

# Kingston Downs Estate - Stage 34

## Ocean Grove

NOTES:

- 1 ALL WORKS IN THIS CONTRACT ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY OF GREATER GEELONG (COGG) STANDARD SPECIFICATIONS FOR ROADWORKS AND DRAINAGE.
- 2 ALL ROADWORKS SIGNAGE IS TO BE IN ACCORDANCE WITH VICROADS WORKSITE TRAFFIC MANAGEMENT CODE OF PRACTISE INCORPORATING AS1742.3.
- SITE MANAGEMENT:
- 3 ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE APPROVED CONSTRUCTION MANAGEMENT PLAN
- 4 ALL TREES, SHRUB etc. ARE TO BE RETAINED UNLESS OTHERWISE INDICATED.
- 5 DURING THE CONSTRUCTION AND MAINTENANCE PERIOD SILT FENCES ARE TO BE PLACED DOWNSTREAM OF ALL EXPOSED AREAS, AND SILT BARRIERS ARE TO BE PLACED UPSTREAM OF ALL PITS. THE SILT FENCES AND SILT BARRIERS ARE TO BE CHECKED AND MAINTAINED UNTIL THE END OF THE MAINTENANCE PERIOD.
- 6 ALL AREAS OF THE SUBDIVISION EXPOSED OF VEGETATION, INCLUDING NATURESTRIPS, LOTS AND RESERVE ARE TO BE FULLY GRASSSED BY HYDRO MULCHING, WATERED AND MAINTAINED UNTIL THE END OF THE MAINTENANCE PERIOD.

GENERAL:

- 7 THE CONTRACTOR SHALL:
- a) GIVE 48 HOURS NOTICE IN WRITING TO COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORKS.

b) NOTIFY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE 24 HOURS PRIOR TO WORKING ON ANY WEEKEND.

c) BE FULLY AWARE OF ALL SITE CONDITIONS PRIOR TO TENDERING.

d) BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SERVICES.


e) BE RESPONSIBLE FOR THE INSTALLATION OF ALL SERVICES REQUIRED FOR THE PROJECT.

f) ENSURE THAT ALL SERVICES ARE INSTALLED TO THE SPECIFIED OFFSETS AND MEETS MINIMUM COVER REQUIREMENTS. ALL SURFACE FIXTURES, PITS VALVES, FIREPLUGS, etc. SHALL BE INSTALLED A MINIMUM OF 5m FROM ANY SIDE BOUNDARY AND SHALL MATCH THE REQUIRED FINISHED SURFACE LEVEL. THIS APPLIES TO ALL SERVICES REQUIRED FOR THE PROJECT IRRESPECTIVE IF THEY ARE INSTALLED BY THE CONTRACTOR OR OTHERWISE.

g) COMPLY WITH THE REQUIREMENTS OF THE MINES ACT 1958 AND RELEVANT REGULATIONS INCLUDING NOTIFICATION IN WRITING (CLAUSE 385) TO THE CHIEF MINING INSPECTOR OF THE INTENTION TO COMMENCE EXCAVATION OPERATIONS WHERE ANY TRENCH IS 15m OR MORE IN DEPTH.

h) GIVE 24 HOURS NOTICE TO COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO BACKFILLING OF ANY PIPE TRENCHES OR LAYING OF ANY PAVEMENT OR CONCRETE WORKS SO THAT THE WORKS CAN BE CHECKED AND APPROVED.

i) COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY (CONFIED SPACES) REGULATIONS AND CODE OF PRACTICE FOR CONFINED SPACES.

j) BE RESPONSIBLE FOR THE COMPACTION TESTING OF THE PAVEMENT MATERIAL BY AN APPROVED GEOTECHNICAL CONSULTANT AS AND WHEN DIRECTED BY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
- 8 EXISTING CONSTRUCTION WORKS ARE TO BE CHECKED BY COUNCIL 48hrs PRIOR TO COMMENCEMENT OF ANY FUTURE PAVEMENT WORKS. IF REMEDIAL WORKS ARE NECESSARY TO ENSURE SATISFACTORY CONNECTION, THESE ARE TO BE CARRIED OUT AT THE DEVELOPER'S EXPENSE. AT THE SAME INSPECTION DAMAGE TO EXISTING WORKS WILL BE DETERMINED, OTHERWISE THE CONTRACTOR WILL BE HELD LIABLE.
- 9 ANY WORKS WITHIN ROADWAYS SHALL SATISFY COUNCIL'S "REQUIREMENTS FOR OCCUPANCY OF ROAD RESERVE". CONTACT COGG TRAFFIC MANAGEMENT OFFICER ON TELEPHONE (03) 5227 0384 FOR FURTHER SPECIFIC DETAILS RELATING TO THIS PROJECT. A COPY OF THE TRAFFIC MANAGEMENT PLAN IS TO BE FORWARDED TO THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO WORKS COMMENCING.
- 10 ALL REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE THE SURVEY PEGS AND ALL BENCHMARKS ARE TO BE CHECKED PRIOR TO THE COMMENCEMENT OF WORKS AND ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY.
- 11 EXISTING SURFACE LEVELS ARE SHOWN THUS: 




- 12 ALL DIMENSIONS ARE IN METRES AND LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).

ROADWORKS:

- 13 SUBSOIL DRAINS ARE TO BE CONSTRUCTED BEHIND THE KERB AND CHANNEL OR AS DIRECTED BY THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
- 14 WHERE DRAINAGE LINES EXIST BEHIND THE KERB AND CHANNEL SUBSOIL DRAINAGE IS NOT REQUIRED HOWEVER A 1m LENGTH OF SUBSOIL DRAIN INCLUDING FILTER SOCK IS REQUIRED BOTH SIDES OF DRAINAGE PITS.
- 15 ALL FOOTPATHS ARE TO BE A MINIMUM OF 125mm THICK WITH F72 REINFORCEMENT AND BEDDED ON A MINIMUM OF 50mm COMPACTED CLASS 3 FCR WITH THE BEDDING TO EXTEND 100mm BEYOND THE EDGES OF THE PROPOSED FOOTPATH PRIOR TO THE PLACEMENT OF THE TIMBERS AND BOARDS. CONTRACTION JOINTS ARE TO BE CONSTRUCTED AT 12.5m INTERVALS IN ACCORDANCE WITH COGG STANDARD DRAWINGS.
- 16 WHERE FILLING IS REQUIRED UNDER THE FOOTPATH BEDDING MATERIAL THEN CLASS 4 FCR IS TO BE USED UNLESS OTHERWISE APPROVED BY THE COGG SUBDIVISIONS ENGINEER.
- 17 CONCRETE FOR KERB AND CHANNEL USED IN EXTRUSION MACHINES SHALL HAVE A MINIMUM CEMENT CONTENT OF 280 kg/m<sup>3</sup>.
- 18 CONCRETE FOR STORMWATER PITS IS TO HAVE A MINIMUM STRENGTH OF 32Mpa AT 28 DAYS.
- 19 CONCRETE FOR ALL OTHER APPLICATIONS IS TO HAVE A MINIMUM STRENGTH OF 25Mpa AT 28 DAYS.
- 20 TO ALLOW FOR A CONTINUOUS CONCRETE KERB AND CHANNEL POUR THE STORMWATER PIT CONCRETE SURROUND IS TO BE IN PLACE PRIOR TO THE POUR COMMENCING. IF THE PIT SURROUNDS ARE NOT IN PLACE THEN THE INITIAL KERB AND CHANNEL POUR IS TO STOP ONE (1) METRE EITHER SIDE OF EVERY PIT.
- 21 CLAY SURFACES, INCLUDING NATURE STRIPS, EXPOSED DUE TO CUT AND FILL ARE TO BE COVERED WITH 100mm OF THE BEST APPROVED TOPSOIL MATERIAL AVAILABLE FROM SITE.
- 22 ALL FILLING PLACED IS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798-2007. PRIOR TO ANY FILLING ON LOTS ALL TOPSOIL IS TO BE REMOVED AND STOCKPILED. THE FILL MUST BE APPROVED AND CONSOLIDATED IN 150mm COMPACTED LAYERS TO A DRY DENSITY OF 95% STANDARD COMPACTION. THE TOPSOIL IS THEN TO BE UNIFORMLY REPLACED TO A COMPACTED DEPTH OF 100mm. COMPACTION TESTING WILL BE REQUIRED AT THE DISCRETION OF THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
- 23 ALLOTMENTS SHALL BE GRADED TO AN EVEN SURFACE AT THE COMPLETION OF ALL WORKS AND SHALL HAVE A MINIMUM GRADE OF 1 IN 100 TO THEIR NOMINATED DRAINAGE CONNECTION POINTS. ALL SURPLUS SPOIL, BOXTHORN, FENCING, CONSTRUCTION WASTE AND OTHER RUBBISH SHALL BE REMOVED FROM SITE AT THE COMPLETION OF WORKS.
- 24 BATTER SLOPES ON LOTS SHALL BE A MAXIMUM OF 1 IN 5 FOR FILL AND 1 IN 3 FOR CUT UNLESS OTHERWISE SHOWN.
- 25 AS PART OF CIVIL WORKS, ROUNDED-TOPPED TREATED PINE BOLLARDS (0.6m HIGH) ARE TO BE PLACED ACROSS THE FRONTAGE OF RESERVE 1 AT 15m CENTRES WITH A LOCKED/REMOVABLE BOLLARD CENTRAL TO THE PATH FOR MAINTENANCE ACCESS (REFER TO COUNCIL STANDARD DRAWING CGG701).
- 26 STREET SIGNS ARE TO BE LOCATED AS INDICATED ON THE PLANS AND INSTALLED IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2. MOUNTING HEIGHT IS TO BE TO THE UNDERSIDE OF THE SIGN AND IS TO BE A MINIMUM OF 2.1m AND MAXIMUM OF 3.0m.
- 27 'NO THROUGH ROAD' SIGN IS TO BE INSTALLED BELOW THE STREET SIGN WHERE APPLICABLE.
- 28 ALL REINFORCEMENT USED IN CONCRETE WORKS FOR FOOTPATH DRIVEWAYS AND ROADS IS TO BE ADEQUATELY SUPPORTED BY APPROPRIATE SIZED BAR CHAIRS PRIOR TO THE POURING/PLACEMENT OF CONCRETE.
- 29 GAS CONDUITS ARE 50mm HEAVY DUTY PVC AND ARE TO EXTEND FROM THE POINT OF SUPPLY TO AT LEAST 500mm BEYOND THE PROPERTY BOUNDARY.
- 30 AT THE TERMINATION OF STAGED PAVEMENT CONSTRUCTION, A CONCRETE EDGE STRIP 200mm X 200mm AND SUBSOIL DRAIN IS TO BE INSTALLED ACROSS THE WIDTH OF THE PAVEMENT AND A 'NO THROUGH ROAD' AND CHEVRON MARKER SIGNS ARE TO BE INSTALLED ACROSS THE FULL WIDTH OF THE ROAD RESERVE. APPROPRIATE RETAINING WALLS AND FENCING IS TO BE PROVIDED AS DIRECTED BY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.

- 31 WHERE LINE MARKING NEEDS TO BE REMOVED, THESE LINES ARE TO BE PERMANENTLY REMOVED EITHER BY GRINDING THE OLD LINES OFF OR BY PLACING A SEAL AND GRIT TREATMENT (USING THE 'FLOCON' SYSTEM) OVER THE UNWANTED LINES.
- 32 LOT NUMBERS SHALL BE STENCILLED IN 50mm HIGH FIGURES WITH WHITE PAINT ON THE FACE OF THE KERB AND CHANNEL.


DRAINAGE:

- 33 PIPE DRAINAGE WITHIN ROADWAYS TO BE REINFORCED CONCRETE PIPES - CLASS 2 UNLESS OTHERWISE SHOWN.
- 34 ALL REINFORCED CONCRETE PIPES ARE TO BE RUBBER RING JOINTED.
- 35 PIPES IN EASEMENTS ARE TO BE RUBBER RING JOINTED OR UPVC SEWER CLASS (SH UPVC UP TO 3.0m DEPTH OR SEH UPVC GREATER THAN 3.0m DEPTH) PIPES WITH SOLVENT CEMENT JOINTS. TRENCHES ARE TO BE BACKFILLED WITH COMPACTED CLAY UNLESS OTHERWISE SHOWN.
- 36 ALL DRAINAGE PITS IN COUNCIL ROAD RESERVES, DRAINAGE RESERVES AND RECREATION RESERVES ARE TO HAVE LIDS THAT ARE, AT LEAST CLASS D (HEAVY DUTY) IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3996.
- 37 ALL PITS ARE TO BE SET OUT FROM SURVEY CO-ORDINATES USING SET OUT POINTS DETAILED IN THE COGG STANDARD DRAWINGS.
- 38 ALL PIPES UNDER ROADS, FOOTPATHS, DRIVEWAYS AND BEHIND BACK OF KERB SHALL BE BACKFILLED WITH 20mm NOMINAL SIZE CLASS 3 FCR (WETMIX) COMPACTED TO 95% MODIFIED COMPACTION IN 150mm MAXIMUM LAYERS.
- 39 PIPE BEDDING UNDER ROAD PAVEMENTS FROM THE BOTTOM OF PIPE TO THE SPRINGLINE IS TO BE 2% STABILIZED SAND. CLASS 3 FCR IS TO BE PLACED FROM THE SPRINGLINE TO SUBBASE MATERIAL.
- 40 PIPEWORK AT ALL PITS TO BE WELL ALIGNED TO ENSURE FLOW IS GUIDED TO OUTLET PIPE eg.  NOT 
- 41 ALL PIPELINES ARE TO BE INSPECTED VIA REMOTE CAMERA PRIOR TO THE ISSUANCE OF A STATEMENT OF COMPLIANCE AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
- 42 PROPERTY INLET PITS ARE SHOWN THUS:  AND ARE TO BE LOCATED 1m FROM THE LOW CORNER UNLESS OTHERWISE SHOWN.
- 43 LOTS DENOTED THUS: 34.0<sup>H</sup> ARE TO BE PROVIDED WITH A 100mm DIAMETER CLASS 6 PVC SOCKETED PIPE HOUSE DRAIN LOCATED 6.0m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN AND SHALL BE CONNECTED DIRECTLY TO UNDERGROUND DRAINS WHERE AVAILABLE.
- 44 HOUSE DRAINS ARE TO BE A MINIMUM OF 0.5m BELOW FINISHED SURFACE AT THE LOT BOUNDARY UNLESS OTHERWISE SHOWN.
- 45 EASEMENT DRAIN CONNECTION TO BE A MINIMUM OF 0.5m BELOW FINISHED SURFACE UNLESS OTHERWISE SHOWN.
- 46 WHEN USING 150mm DIAMETER UPVC PIPES ALL HOUSE DRAINS ARE TO BE CONNECTED USING STANDARD T-PIECE FITTINGS.
- 47 WHEN USING 225mm DIAMETER OR LARGER UPVC PIPES, HOUSE DRAINS ARE TO BE CONNECTED IN A SIMILAR WAY TO CONCRETE PIPES SUBJECT TO THE INLET BEING CORE DRILLED.
- 48 WATER AND GAS SERVICE CONDUITS SHALL BE LOCATED CLEAT OF ALL DRIVEWAY CROSSINGS AND SHALL EXTEND FROM THE POINT OF SUPPLY TO AT LEAST 500mm INSIDE THE HOUSE LOT TO BE SERVICED AND LEFT EXPOSED UNTIL INSPECTED BY COGG SUBDIVISIONS ENGINEER. WATER CONDUITS ARE TO BE LOCATED AT LEAST 5m FROM SIDE BOUNDARY, WHEREAS GAS CONDUITS ARE TO BE LOCATED 2m FROM "NON-DRIVEWAY" SIDE BOUNDARY OF LOT TO BE SERVICED. CONDUIT TRENCHES ARE TO BE BACKFILLED WITH CLASS 3 FCR.
- 49 THE LOCATION OF HOUSE DRAINS (H) AND SERVICE CONDUITS (W, G, T AND E) ARE TO BE NEATLY ETCHED ON THE KERB FACE WITH 50mm HIGH LETTERS.
- 50 IN ROAD RESERVE EXISTING OPEN DRAINS ARE TO BE CLEANED OUT TO AND APPROVED BASE AND ANY SPOIL IS TO BE REMOVED FROM THE SITE. STRUCTURAL FILL (CLASS 4 MINIMUM) IS TO BE PLACED IN NOT MORE THAN 150mm LAYERS AND COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION. COMPACTION TESTS ARE TO BE PROVIDED TO THE SATISFACTION OF COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
- 51 WHERE DRAINAGE PITS ARE LESS THAN 1800mm DEEP NO HAUNCHING IS REQUIRED (REFER TO SD00302). WHERE DRAINAGE PITS ARE GREATER THAN 1800mm DEEP THEY WILL REQUIRE HAUNCHING TO FORM 900mm MIN WIDE BASE (REFER SD00301). IN THIS INSTANCE PARTICULAR NOTE OF WALL THICKNESSES IS TO BE MADE AND ADHERED TO.
- 52 ALL SEWER MANHOLES LOCATED WITHIN FOOTPATHS ARE TO BE POSITIONED AND ROTATED SO THAT THEY ARE PLACED CENTRALLY WITHIN THE FOOTPATH TO PREVENT CRACKING.
- 53 ALL DRAINAGE PITS ARE TO BE FITTED WITH TERRA-FIRMA PIT LIDS.

