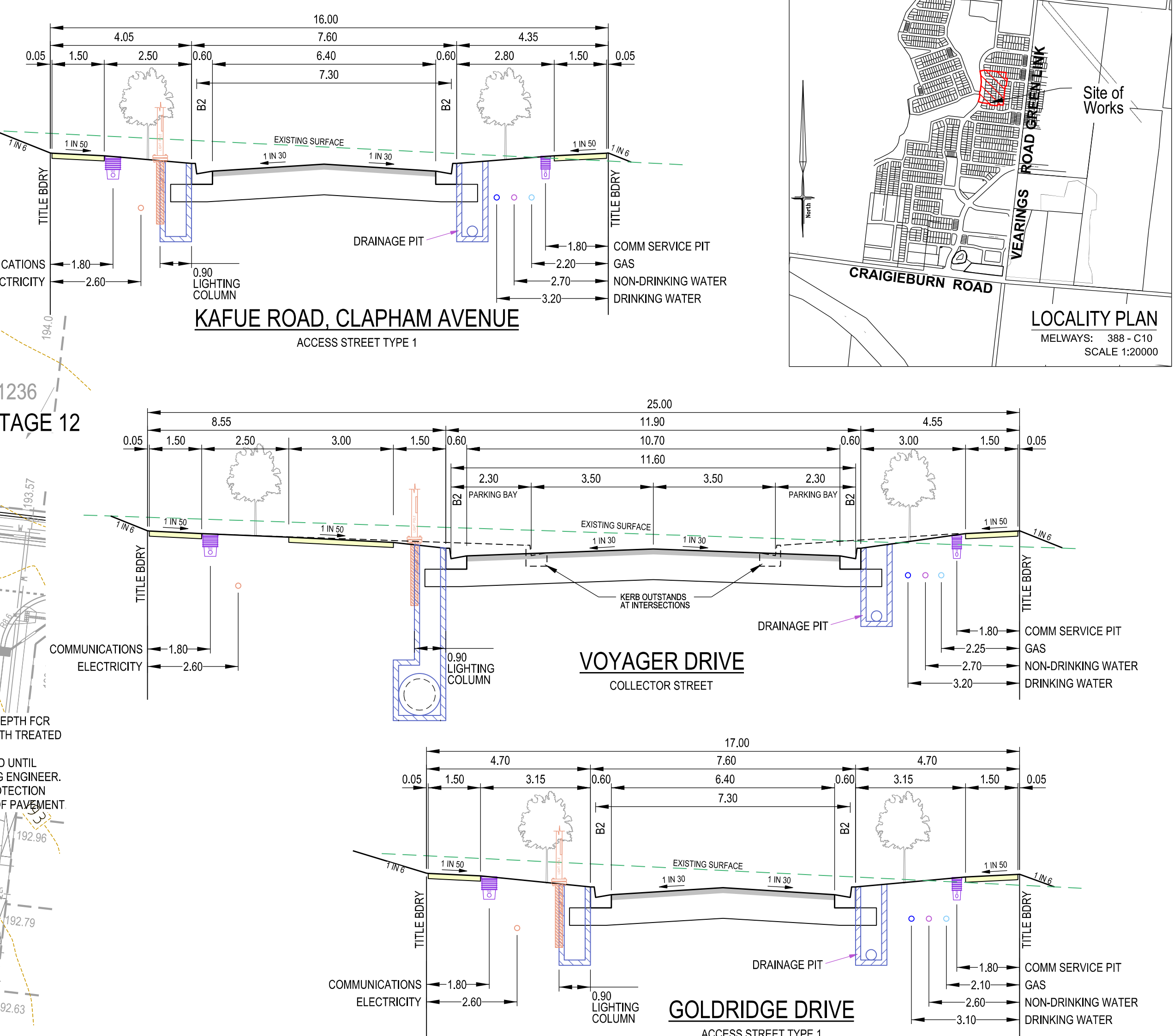




AS CONSTRUCTED



SHEET INDEX

SHT No.	VER	DESCRIPTION
1	D	DETAIL PLAN, LOCALITY PLAN, SERVICES SCHEDULE & SHEET INDEX
2	A	GENERAL NOTES, TYPICAL SECTIONS & PAVEMENT DETAILS
3	B	INTERSECTION DETAILS - Sheet 1
4	B	INTERSECTION DETAILS - Sheet 2 & RAISED PAVEMENT DETAILS
5	B	VOYAGER DRIVE - LONGITUDINAL SECTION
6	B	VOYAGER DRIVE - CROSS SECTIONS
7	B	CLAPHAM AVENUE - LONGITUDINAL SECTION
8	B	CLAPHAM AVENUE - CROSS SECTIONS
9	A	KAFUE ROAD - LONGITUDINAL SECTION
10	A	KAFUE ROAD - CROSS SECTIONS
11	B	DRAINAGE LONGITUDINAL SECTIONS - Sheet 1
12	A	DRAINAGE LONGITUDINAL SECTIONS - Sheet 2
13	B	DRAINAGE LONGITUDINAL SECTIONS - Sheet 3 & PIT SCHEDULE
14	A	SIGNAGE & LINEMARKING PLAN

SYMBOL LEGEND

Drains	Prop	Prev Stage	Ex/Natural/FS Level	-28.57	-28.57	-28.57
Sewer < 3000	— S —	— S —	FS @ Building Line	-BL28.57	-BL28.57	-BL28.57
Sewer ≥ 3000	— S —	— S —	Top/Toe of Batter	-TP28.57	-TP28.57	-TP28.57
Water (DW)	— W —	— W —	Top Ret. Wall Level	-TW28.57	-TW28.57	-TW28.57
House Drain	— H —	— H —	100yr Flood Level	-FL28.57	-FL28.57	-FL28.57
Property Inlet	— P —	— P —	Fill Proposed (<0.3m/20.3m)			
Street Sign	— S —	— S —	Cut Proposed			
PSM	— P —	— P —	Asphalt Surface Prop			
Rock Ret Wall	— R —	— R —	Concrete Surface Prop (Paths/Driveways/Slabs)			
Sleeper Ret Wall	— S —	— S —	Tree To Be Removed			
Conduits 50mm	— C —	— C —	Tree To Be Retained with Tree Protection Zone (TPZ)			
Conduits 100mm	— C —	— C —				
Street Tree without/with Passive Irrigation (Refer Detail)	— T —	— T —				
Ex Drains	— E —	— E —				
Ex Water DND/W	— E —	— E —				
Ex Sewer/Gas	— E —	— E —				
Ex Elec/Telecomm	— E —	— E —				

SERVICES OFFSETS AND LOCATIONS

Location	Gas	Water		Communications Cables	Pits	Electricity		BOK	Road Width	Joint Trenching	Street Classification	Street Trees
		NDW	DW			Cables	Poles					
CLAPHAM AVENUE	2.20N	2.70N	3.20N	1.80S	1.80N/S	2.60S	0.90 BOK	4.05S,4.35N	16	GW,FTT/HE	LEVEL 1	CENTRE OF NS
KAFUE ROAD	2.20E	2.70E	3.20E	1.80W	1.80E/W	2.60W	0.90 BOK	4.35E,4.05W	16	GW,FTT/HE	LEVEL 1	CENTRE OF NS
VOYAGER DRIVE	2.25E	2.70E	3.20E	1.80W	1.80E/W	2.60W	0.90 BOK	4.55E,8.55W	25	GW,FTT/HE	COLLECTOR	CENTRE OF NS
GOLDRIDGE DRIVE	2.10N	2.60N	3.10N	1.80N	1.80N/S	2.60S	0.90 BOK	4.70N,4.70S	17	GW,FTT/HE	LEVEL 1	CENTRE OF NS

ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- Contractor to ensure that the site is pegged and/or set out checked by the licenced surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.
- Where concrete works abut a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

breese pitt dixon pty. ltd.
land surveyors civil engineers

1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310

RATHDOWNE ESTATE
STAGE 11
DETAIL SHEET

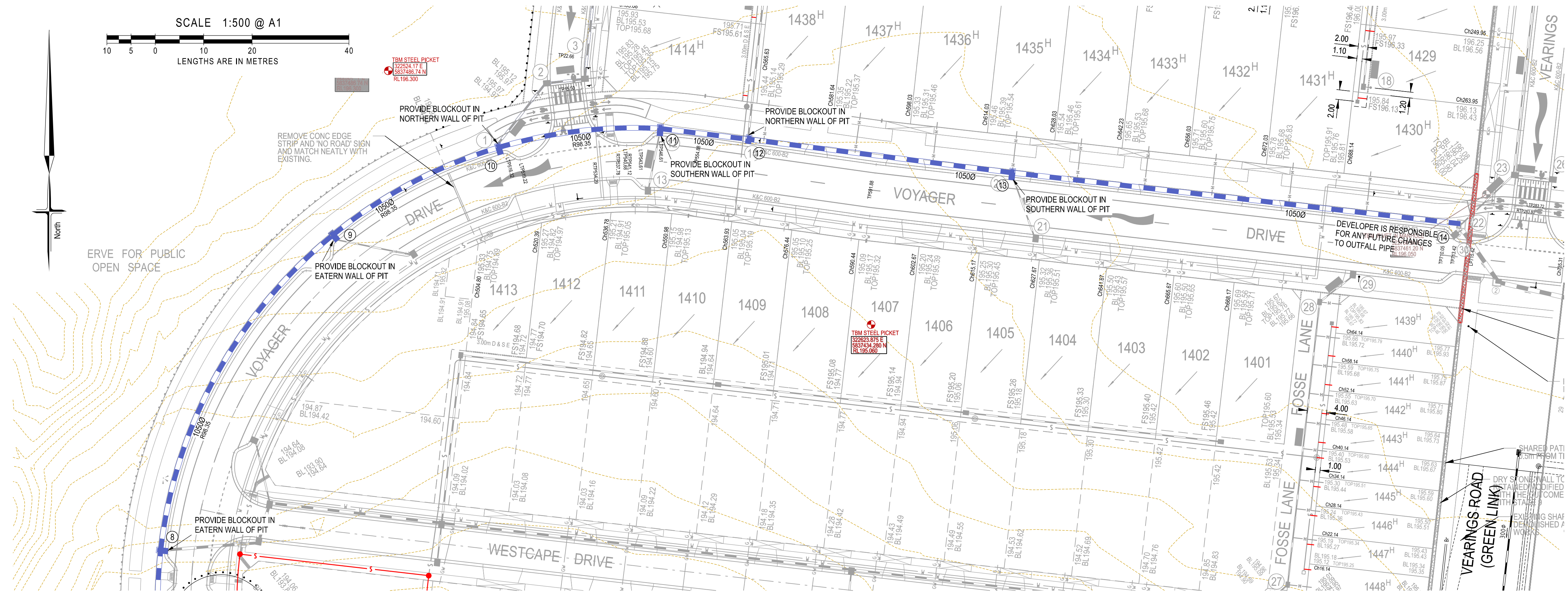
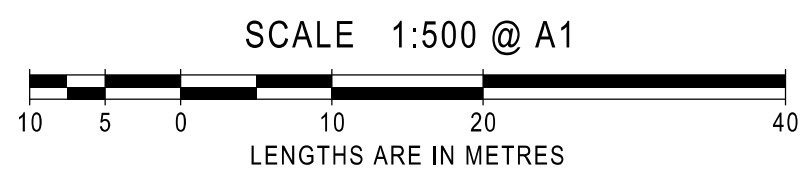
MUNICIPALITY WHITTLESEA
REFERENCE 9365 E/11

SHEET 1 OF 14 D

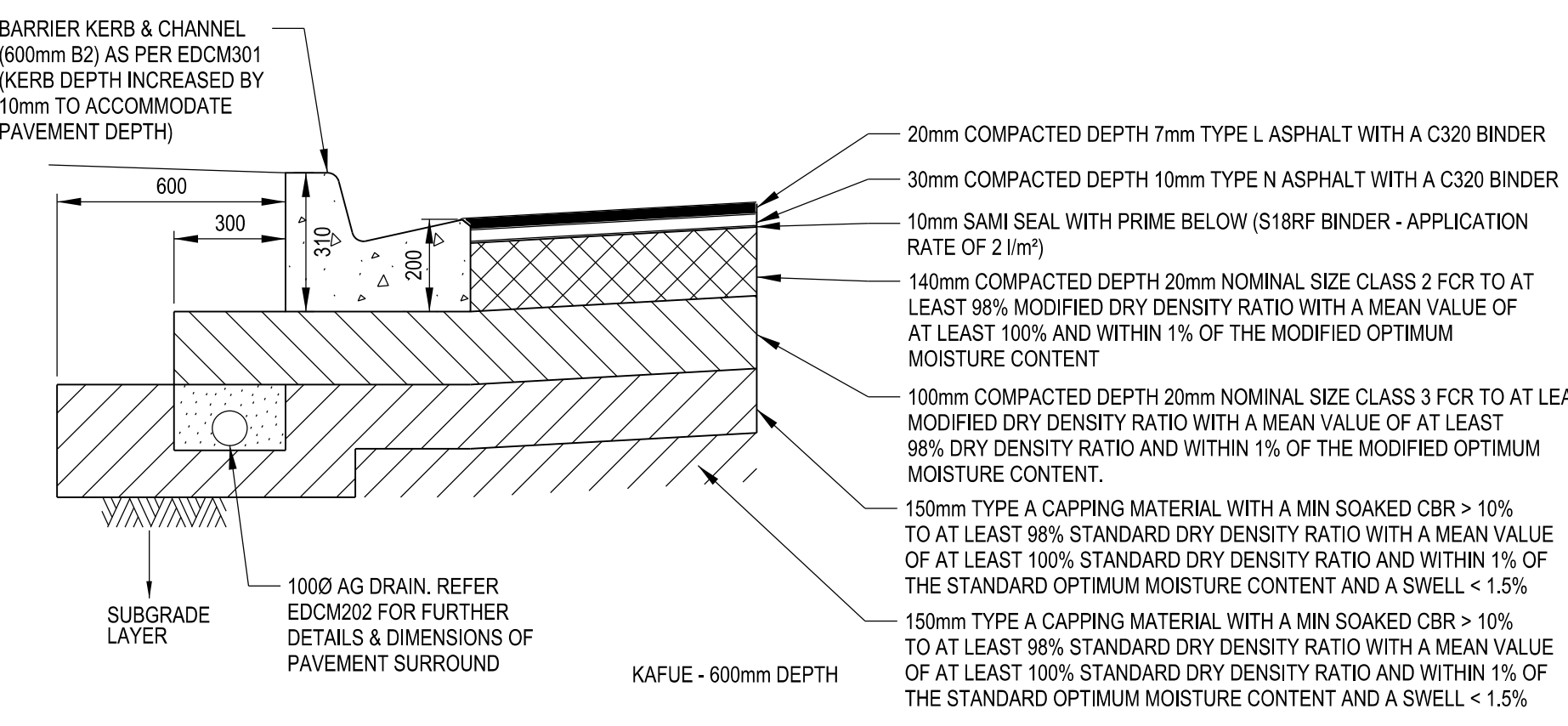
AMENDMENTS	DATE	REMARKS	CHECKED
D	21.03.22	SHEETS 1, 3, 4, 5 UPDATED	MELWAY REF. 388-C-10
C	09.03.22	SHEETS 1, 6, 7 & 8 UPDATED	SURVEY SPIIRE
B	02.12.21	PITS 9-13 UPDATED	DESIGN RGW
A	02.08.21	ISSUE FOR CONSTRUCTION	DRAWN RGW