SHEET INDEX

SHEET No.	DESCRIPTION
1	GENERAL NOTES.
2	FACEPLAN, SERVICES AND PIT SETOUT SCHEDULE.
3	FACEPLAN AND SERVICES SCHEDULE.
4	DUNEVIEW DRIVE LONGITUDINAL SECTION.
5	DUNEVIEW DRIVE CROSS SECTIONS.
6	OAKDEAN BOULEVARD LONGITUDINAL SECTION.
7	OAKDEAN BOULEVARD CROSS SECTIONS.
8	SHOREBREAK WAY (NORTH) LONGITUDINAL SECTION.
9	SHOREBREAK WAY (NORTH) CROSS SECTIONS.
10	SHOREBREAK WAY (SOUTH) LONGITUDINAL SECTION.
11	SHOREBREAK WAY (SOUTH) CROSS SECTIONS.

SHEET No.	DESCRIPTION
12	SHOREBREAK WY./DUNEVIEW DR INTERSECTION DETAIL - (1:125) & PIT SCHEDULE.
13	OAKDEAN BOULEVARD/SHOREBREAK WAY ROUNDABOUT DETAIL (1:125).
14	SHOREBREAK WAY/BOXWOOD PLACE CONCRETE ROAD DETAIL.
15	DRAINAGE LONGITUDINAL SECTIONS ('A' & 'B'-E1 OUTLET' LINES).
16	DRAINAGE LONGITUDINAL SECTION ('B' & 'D' LINES).
17	DRAINAGE LONGITUDINAL SECTION ('C' & 'F' LINES).
18	DRAINAGE LONGITUDINAL SECTIONS ('E', 'G', 'H' & 'I' LINES INCLUSIVE).
19	DRAINAGE LONGITUDINAL SECTIONS ('J'-O' LINES) INCLUSIVE.
20	STREET SIGNS & LINEMARKING PLAN
21	PLAN OF SUBDIVISION

AMENDMENTS			 <b>Peter Berry &amp; Associates Pty. Ltd.</b> <b>Civil Engineers</b>		<b>153 Yarra Street</b> <b>Geelong Victoria 3220</b> <b>Telephone: 5223 2799</b>		
			MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY
04.04.18	VERSION B	SURVEYED	GREATER GEELONG				
DATE	DESCRIPTION	DESIGNED P.J.B	REFERENCE				
A1			DRAWN C.S.	0211 E/34			SHEET 1 OF 21
			CHECKED				

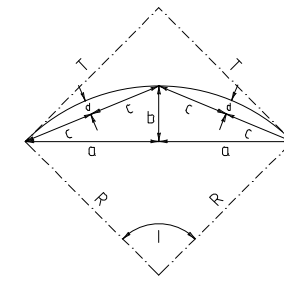
PLAN  
SCALE (A1) 1 : 500

SEE SHEET No 3  
FOR CONTINUATION

CURVE SETOUT TABLE

CURVE	RADIUS (m)	I	T	ARC	a	b	c	d
4	18.00	62°38'52"	10.954	19.681	9.358	2.624	4.859	0.668
5	50.00	10°46'50"	4.718	9.488	4.697	0.221	2.351	0.055
6	50.00	11°29'41"	5.832	10.831	5.007	0.251	2.587	0.063
7	7.00	95°04'37"	7.649	11.616	5.164	2.274	2.821	0.594
8	187.76	12°08'19"	19.965	39.780	19.853	1.052	9.940	0.263
9	175.76	12°08'19"	18.689	37.237	18.584	0.985	9.305	0.246
10	18.00	62°43'39"	10.961	19.691	9.362	2.626	4.862	0.669
11	50.00	10°45'03"	4.705	9.382	4.684	0.220	2.345	0.055
12	50.00	11°54'13"	5.213	10.388	5.185	0.270	2.596	0.067
13	7.00	95°13'46"	7.670	11.634	5.178	2.281	2.826	0.596
14	10.00	89°56'00"	9.988	15.696	7.067	2.925	3.824	0.760
15	10.00	89°56'00"	9.988	15.696	7.067	2.925	3.824	0.760
16	25.00	18°32'58"	4.083	8.094	4.029	0.327	2.021	0.082
17	30.00	5°58'21"	1.565	3.127	1.563	0.041	0.782	0.010

NOTE: ALL CURVE RADII LABELLED THUS - [ ] ARE TO BACK OF KERB

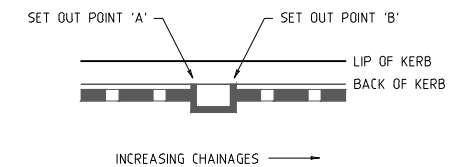


CURVE SETOUT DETAIL  
(NOT TO SCALE)

PIT SETOUT SCHEDULE

PIT No	POINT 'A' E	POINT 'A' N	POINT 'B' E	POINT 'B' N
A0	2114.39	857.47	C/L	ENDWALL
A1	1900.66	891.71	1901.5	891.39
A2	1874.35	901.65	1875.19	901.33
A3	1818.79	921.83	1819.64	921.55
B1	1869.98	727.88	1870.87	727.77
B2	1840.21	729.14	1841.11	729.17
B3	1815.03	726.53	1815.92	726.66
B4	1779.6	721.02	1780.49	721.16
C1	1804.54	732.16	1804.42	734.06
C2	1795.13	733.31	1795.7	735.13
C3	1803.4	787.6	1803.52	788.49
C4	1811.22	845.07	1811.34	845.96
C5	1817.14	888.59	1817.26	889.48
E0	2081.97	611.03	C/L	ENDWALL
E1	1870.85	639.71	1871.75	639.59
E2	1827.78	645.63	1828.67	645.5
E3	1803.35	648.98	1804.24	648.86
E4	1786.84	658.49	1786.96	659.38
E5	1788.73	672.36	1788.85	673.26
H1	1788.7	636.97	1789.11	637.77
H2	1785.59	619.3	1785.72	620.19
K1	1819.98	853.76	1820.1	854.65
L1	1781.61	709.19	1782.5	709.33
M1	1811.61	792.33	1811.74	793.22
N1	1810.82	916.55	1811.67	916.27
Q1	1821.82	638.87	1822.71	638.75

OUTFALL OPEN DRAIN  
(NOT TO SCALE)



215 L.N.M OF 150mm Ø PVC TEMPORARY DRAINAGE  
TO BE PLACED @ 1 IN 300 GRADE, THEN OPEN  
DRAIN EXCAVATED TO FREE FLOW, WITH ALL  
DRAINAGE FLOWS DIRECTED TO EXISTING DAM.

EXCAVATE OPEN DRAIN  
TO FREE FLOW (MINIMUM  
GRADE 1 IN 300)

**GEELONG**  
Engineering Plan APPROVAL  
Council Reference  
PP-1263-2011 Cert 13174  
Approved by: *Ken Kelly*  
Date: 06/04/2018

SURVEY MARKS AND LOCATIONS

DESCRIPTION	EASTING	NORTHING	ELEVATION
TBM 'A' STAR PICKET - REAR OF LOT 3429	1742.61	619.61	33.945
TBM 'B' STAR PICKET - REAR OF LOT 3426	1840.46	596.01	33.653
TBM 'C' STAR PICKET - LOT 3422	1822.18	688.85	34.208
TBM 'D' STAR PICKET - LOT 3414	1837.28	808.39	34.840

SERVICES LOCATION SCHEDULE

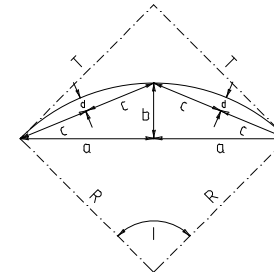
STREET NAME	TELECOM	GAS	WATER	ELECTRICITY	KERB
OAKDEAN BOULEVARD	1.70 S	2.10 N	2.70 N	2.30 S	4.00
SHOREBREAK WAY (N-S)	1.90 E	2.10 W	2.70 W	2.50 E	4.25
SHOREBREAK WAY (E-W)	1.90 S	2.10 N	2.70 N	2.50 S	4.25
BOXWOOD PLACE	1.90 E	2.10 W	2.70W/3.30E	2.50 E	-

AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers		153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	
			MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34		MUNICIPALITY GREATER GEELONG REFERENCE 0211 E/34
			SURVEYED			
			DESIGNED P.J.B.			
A1	DATE	DESCRIPTION	DRAWN C.S.	SCALE AS SHOWN		SHEET 2 OF 21
	1:500	10 5 0 10 20 30 METRES	CHECKED			
	04.04.18	VERSION B		DATUM	AHD	
				DATE	NOV '17	

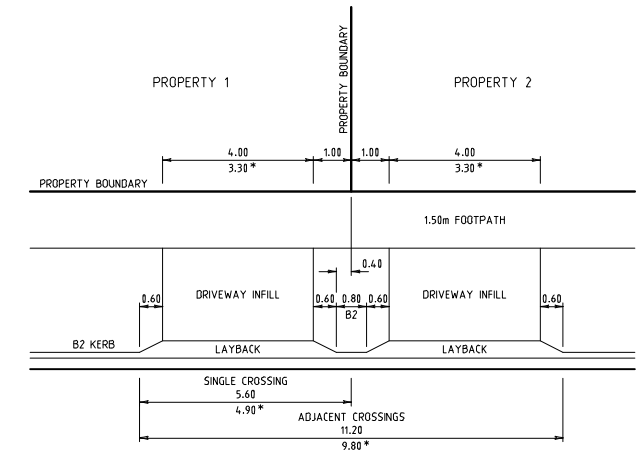


CURVE SETOUT TABLE							
CURVE	RADIUS (m)	L	T	ARC	a	b	c
1	226.69	2°30'38"	4.967	9.933	4.966	0.054	2.483
2	11.00	79°33'50"	9.159	15.275	7.039	2.547	3.743
3	8.00	102°56'48"	10.848	14.374	6.259	3.017	3.474

NOTE: ALL CURVE RADII LABELLED THIS - T ARE TO BACK OF KERB



CURVE SETOUT DETAIL  
(NOT TO SCALE)



NOTE:  
 \* WHERE LOT FRONTAGES ARE LESS THAN 12.50m THE DRIVEWAY WIDTH IS TO BE A MAXIMUM OF 3.30m.  
 \* WHERE ADJACENT DRIVEWAYS ARE LOCATED ON EACH SIDE OF THE PROPERTY BOUNDARY, THE LAYOUT IS TO BE AS PER ABOVE.  
 \* WHERE ADJACENT DRIVEWAYS ARE LOCATED ON EACH SIDE OF THE PROPERTY BOUNDARY, THE LAYOUT IS TO BE AS PER ABOVE.

VEHICLE CROSSING DETAILS  
(NOT TO SCALE)

PLAN  
SCALE (A1) 1 : 500



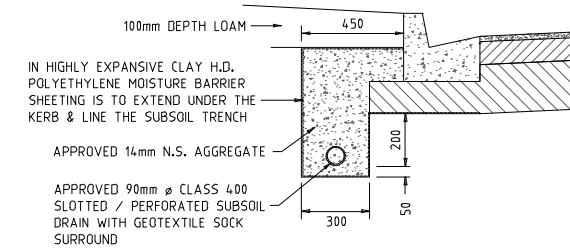
200W x 200D CONCRETE EDGE STRIP AND ROW OF AG'S  
 PROVIDE 150mm DEEP CLASS 3 FCR TEMPORARY TURNING AREA

EXCAVATE OPEN DRAIN TO ALLOW A FREE OUTLET AT THE END OF KERB AND CHANNEL FOR OVERLAND FLOWS (MINIMUM GRADE 1 IN 300)

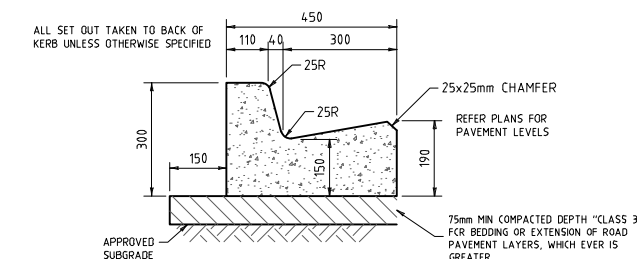
PROVIDE POST AND WIRE FENCE OFFSET 0.50m AROUND TEMPORARY TURNAROUND AREA. REFER TO VICROADS SD31-1 OR APPROVED EQUIVALENT.

200 L.N.M OF 150mm Ø PVC TEMPORARY DRAINAGE TO BE PLACED @ 1 IN 300 GRADE, THEN OPEN DRAIN EXCAVATED TO FREE FLOW, WITH ALL DRAINAGE FLOWS DIRECTED TO EXISTING DAM.

EXCAVATE OPEN DRAIN TO FREE FLOW (MINIMUM GRADE 1 IN 300)



SUBSOIL DRAIN DETAIL  
(NOT TO SCALE)

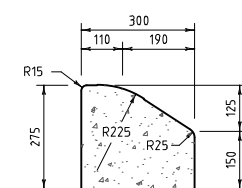


B2 KERB SECTION  
(NOT TO SCALE)  
(SEE IDN DRG SD100)

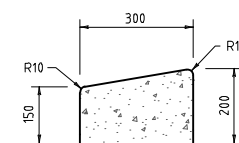
CITY OF GREATER  
**GEELONG**  
 Engineering Plan APPROVAL  
 Council Reference  
 PP-1263-2011 Cert 13174  
 Approved by: *Kearney*  
 Date: 06/04/2018

SERVICES LOCATION SCHEDULE

STREET NAME	TELECOM	GAS	WATER	ELECTRICITY	KERB
DUNEVIEW DRIVE	1.90 S	2.10 N	2.70 N	2.50 S	4.25
SHOREBREAK WAY	1.90 E	2.10 W	2.70 W	2.50 E	4.25

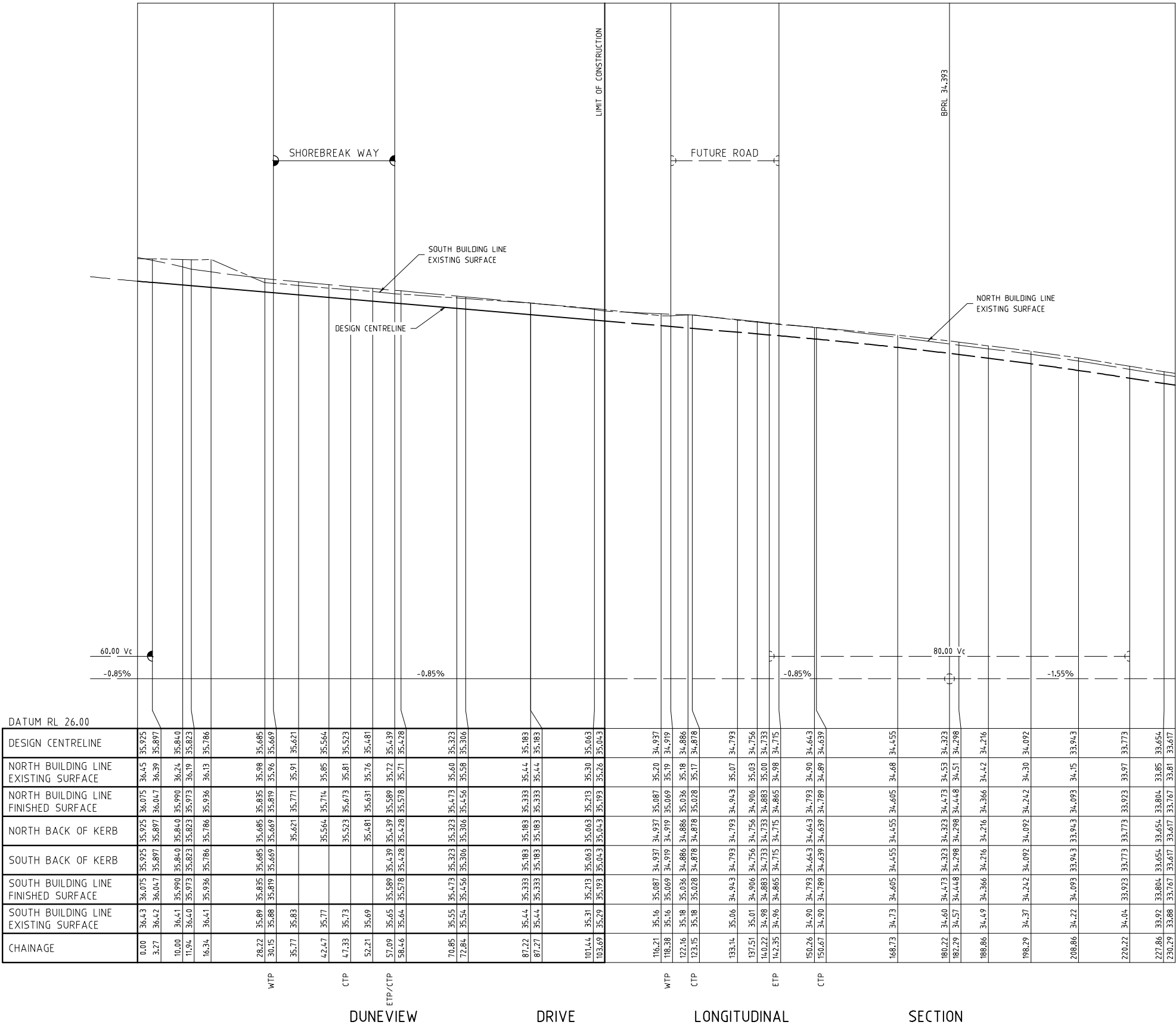


SM1 KERB SECTION  
(NOT TO SCALE)  
(SEE IDN DRG SD100)


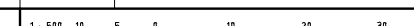


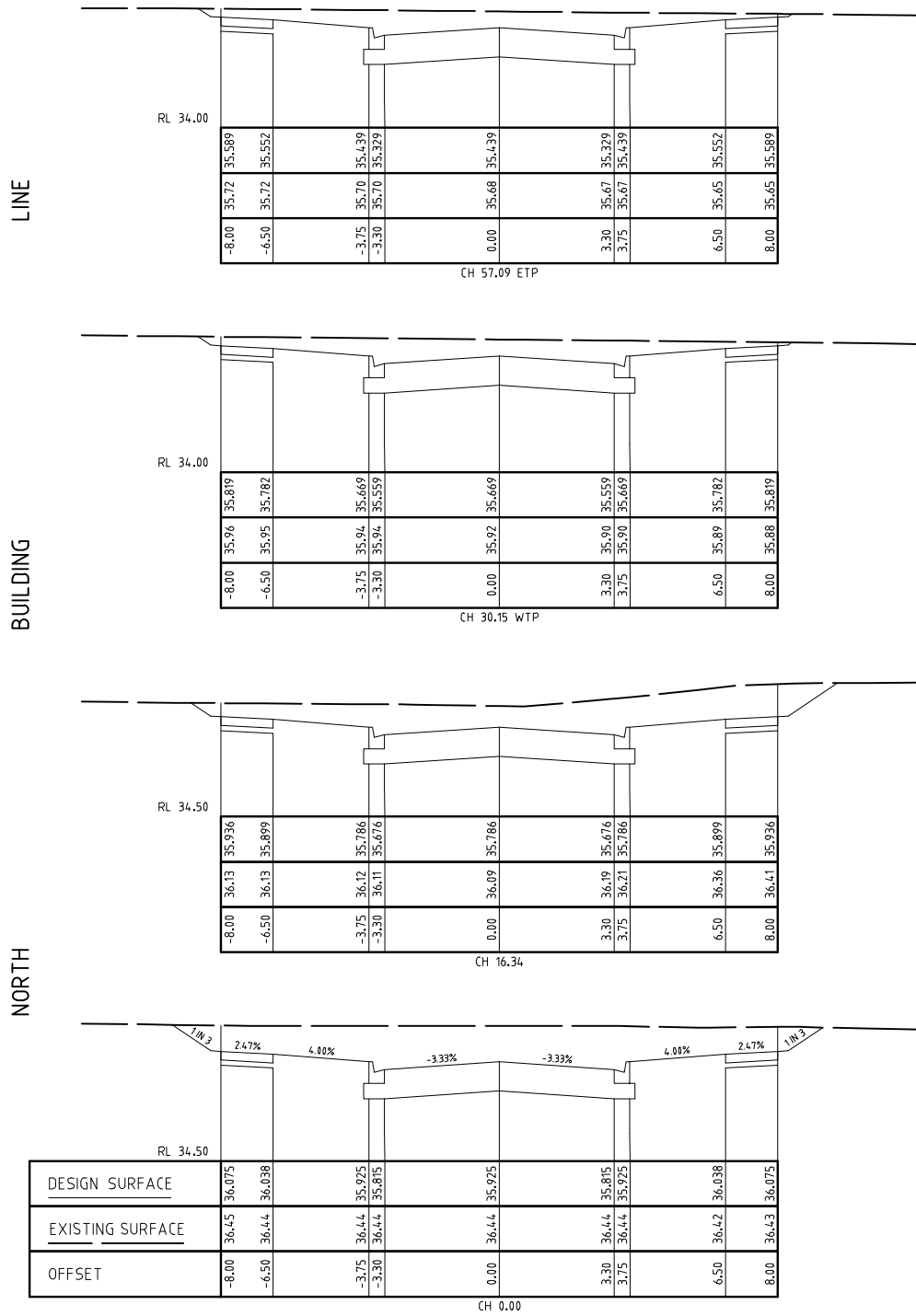
FM1 KERB SECTION  
(NOT TO SCALE)  
(SEE IDN DRG SD100)

AMENDMENTS			<div><div>PB</div><div>Peter Berry &amp; Associates Pty. Ltd. Civil Engineers</div></div>				153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	
			MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY GREATER GEELONG	
	04.04.18	VERSION B	SURVEYED				REFERENCE 0211 E/34	
	DATE	DESCRIPTION	DESIGNED P.J.B.					
A1	1: 500	10 5 0 10 20 30 METRES	DRAWN C.S.					
			CHECKED	SCALE AS SHOWN	DATUM AHD	DATE NOV '17	SHEET 3 OF 21	



SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

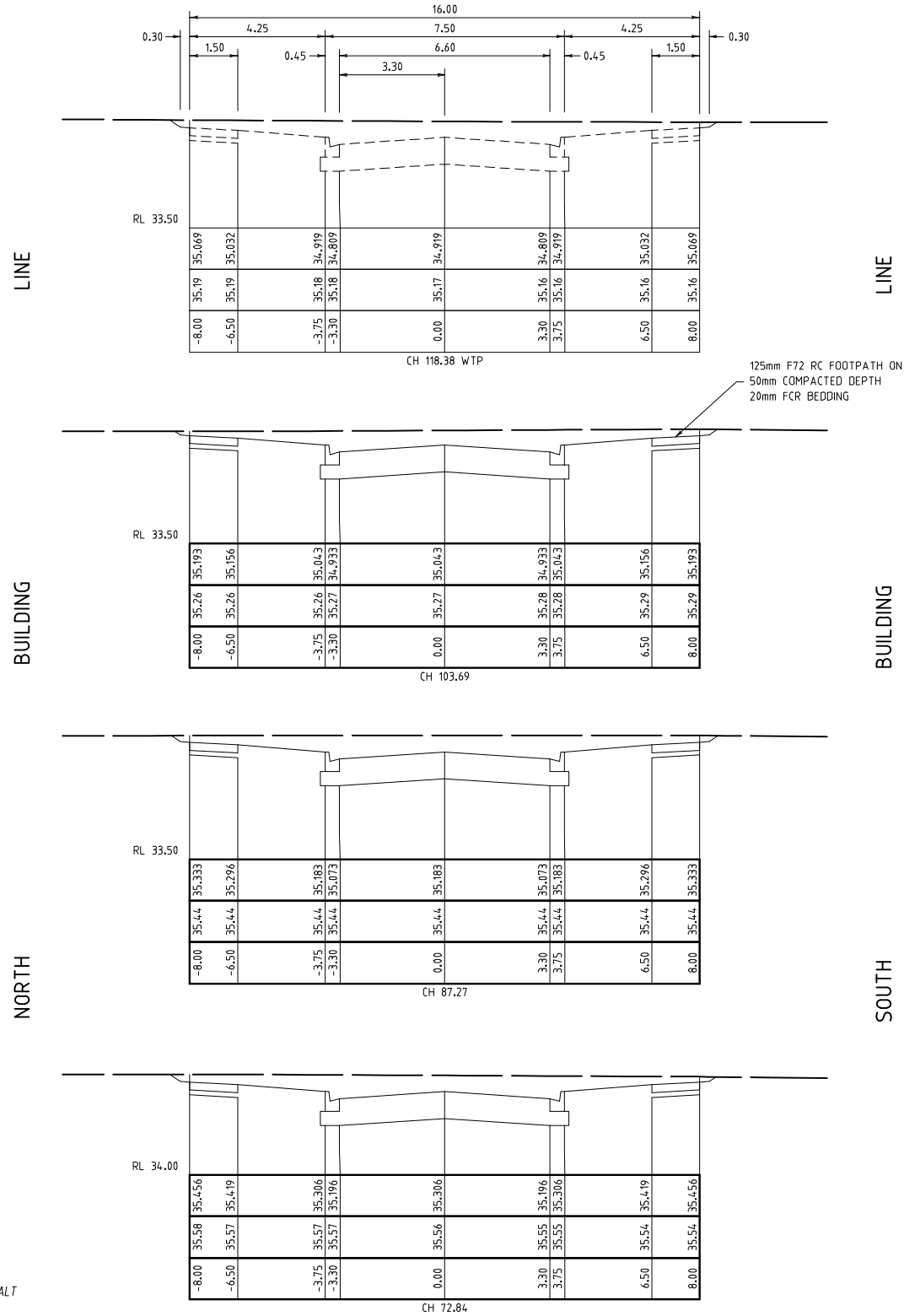
AMENDMENTS			 <b>Peter Berry &amp; Associates Pty. Ltd.</b> <b>Civil Engineers</b>	<b>153 Yarra Street</b> <b>Geelong Victoria 3220</b> <b>Telephone: 5223 2799</b>	
	04.04.18	VERSION B			
	<b>DATE</b>	<b>DESCRIPTION</b>	<b>MELWAY REF.</b>	<b>KINGSTON DOWNS ESTATE</b> <b>STAGE 34</b>	<b>MUNICIPALITY</b>
			<b>SURVEYED</b>		<b>GREATER GEELONG</b>
			<b>DESIGNED</b> P.J.B		<b>REFERENCE</b>
			<b>DRAWN</b> C.S.		<b>0211 E<sub>3</sub>/4</b>
<b>A1</b>			<b>CHECKED</b>	<b>SCALE AS SHOWN</b>	<b>DATUM</b> AHD
				<b>DATE</b> NOV '17	<b>SHEET 4 OF 21</b>



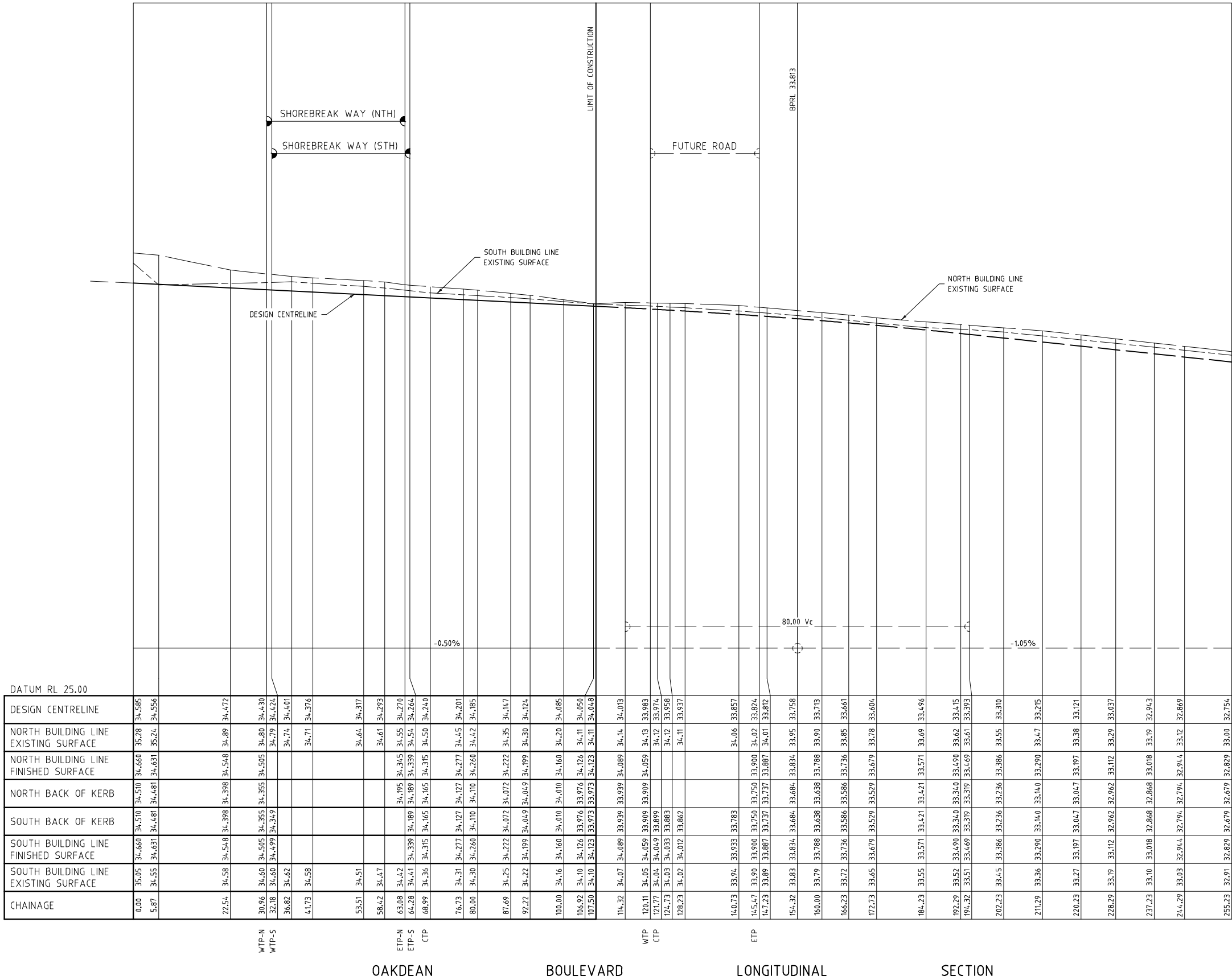
DUNEVIEW DRIVE CROSS SECTIONS

SCALES - HORIZ. 1 : 100  
VERT. 1 : 50

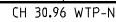
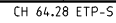
PAVEMENT TO CONSIST OF:  
a) 30mm COMPACTED DEPTH 10mm TYPE N CLASS 170 ASPHALT  
b) PRIME AS SPECIFIED  
c) 150mm COMPACTED DEPTH 20mm CLASS 2 FCR  
d) 240mm COMPACTED DEPTH 20mm CLASS 3 FCR (2 LAYERS)



AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers				153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	
			MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY GREATER GEELONG	
			SURVEYED				REFERENCE 0211 E/34	
			DESIGNED P.J.B.				SHEET 5 OF 21	
A1	1 : 100	2	1	0	2	4	6	
	1 : 50	1	0.5	0	1	2	3	
			DATE	DESCRIPTION		DRAWN C.S.	CHECKED	SCALE AS SHOWN
			04.04.18	VERSION B				DATUM AHD
								DATE NOV '17



AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b>		153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799
			<b>Civil Engineers</b>		
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34	MUNICIPALITY GREATER GEE LONG
	DATE	DESCRIPTION	SURVEYED		REFERENCE 0211 E/34
A1	1 : 500 1 : 50	10 0.5	DESIGNED P.J.B.	SCALE AS SHOWN	SHEET 6 OF 21
		5 0 10 20 30 METRES	DRAWN C.S.		
			CHECKED	DATUM AHD	DATE NOV '17