NOTES

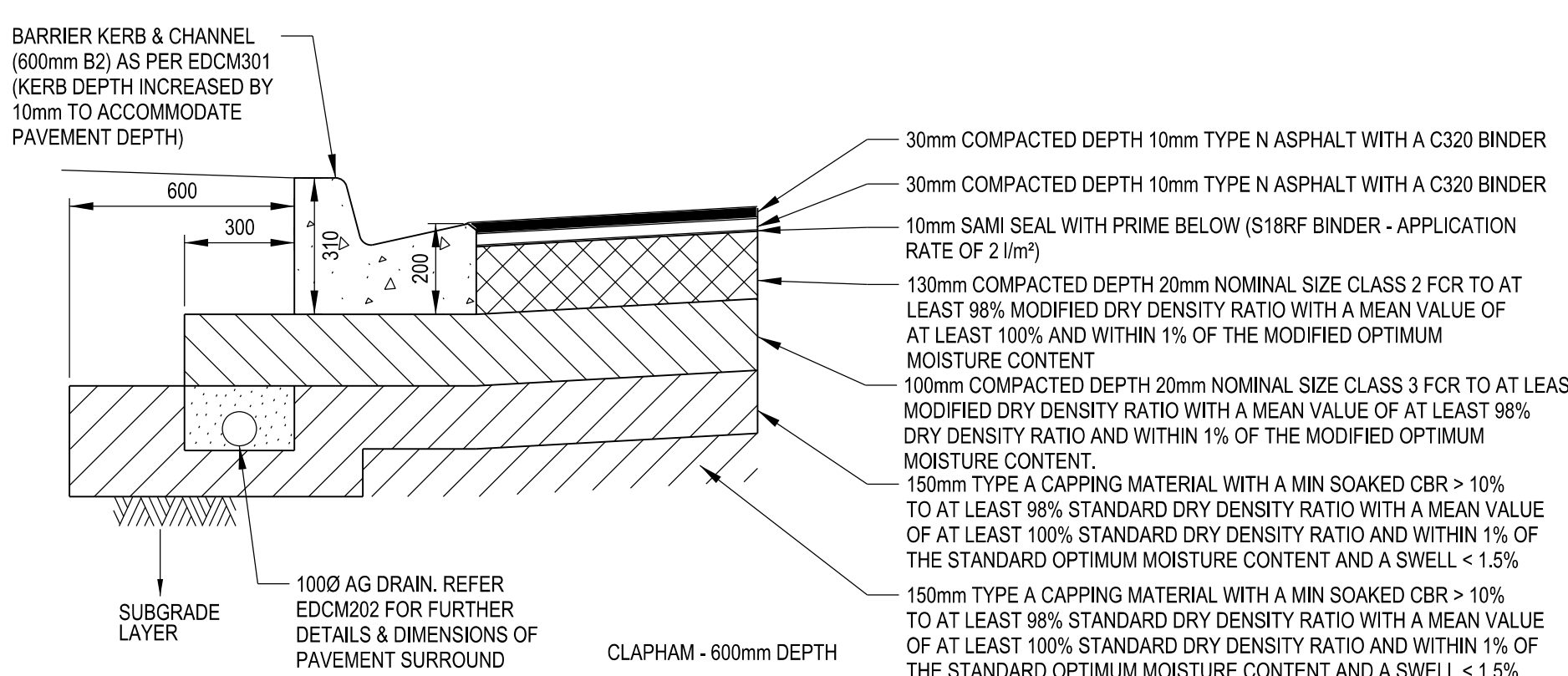
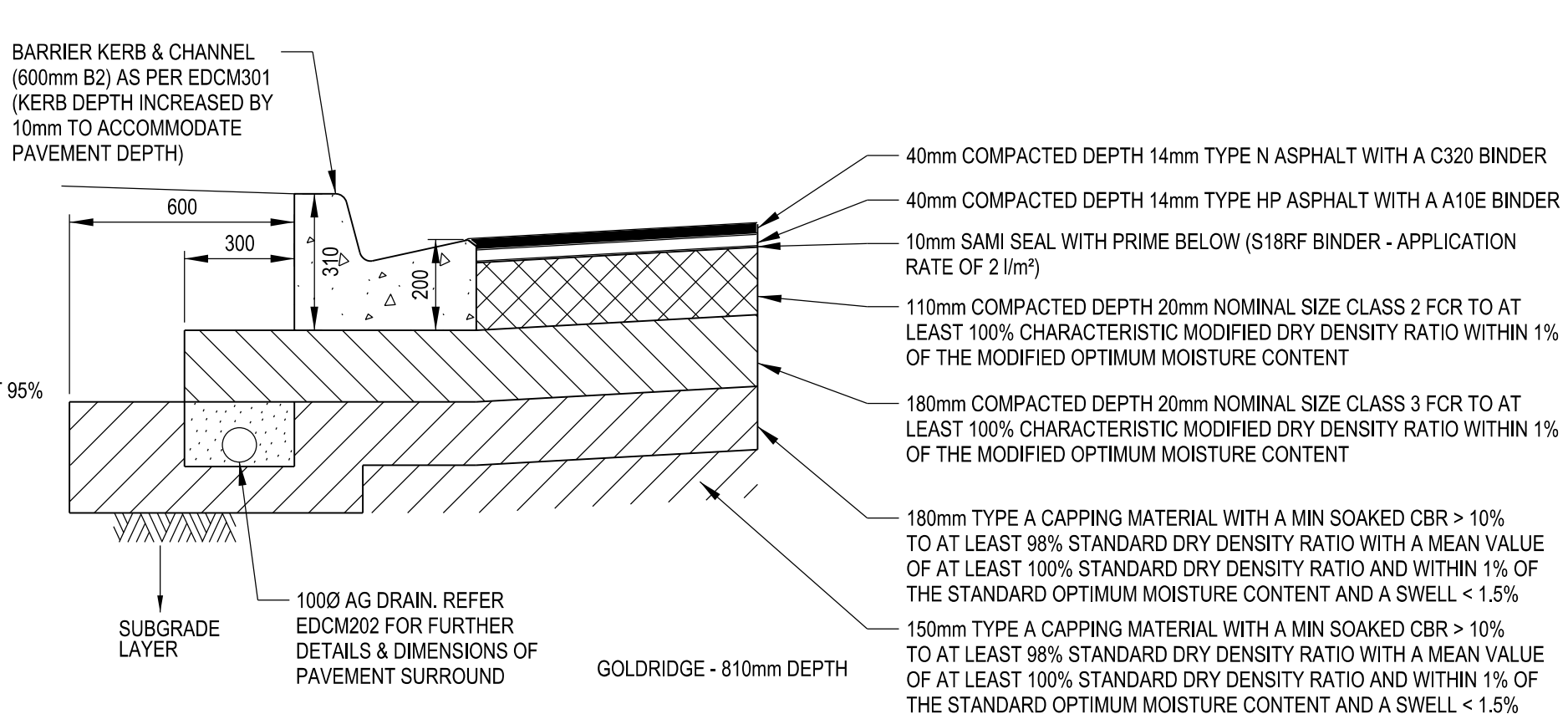
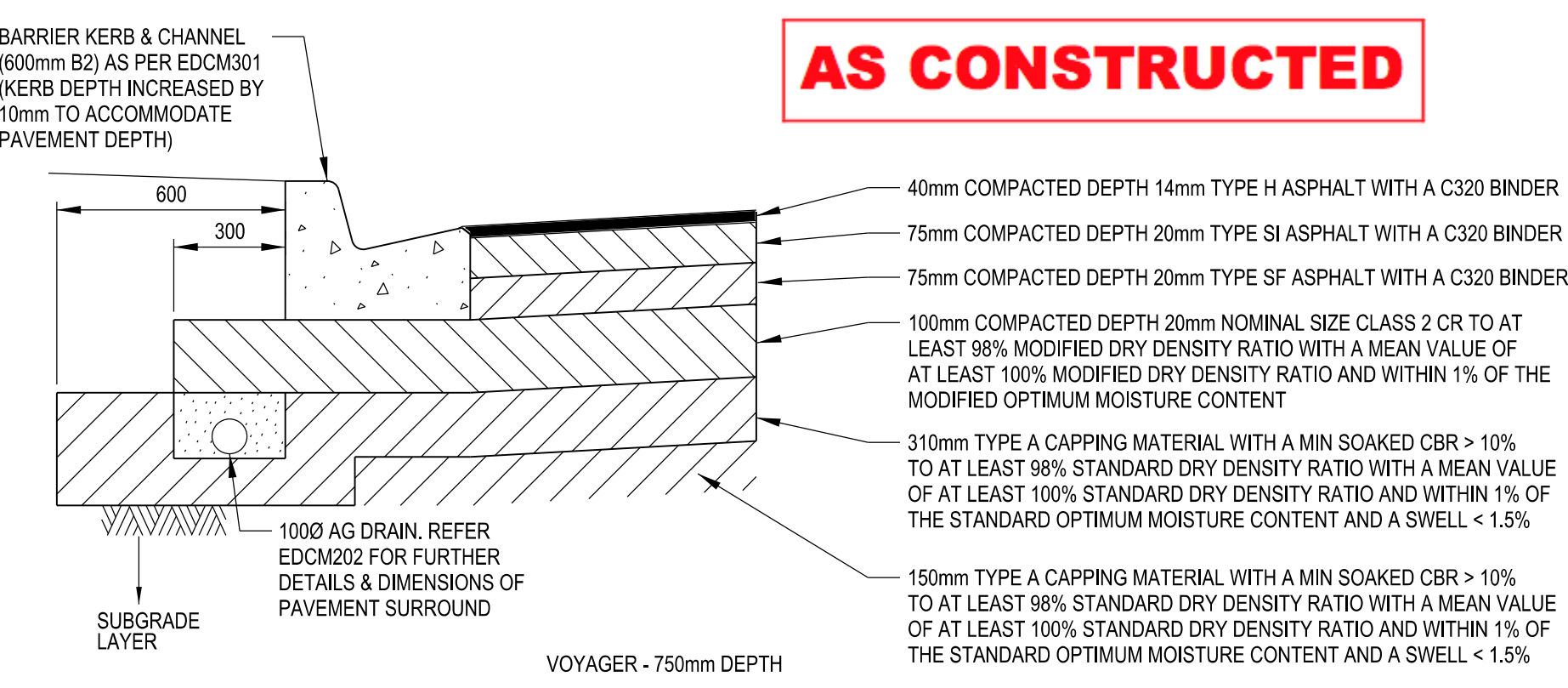
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PLANS AND CURRENT CITY OF WHITTLESEA SPECIFICATIONS AND STANDARD DRAWINGS APPROVED BY COUNCIL AND TO THE SATISFACTION OF THE ENGINEER.
- COUNCIL TO BE NOTIFIED 2 CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS.
- DRAINAGE AND PITS TO BE SET OUT FROM OFFSETS SHOWN RATHER THAN FROM CENTRELINE PIPE CHAINAGES. REFER EDM061-608 FOR FURTHER DETAILS.
- ALL PIPES TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED AND SHALL BE RRJ UP TO AND INCLUDING 750mm DIAMETER. PIPES ABOVE THIS SIZE MUST BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS. ALL DRAINS THAT CROSS UNDER ROAD PAVEMENTS ARE TO BE CLASS 4 R.C.P.
- JOINTING FOR CURVED PIPE ALIGNMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS (RRJ'S FOR MINOR DEFLECTIONS OR COMPLETE R.C. BANDAGES)
- PROPERTY INLETS ARE TO BE PLACED 1.0m FROM THE LOW CORNER OF LOT UNLESS OTHERWISE SHOWN.
- LOTS DENOTED THUS 416H ARE TO BE PROVIDED WITH A 100mm HOUSE DRAIN PLACED 5.5m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN. HOUSE DRAINS TO BE CONNECTED TO STREET DRAINAGE WITH 27A & CAP. CLEAR OF ANY PAVING. IF CONNECTION IS WITHIN PAVING A PIT MUST BE USED.
- APPROVED GRANULAR BACKFILL TO BE PROVIDED WHERE PIPE TRENCHES ENCR OACH UNDER ROADWAY DUE TO DEEP EXCAVATIONS IN ROCK.
- SHALLOW CUT OFF DRAINS ARE TO BE PROVIDED ON SUBDIVISION BOUNDARY WHERE NECESSARY.
- PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004, INCLUDING ALL RELEVANT REGULATIONS, HAVE BEEN ADDRESSED. IN PARTICULAR, THE REQUIRED NOTIFICATIONS MUST BE CONVEYED TO THE VICTORIAN WORKCOVER AUTHORITY - HEALTH & SAFETY DIVISION WITH RESPECT TO TRENCHING OPERATIONS. DETAILS OF THE CONTRACTORS OCCUPATIONAL HEALTH & SAFETY PROCEDURES MUST BE LODGED WITH THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
- AGRICULTURAL PIPE DRAINS TO BE PLACED BEHIND ALL KERB AND CHANNEL AND BUFFER PITCHERS AND WHERE DIRECTED BY THE ENGINEER (REFER TO STD DRG EDM202).
- ALL DRAINAGE TRENCHES UNDER ROAD PAVEMENTS, KERB & CHANNEL, PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERB & CHANNEL SHALL BE BACKFILLED WITH CRUSHED ROCK
- BATTERS SHALL BE 1 IN 6 FOR CUT & FILL UNLESS OTHERWISE SHOWN. BATTERS EXCEEDING 1 IN 6 MUST BE STABILISED AS PER COUNCIL REQUIREMENTS.
- ALL NATIVE TREES AND SHRUBS TO BE RETAINED UNLESS ROAD CONSTRUCTION NECESSITATES THEIR REMOVAL OR REMOVAL IS DIRECTED BY THE ENGINEER.
- LOTS TO BE GRADED AND LEFT CLEAN TO THE SATISFACTION OF THE ENGINEER.
- ON COMPLETION THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF RUBBISH AND SPOIL FROM SITE.
- WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND THE VARIOUS AUTHORITIES NOTIFIED PRIOR TO COMMENCEMENT OF WORKS.
- ALL MATERIAL SURROUNDING SERVICE AUTHORITY PITS LOCATED IN FOOTPATHS MUST BE ADEQUATELY COMPACTED IN 150mm LAYERS AND TESTED TO THE SATISFACTION OF THE CITY OF WHITTLESEA PRIOR TO THE CONSTRUCTION OF FOOTPATH BAYS ADJACENT TO THESE PITS.
- THE WATER CONDUIT OFFSET FROM THE LOT BOUNDARY IS GIVEN ON THE WATER RETICULATION PLAN. THE CONTRACTOR MUST CONSTRUCT CONDUITS TO ACCORD WITH THE GIVEN OFFSET AND ENSURE THAT THE CONCRETE MARKS THE KERB AND FOOTPATH EXACTLY ABOVE THE CONDUIT.
- ALL GAS AND WATER CONDUITS FOR RESIDENTIAL LOTS TO BE PVC CLASS 12, 50mm DIAMETER & 100mm DIAMETER RESPECTIVELY.
- TELSTRAIN Co TO BE NOTIFIED 7 DAYS PRIOR TO CONCRETE BEING PLACED.
- CONDUITS ARE TO BE EXTENDED 450mm BEHIND FACE OF KERB AND TO BE REFERENCED ON FACE OF KERB.
- ALL STREET SIGNS TO BE CONSTRUCTED AND ERECTED TO CURRENT CITY OF WHITTLESEA STANDARDS. STREET NAME PLATES TO BE IN ACCORDANCE WITH STANDARD DRAWING SD825, INCLUDING "NO THROUGH ROAD" NOMINATION WHERE APPLICABLE.
- TRAFFIC CONTROL SIGNS, MARKINGS & DELINEATORS TO BE INSTALLED IN ACCORDANCE WITH AS1742.2. ALL LINE MARKING IS TO BE LONG LIFE ROAD MARKING, WITH LONGITUDINAL LINES IN THERMOPLASTIC & TRANSVERSE MARKINGS IN COLD APPLIED.
- ALL DRIVEWAYS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH EDM501 & 502 AND ARE TO BE OFFSET 0.75m FROM SIDE BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN.
- ALL DRIVEWAY RAMPS INTO PROPERTIES ARE TO BE CUT IN AT A MAXIMUM GRADE OF 1 IN 6.
- ALL PEDESTRIAN CROSSINGS ARE TO BE CONSTRUCTED GENERALLY IN ACCORDANCE WITH EDM403. ALL PRAM CROSSING SPLAYS MUST BE 600mm WIDE AND NO GREATER.
- FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLANS. FILLING TO BE CLEAN CLAY COMPACTED TO A DRY DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1289.5.2.1-2003. CONTROL TESTING TO COMPLY WITH AS3798-2007 APPENDIX B, LEVEL 1.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION No. 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE SUPERVISING ENGINEER.
- FILL REQUIRED UNDER ROADWAY KERB AND CHANNEL AND FOOTPATH TO BE UNDERTAKEN AS PER COUNCIL'S CONSTRUCTION SPECIFICATION FOR ROAD & DRAINAGE WORKS 20.6 (TYPE A MATERIAL AS PER VICROADS STANDARD SPECIFICATION 204) AND COMPACTED TO 98% AASHO IN 150mm LAYERS.
- PAVEMENT DEPTH MAY NOT BE ALTERED WITHOUT WRITTEN APPROVAL FROM CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS. ADDITIONAL COSTS WILL NOT BE CONSIDERED POST TENDER.
- THE CONTRACTOR IS TO ORGANISE AND PAY FOR TESTING OF PAVEMENT BASE COURSE MATERIAL AND FINAL LAYER OF CRUSHED ROCK. A COPY OF RESULTS IS TO BE FORWARDED TO THE DIRECTOR OF ENGINEERING OR HIS REPRESENTATIVE. THE RESULTS MUST MEET THE REQUIREMENTS OF THE CITY OF WHITTLESEA SPECIFICATION BEFORE ANY FURTHER WORKS ARE REQUIRED.
- THE CONTRACTOR MUST COMPLETE A LEVEL CHECK BETWEEN ALL TBMS TO VERIFY LEVEL VALUES BEFORE COMMENCEMENT OF WORKS. ALL TBMS AND CONTROL POINTS ARE TO BE MAINTAINED AND PROTECTED AT ALL TIMES DURING CONSTRUCTION. SHOULD ANY MARKS BE DISTURBED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DEVELOPER'S CONSULTANT TO ARRANGE RE-INSTALLMENT AT THE CONTRACTORS EXPENSE.



- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE DEVELOPER'S CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION No.275 "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL" AND MW SITE ENVIRONMENTAL MANAGEMENT POLICY 3.3.2. APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS. THE SMP SHALL BE APPROVED BY CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL FOOTPATHS IN ROADS TO BE OFFSET 50mm FROM PROPERTY BOUNDARY. FOOTPATHS CONSTRUCTED ABOVE EXISTING LEVEL TO BE CONSTRUCTED ON APPROVED FILL (TO AS-3798) OF F.C.R. INTO NATURAL GROUND.
- PRIOR TO COMMENCEMENT OF WORKS TREE PROTECTION ZONES (TPZ) ARE TO BE INSTALLED AS SPECIFIED IN THE ANNOTATED DETAILS FORMING PART OF THE PLANNING PERMIT TO TREES NOTED "TO BE RETAINED". THIS INCLUDES THE FOLLOWING:
 - RING LOCK WIRE MESH MINIMUM 1.20m HIGH (STD DRG SDL 2.02)
 - MAIN POSTS 100mm TREATED PINE (TP), MINIMUM 1.80m HIGH
 - INTERMEDIATE POSTS STEEL STAR PICKETS (SPI), MINIMUM 1.80m HIGH
 - THE CORNER POSTS ARE TO BE TP WITH TP STAYS
 - EVERY THIRD POST TO BE TP
 - SP TO BE PLACED INTERMEDIATELY BETWEEN THE TP AT MAX 3.0m INTERVALS
 - THE RING LOCK WIRE MESH TO ENCIRCLE THE STRUCTURE AND BE FIRMLY SECURED AT EACH POST
 - POSTS MUST BE SUNK INTO THE GROUND BY 450mm (THERE IS TO BE NO CONCRETE TO SECURE POSTS AS THIS WILL AFFECT PH LEVELS)
 - HIGH VISIBILITY HAZARD MARKER TAPE SECURELY FIXED TO TOP OF WIRE MESH FENCE WITH WIRE TIES
 - THE TREE PROTECTION ZONE IS TO BE CLEARLY SIGN POSTED IN ACCORDANCE WITH CONDITION 20 OF THE PLANNING PERMIT (STD DRG SDL 2.03)
- NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY TREE UNTIL APPROVAL IS GIVEN BY THE ENGINEER.
- PROVIDE 1.8m HIGH PALING FENCE ALONG ANY COMMON BOUNDARY BETWEEN A LOT AND MUNICIPAL RESERVE. FENCING TO BE ERECTED BY THE DEVELOPER (OR OWNER) AT NO COST TO COUNCIL. PALINGS TO BE ON THE RESERVE SIDE AND CONSTRUCTED IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SDL3.09 & SDL3.10.
- VEHICULAR EXCLUSION FENCING TO BE PROVIDED ALONG THE ROAD FRONTAGES OF ALL RESERVES. REFER LANDSCAPE PLANS FOR FENCE DETAILS. FENCING TO BE CONSTRUCTED AS PART OF LANDSCAPE WORKS.
- PROVIDE TEMPORARY SAFETY BARRIER FENCE (FARM FENCE AS PER MW STD. DWG. 7251/8/203) ALONG EDGE OF OUTFALL DRAINS. SAFETY FENCE TO REMAIN UNTIL PERMANENT UNDERGROUND DRAINAGE IS INSTALLED.
- EXISTING DAM OR WATERCOURSES TO BE EXCAVATED TO A FIRM BASE AND BACKFILLED AS SPECIFIED. DEVELOPER'S CONSULTANT TO BE NOTIFIED WHEN THE DAM OR WATERCOURSES ARE EXCAVATED TO A FIRM BASE. NO FILLING IS TO BE PLACED PRIOR TO DAMS BEING INSPECTED AND LEVELS TAKEN. BACKFILLING IS TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
- TACTILE GROUND SURFACE INDICATORS (TGS) ARE TO BE INSTALLED WHERE SHOWN IN ACCORDANCE WITH COUNCIL STD DRG SD320 AND AS1428.
- A BUILDING PERMIT MUST BE OBTAINED FOR ANY STRUCTURAL/RETAINING WALL EXCEEDING 1.0m IN HEIGHT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA. A COPY OF BUILDING PERMITS AND 'CERTIFICATE OF COMPLIANCE - CONSTRUCTION' TO BE SUBMITTED TO COUNCIL PRIOR TO STATEMENT OF COMPLIANCE.
- ALL STRUCTURAL WORKS MUST BE SUPERVISED BY A QUALIFIED STRUCTURAL ENGINEER.



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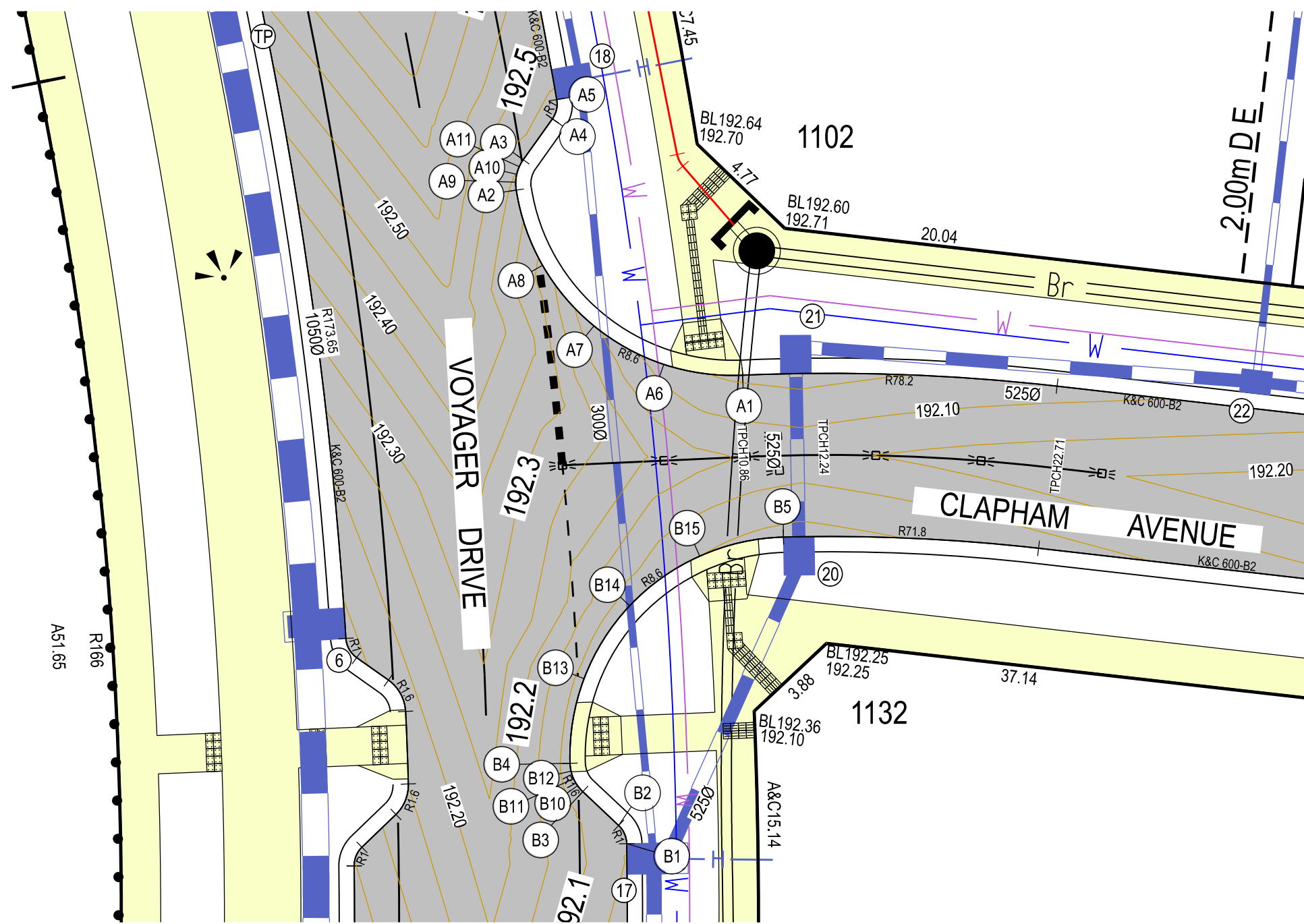