## SECTIONS

VERT. 1 : 50

SOUTH

CH 184.23

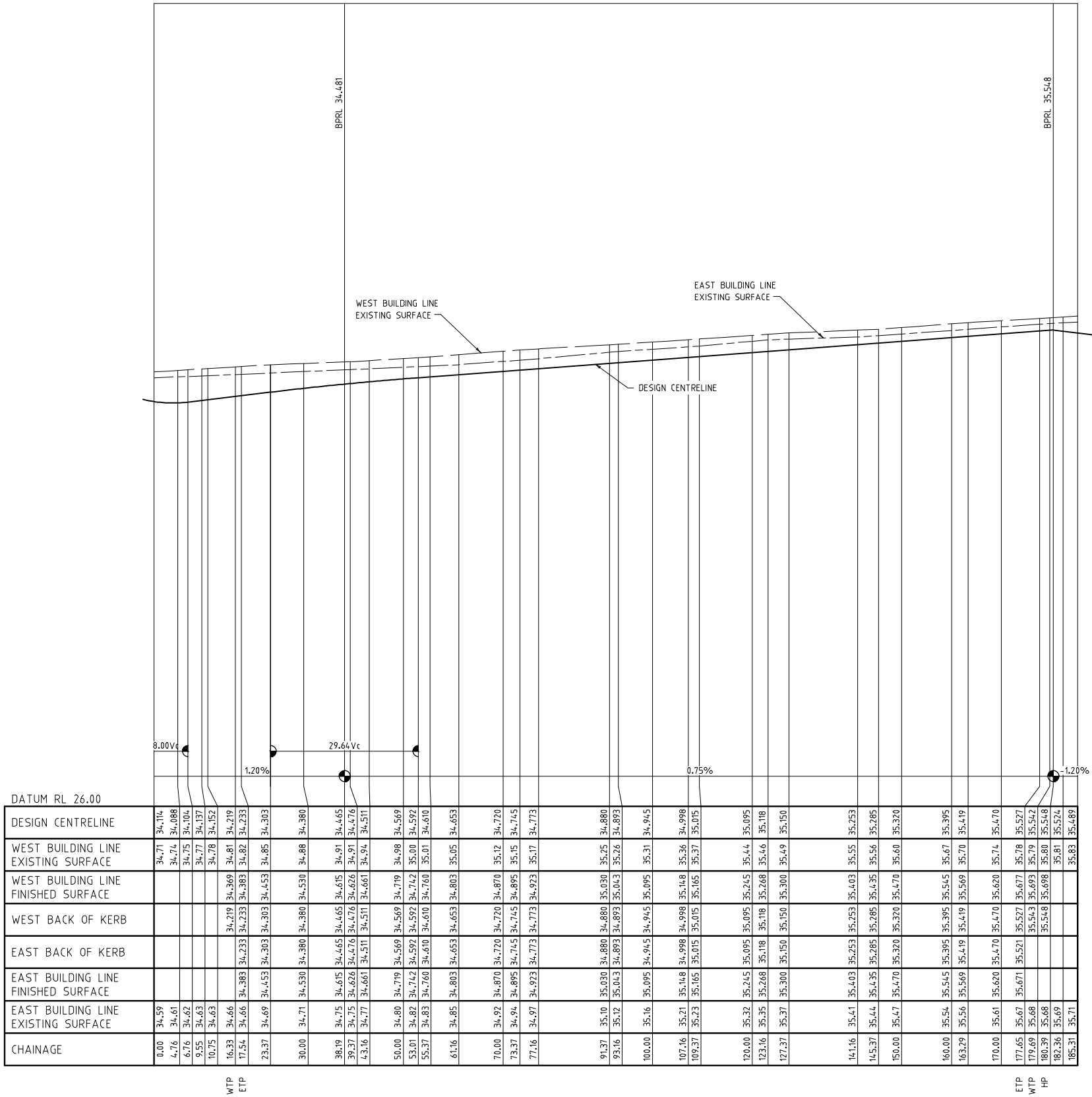
CH 166.23

CH 145.47 ETP

CH 120.11 WTP

CH 100.00

**SHEET 7 OF 21**



SHOREBREAK

WAY

(NORTH)

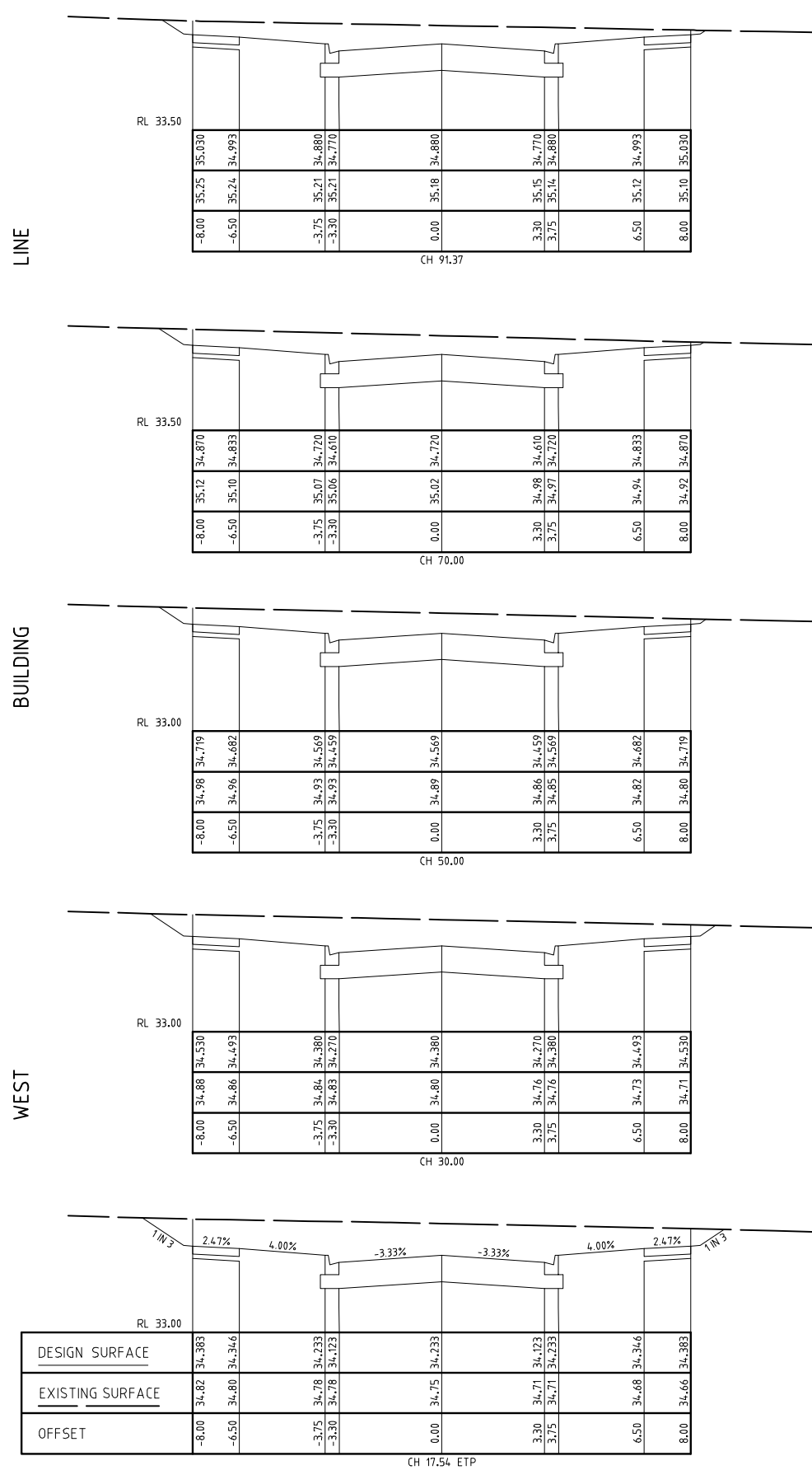
LONGITUDINAL


SECTION

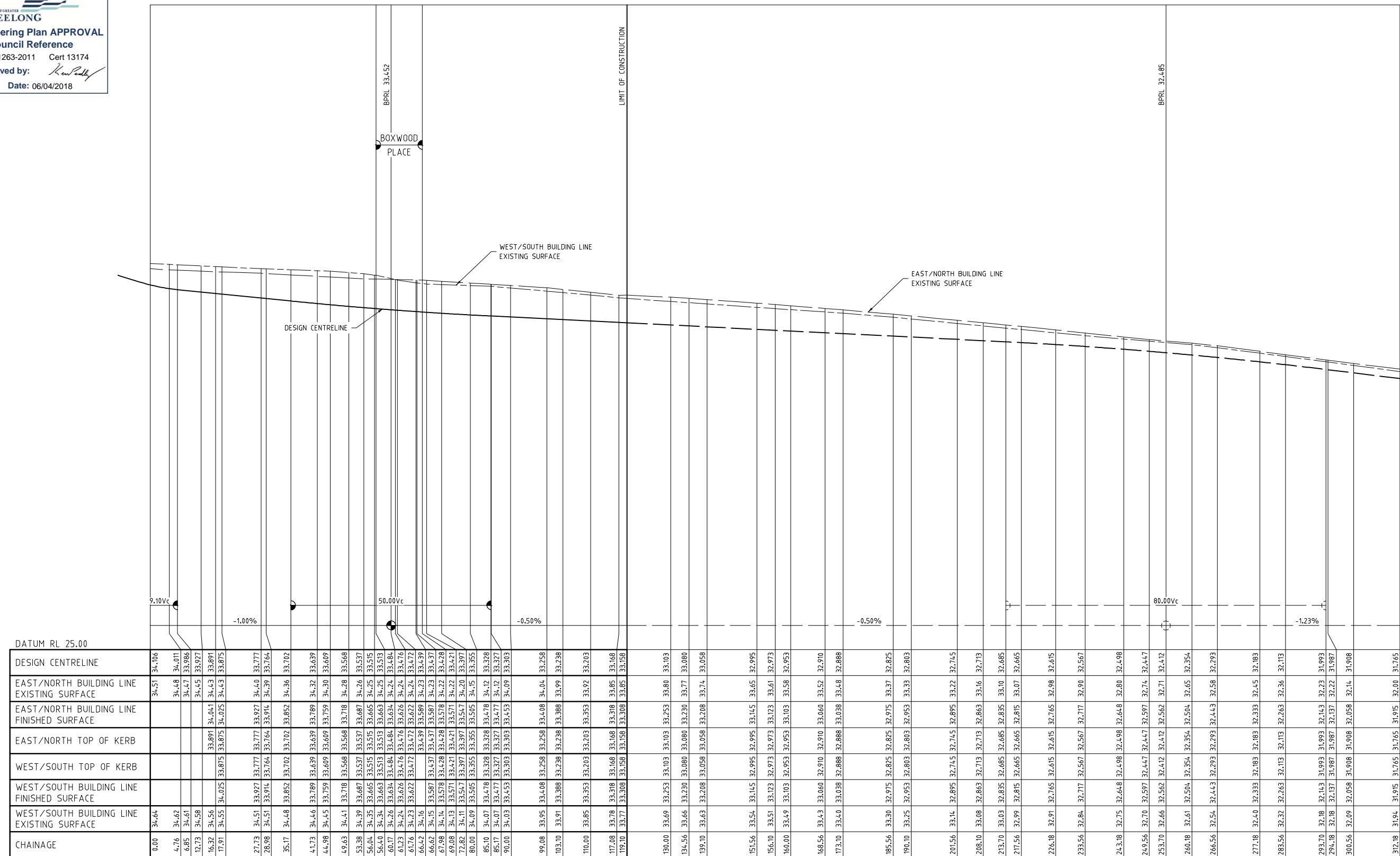
SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

AMENDMENTS		<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers 153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34	MUNICIPALITY GREATER GEELONG
A1	04.04.18	VERSION B	SURVEYED	REFERENCE 0211 E/34	SHEET 8 OF 21
	DATE	DESCRIPTION	DESIGNED P.J.B		
	1 : 500 1 : 50	1 : 500 1 : 50	DRAWN C.S.		
			CHECKED		
SCALE AS SHOWN			DATUM AHD	DATE NOV '17	






AMENDMENTS			<div></div> <div>Peter Berry &amp; Associates Pty. Ltd.</div> <div>Civil Engineers</div>	<div>153 Yarra Street</div> <div>Geelong Victoria 3220</div> <div>Telephone: 5223 2799</div>			
	04.04.18	VERSION B	MELWAY REF.	<div>KINGSTON DOWNS ESTATE</div> <div>STAGE 34</div>			MUNICIPALITY
			SURVEYED				GREATER GEELONG
DATE	DESCRIPTION		DESIGNED P.J.B				REFERENCE
			DRAWN C.S.				0211 E/34
A1	<div><div><div>1 : 100</div><div>2100246</div></div><div><div>1 : 50</div><div>10.5123</div></div></div> <div>METRES</div>		CHECKED	SCALE AS SHOWN	DATUM AHD	DATE NOV '17	SHEET 9 OF 21



SHOREBREAK WAY (SOUTH) LONGITUDINAL SECTION

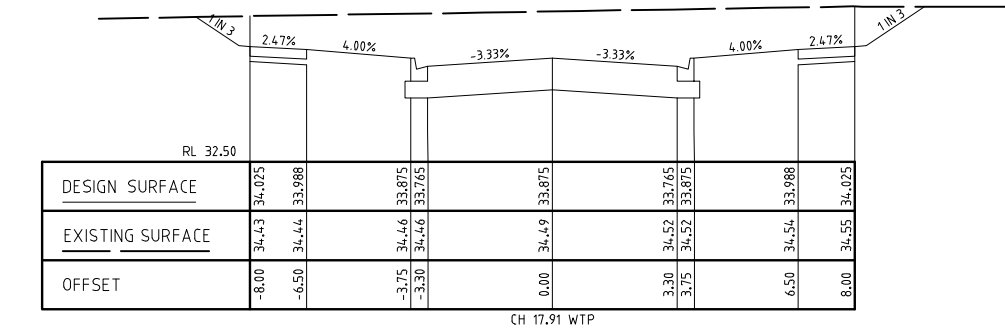
SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

AMENDMENTS				Peter Berry & Associates Pty. Ltd. Civil Engineers			153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799		
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY		
			SURVEYED				GREATER GEELONG		
DATE	DESCRIPTION		DESIGNED				P.J.B.	REFERENCE	
			DRAWN				C.S.	0211 E/34	
A1	<div><div><div>1:100</div><div>2</div><div>1</div><div>0</div><div>2</div><div>4</div><div>6</div></div><div><div>1:50</div><div>1</div><div>0.5</div><div>0</div><div>1</div><div>2</div><div>3</div></div></div> <div>METRES</div>		CHECKED	SCALE AS SHOWN	DATUM	AHD	DATE	NOV '17	SHEET 10 OF 21