REFER TO EDM202 FOR FURTHER AG, SERVICE CONDUIT AND TRENCH BACKFILL DETAILS

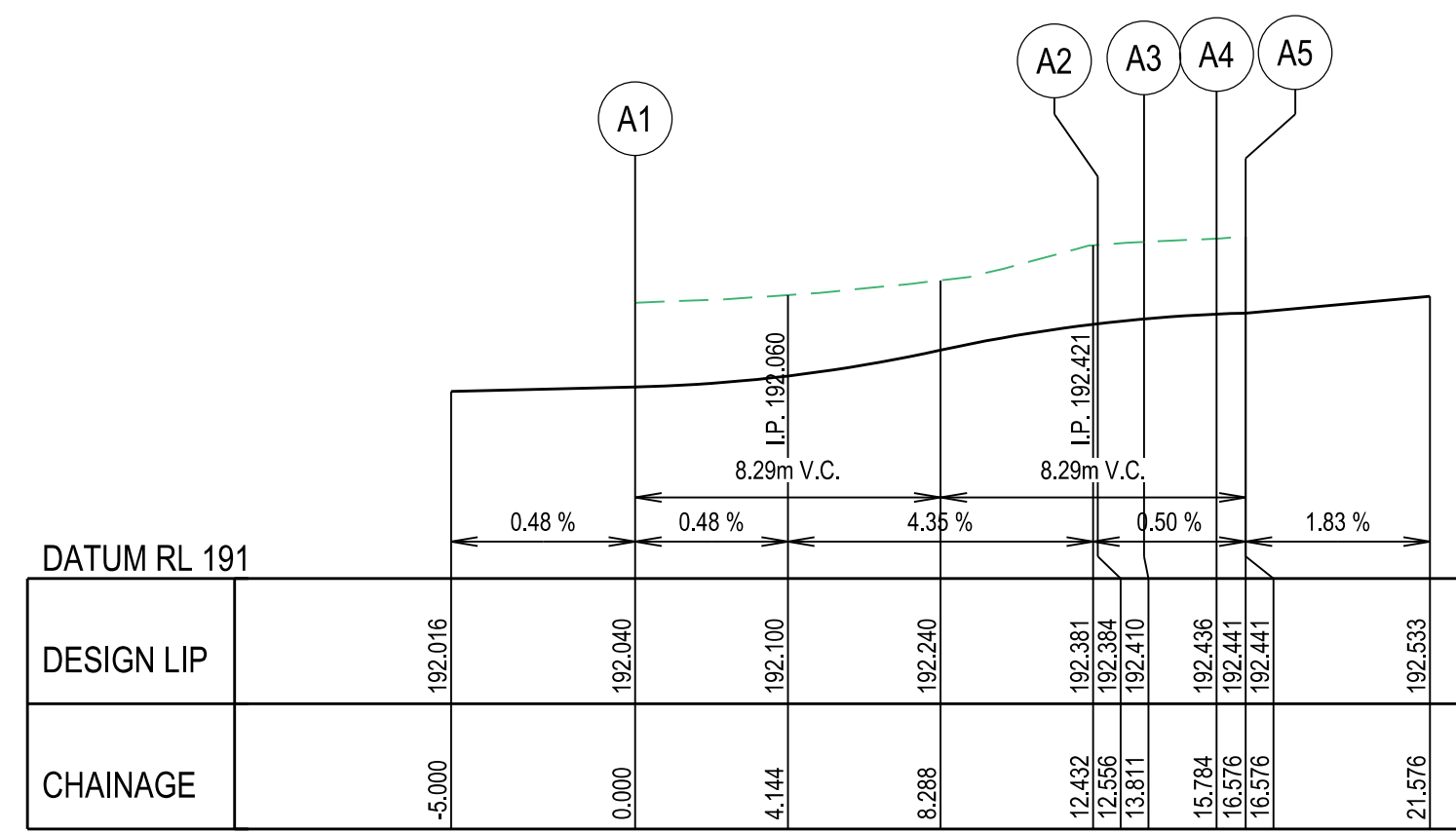
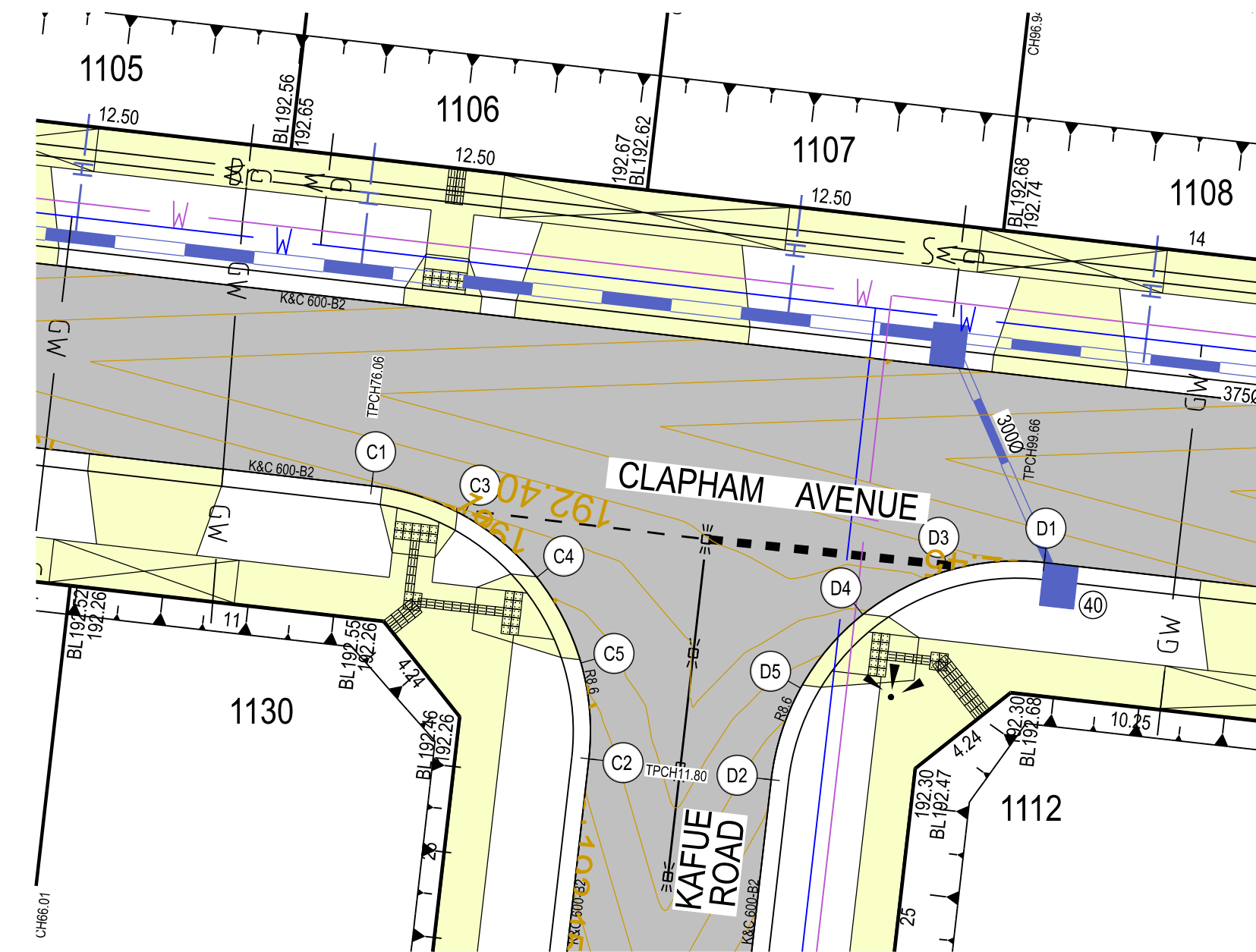
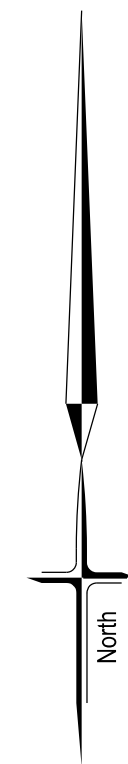
PAVEMENT COMPOSITION

(Dimensions in millimetres)
(N.T.S.)

AMENDMENTS				<p>breese pitt dixon pty. ltd. land surveyors civil engineers</p> <p>1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310</p>					
		MELWAY REF.	388-C-10						
		SURVEY	SPIIRE						
		DESIGN	RGW						
A	02.08.21	ISSUE FOR CONSTRUCTION	DRAWN	RGW	<p>RATHDOWNE ESTATE STAGE 11 NOTES AND TYP SECTIONS</p>	MUNICIPALITY	WHITTLESEA		
VER	DATE	REMARKS	CHECKED			REFERENCE	9365 E/11		
					SCALE AS SHOWN	DATUM AHD	DATE MAY21	SHEET 2 OF 14	A



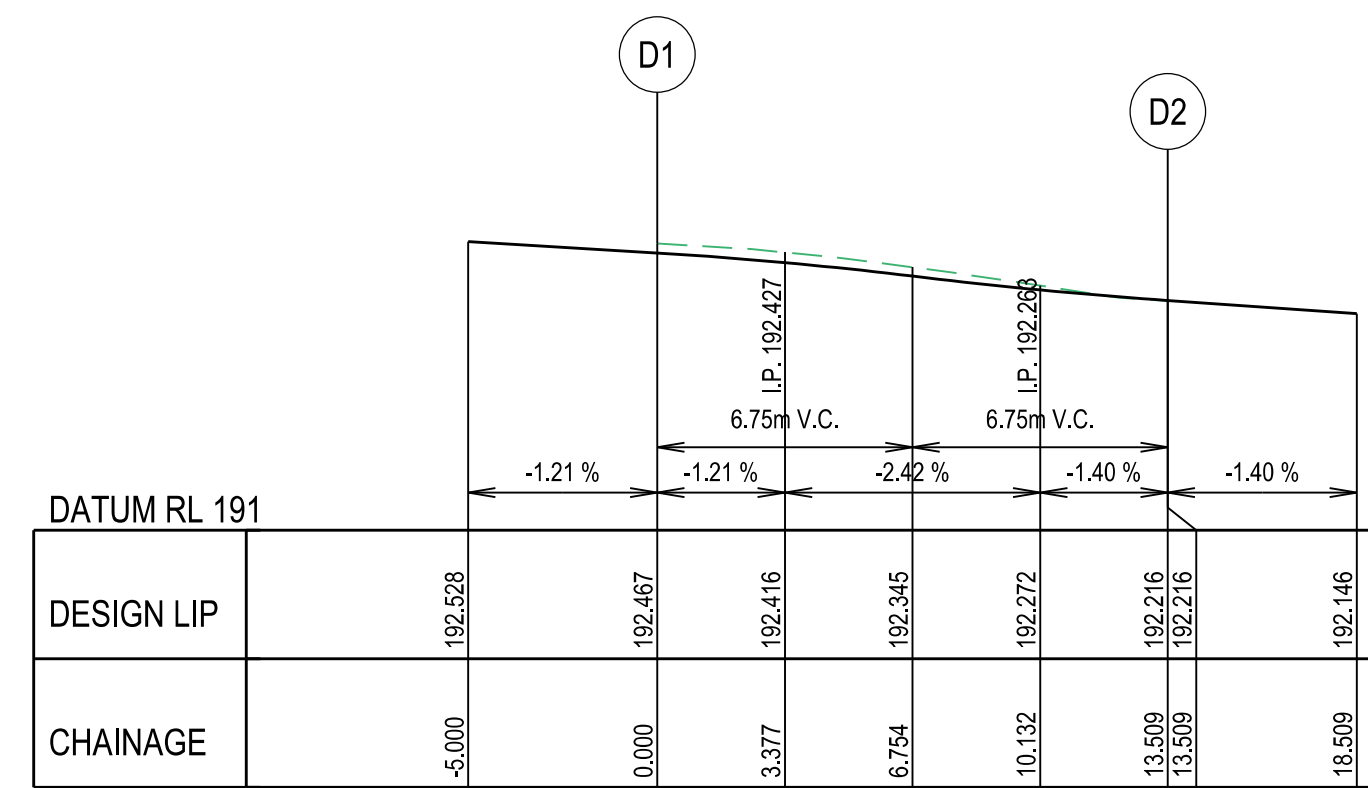
INTERSECTION DETAILS
SCALE 1:200
SCALE 1:200 @ A1
LENGTHS ARE IN METRES



Alignment A

Point no	Easting	Northing	RL
A 1	322504.572	5837314.207	192.040
A 2	322495.694	5837321.469	192.384
A 3	322495.969	5837322.661	192.410
A 4	322497.115	5837324.268	192.436
A 5	322497.286	5837325.020	192.441
A 6	322501.480	5837314.637	192.078
A 7	322498.745	5837316.142	192.162
A 8	322496.728	5837318.524	192.286
A 9	322495.673	5837321.782	192.391
A 10	322495.713	5837322.092	192.398
A 11	322495.813	5837322.389	192.404

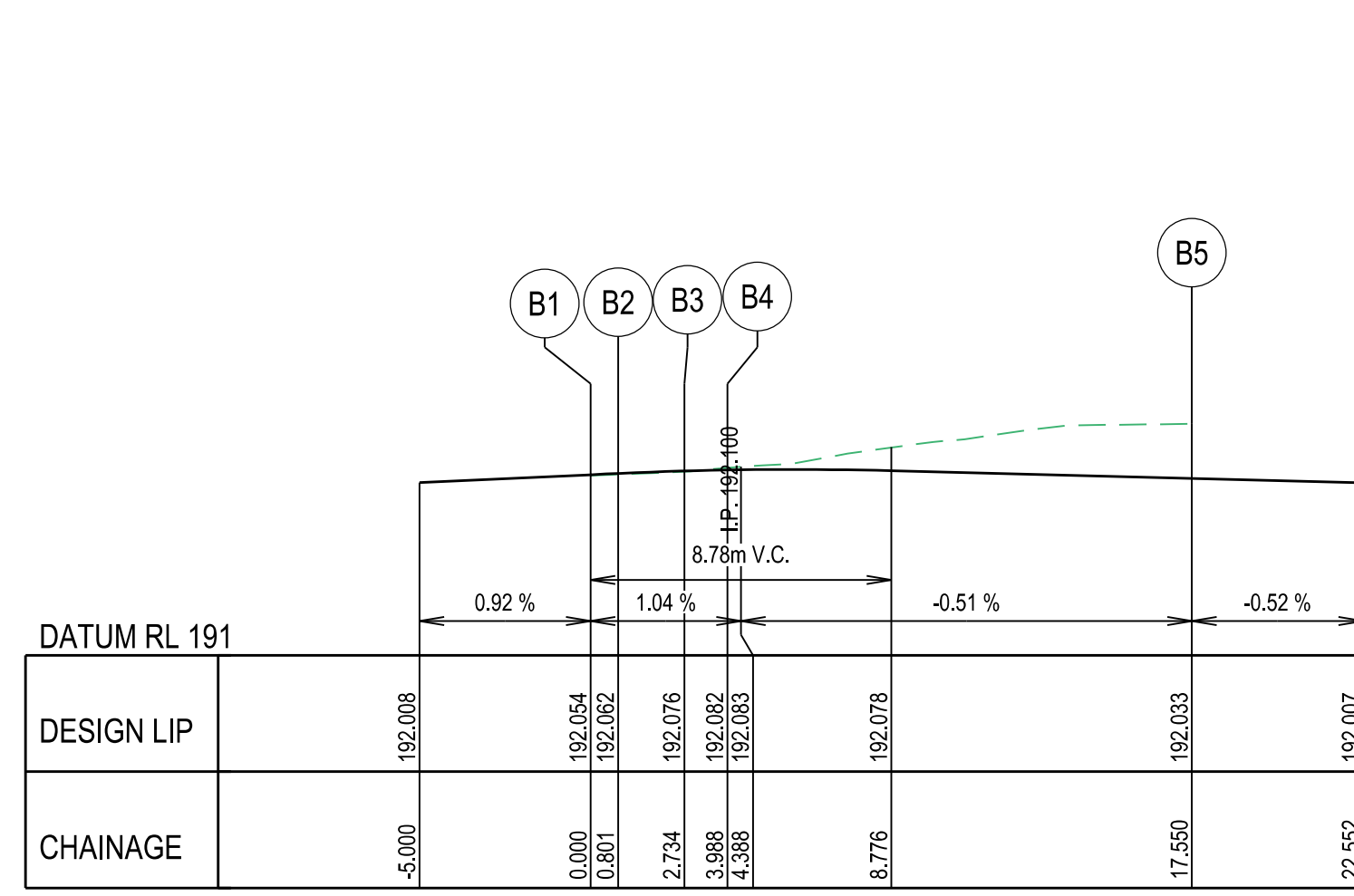
Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
A 1 2	83.650	8.600	12.556	2.191	1.625	2.665	3.070	3.139	192.162
A 2 3	44.932	1.600	1.255	0.121	0.091	0.300	0.312	0.314	192.398
A 4 5	-45.381	-1.000	0.792	0.077	0.058	0.189	0.197	0.198	192.439



Alignment D

Point no	Easting	Northing	RL
D 1	322592.641	5837298.714	192.467
D 2	322583.123	5837291.142	192.216
D 3	322589.297	5837298.436	192.416
D 4	322586.313	5837296.899	192.345
D 5	322584.146	5837294.338	192.272

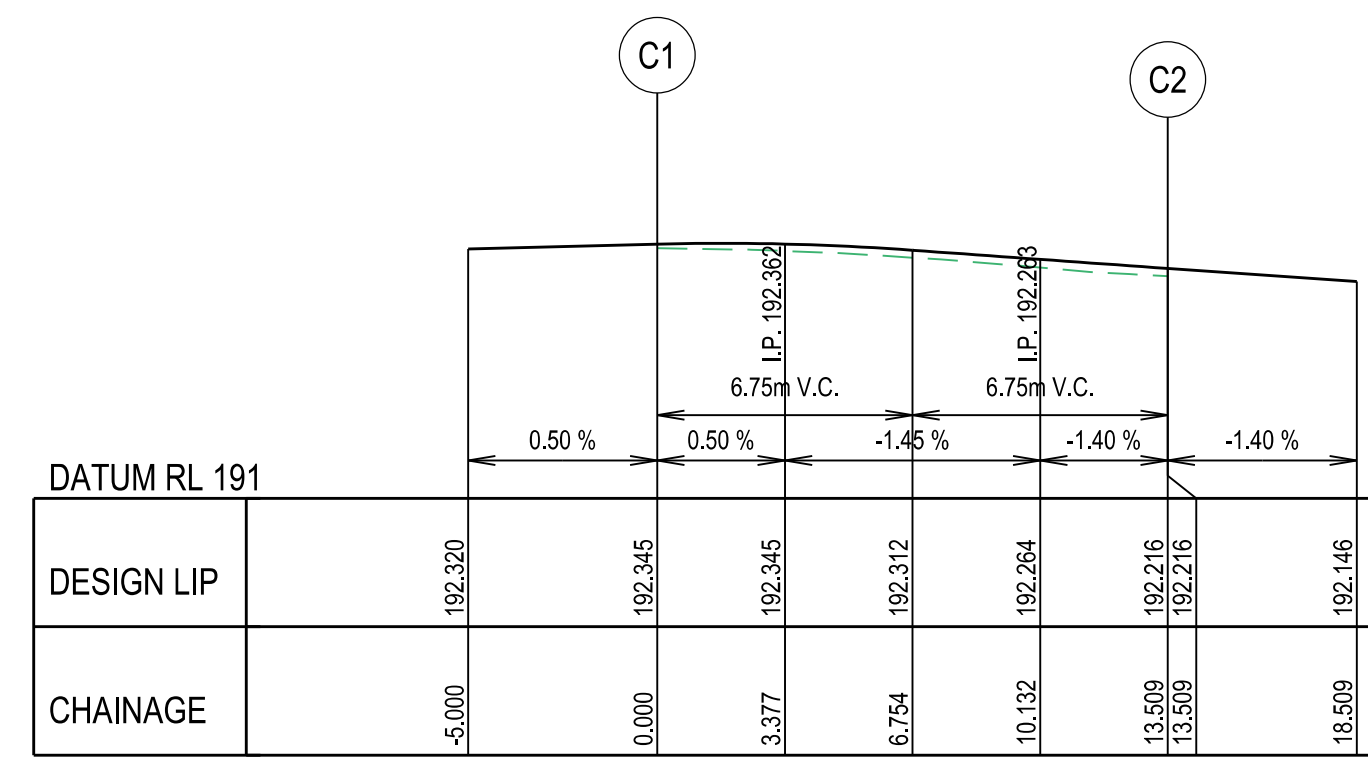
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D 1 2	-90.000	-8.600	13.509	2.519	1.864	2.790	3.291	3.377	192.345



Alignment B

Point no	Easting	Northing	RL
B 1	322500.030	5837295.833	192.054
B 2	322499.715	5837296.547	192.062
B 3	322498.308	5837297.871	192.076
B 4	322497.805	5837298.986	192.082
B 5	322506.177	5837307.859	192.033
B 7	322500.007	5837296.032	192.056
B 8	322499.945	5837296.222	192.058
B 9	322499.847	5837296.396	192.060
B 10	322498.102	5837298.107	192.078
B 11	322497.946	5837298.379	192.079
B 12	322497.846	5837298.675	192.081
B 13	322498.358	5837302.309	192.083
B 14	322500.145	5837305.164	192.068
B 15	322502.892	5837307.114	192.050

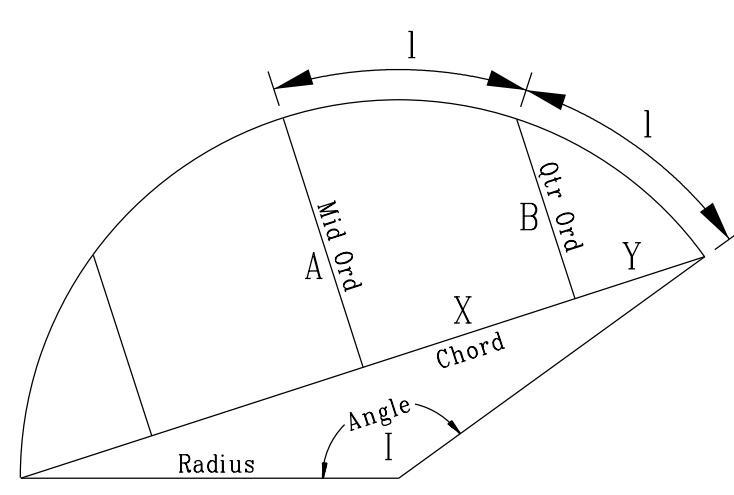
Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
B 1 2	-45.886	-1.000	0.801	0.079	0.059	0.191	0.199	0.200	192.058
B 3 4	44.932	1.600	1.255	0.121	0.091	0.300	0.312	0.314	192.079
B 4 5	90.367	8.600	13.562	2.538	1.878	2.796	3.303	3.390	192.068



Alignment C

Point no	Easting	Northing	RL
C 1	322569.192	5837301.384	192.345
C 2	322576.764	5837291.866	192.216
C 3	322572.388	5837300.361	192.345
C 4	322574.949	5837298.193	192.312
C 5	322576.486	5837295.210	192.264

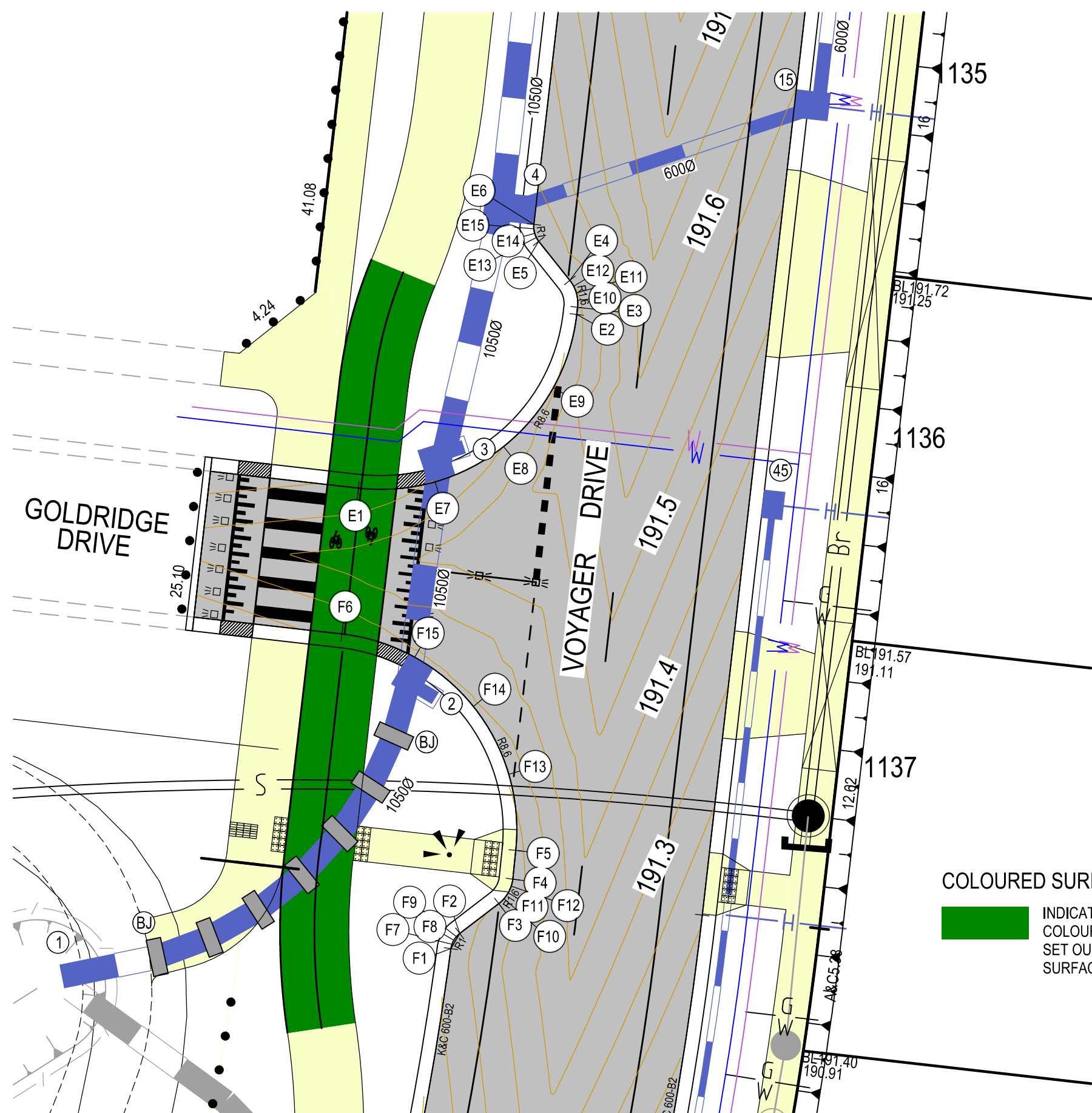
Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
C 1 2	90.000	8.600	13.509	2.519	1.864	2.790	3.291	3.377	192.312



CURVE SETOUT DIAGRAM

AS CONSTRUCTED

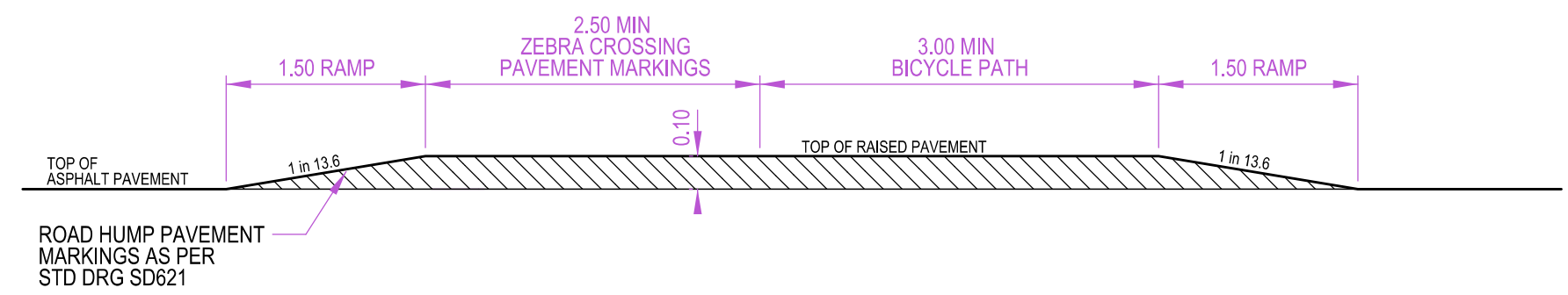
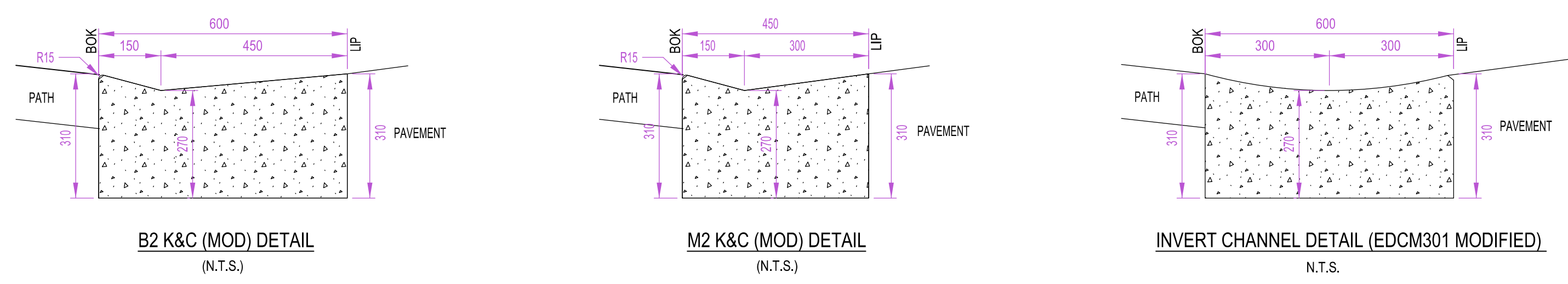
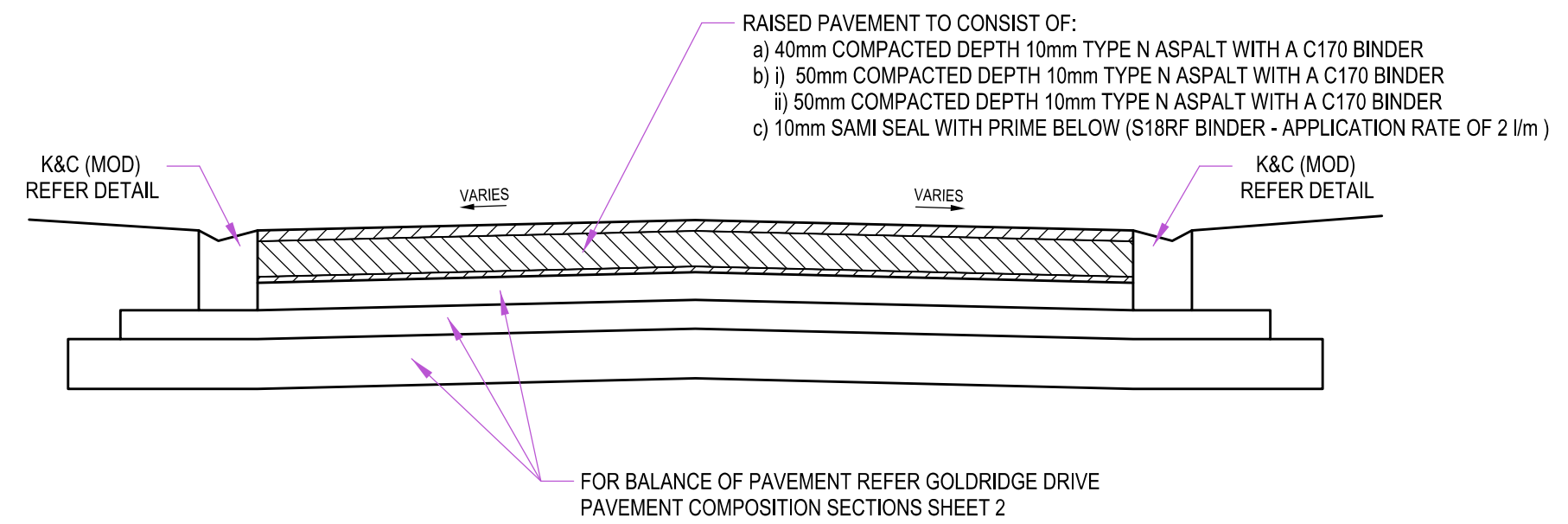
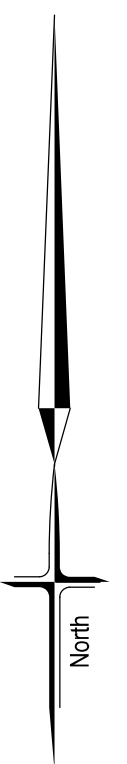
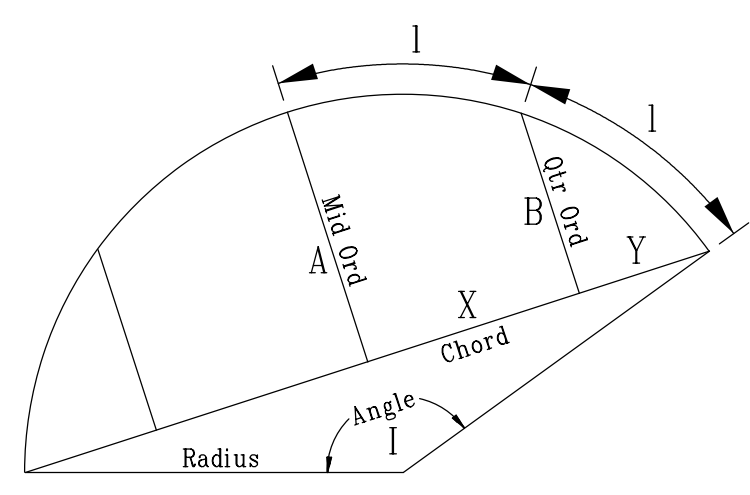
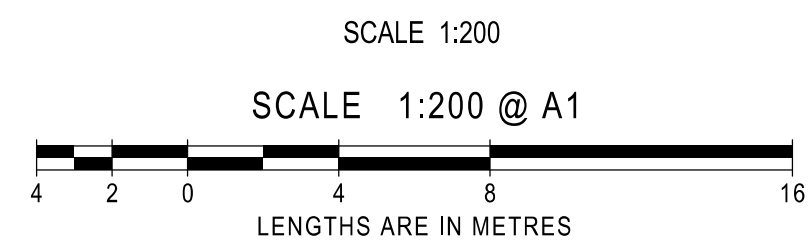
AMENDMENTS		MELWAY REF. 388-C-10		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	21.03.22	KERB A UPDATED	SURVEY	SPIIRE	RATHDOWNE ESTATE STAGE 11		MUNICIPALITY WHITTLESEA
A	02.08.21	ISSUE FOR CONSTRUCTION	DESIGN	RGW	INTERSECTION DETAILS 1		REFERENCE 9365 E/11
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE MAY'21	SHEET 3 OF 14 B



COLOURED SURFACE TREATMENTS

INDICATES GREEN SURFACE TREATMENT FOR BICYCLE USE. COLOUR TO BE EMERALD GREEN G13 AND MEET REQUIREMENTS SET OUT IN VICROADS SPECIFICATIONS SECTION 431 - COLOURED SURFACE TREATMENTS.

INTERSECTION DETAILS



Alignment E

Point no	Easting	Northing	RL
E 1	322476.380	5837224.921	191.262
E 2	322485.898	5837232.493	191.434
E 3	322485.933	5837232.804	191.438
E 4	322485.596	5837233.981	191.452
E 5	322484.241	5837235.684	191.474
E 6	322484.030	5837236.420	191.482
E 7	322479.724	5837225.199	191.306
E 8	322482.707	5837226.736	191.349
E 9	322484.875	5837229.297	191.394
E 10	322485.938	5837233.118	191.441
E 11	322485.881	5837233.426	191.445
E 12	322485.766	5837233.718	191.448
E 13	322484.135	5837235.849	191.476
E 14	322484.062	5837236.031	191.478
E 15	322484.027	5837236.224	191.480

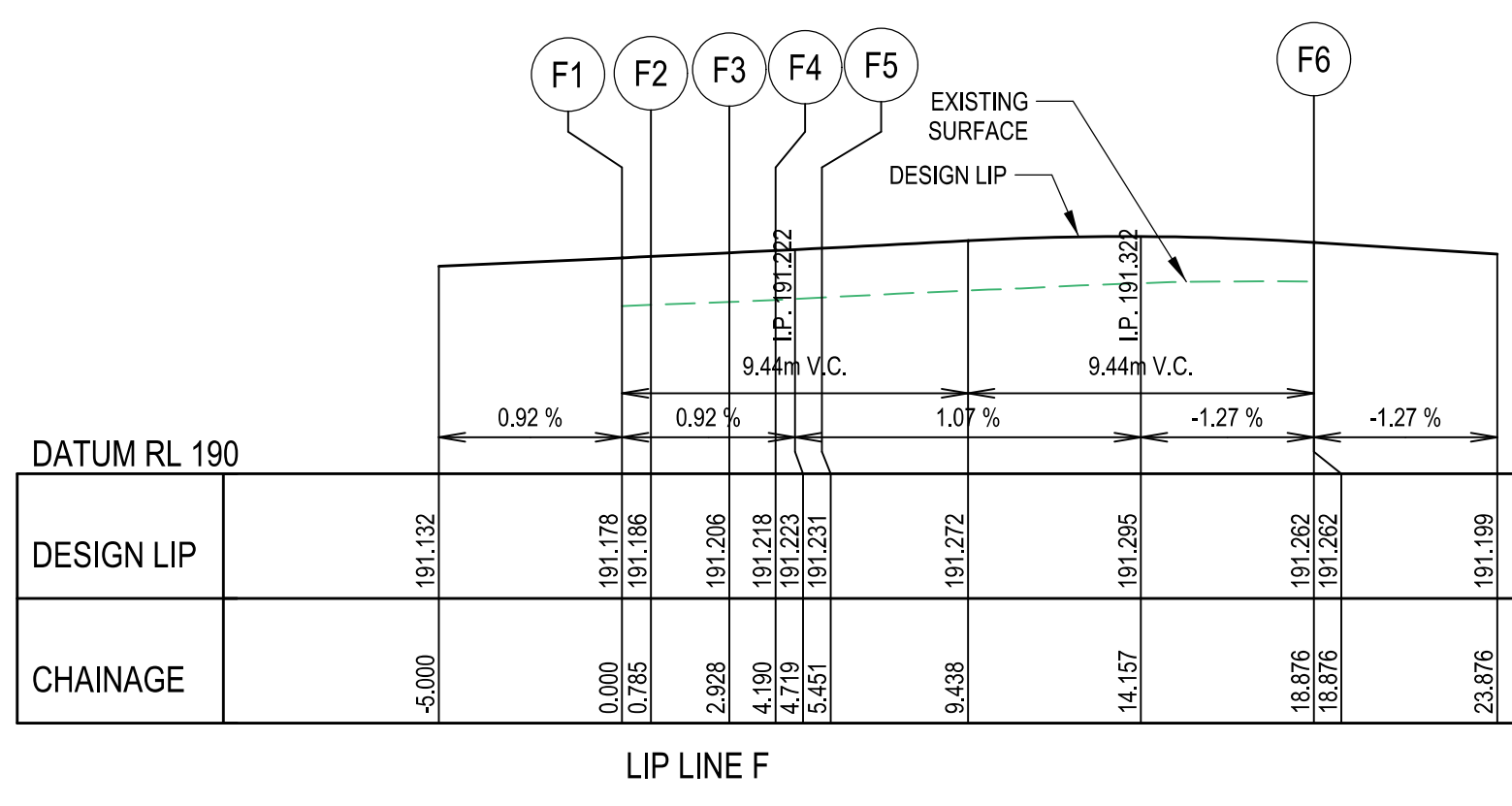
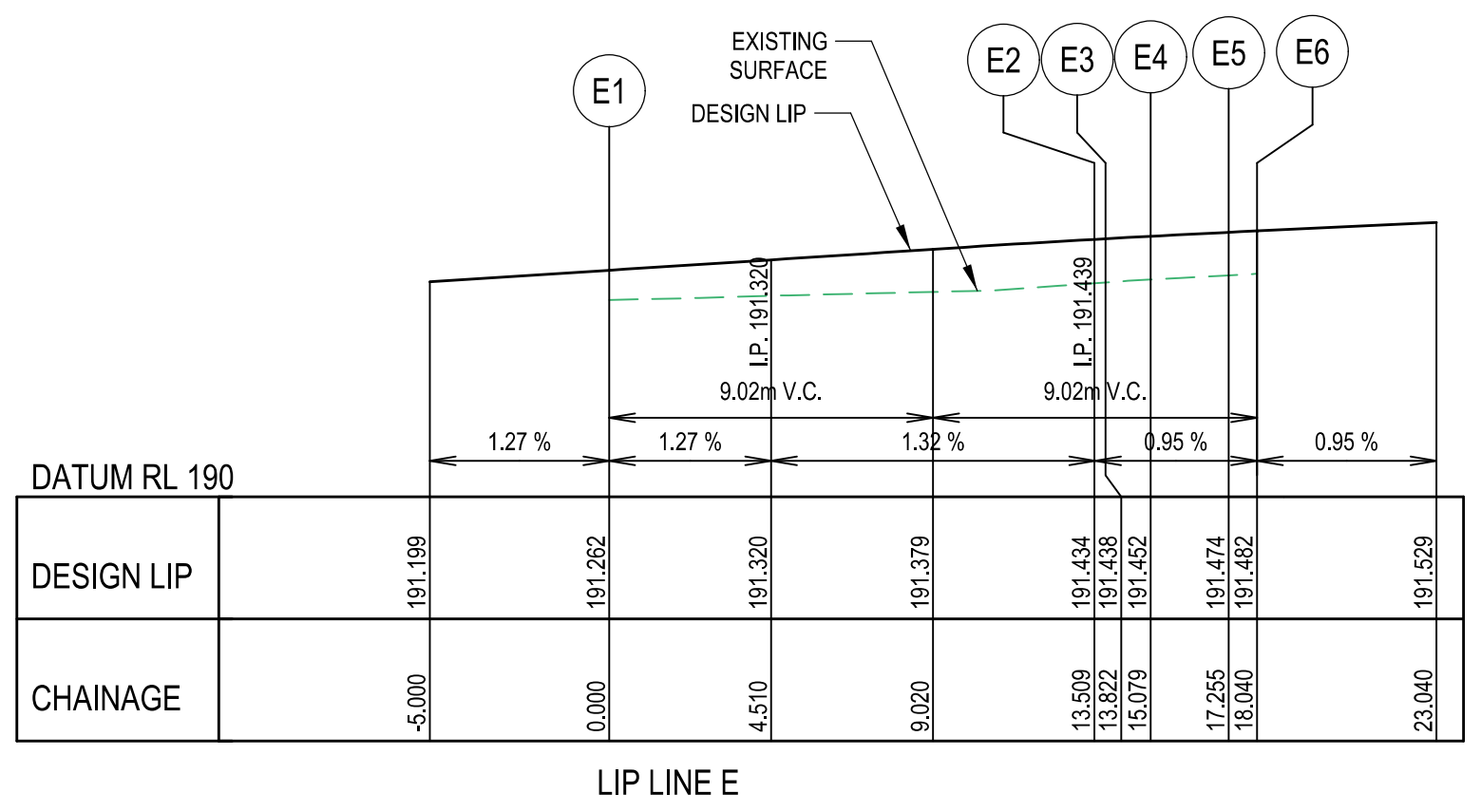
Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
E 1 2	-90.000	-8.600	13.509	2.519	1.864	2.790	3.291	3.377	191.349
E 3 4	-45.000	-1.600	1.257	0.122	0.091	0.300	0.312	0.314	191.445
E 5 6	45.000	1.000	0.785	0.076	0.057	0.188	0.195	0.196	191.478