LINE

BUILDING

EAST/NORTH



SHOREBREAK WAY (SOUTH) CROSS SECTIONS

SCALES - HORIZ. 1 : 100  
VERT. 1 : 50

LINE

BUILDING

WEST/SOUTH

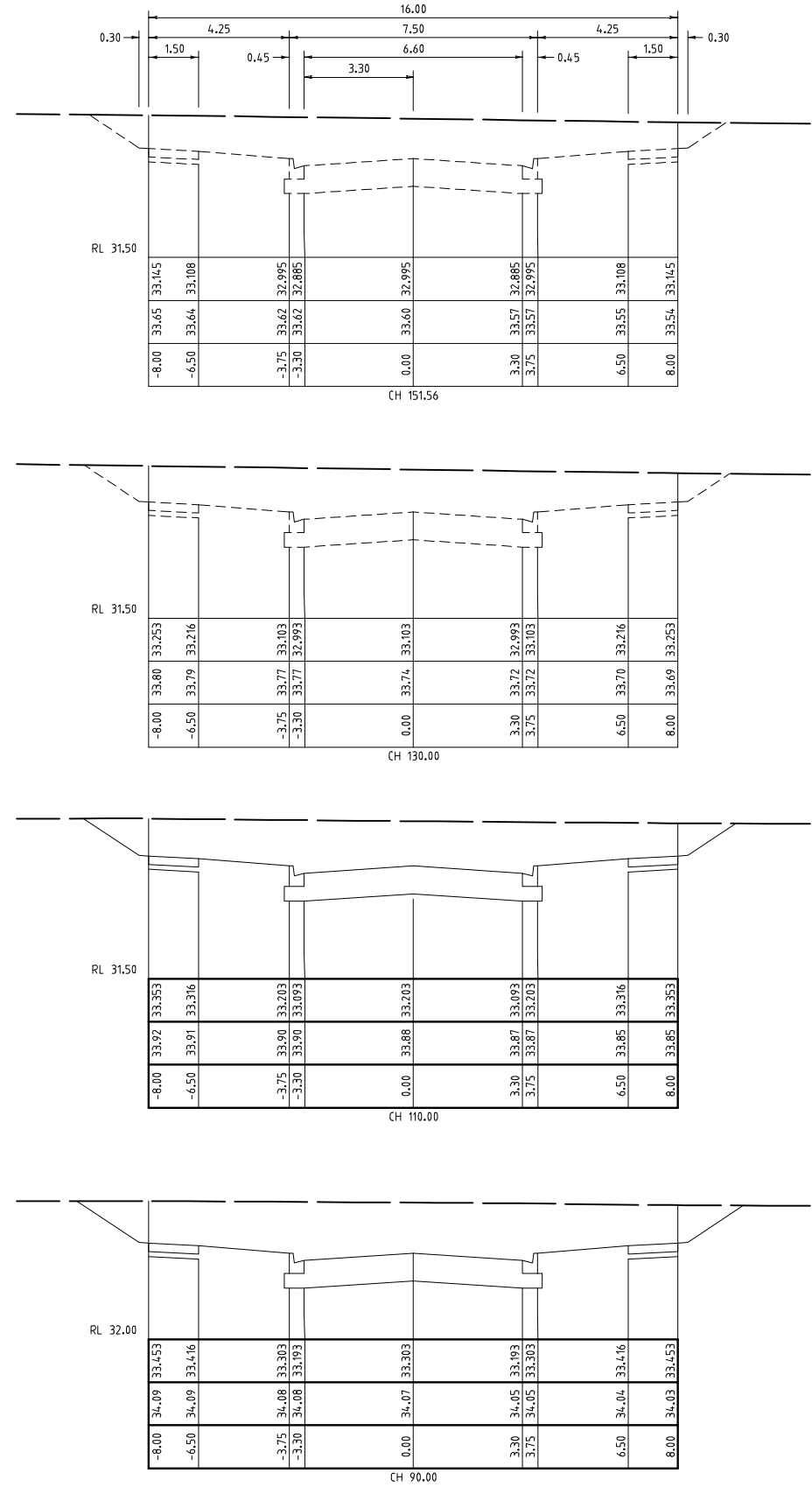
- PAVEMENT TO CONSIST OF:
- 30mm COMPACTED DEPTH 10mm TYPE N CLASS 170 ASPHALT
  - PRIME AS SPECIFIED
  - 150mm COMPACTED DEPTH 20mm CLASS 2 FCR
  - 240mm COMPACTED DEPTH 20mm CLASS 3 FCR (2 LAYERS)

CITY OF GREATER  
**GEE LONG**  
Engineering Plan APPROVAL  
Council Reference  
PP-1263-2011 Cert 13174  
Approved by: *Ken Ruddy*  
Date: 06/04/2018

LINE

BUILDING

EAST/NORTH



LINE

BUILDING

WEST/SOUTH

AMENDMENTS		<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers	153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799							
	04.04.18		VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34					
	DATE		DESCRIPTION	SURVEYED	MUNICIPALITY GREATER GEE LONG					
	DESIGNED		P.J.B	DESIGNED	REFERENCE 0211 E/34					
A1	1:100 2 1 0 2 4 6 1:50 1 0.5 0 1 2 3 METRES	DRAWN C.S.	CHECKED	SCALE AS SHOWN	DATUM	AHD	DATE	NOV '17	SHEET	11 OF 21



BACK OF KERB LEVEL	35.507	35.525	35.527	35.543	35.572	35.621		
CHAINAGE	0.00	2.39	2.65	4.69	8.39	14.39	19.97	25.11

CH 175.00

CH 177.03  
9.69 WTP

CH 1

WEST

WEST RETURN



BACK OF KERB LEVEL	35.415	35.439		35.502
CHAINAGE	0.00	2.91	10.31	15.12
				35.524
				15.42
				17.28
				35.521
				19.93
				35.507

CH 60.00

57.09 ETP

CH

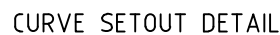
EA:

EAST RETURN



SCALE (A1) 1 : 125

CONTOUR INTERVAL 0.10 m



(NOT TO SCALE)

CURVE	RADIUS (m)	I	T	ARC	a	b	c	d
1	226.69	2°30'38"	4.967	9.933	4.966	0.054	2.403	0.014
2	11.00	79°33'50"	9.159	15.275	7.039	2.547	3.743	0.656
3	8.00	102°56'48"	10.048	14.374	6.259	3.017	3.474	0.794

NOTE: ALL CURVE RADII LABELLED THUS - 1 ARE TO BACK OF KERB

NOTE:

PIT DENOTED THUS "\*" IS TO BE HAUNCHED TO AN OPENING OF 900mm x 600mm (INTERNAL DIMENSIONS) WITH APPROPRIATE COVER.

STREET NAME	TELECOM	GAS	WATER	ELECTRICITY	KERB
DUNVIEW DRIVE	1.90 S	2.10 N	2.70 N	2.50 S	4.25
SHOREBREAK WAY	1.90 E	2.10 W	2.70 W	2.50 E	4.25

**B**

**Peter Berry & Associates Pty. Ltd.**

## Civil Engineers

**153 Yarra Street  
Geelong Victoria 3220  
Telephone: 5223 2799**

**MUNICIPALITY**  
GREATER GEELONG

REFERENCE  
0211 E/34

**SHEET 12 OF 21**



  
CITY OF GREATER  
**GEELONG**

**Engineering Plan APPROVAL**  
**Council Reference**

PP-1263-2011      Cert 13174

Approved by: 

Date: 06/04/2018

Diagram illustrating the cross-section of a stabilized subgrade structure. The structure consists of a 'PLAIN REINFORCED CONCRETE' SURFACE (SEE NOTE OPPOSITE) supported by a STABILIZED SUBGRADE. The structure is divided into sections: FM1 KERB, SM1 KERB, and a central section. Dimensions are provided: 5.00m total width, 2.20m kerb width, and a 1 in 30 slope. A 1/2 inch dimension is also indicated.

TYPICAL SECTION - ROUNDABOUT  
(NOT TO SCALE)

SEE NOTE i) BELOW

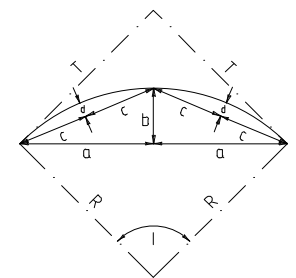
PAVEMENT COMPOSITION (CONCRETE ROUNDABOUT/TRAFFIC ISLAND INFILLS) -

- i) 175mm COMPACTED DEPTH REINFORCED (F72 MESH), 32MPa CONCRETE, VIBRATED AND PROPERLY CURED IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD CODE.
- ii) 150mm COMPACTED DEPTH CLASS 3 20mm FCR.

- a) REINFORCEMENT IS TO BE ADEQUATELY SUPPORTED BY APPROPRIATE SIZED CHAIRS PRIOR TO THE POURING/PLACEMENT OF CONCRETE.
- b) CONCRETE PAVEMENT TO BE CAST MONOLITHICALLY.

CURVE	RADIUS (m)	I	T	ARC	a	b	c	d
4	18.00	62°38'52"	10.954	19.681	9.358	2.624	4.859	0.66
5	50.00	10°46'50"	4.718	9.408	4.697	0.221	2.351	0.05
6	50.00	11°29'41"	5.832	10.311	5.807	0.251	2.507	0.06
7	7.00	95°04'37"	7.649	11.616	5.164	2.274	2.821	0.59
8	187.76	12°08'19"	19.965	39.780	19.853	1.052	9.944	0.26
9	175.76	12°08'19"	18.689	37.237	18.584	0.985	9.305	0.24
10	180.00	67°40'39"	10.961	19.691	9.362	2.626	4.862	0.66
11	50.00	10°45'03"	4.705	9.382	4.684	0.220	2.345	0.05
12	50.00	11°54'13"	5.213	10.388	5.185	0.270	2.596	0.06
13	7.00	95°13'46"	7.670	11.634	5.178	2.281	2.826	0.59

NOTE: ALL CURVE RADII LABELLED THUS - 1 ARE TO BACK OF KERB



CURVE SETOUT DETAIL  
(NOT TO SCALE)

## KERB SETOUT SCHEDULE

POINT No	EASTING	NORTHING	ELEVATION
1	1791.496	692.784	33.875
2	1791.804	695.202	33.999
3	1791.978	697.873	33.958
4	1792.018	708.449	34.823
5	1791.923	783.864	34.104
6	1791.151	785.847	34.208
7	1789.322	788.081	34.274
8	1786.746	789.387	34.323
9	1783.863	789.543	34.349
10	1780.811	721.213	34.356
11	1785.511	722.618	34.314
12	1789.656	725.240	34.243
13	1792.940	728.884	34.165
14	1795.118	733.279	34.131
15	1796.401	737.883	34.162
16	1797.253	742.427	34.219
17	1804.847	742.688	34.233
18	1804.571	740.115	34.203
19	1804.421	737.612	34.173
20	1804.396	735.195	34.143
21	1804.497	732.599	34.124
22	1805.274	729.823	34.142
23	1807.104	727.595	34.159
24	1809.677	726.294	34.176
25	1812.556	726.140	34.194
26	1815.578	716.445	34.190
27	1810.876	713.858	34.195
28	1806.730	710.434	34.163
29	1803.444	706.788	34.091
30	1801.267	702.389	34.009
31	1799.991	697.878	33.944
32	1799.141	693.266	33.891
33	1796.418	701.302	33.978
34	1795.673	706.533	34.064
35	1796.526	706.282	34.051
36	1797.088	705.211	34.027
37	1786.594	716.521	34.187

POINT No	EASTING	NORTHING	ELEVATION
38	1785.717	715.295	34.391
39	1785.157	715.284	34.396
40	1783.439	715.243	34.416
41	1781.896	715.217	34.427
42	1781.753	715.783	34.413
43	1782.864	716.355	34.394
44	1784.830	717.368	34.360
45	1786.746	718.355	34.328
46	1799.892	729.546	34.079
47	1799.329	738.536	34.087
48	1799.995	734.445	34.127
49	1800.745	729.216	34.069
50	1809.799	719.525	34.285
51	1810.680	728.362	34.264
52	1811.239	728.373	34.264
53	1813.358	728.413	34.263
54	1814.581	728.435	34.262
55	1814.663	719.868	34.247
56	1813.531	719.297	34.248
57	1811.563	718.288	34.227
58	1809.645	717.304	34.215
59	1802.232	714.888	34.253
60	1798.963	712.908	34.228
61	1795.246	713.805	34.291
62	1793.255	717.072	34.418
63	1794.160	720.791	34.291
64	1797.430	722.778	34.228
65	1801.146	721.873	34.253
66	1803.137	718.606	34.365
67	1799.972	716.541	34.458
68	1798.534	715.665	34.425
69	1796.898	716.063	34.496
70	1796.022	717.502	34.623
71	1796.620	719.138	34.496
72	1797.859	720.813	34.425
73	1799.495	719.615	34.458
74	1800.370	718.576	34.578

[illegible]

DATUM RL 31.00							
BACK OF KERB LEVEL	34.165	34.190	34.198	34.195	34.095	34.009	33.978
CHAINAGE	0.00	4.71	7.93	11.98	19.25	24.40	26.52
	CH 68.99 CTP	CH 64.28 ETP	HP			CTP	
							CH 16.32 ETP



INTERSECTION DETAIL

SCALE (A1) 1 : 125

CONTOUR INTERVAL 0.10 m

STREET NAME	TELECOM	GAS	WATER	ELECTRICITY	KERB
SHOREBREAK WAY (N-S)	1.90 E	2.10 W	2.70 W	2.50 E	4.25
SHOREBREAK WAY (E-W)	1.90 S	2.10 N	2.70 N	2.50 S	4.25
BOXWOOD PLACE	1.90 E	2.10 W	2.70 W/3.30E	2.50 E	-

SERVICES LOCATION SCHEDULE

AMENDMENTS			 <div>Peter Berry &amp; Associates Pty. Ltd. Civil Engineers</div>	153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799					
				MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY	
	04.04.18	VERSION B						SURVEYED	GREATER GEELONG
	DATE	DESCRIPTION						DESIGNED P.J.B.	REFERENCE
A1			DRAWN C.S.					0211 E/34	
			CHECKED	SCALE AS SHOWN	DATUM AHD	DATE NOV '17	SHEET 13 OF 21		

# INTERSECTION DETAIL

SCALE (A1) 1 : 125

CONTOUR INTERVAL 0.10 m

ROAD CENTRELINE IS TO BE LINEMARKED IN THERMOPLASTIC PAINT BETWEEN CH 49.63-CH 72.82 INCLUDING RRPM'S AS SPECIFIED

BIN COLLECTION PAD 4mx1m (SEE NOTE BELOW RIGHT)

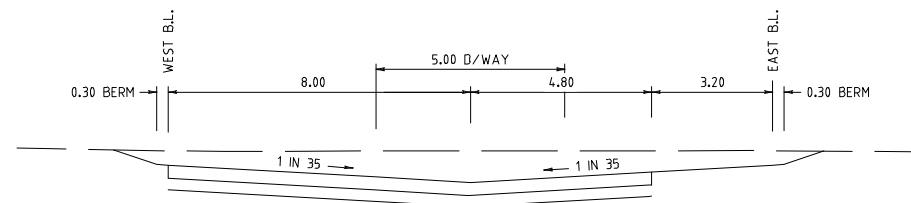
LOCATION OF PRAM CROSSINGS TO BE CONFIRMED ON SITE BY WORKS INSPECTOR

2 # CAR PARKING SPACES

2 # CAR PARKING SPACES (5.2m x 5.2m)

RESERVE No 1

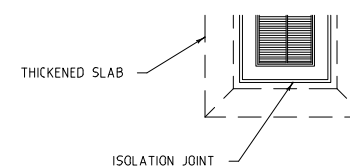
**CITY OF GREATER GEELONG**  
Engineering Plan APPROVAL  
Council Reference  
PP-1263-2011 Cert 13174  
Approved by: *K. Kelly*  
Date: 06/04/2018



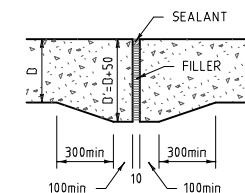
SECTION A-A  
(NOT TO SCALE)

PAVEMENT COMPOSITION - (CONCRETE ROAD)

- 175mm COMPACTED DEPTH REINFORCED (SL82 MESH), 32MPa CONCRETE, VIBRATED AND PROPERLY CURED IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD CODE.
  - 150mm COMPACTED DEPTH CLASS 3 20mm FCR.
- REINFORCEMENT IS TO BE ADEQUATELY SUPPORTED BY APPROPRIATE SIZED CHAIRS PRIOR TO THE POURING/PLACEMENT OF CONCRETE.
  - CONCRETE PAVEMENT TO BE CAST MONOLITHICALLY.



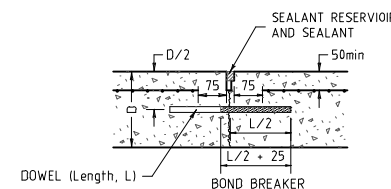
ISOLATION JOINT DETAIL FOR GRATING PITS  
(NOT TO SCALE)



ISOLATION JOINT DETAILS  
(NOT TO SCALE)

## NOTE:

- DOWELS ARE TO BE 20mm  $\phi$  350mm LENGTH AND AT 300mm CENTRES.
- JOINTS ARE TO BE AT A MAXIMUM SPACING OF 13m AND AT ALL DRIVEWAY CROSSINGS AS INDICATED ON DETAIL PLAN.
- TYPE OF SEALANT IS TO BE SIKAFLEX - 15LM OR COUNCIL APPROVED EQUIVALENT USED IN CONJUNCTION WITH AN APPROVED BACKER ROD.



CONTRACTION JOINT DETAILS  
(NOT TO SCALE)

## SETOUT - CONCRETE DRIVEWAY

POINT No	EASTING	NORTHING
1	1794.062	642.707
2	1791.554	638.993
3	1789.975	634.352
4	1789.341	630.518
5	1786.594	610.334
6	1781.442	611.035
7	1782.008	615.197
8	1781.152	616.323
9	1776.891	616.902
10	1777.970	624.829
11	1782.429	624.223
12	1783.555	625.079
13	1784.387	631.193

POINT No	EASTING	NORTHING
14	1784.969	634.264
15	1783.296	636.720
16	1779.656	637.215
17	1780.127	640.683
18	1786.201	639.857
19	1787.964	640.806
20	1789.450	645.039
21	1788.632	637.491
22	1791.888	631.771
23	1791.620	630.208
24	1790.216	619.888
25	1787.626	617.919

## SERVICES LOCATION SCHEDULE

STREET NAME	TELECOM	GAS	WATER	ELECTRICITY	KERB
SHOREBREAK WAY (N-S)	1.90 E	2.10 W	2.70 W	2.50 E	4.25
SHOREBREAK WAY (E-W)	1.90 S	2.10 N	2.70 N	2.50 S	4.25
BOXWOOD PLACE	1.90 E	2.10 W	2.70W/3.30E	2.50 E	-

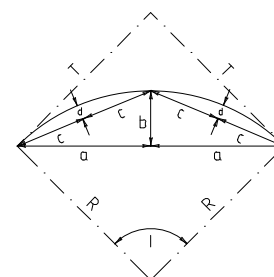
PAVEMENT COMPOSITION (CONCRETE BIN COLLECTION PAD) -

- 125mm COMPACTED DEPTH REINFORCED (F72 MESH), 32MPa CONCRETE, VIBRATED AND PROPERLY CURED IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARD CODE.
  - 50mm COMPACTED DEPTH CLASS 3 20mm FCR.
- REINFORCEMENT IS TO BE ADEQUATELY SUPPORTED BY APPROPRIATE SIZED CHAIRS PRIOR TO THE POURING/PLACEMENT OF CONCRETE.
  - CONCRETE PAVEMENT TO BE CAST MONOLITHICALLY.

## CURVE SETOUT TABLE

CURVE	RADIUS (m)	I	T	ARC	a	b	c	d
14	10.00	89°56'00"	9.988	15.696	7.067	2.925	3.824	0.760
15	10.00	89°56'00"	9.988	15.696	7.067	2.925	3.824	0.760
16	25.00	13°40'04"	2.996	5.964	2.975	0.178	1.490	0.044
17	30.00	5°58'21"	1.565	3.127	1.563	0.041	0.782	0.010

NOTE: ALL CURVE RADII LABELLED THIS - 1 ARE TO BACK OF KERB



CURVE SETOUT DETAIL  
(NOT TO SCALE)

AMENDMENTS	Peter Berry & Associates Pty. Ltd.		Civil Engineers		153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	
	MELWAY REF.		SURVEYED		MUNICIPALITY GREATER GEELONG	
04.04.18	VERSION B		DESIGNED P.J.B		REFERENCE 0211 E/34	
A1	1:200		DRAWN C.S.		SHEET 14 OF 21	
1:200		CHECKED		SCALE AS SHOWN		DATUM AHD
				DATE NOV '17		





DATUM RL 25.00

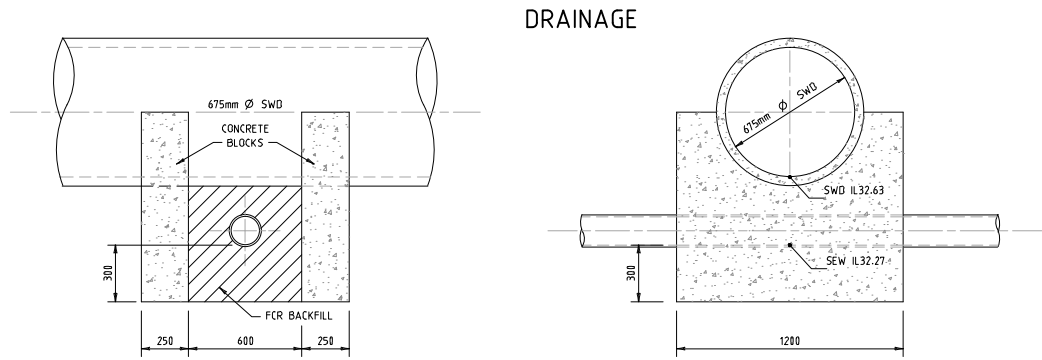
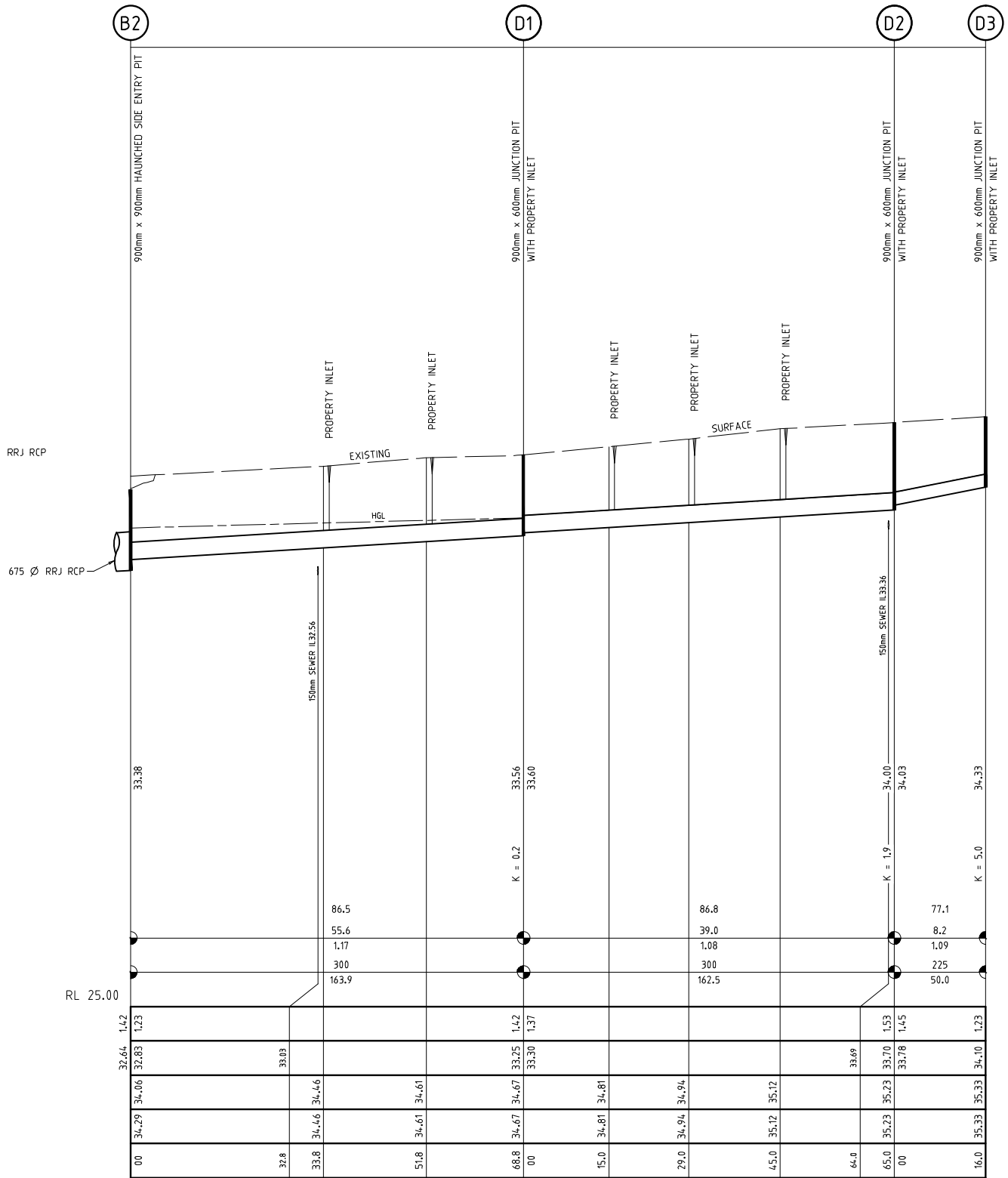
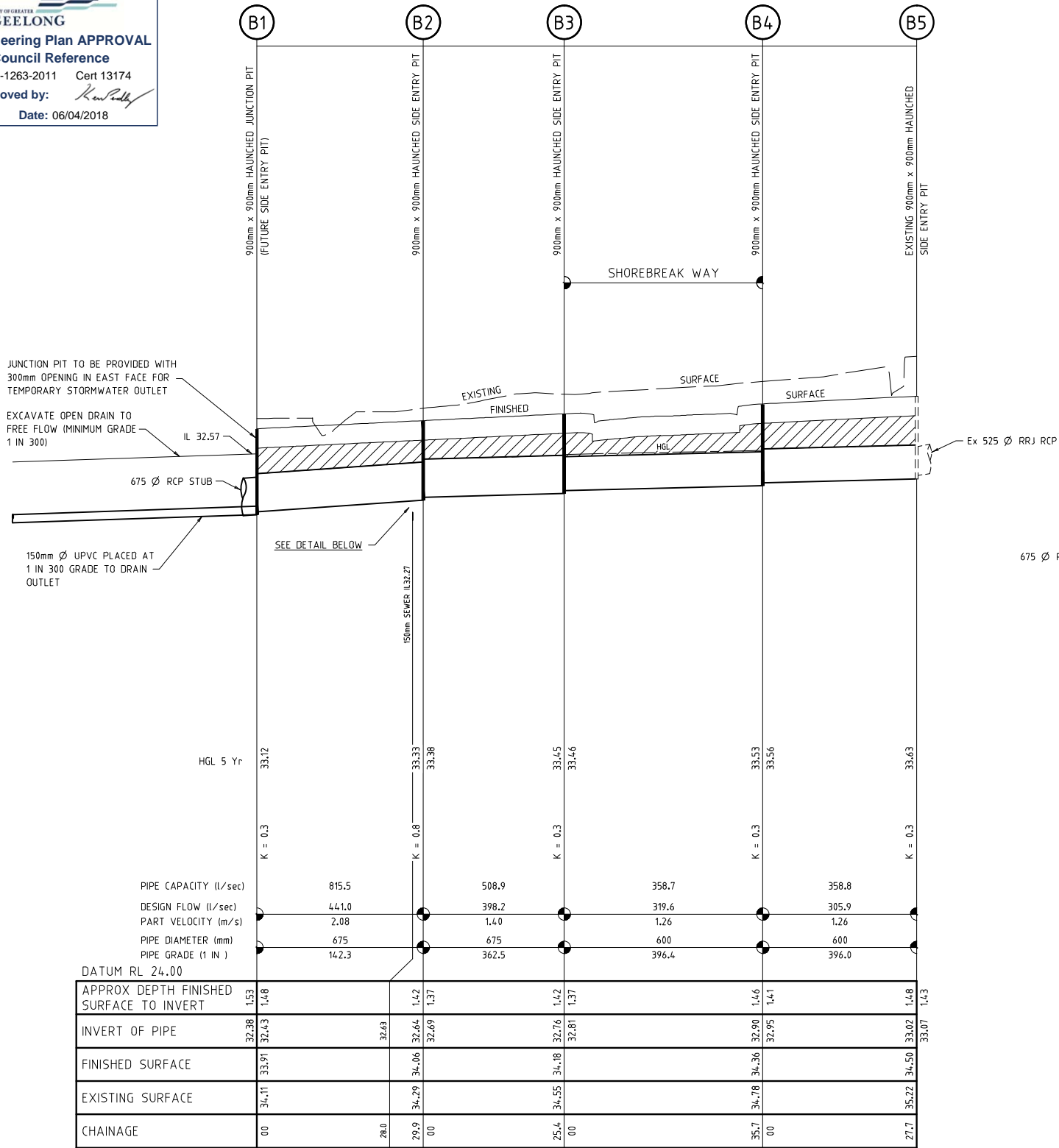
SCALES - HORIZ. 1 : 500  
VERT. 1 : 50



## SECTIONS

DENOTES 20mm  
CLASS 3 FCR  
BACKFILL

AMENDMENTS				Peter Berry & Associates Pty. Ltd. Civil Engineers			153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799		
				MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY	
	04.04.18	VERSION B		SURVEYED				GREATER GEELONG	
DATE	DESCRIPTION	DESIGNED	P.J.B	REFERENCE					
A1			DRAWN	C.S.	SCALE AS SHOWN			0211 E/34	
			CHECKED	DATE NOV '17					
						SHEET 15 OF 21			



DETAIL OF SEWER CROSSING UNDER  
PROPOSED 675mm SWD WITH REDUCED CLEARANCE  
SCALE 1 : 20

LONGITUDINAL  
SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

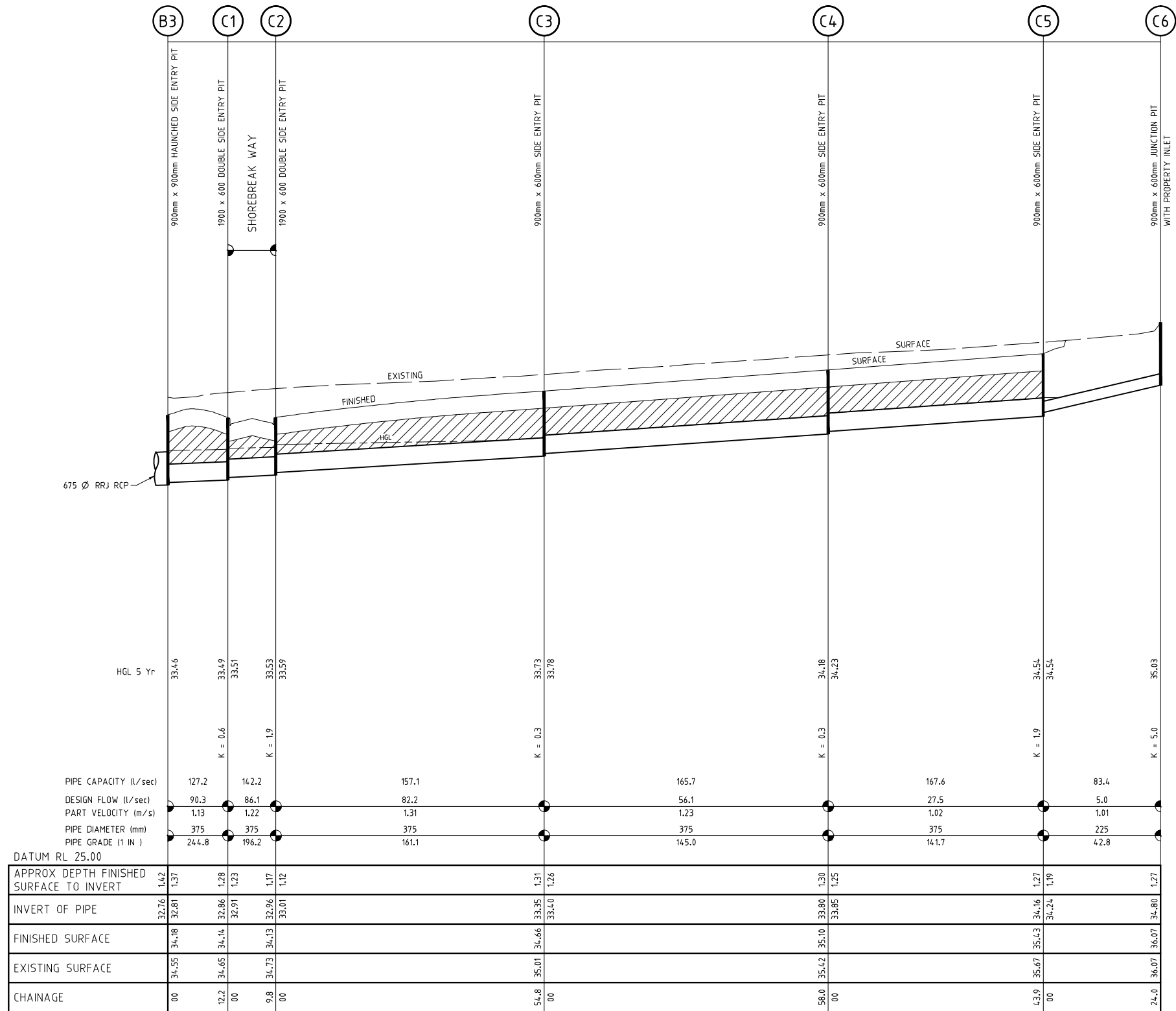
SECTIONS

NOTE  
ALL SUMPS IN PRECAST PITS ARE TO BE INFILLED  
WITH CONCRETE FLUSH TO THE INVERT LEVEL OF  
THE OUTLET PIPE.