Alignment F

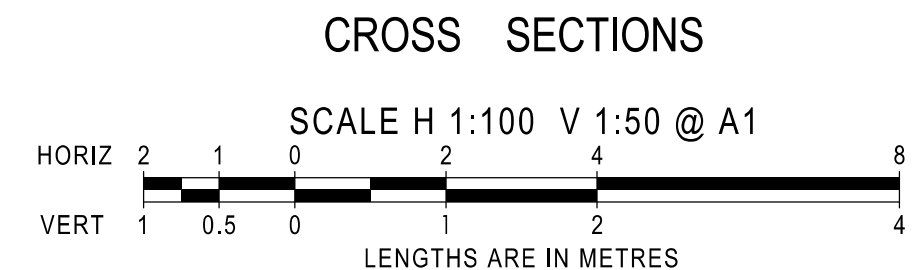
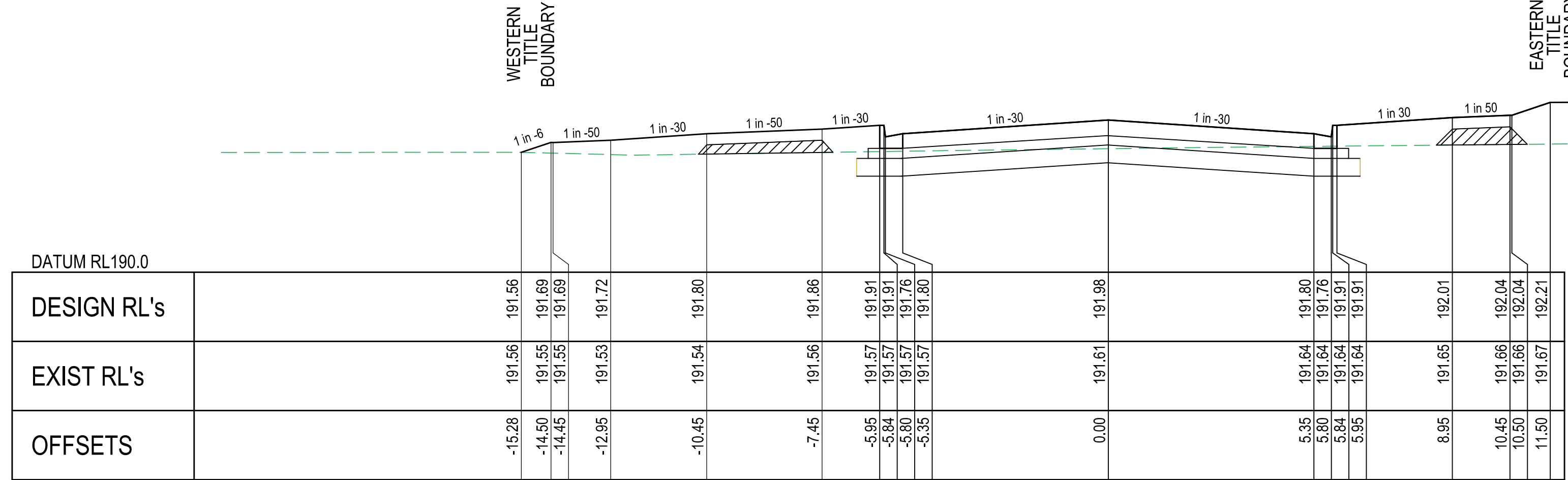
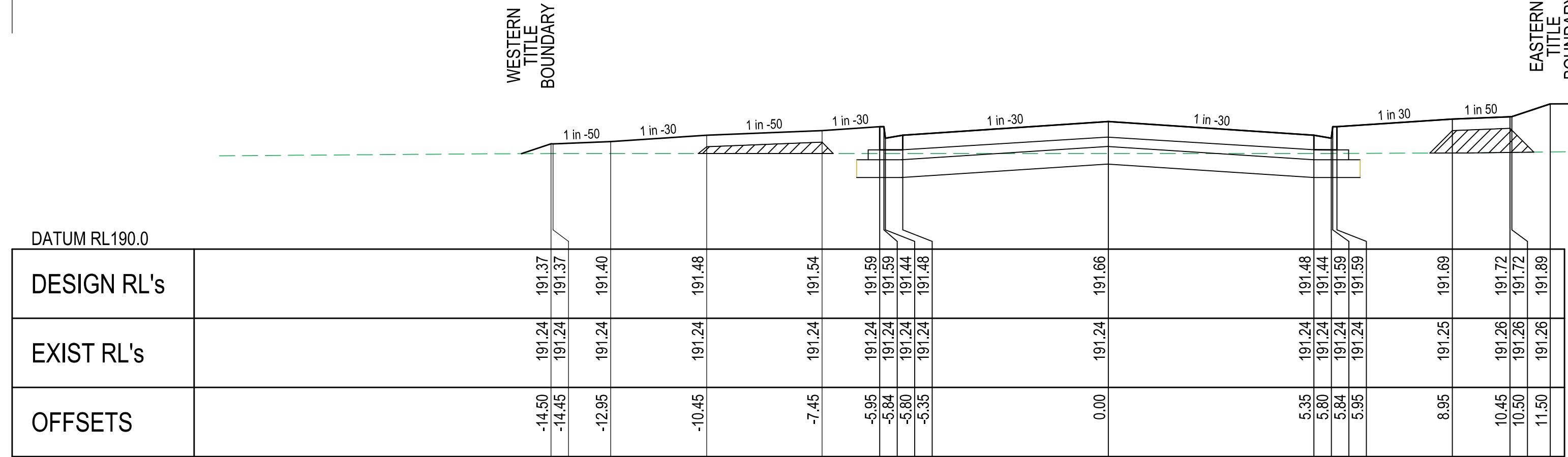
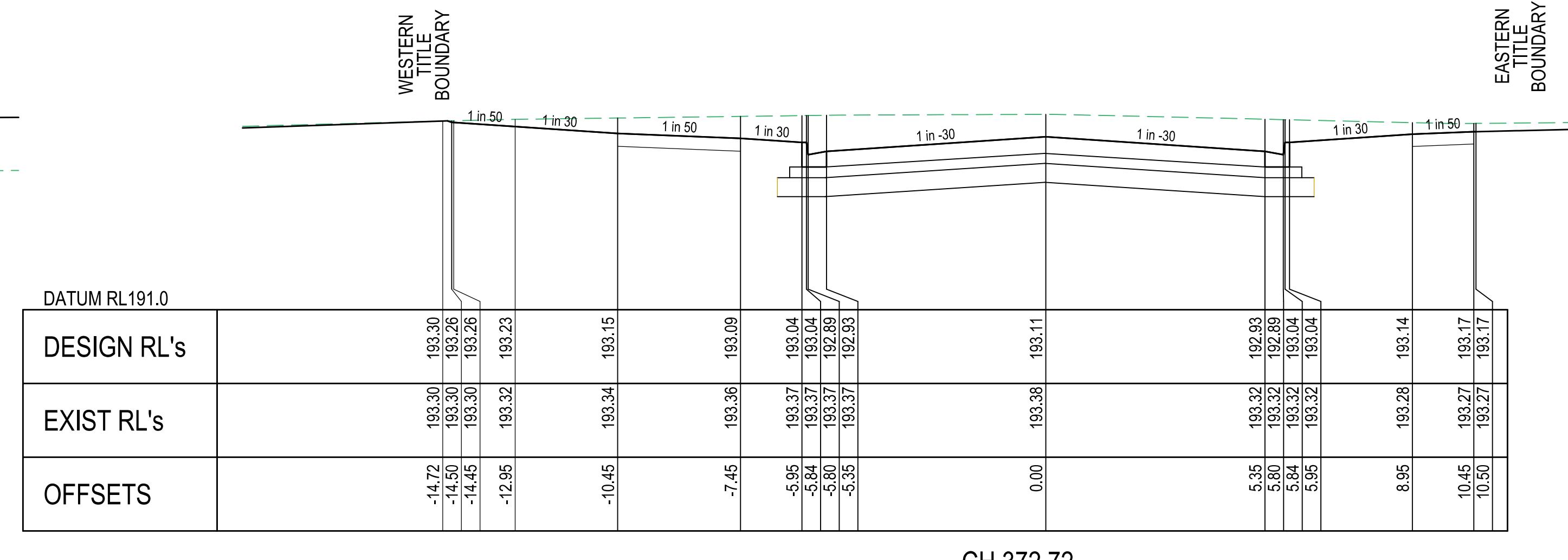
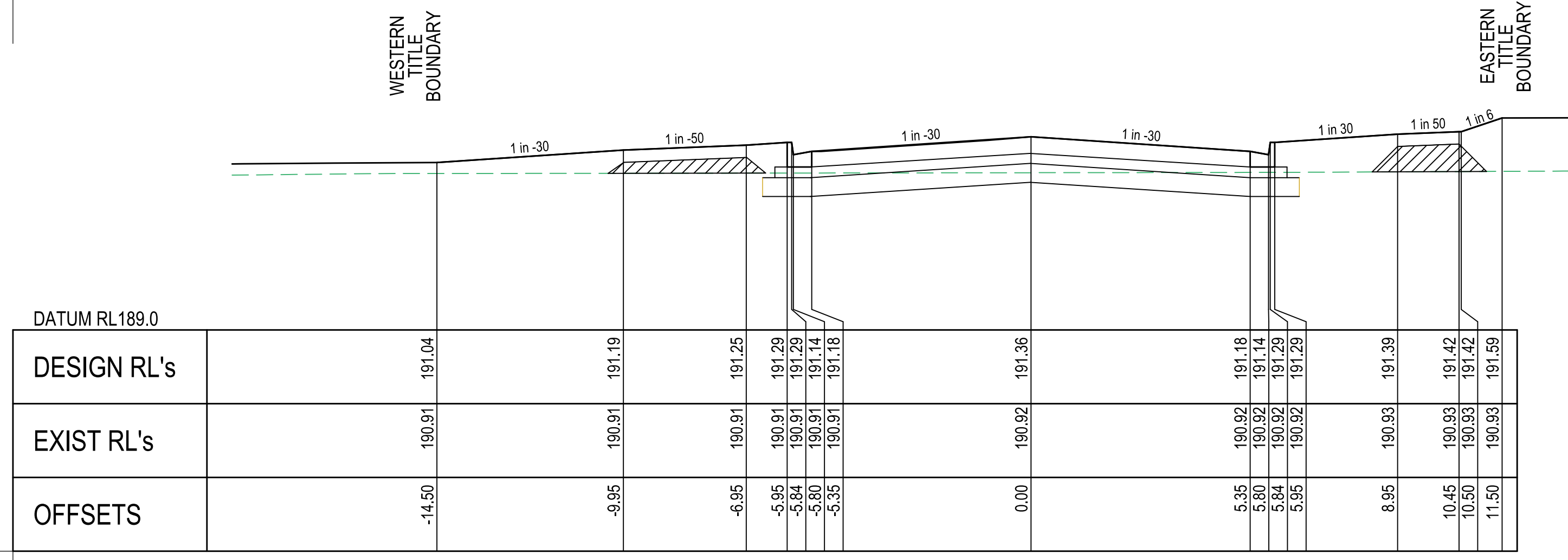
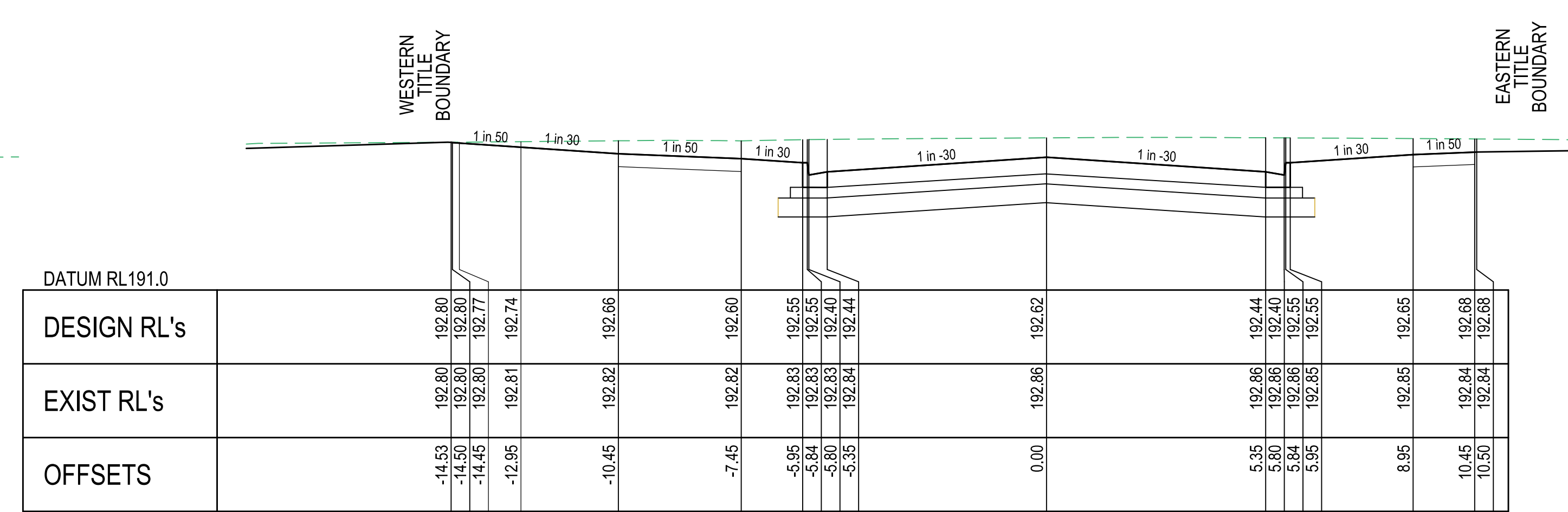
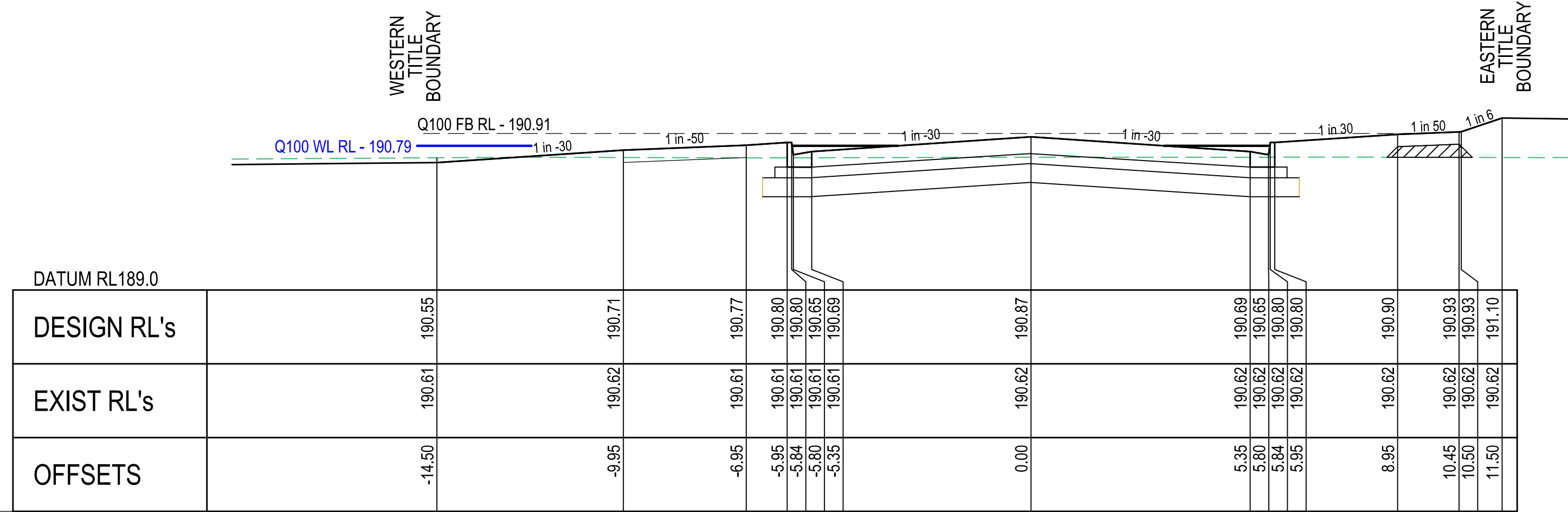
Point no	Easting	Northing	RL
F 1	322480.409	5837204.845	191.178
F 2	322480.793	5837205.507	191.186
F 3	322482.495	5837206.808	191.206
F 4	322483.110	5837207.873	191.218
F 5	322483.240	5837209.128	191.231
F 6	322475.659	5837218.562	191.262
F 7	322480.454	5837205.036	191.180
F 8	322480.535	5837205.215	191.182
F 9	322480.649	5837205.374	191.184
F 10	322482.725	5837207.023	191.209
F 11	322482.909	5837207.279	191.212
F 12	322483.038	5837207.566	191.215
F 13	322482.935	5837212.449	191.265
F 14	322481.390	5837215.404	191.292
F 15	322478.837	5837217.549	191.291

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
F 1 2	45.002	1.000	0.785	0.076	0.057	0.188	0.195	0.196	191.182
F 3 4	-45.197	-1.600	1.262	0.123	0.092	0.301	0.313	0.316	191.212
F 5 6	-89.438	-8.600	13.425	2.489	1.843	2.780	3.272	3.356	191.292

AS CONSTRUCTED



		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
AMENDMENTS		MELWAY REF. 388-C-10		MUNICIPALITY WHITTLESEA	
SURVEY SPIIRE		DESIGN RGW		REFERENCE 9365 E/11	
A 02.08.21 ISSUE FOR CONSTRUCTION		DRAWN RGW		RATHDOWNE ESTATE STAGE 11 INTERSECTION DETAILS 2	
VER DATE REMARKS		CHECKED		SCALE AS SHOWN DATUM AHD DATE MAY'21 SHEET 4 OF 14 A	



VOYAGER DRIVE

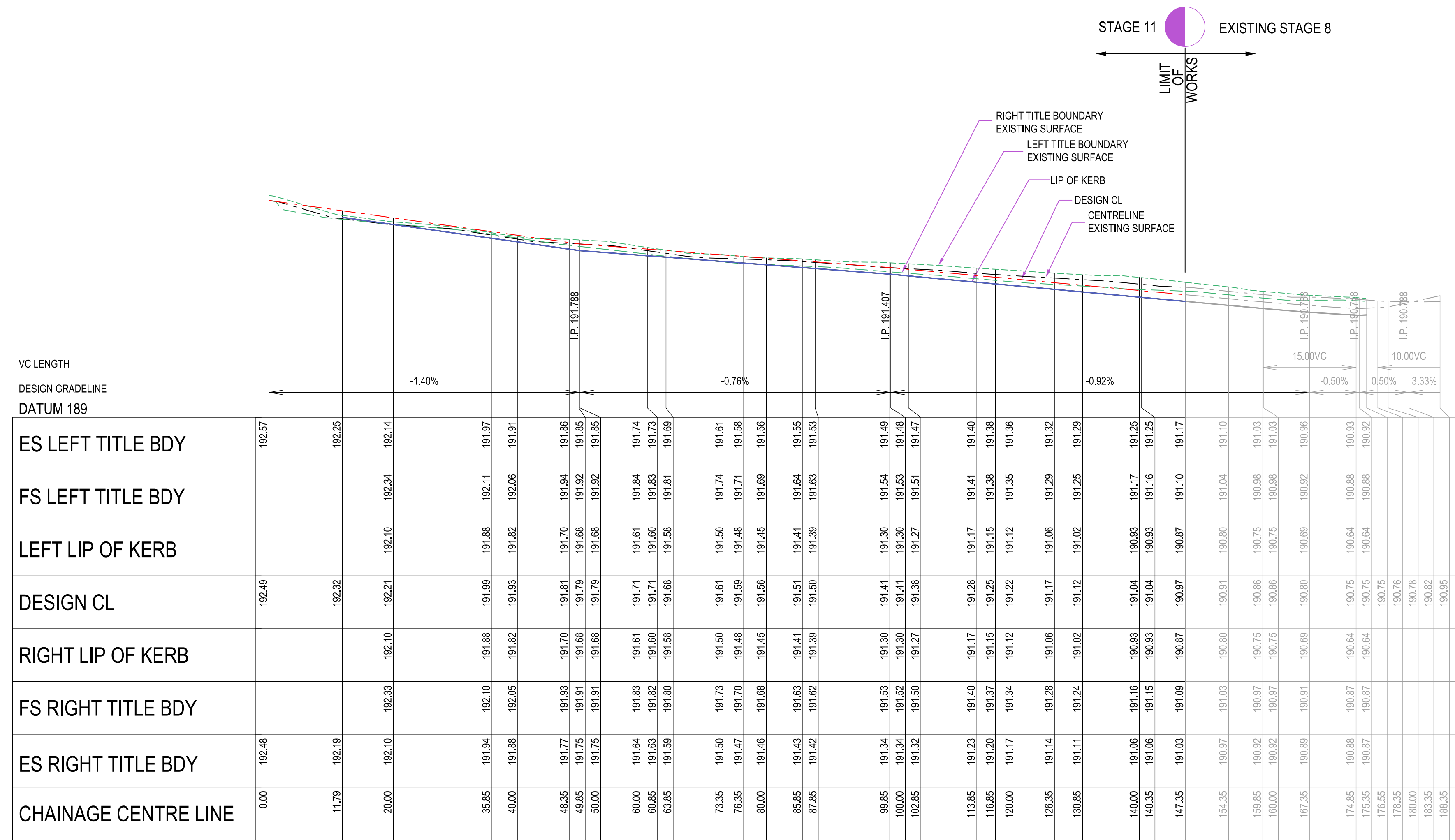
INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED