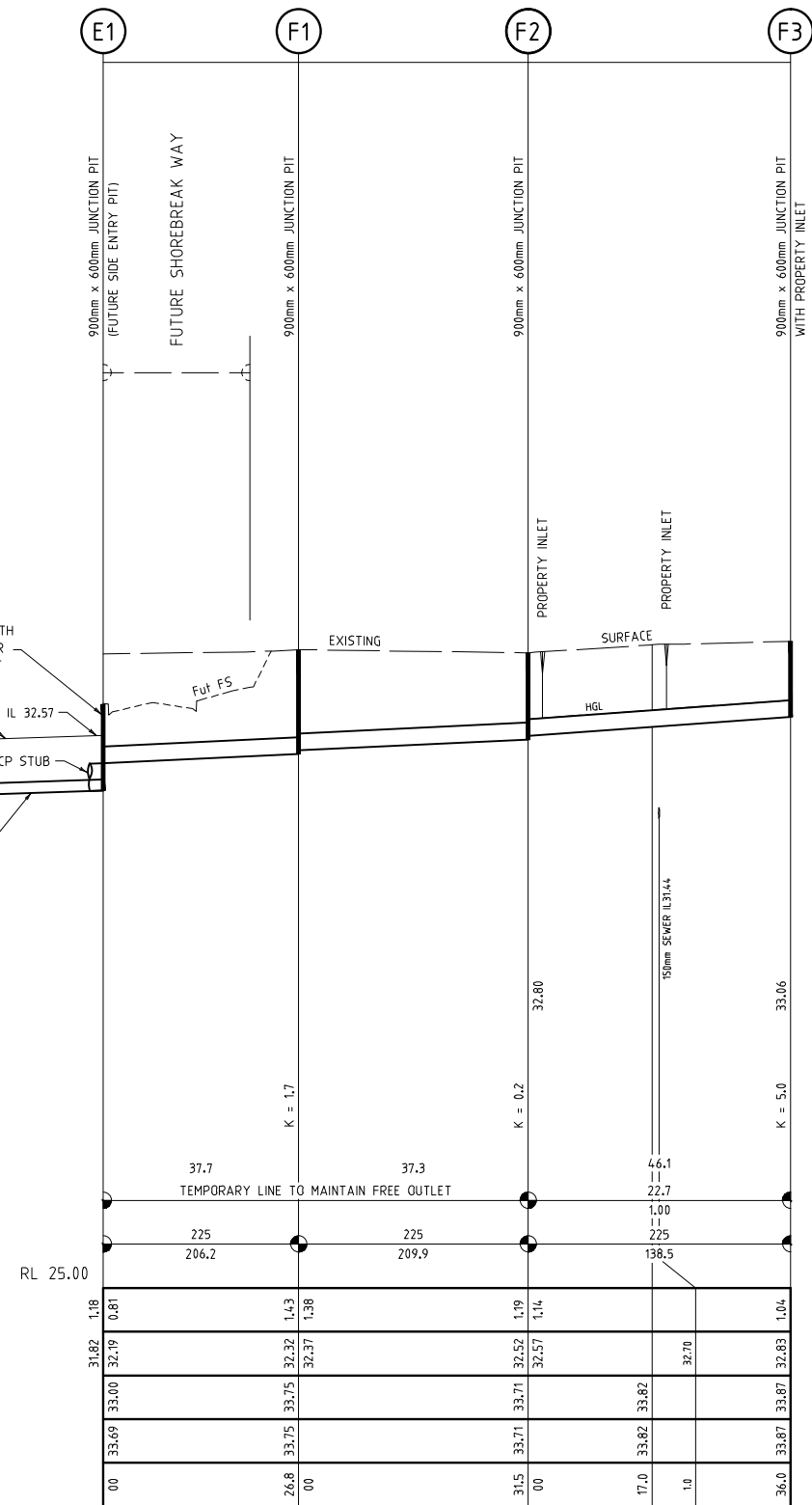
DENOTES 20mm  
CLASS 3 FCR  
BACKFILL

AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers		153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799
			MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34	
	04.04.18	VERSION B	SURVEYED		
	DATE	DESCRIPTION	DESIGNED P.J.B.		
A1	1 : 500	10 5 0 10 20 30	DRAWN C.S.	SCALE AS SHOWN DATUM AHD DATE NOV '17	
	1 : 50	1 0.5 0 1 2 3	CHECKED		
				REFERENCE 0211 E/34 SHEET 16 OF 21	





JUNCTION PIT TO BE PROVIDED WITH 300mm OPENING IN EAST FACE FOR TEMPORARY STORMWATER OUTLET  
EXCAVATE OPEN DRAIN TO FREE FLOW (MINIMUM GRADE 1 IN 300)  
375 Ø RCP STUB  
150mm Ø UPVC PLACED AT 1 IN 300 GRADE TO DRAIN OUTLET



DRAINAGE

LONGITUDINAL

SECTIONS

SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

NOTE  
ALL SUMPS IN PRECAST PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE.

**CITY OF GEELONG**  
**Engineering Plan APPROVAL**  
**Council Reference**  
PP-1263-2011 Cert 13174  
Approved by: *Kearney*  
Date: 06/04/2018



AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b> Civil Engineers 153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799	MUNICIPALITY GREATER GEELONG			
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34	REFERENCE 0211 E/34		
	DATE	DESCRIPTION	SURVEYED				
			DESIGNED P.J.B.				
A1	1: 500	10 5 0 10 20 30	DRAWN C.S.	SCALE AS SHOWN	DATUM AHD	DATE NOV '17	SHEET 17 OF 21
	1: 50	1 0.5 0 1 2 3	CHECKED				

JUNCTION PIT TO BE PROVIDED WITH  
300mm OPENING IN EAST FACE FOR  
TEMPORARY STORMWATER OUTLET.

EXCAVATE OPEN DRAIN TO  
FREE FLOW (MINIMUM GRADE  
1 IN 300)

IL 32.57

375 Ø RCP STUB

150mm Ø UPVC PLACED AT  
1 IN 300 GRADE TO DRAIN  
OUTLET

SEE DETAIL BELOW

HGL 5 Yr

PIPE CAPACITY (L/sec)

DESIGN FLOW (L/sec)

PART VELOCITY (m/s)

PIPE DIAMETER (mm)

PIPE GRADE (1 IN )

DATUM RL 25.00

APPROX DEPTH FINISHED

SURFACE TO INVERT

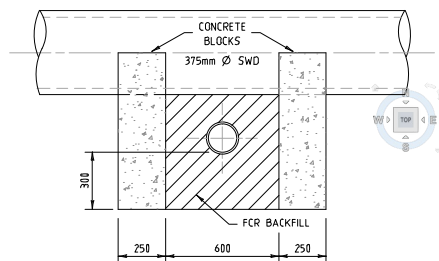
INVERT OF PIPE

FINISHED SURFACE

EXISTING SURFACE

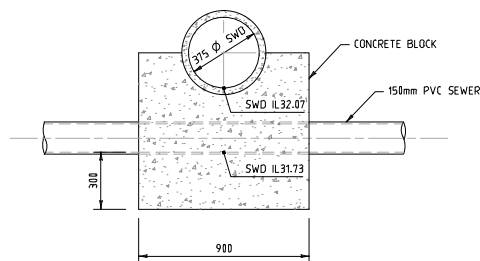
CHAINAGE

## DRAINAGE



DETAIL OF SEWER CROSSING UNDER  
PROPOSED 375mm SWD WITH REDUCED CLEARANCE

SCALE 1 : 20



## LONGITUDINAL

SCALES - HORIZ. 1 : 500  
VERT. 1 : 50

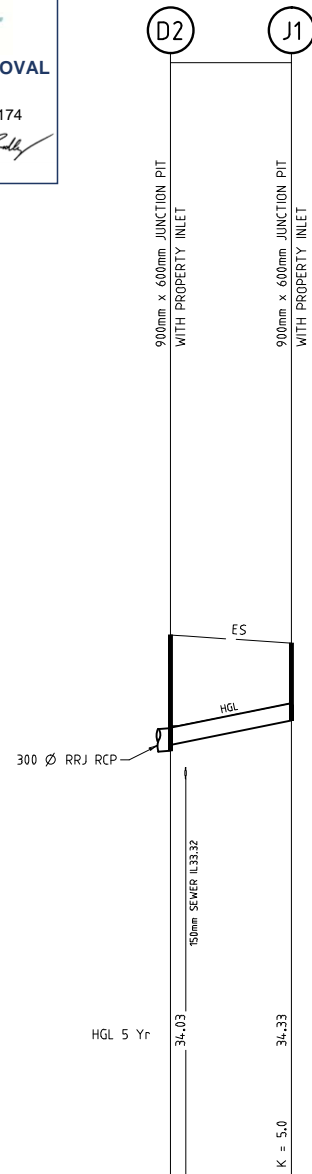
## SECTIONS

NOTE

ALL SUMPS IN PRECAST PITS ARE TO BE INFILLED  
WITH CONCRETE FLUSH TO THE INVERT LEVEL OF  
THE OUTLET PIPE.

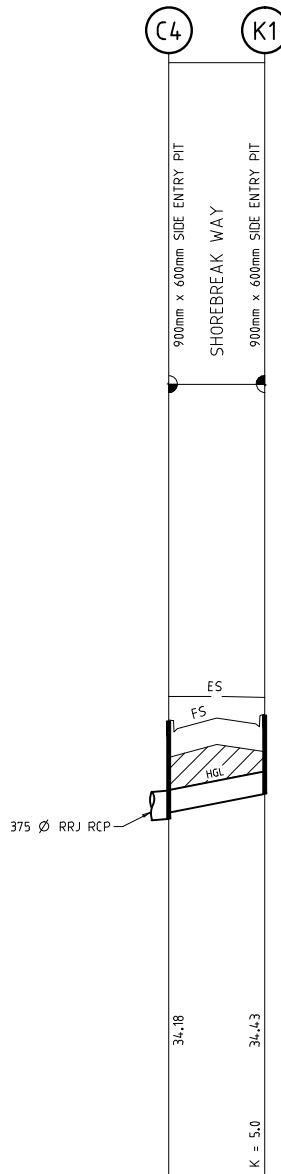
DENOTES 20mm  
CLASS 3 FCR  
BACKFILL

AMENDMENTS			<b>Peter Berry &amp; Associates Pty. Ltd.</b>		153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799
			<b>Civil Engineers</b>		
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34	
	DATE	DESCRIPTION	SURVEYED		
A1	1 : 500	10 5 0 10 20 30	DESIGNED P.J.B		
	1 : 50	1 0.5 0 1 2 3	DRAWN C.S.	REFERENCE 0211 E/34	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE NOV '17	SHEET 18 OF 21

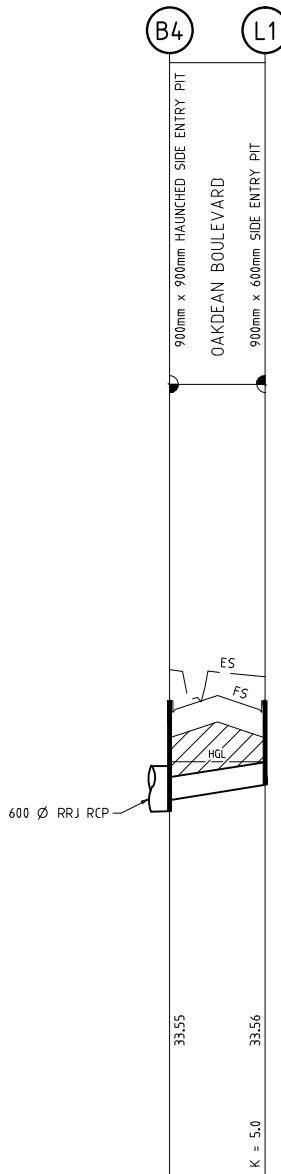


PIPE CAPACITY (l/sec) 77.1  
DESIGN FLOW (l/sec) 5.8  
PART VELOCITY (m/s) 1.00  
PIPE DIAMETER (mm) 225  
PIPE GRADE (1 IN ) 50.0

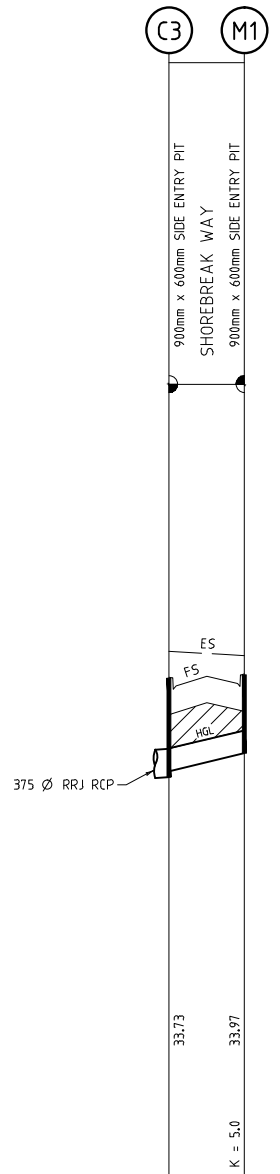
DATUM RL 26.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	1.53	1.45
INVERT OF PIPE	33.70	33.78
FINISHED SURFACE	35.23	33.82
EXISTING SURFACE	35.23	
CHAINAGE	00	2.0



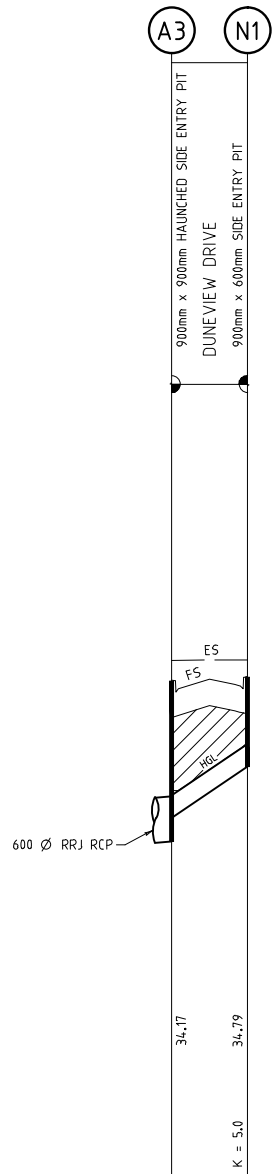
RL 27.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	1.30	1.22
INVERT OF PIPE	33.80	33.88
FINISHED SURFACE	35.10	33.82
EXISTING SURFACE	35.42	
CHAINAGE	00	12.7



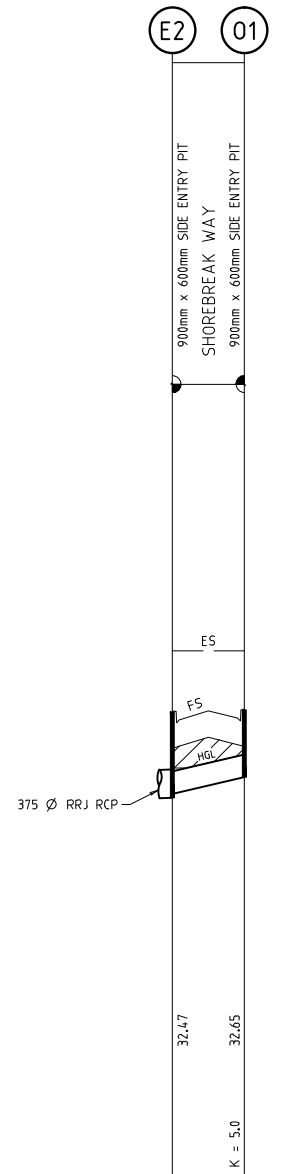
RL 26.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	1.46	1.31
INVERT OF PIPE	32.90	33.05
FINISHED SURFACE	34.36	33.43
EXISTING SURFACE	34.78	
CHAINAGE	00	12.6



RL 26.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	1.31	1.23
INVERT OF PIPE	33.35	33.43
FINISHED SURFACE	34.66	33.43
EXISTING SURFACE	35.01	
CHAINAGE	00	10.0



RL 27.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	2.12	1.81
INVERT OF PIPE	33.50	33.81
FINISHED SURFACE	35.62	33.81
EXISTING SURFACE	35.89	
CHAINAGE	00	10.0