AS CONSTRUCTED

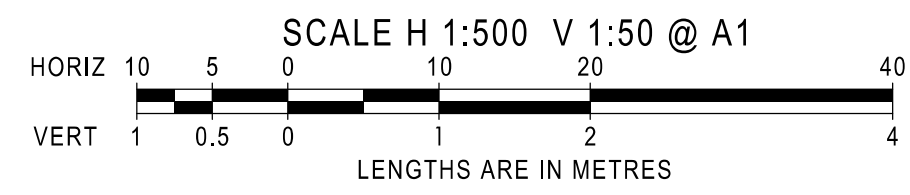
AMENDMENTS		MELWAY REF. 388-C-10		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	09/03/22	CROSS SECTIONS UPDATED	SURVEY	SPIIRE	RATHDOWNE ESTATE STAGE 11		MUNICIPALITY WHITTLESEA
A	02.08.21	ISSUE FOR CONSTRUCTION	DESIGN	RGW	VOYAGER DRIVE CROSS SECTIONS		REFERENCE 9365 E/11
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE MAY'21	SHEET 6 OF 14

STAGE 11 EXISTING STAGE 8

LIMIT OF WORKS



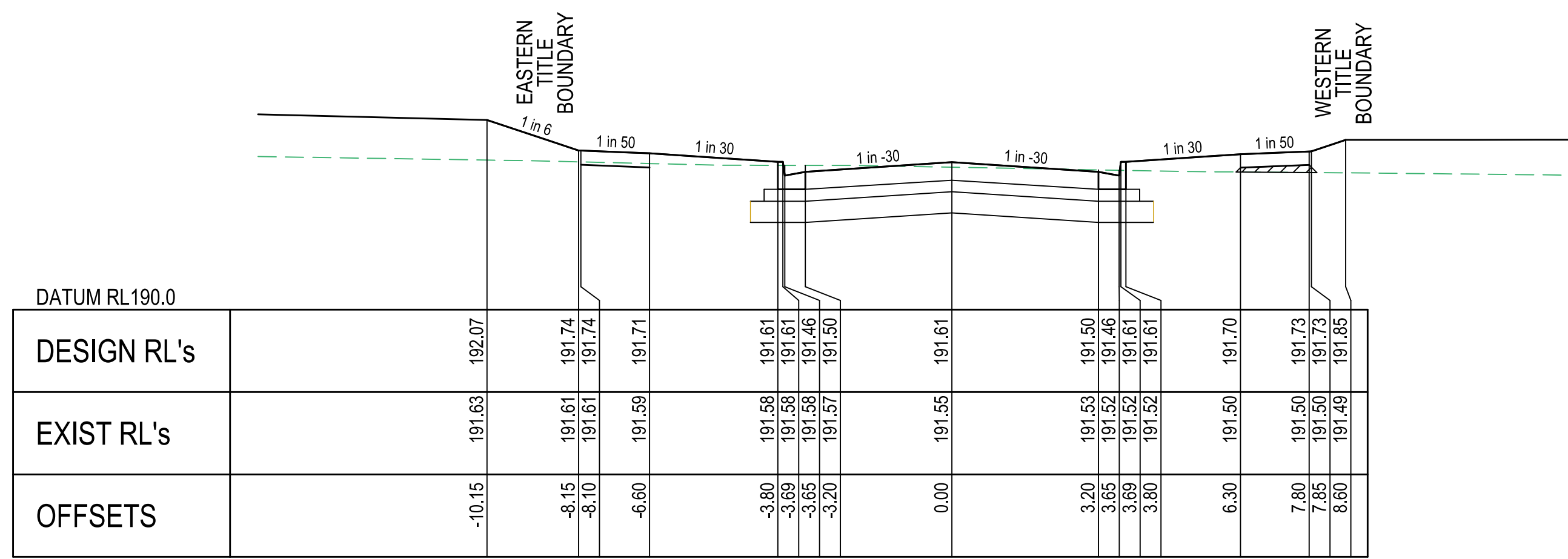
LONGITUDINAL SECTION



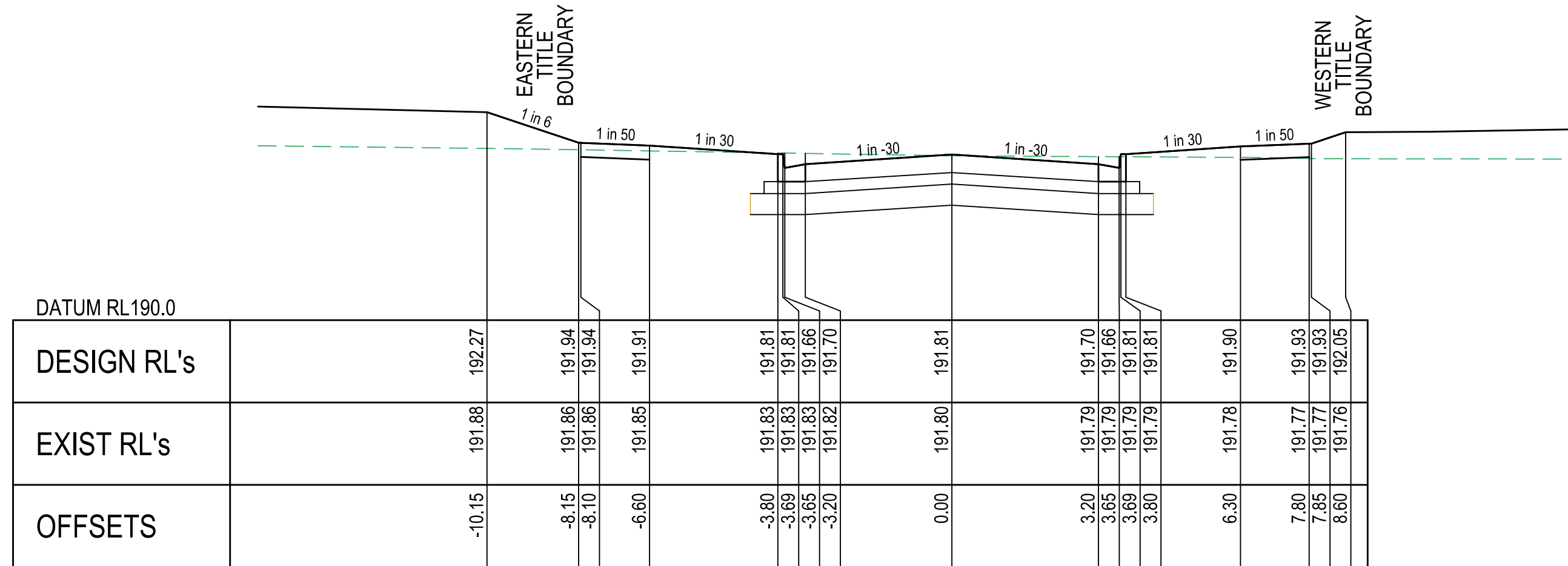
KAFUE ROAD

AS CONSTRUCTED

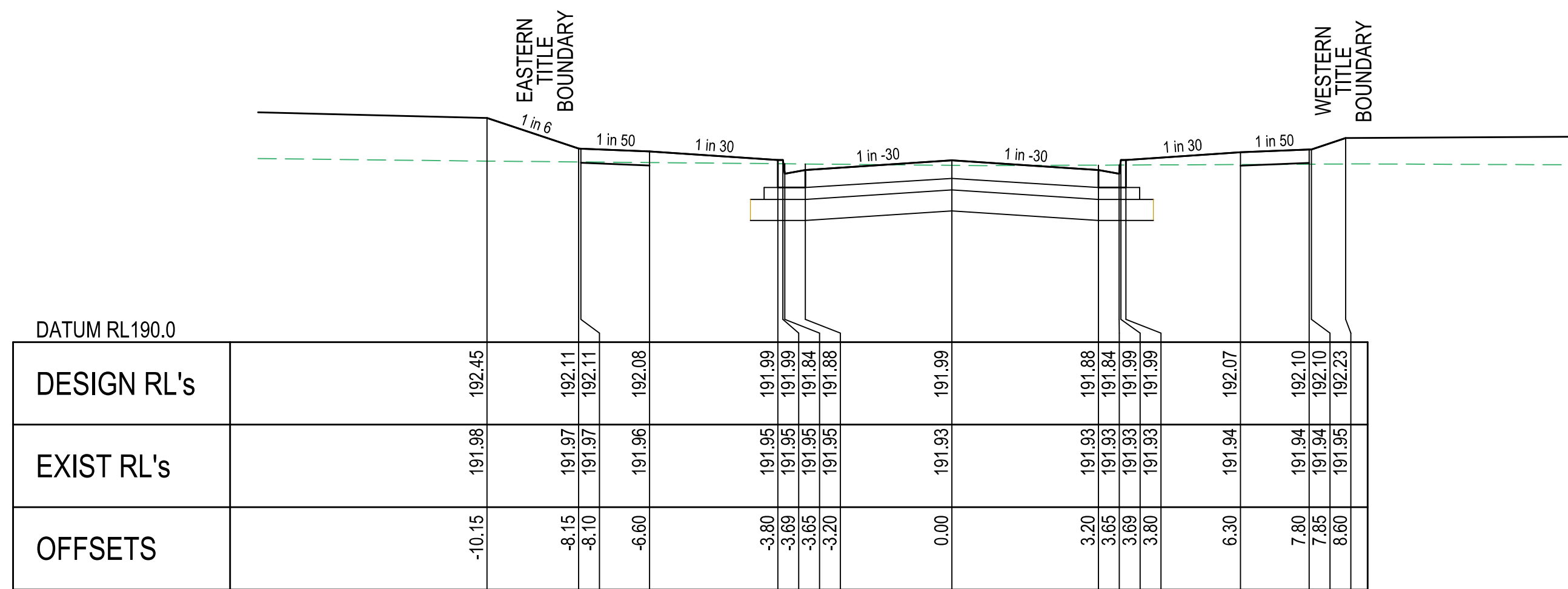
AMENDMENTS		 breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
		MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 11 KAFUE ROAD LONG SECTION		MUNICIPALITY WHITTLESEA
		SURVEY SPIIRE			REFERENCE 9365 E/11
		DESIGN RGW			
A	02.08.21	ISSUE FOR CONSTRUCTION	DRAWN RGW	SCALE AS SHOWN	DATUM AHD
VER	DATE	REMARKS	CHECKED	DATE MAY'21	SHEET 9 OF 14



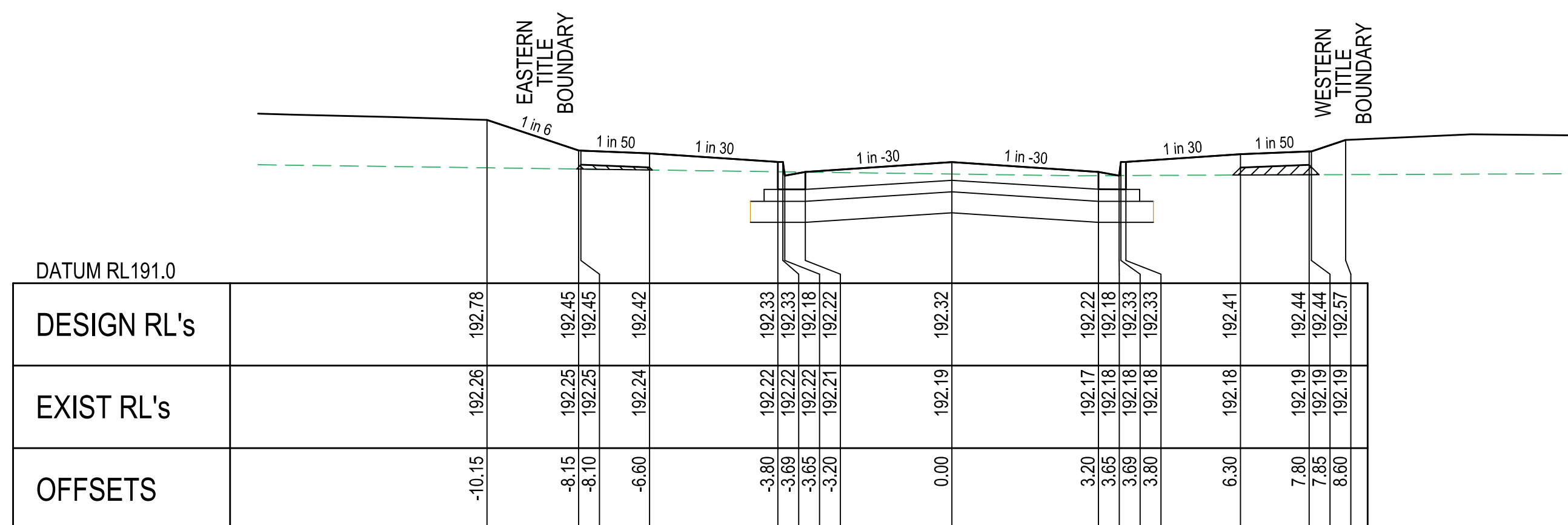
CH 73.35



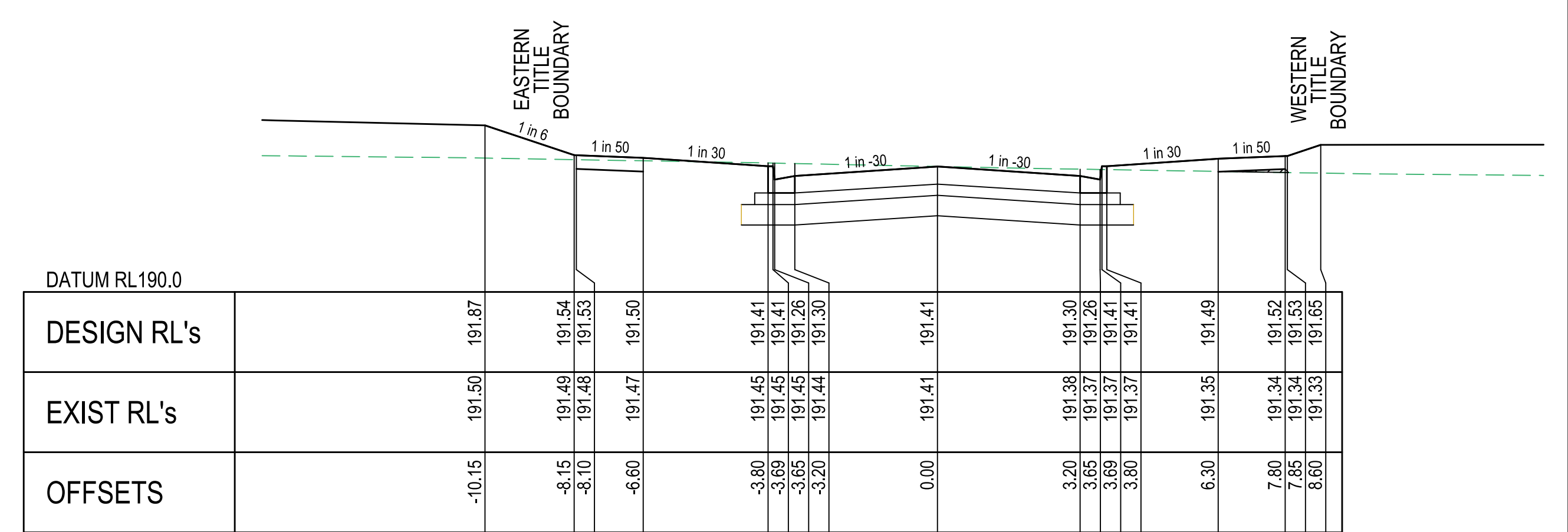
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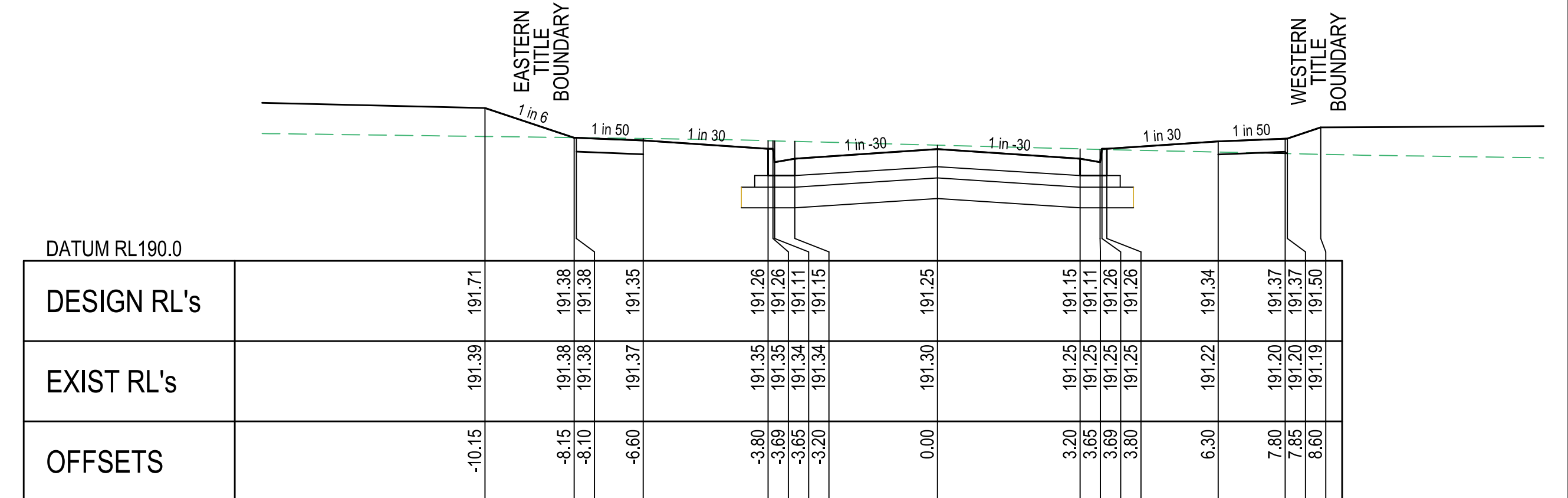
CH 35.85



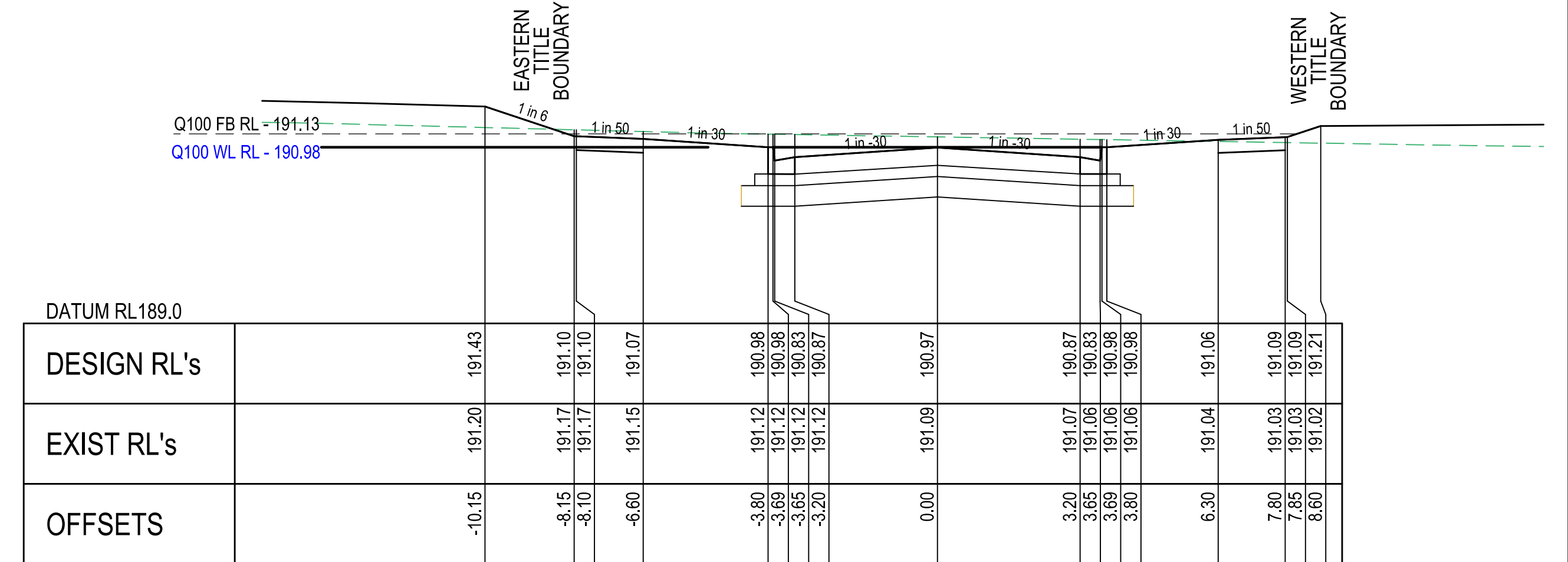
CH 11.80



CH 99.85

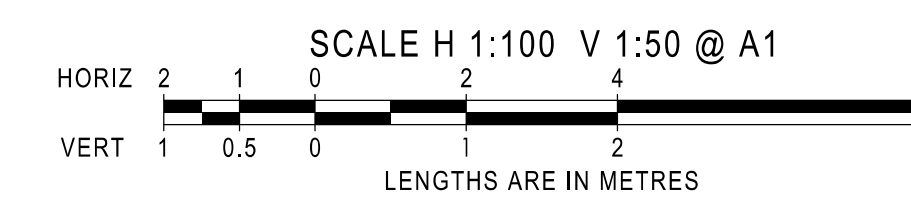


CH 116.85



CH 147.35

CROSS SECTIONS

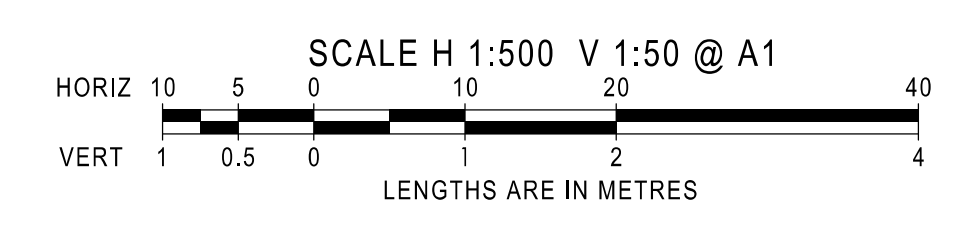
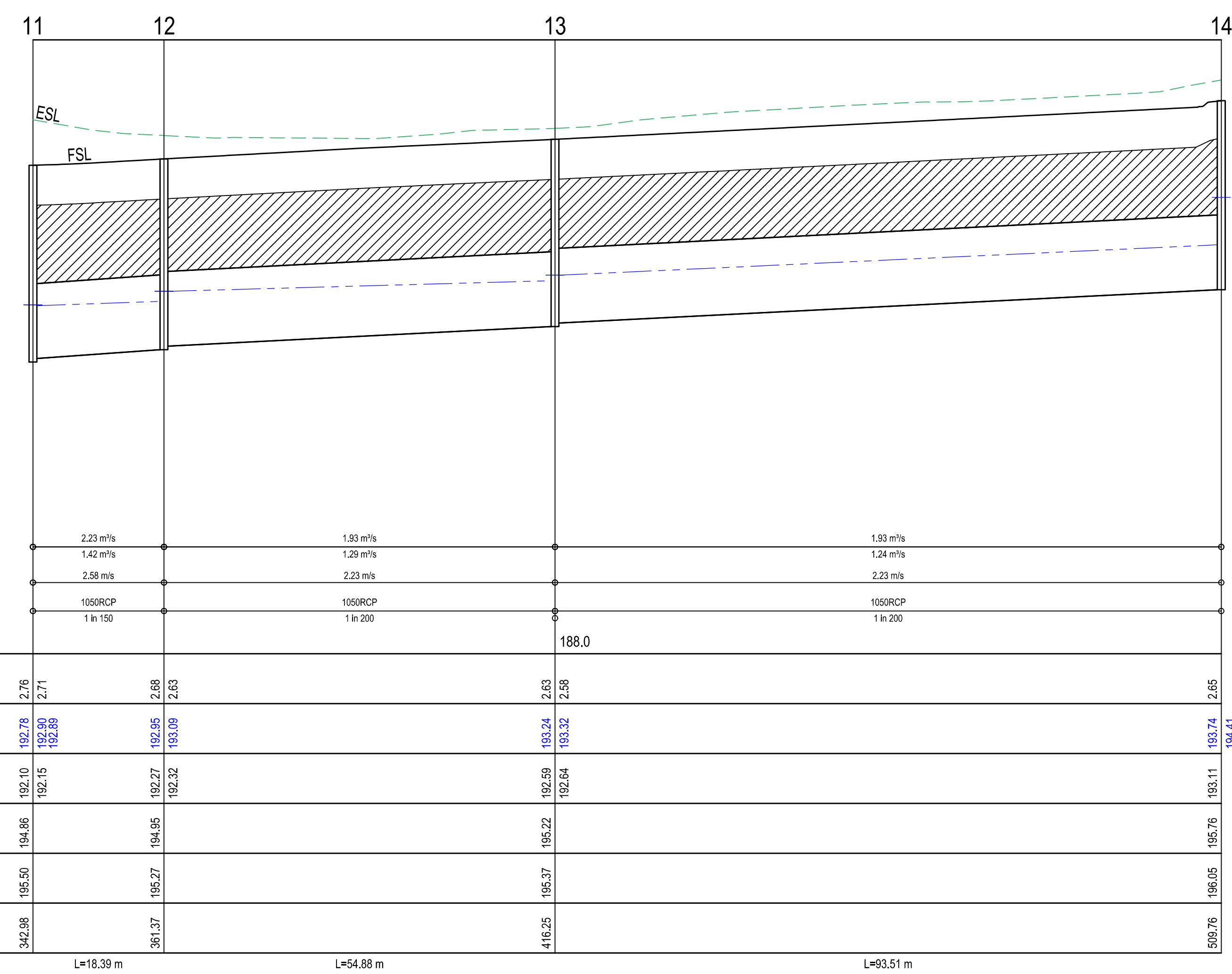
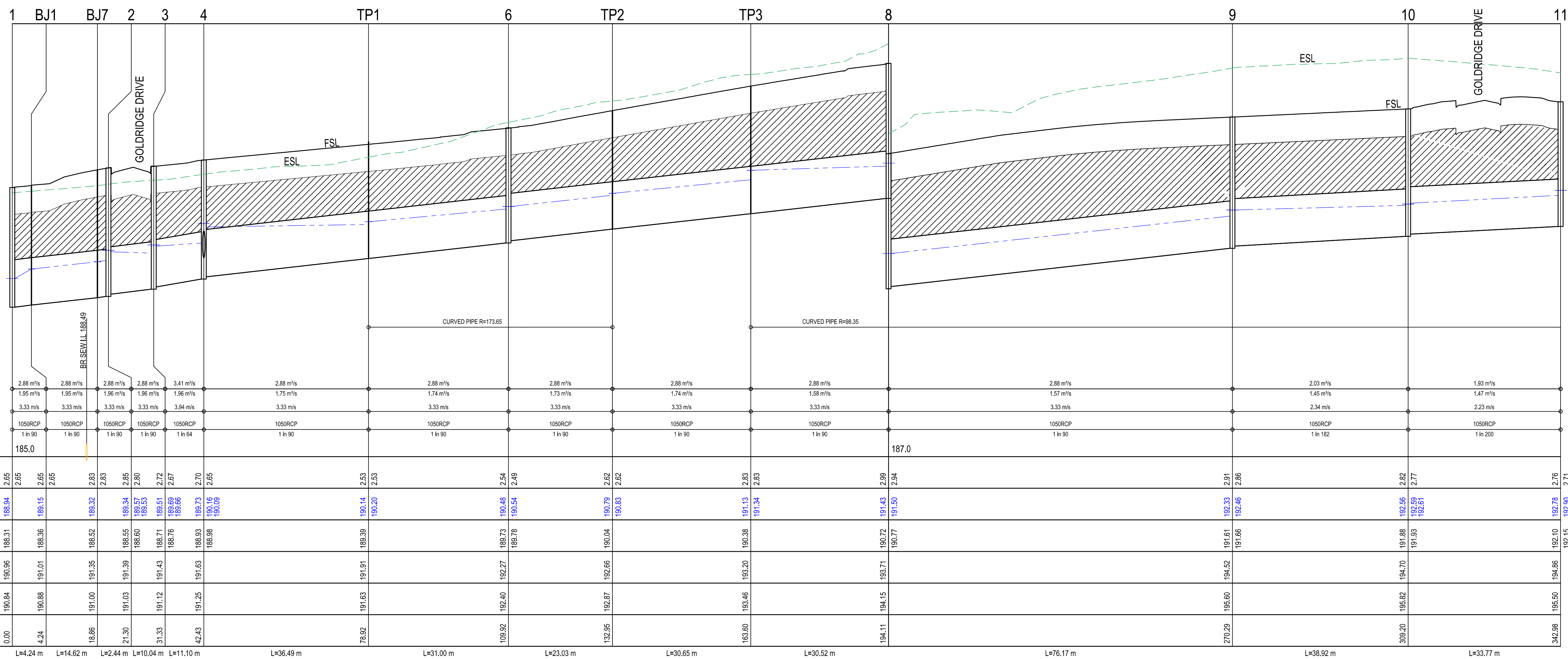


INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED

KAFUE ROAD

AS CONSTRUCTED

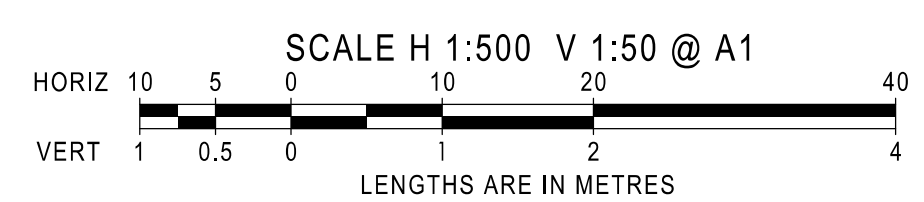
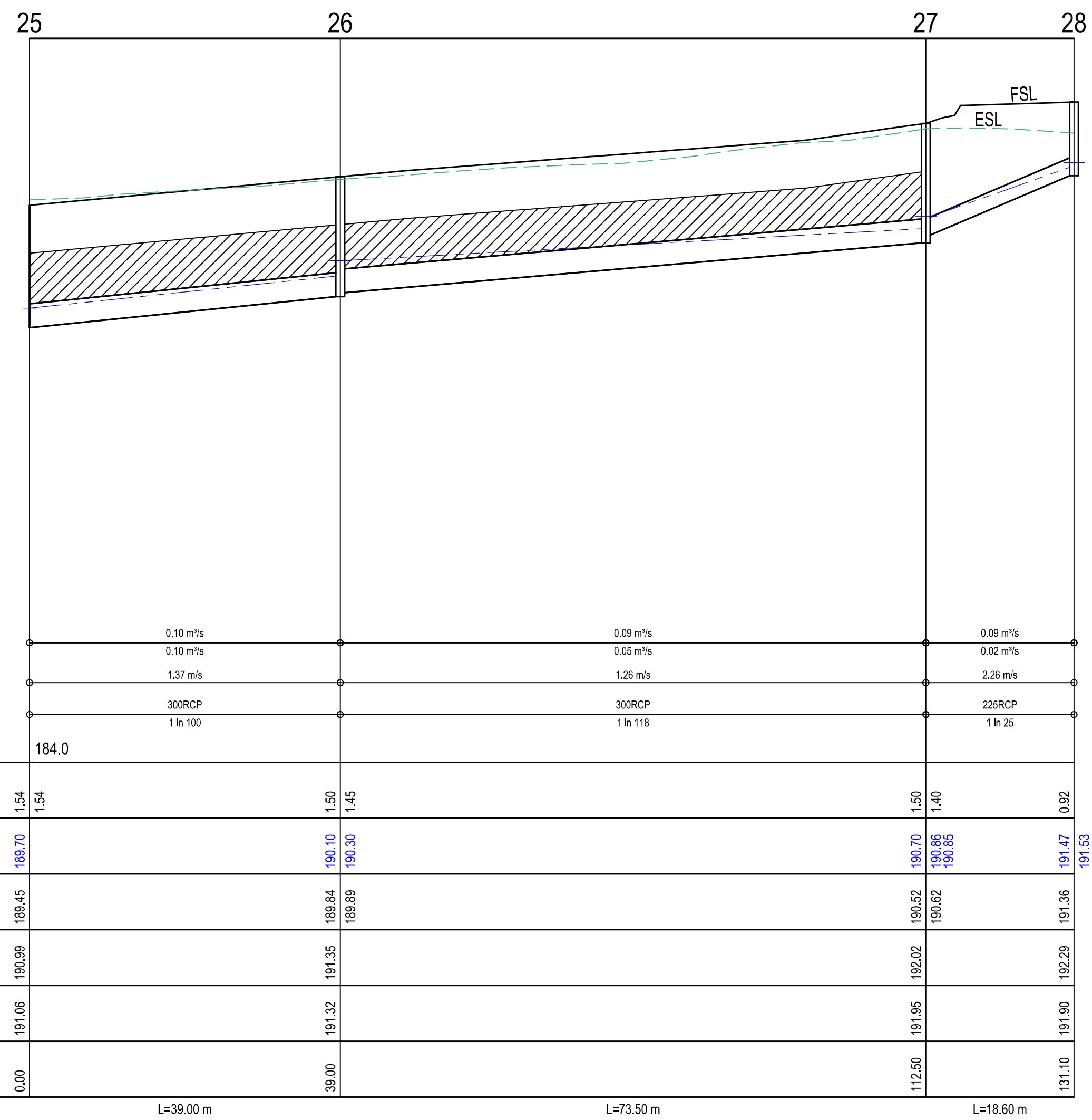
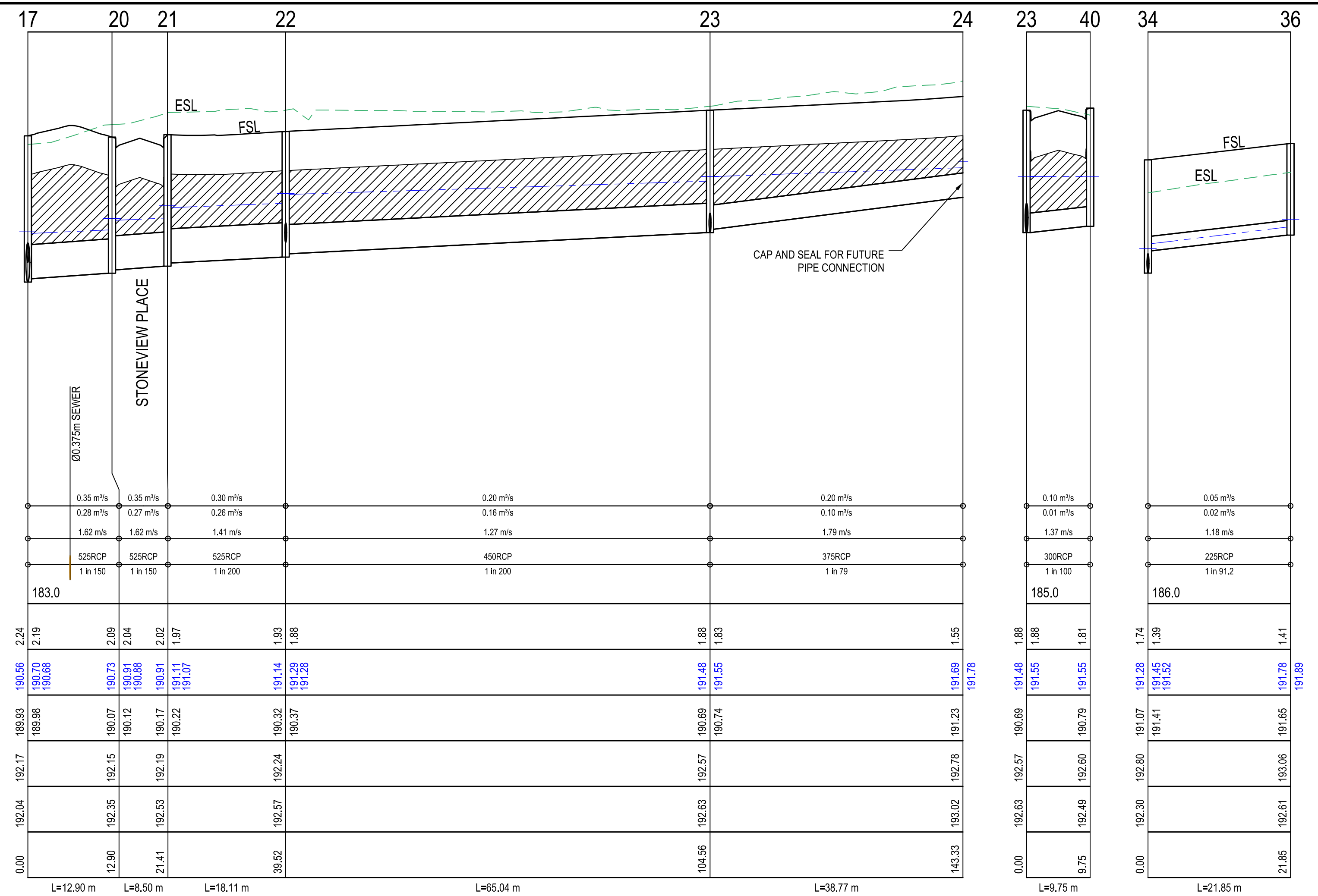
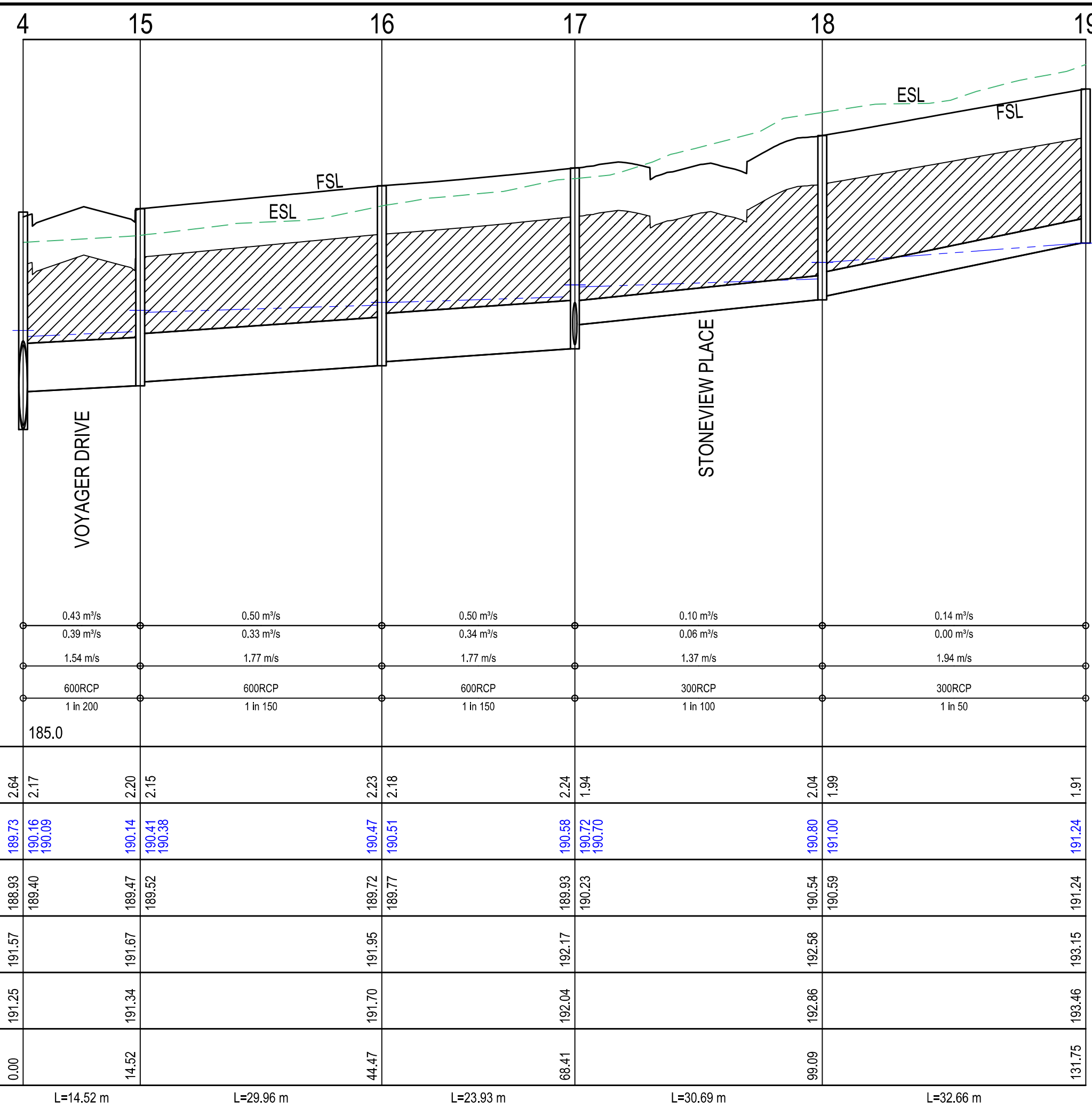
AMENDMENTS		MELWAY REF. 388-C-10		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
A 02.08.21 ISSUE FOR CONSTRUCTION		SURVEY SPIIRE		RATHDOWNE ESTATE STAGE 11		MUNICIPALITY WHITTLESEA	
VER DATE REMARKS		DESIGN RGW		KAFUE ROAD CROSS SECTIONS		REFERENCE 9365 E/11	
		DRAWN RGW		SCALE AS SHOWN DATUM AHD		SHEET 10 OF 14 A	
		CHECKED		DATE MAY21			



INDICATES CRUSHED ROCK BACKFILL
 INDICATES 5YR HGL

AS CONSTRUCTED

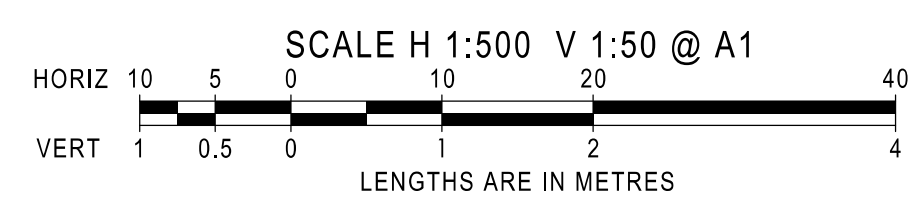
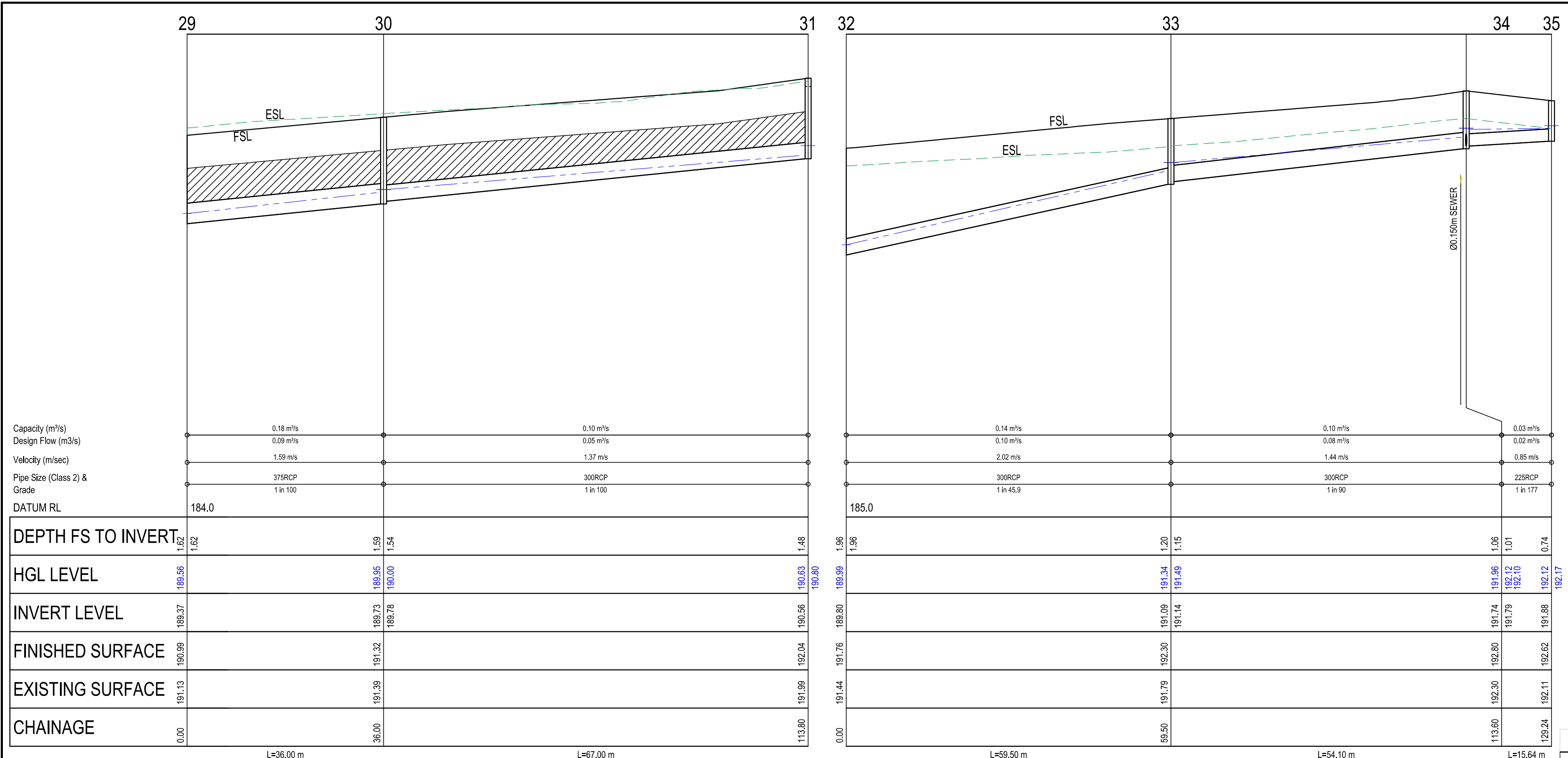
AMENDMENTS		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	02.12.21	COVER LEVELS PITS 9-13 UPDATED	MELWAY REF. 388-C-10	RATHDOWNE ESTATE	
A	02.08.21	ISSUE FOR CONSTRUCTION	SURVEY SPIIRE	STAGE 11	
VER	DATE	REMARKS	DRAWN RGW	DRAINAGE LONG SECTIONS 1	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE MAY'21	SHEET 11 OF 14



INDICATES CRUSHED ROCK BACKFILL
INDICATES SYR HGL

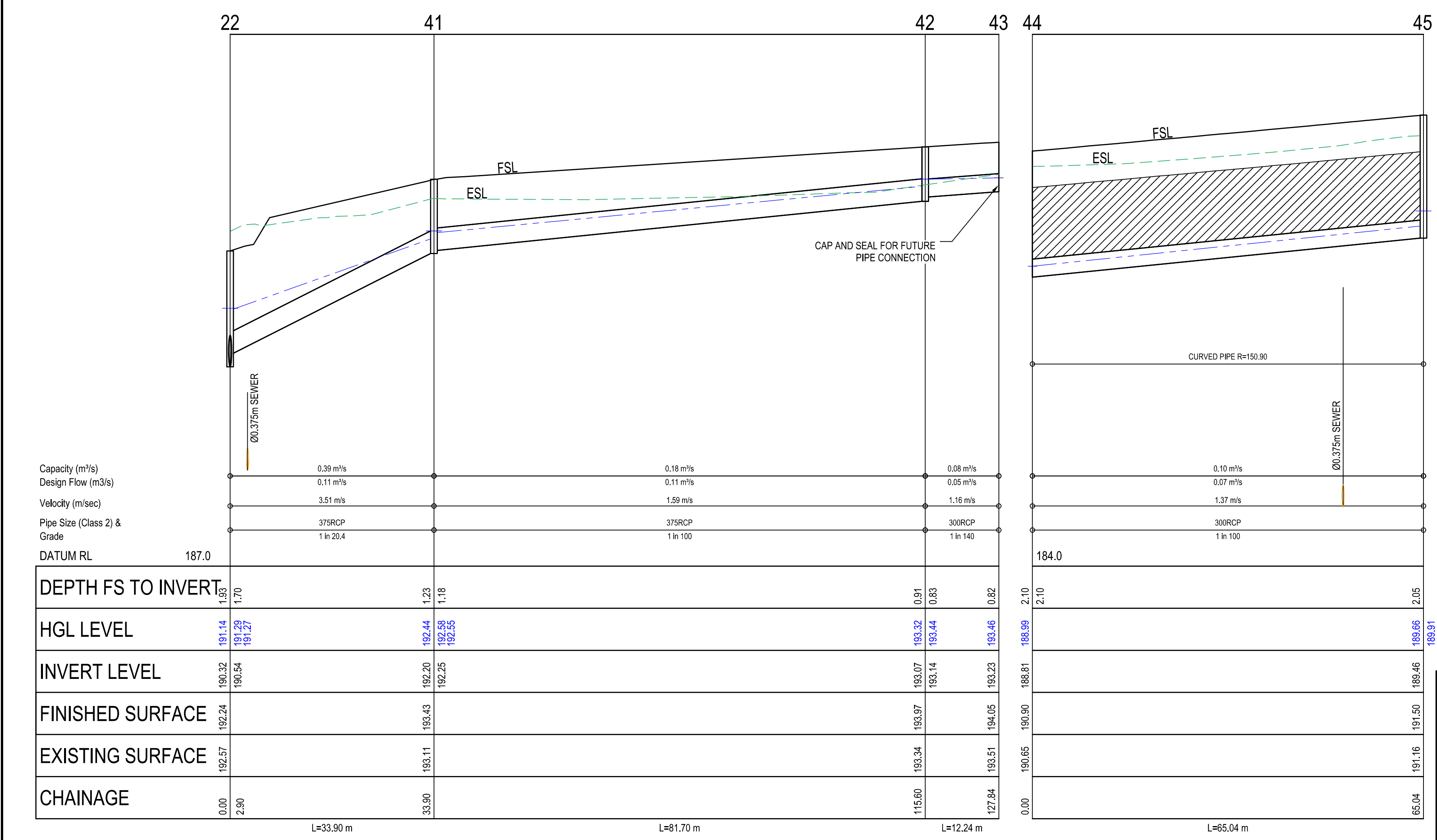
AS CONSTRUCTED

AMENDMENTS		 breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
MELWAY REF. 388-C-10		RATHDOWNE ESTATE		MUNICIPALITY	
SURVEY SPIIRE		STAGE 11		WHITTLESEA	
DESIGN RGW		DRAINAGE LONG SECTIONS 2		REFERENCE	
DRAWN RGW		SCALE AS SHOWN DATUM AHD		9365 E/11	
DATE 02.08.21		CHECKED		DATE MAY'21	
ISSUE FOR CONSTRUCTION		DATE		SHEET 12 OF 14	
REMARKS		DATE		A	



INDICATES CRUSHED ROCK BACKFILL
 INDICATES 5YR HGL

AS CONSTRUCTED



PIT SCHEDULE										
PIT No.	PIT DESCRIPTION	LENGTH	WIDTH	INLET		OUTLET		TOP PIT RL	DEPTH INVERT	REMARKS
				INVERT	DIA	INVERT	DIA			
1	END PIPE			188.31	1050	190.92	2.61			CONSTRUCT TEMP SANDBAG ENDWALL AND GRADE TO FREE OUTLET
2	GRATED ENTRY PIT	900	1500	188.60	1050	188.55	1050	191.39	2.84	GAA STD DWG EDCM601&607 (HAUNCHED)
3	GRATED ENTRY PIT	900	1500	188.76	1050	188.71	1050	191.43	2.73	GAA STD DWG EDCM601&607 (HAUNCHED)
4	GRATED ENTRY PIT	900	1500	188.98	1050	188.93	1050	191.63	2.70	GAA STD DWG EDCM601&607 (HAUNCHED)
TP1	TANGENT POINT			189.39	1050	189.39	1050	191.97	2.59	BANDAGE JOINT
6	GRATED ENTRY PIT	900	1500	189.78	1050	189.73	1050	192.29	2.56	GAA STD DWG EDCM601&607 (HAUNCHED)
TP2	TANGENT POINT			190.04	1050	190.04	1050	192.66	2.62	BANDAGE JOINT
8	GRATED ENTRY PIT	900	1500	190.77	1050	190.72	1050	193.71	2.99	GAA STD DWG EDCM601&607 (HAUNCHED)
9	GRATED ENTRY PIT	900	1500	191.66	1050	191.61	1050	194.52	2.91	GAA STD DWG EDCM601&607 (HAUNCHED)
10	JUNCTION PIT	900	1500	191.93	1050	191.88	1050	194.70	2.82	GAA STD DWG EDCM607 (HAUNCHED)
11	GRATED ENTRY PIT	900	1500	192.15	1050	192.10	1050	194.86	2.76	GAA STD DWG EDCM601&607 (HAUNCHED)
12	JUNCTION PIT	900	1500	192.32	1050	192.27	1050	194.95	2.68	GAA STD DWG EDCM607 (HAUNCHED)
13	GRATED ENTRY PIT	900	1500	192.64	1050	192.59	1050	195.22	2.63	GAA STD DWG EDCM601&607 (HAUNCHED)
14	END PIPE			193.11	1050	195.76	2.65			CONNECT TO EXISTING 1050 STUB
15	GRATED ENTRY PIT	900	900	189.52	600	189.47	600	191.67	2.20	GAA STD DWG EDCM601&607 (HAUNCHED)
16	JUNCTION PIT	900	900	189.77	600	189.72	600	191.95	2.23	GAA STD DWG EDCM607 (HAUNCHED)
17	GRATED ENTRY PIT	900	900	190.23	300	189.93	600	192.17	2.24	GAA STD DWG EDCM601&607 (HAUNCHED)
18	GRATED ENTRY PIT	900	600	189.98	525					
19	JUNCTION PIT	900	600	190.59	300	190.54	300	192.58	2.04	GAA STD DWG EDCM601
20	GRATED ENTRY PIT	900	600	190.12	525	190.07	525	192.15	2.09	GAA STD DWG EDCM601&607 (HAUNCHED)
21	GRATED ENTRY PIT	900	900	190.23	525	190.18	525	192.19	2.02	GAA STD DWG EDCM601&607 (HAUNCHED)
22	JUNCTION PIT	900	900	190.37	450	190.32	450	192.24	1.93	GAA STD DWG EDCM607 (HAUNCHED)
23	GRATED ENTRY PIT	900	600	190.74	375	190.69	450	192.57	1.88	GAA STD DWG EDCM601
24	END PIPE			190.69	300					
25	END PIPE			189.45	300	191.23	375	192.78	1.55	GRADE TO FREE OUTLET
26	JUNCTION PIT	900	600	189.89	300	189.84	300	191.35	1.51	GAA STD DWG EDCM601
27	GRATED ENTRY PIT	900	600	190.62	225	190.52	300	192.02	1.67	GAA STD DWG EDCM601
28	JUNCTION PIT	900	600	191.36	225	191.29	300	192.29	0.92	GAA STD DWG EDCM605
29	END PIPE			189.37	375					
30	GRATED ENTRY PIT	900	600	189.78	300	189.73	375	191.32	1.59	CONNECT TO EXISTING STUB
31	GRATED ENTRY PIT	900	600	190.56	300	190.56	300	192.04	1.48	GAA STD DWG EDCM601
32	END PIPE			189.80	300			191.76	1.96	CONNECT TO EXISTING STUB
33	JUNCTION PIT	900	600	191.14	300	191.09	300	192.30	1.21	GAA STD DWG EDCM605
34	JUNCTION PIT	900	600	191.79	225	191.74	300	192.81	1.06	GAA STD DWG EDCM605
35	EASEMENT PIT	900	600			191.88	225	192.62	0.74	GAA STD DWG EDCM605
36	EASEMENT PIT	900	600			192.33	225	193.06	0.73	GAA STD DWG EDCM605
40	GRATED ENTRY PIT	900	600			190.79	300	192.60	1.81	GAA STD DWG EDCM601
41	JUNCTION PIT	900	600	192.25	375	192.20	375	193.35	1.15	GAA STD DWG EDCM605
42	EASEMENT PIT	900	600			193.07	375	193.97	0.91	GAA STD DWG EDCM605
43	END PIPE			193.23	300	194.05	0.82			CAP END FOR FUTURE CONNECTION
44	END PIPE			188.81	300	190.90	2.10			CONNECT TO EXISTING STUB
45	JUNCTION PIT	900	600			189.46	300	191.50	2.05	GAA STD DWG EDCM605
B1	TANGENT POINT			188.36	1050	188.36	1050	190.97	2.61	BANDAGE JOINT
B7	TANGENT POINT			188.52	1050	188.52	1050	191.18	2.66	BANDAGE JOINT
TP3	TANGENT POINT			190.38	1050	190.38	1050	193.21	2.83	BANDAGE JOINT

AMENDMENTS		bpd breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	02.12.21	COVER LEVELS UPDATE PITS 9-13	MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 11	
A	02.08.21	ISSUE FOR CONSTRUCTION	SURVEY SPIIRE	DRAINAGE LONG SECTIONS 3	
VER	DATE	REMARKS	DESIGN RGW	MUNICIPALITY WHITTLESEA	
			DRAWN RGW	REFERENCE 9365 E/11	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE MAY21	SHEET 13 OF 14

TGS TO BE IN ACCORDANCE WITH CITY OF WHITTLESEA SD 320

VEHICULAR EXCLUSION FENCE FINAL ALIGNMENT TO BE COMPLETED AS PART OF LANDSCAPE PLANS

TGS TO BE IN ACCORDANCE WITH CITY OF WHITTLESEA SD 320

RESERVE FOR PUBLIC OPEN SPACE

PROVIDE CONCRETE EDGE PROTECTION STRIP AND ROW OF AG'S.

GOLDRIDGE DRIVE

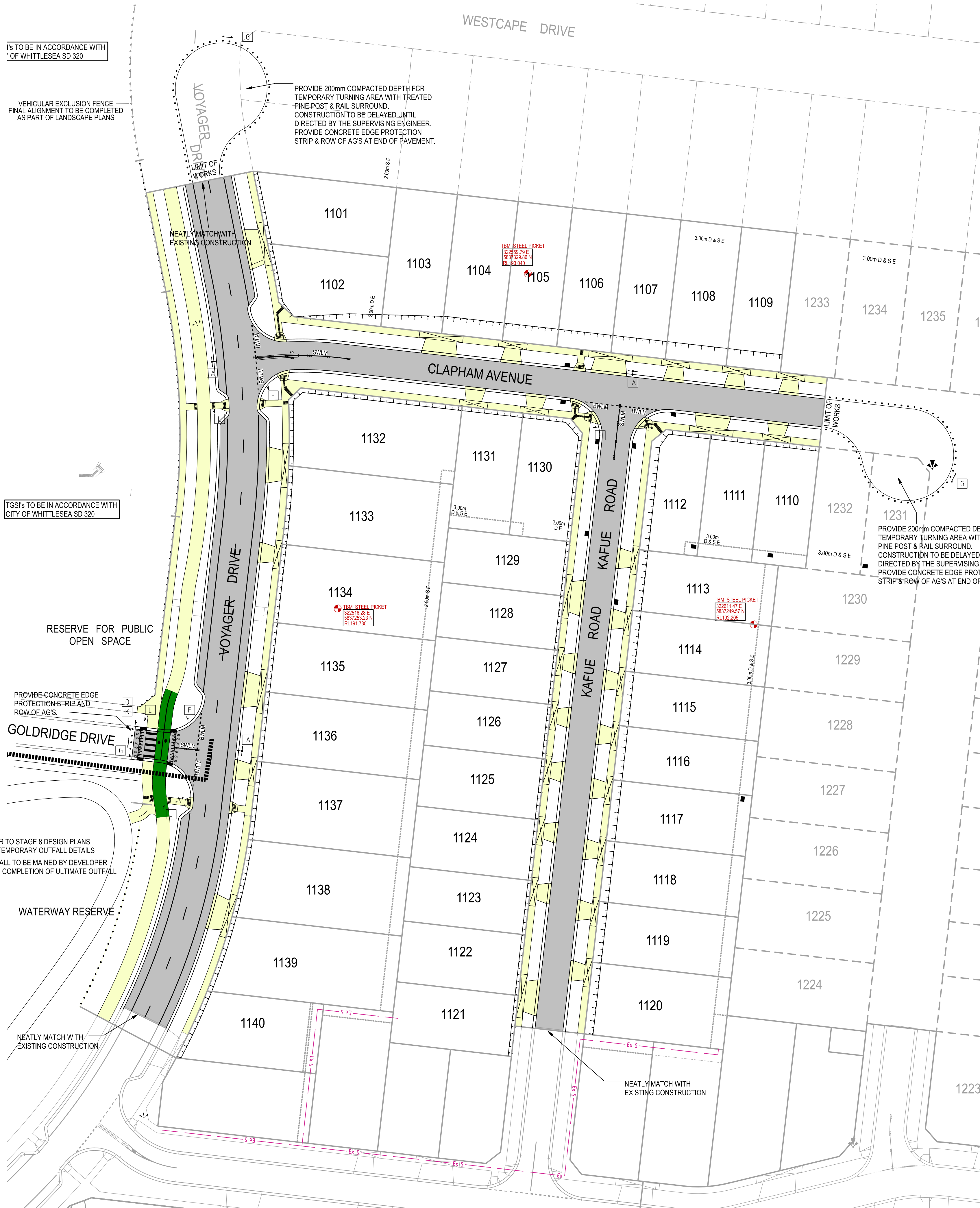
REFER TO STAGE 8 DESIGN PLANS FOR TEMPORARY OUTFALL DETAILS OUTFALL TO BE MAINTAINED BY DEVELOPER UNTIL COMPLETION OF ULTIMATE OUTFALL

WATERWAY RESERVE

NEATLY MATCH WITH EXISTING CONSTRUCTION

PROVIDE 200mm COMPACTED DEPTH FOR TEMPORARY TURNING AREA WITH TREATED PINE POST & RAIL SURROUND. CONSTRUCTION TO BE DELAYED UNTIL DIRECTED BY THE SUPERVISING ENGINEER. PROVIDE CONCRETE EDGE PROTECTION STRIP & ROW OF AG'S AT END OF PAVEMENT.

PROVIDE 200mm COMPACTED DEPTH FOR TEMPORARY TURNING AREA WITH TREATED PINE POST & RAIL SURROUND. CONSTRUCTION TO BE DELAYED UNTIL DIRECTED BY THE SUPERVISING ENGINEER. PROVIDE CONCRETE EDGE PROTECTION STRIP & ROW OF AG'S AT END OF PAVEMENT.



SIGNAGE LEGEND

- A STREET SIGNS
- F GIVE WAY SIGN (R1-2A) - CLASS 1
- G ROAD CLOSED SIGN (G9-20) WITH OBSTRUCTION MARKER SIGN (D4-5) - CLASS 1
- K PEDESTRIAN CROSSING SIGN (R3-1A) - CLASS 1
- L BICYCLE PEDESTRIAN WARNING SIGN (W6-9A) WITH CROSSING ARROW SIGN (W8-23A) BELOW. ALL CLASS 1.
- N "RAISED PAVEMENT AHEAD" WARNING SIGN
- O ROAD HUMP SIGN & ADVISORY SPEED SIGN (20km/h)

NOTES

- a) ALL SIGNS TO BE SLEEVED USING A SL27 SLEEVE.
- b) SWLM - INDICATES SOLID WHITE "LONGLIFE" LINE MARKING
BWL.M - INDICATES BROKEN WHITE "LONGLIFE" LINE MARKING
- c) \leftarrow \rightarrow INDICATES UNIDIRECTIONAL & BIDIRECTIONAL RRPMS PLACED AT 3.00m CTS
- d) HAZARD / DIRECTIONAL TGSFS SHOWN THUS \leftarrow / \rightarrow AND FOOTPATH RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VICROADS STD DWGS SD2031 TO SD2035. TGSFS SHALL CONFORM TO AS1428.4

COLOURED SURFACE TREATMENTS

INDICATES GREEN SURFACE TREATMENT FOR BICYCLE USE. COLOUR TO BE EMERALD GREEN G13 AND MEET REQUIREMENTS SET OUT IN VICROADS SPECIFICATIONS SECTION 431 - COLOURED SURFACE TREATMENTS.

AS CONSTRUCTED

		 breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
		MELWAY REF. 388-C-10 SURVEY SPIIRE DESIGN RGW		RATHDOWNE ESTATE STAGE 11 SIGNAGE AND LINEMARKING PLAN	
		DRAWN RGW			
AMENDMENTS	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD
A	02.08.21	ISSUE FOR CONSTRUCTION			
VER					
				DATE MAY'21	SHEET 13 OF 14