RL 25.00		
APPROX DEPTH FINISHED SURFACE TO INVERT	1.14	1.09
INVERT OF PIPE	32.08	32.13
FINISHED SURFACE	33.22	32.13
EXISTING SURFACE	34.02	
CHAINAGE	00	9.5

## DRAINAGE

## LONGITUDINAL

SCALES - HORIZ. 1 : 500  
VERT. 1 : 50




## SECTIONS

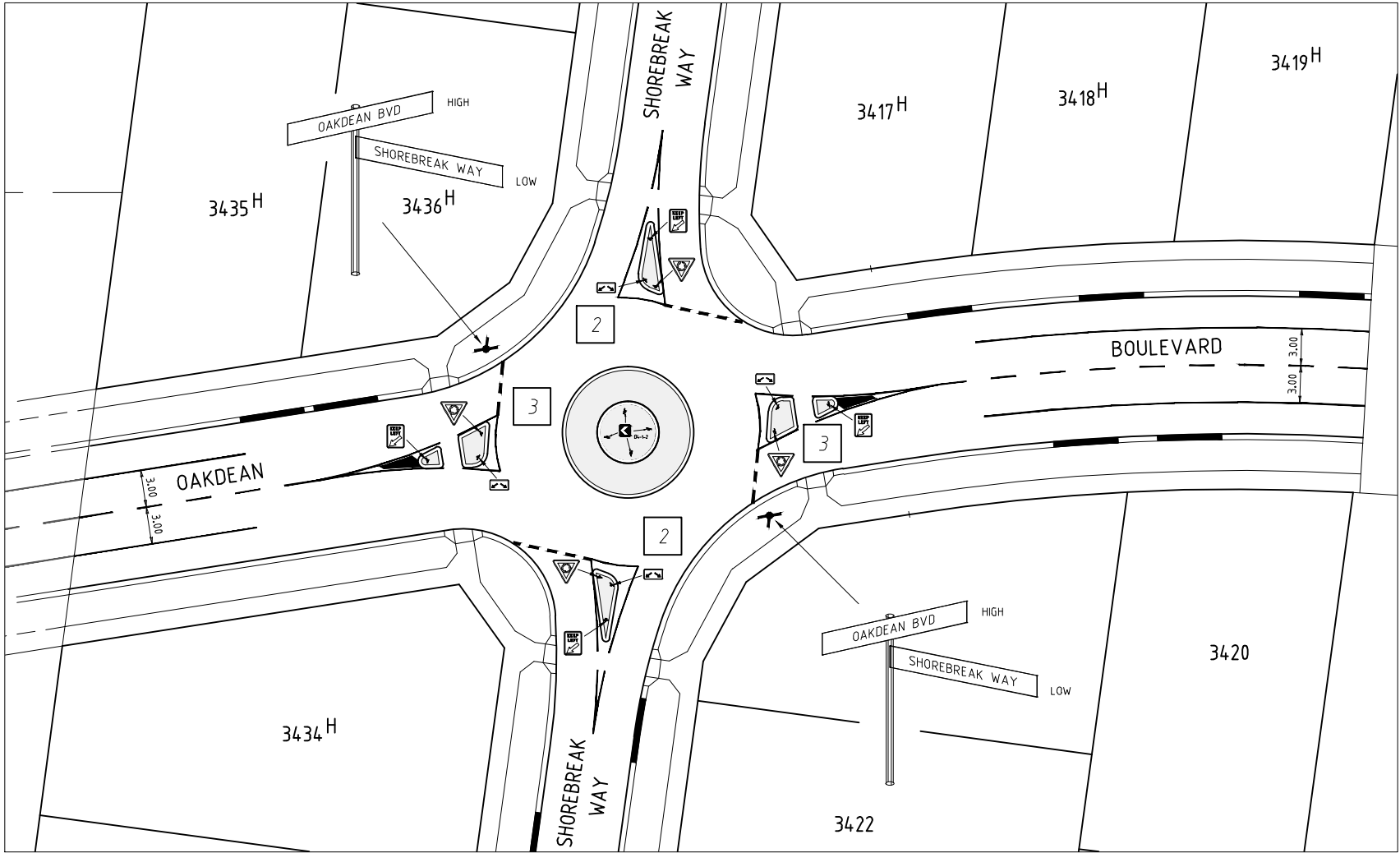
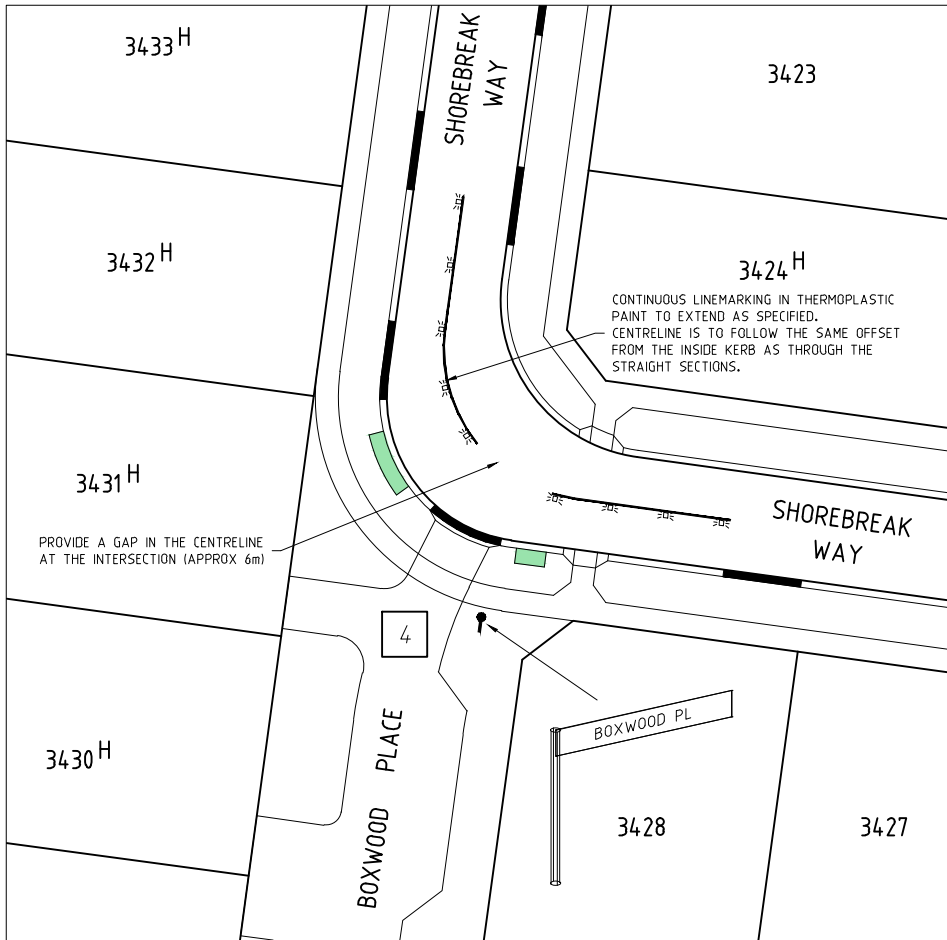
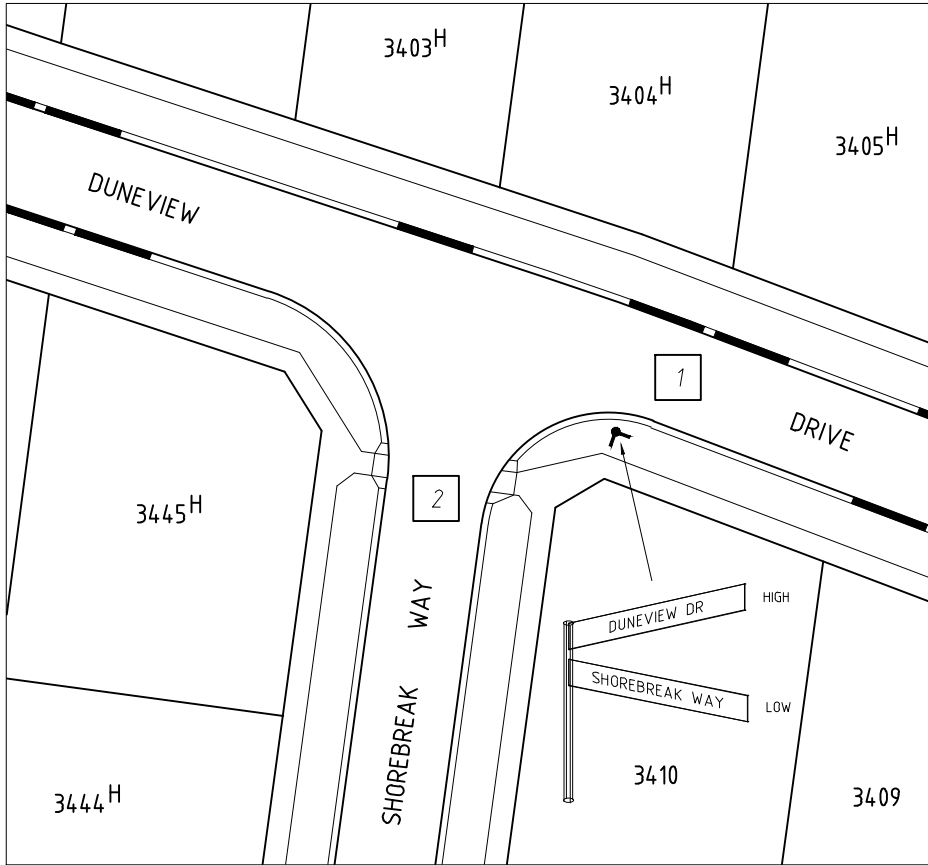
### NOTE

ALL SUMPS IN PRECAST PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE.



DENOTES 20mm  
CLASS 3 FCR  
BACKFILL

AMENDMENTS				Peter Berry & Associates Pty. Ltd.			153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799							
										Civil Engineers				
				MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34			MUNICIPALITY						
	04.04.18	VERSION B		SURVEYED				GREATER GEELONG						
	DATE	DESCRIPTION	DESIGNED	P.J.B			REFERENCE							
A1	1 : 500		DRAWN	C.S.			0211 E/34							
	1 : 50		CHECKED	SCALE AS SHOWN			DATUM	AHD	DATE	NOV '17	SHEET	19	OF	21





SIGN LEGEND

1	DUNEVIEW DR	1 No		4 No (R1-3)
2	SHOREBREAK WAY	3 No		4 No (R2-3(L))
3	OAKDEAN BVD	2 No		4 No (D4-V105)
4	BOXWOOD PL	1 No		4 No (D4-1-2)

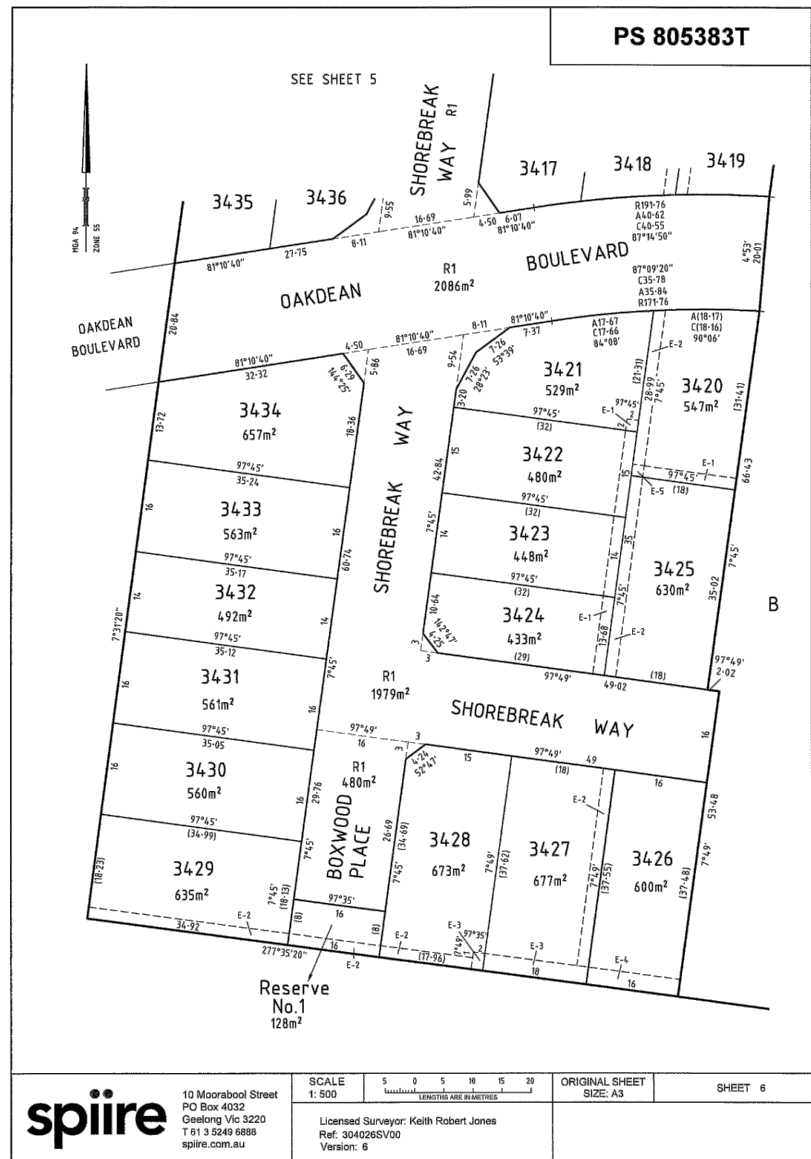
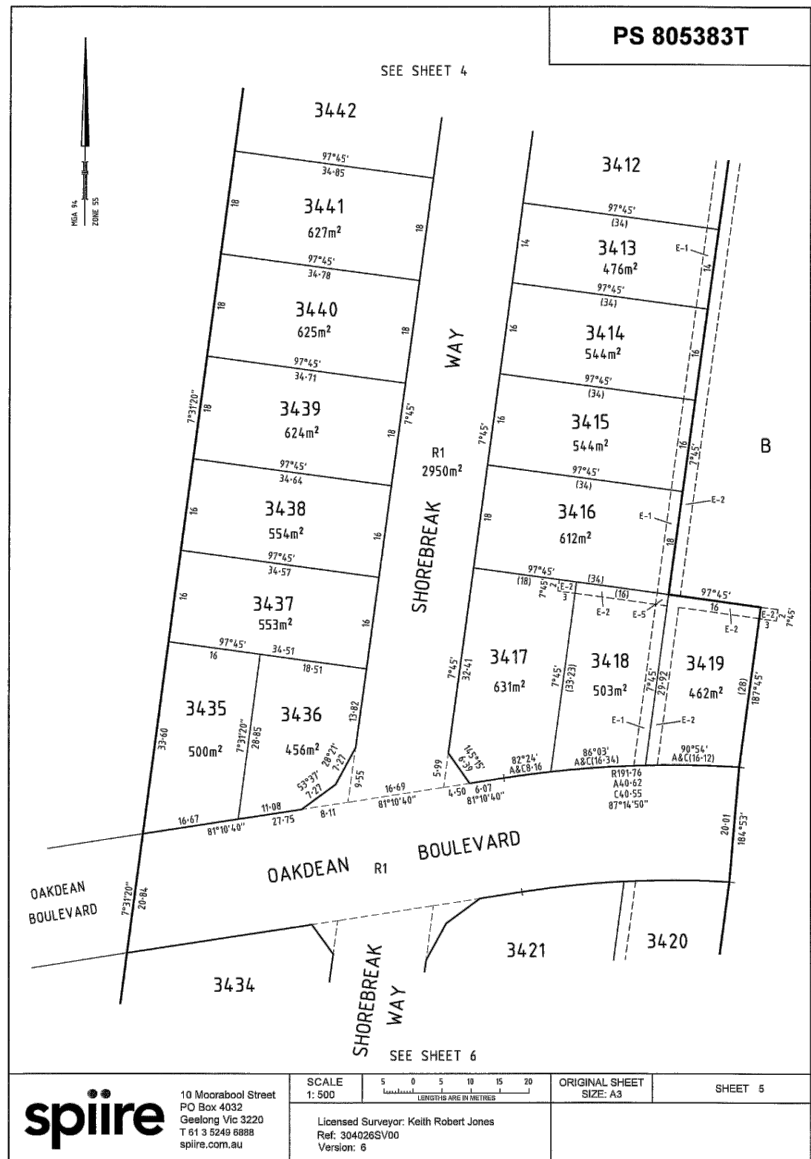
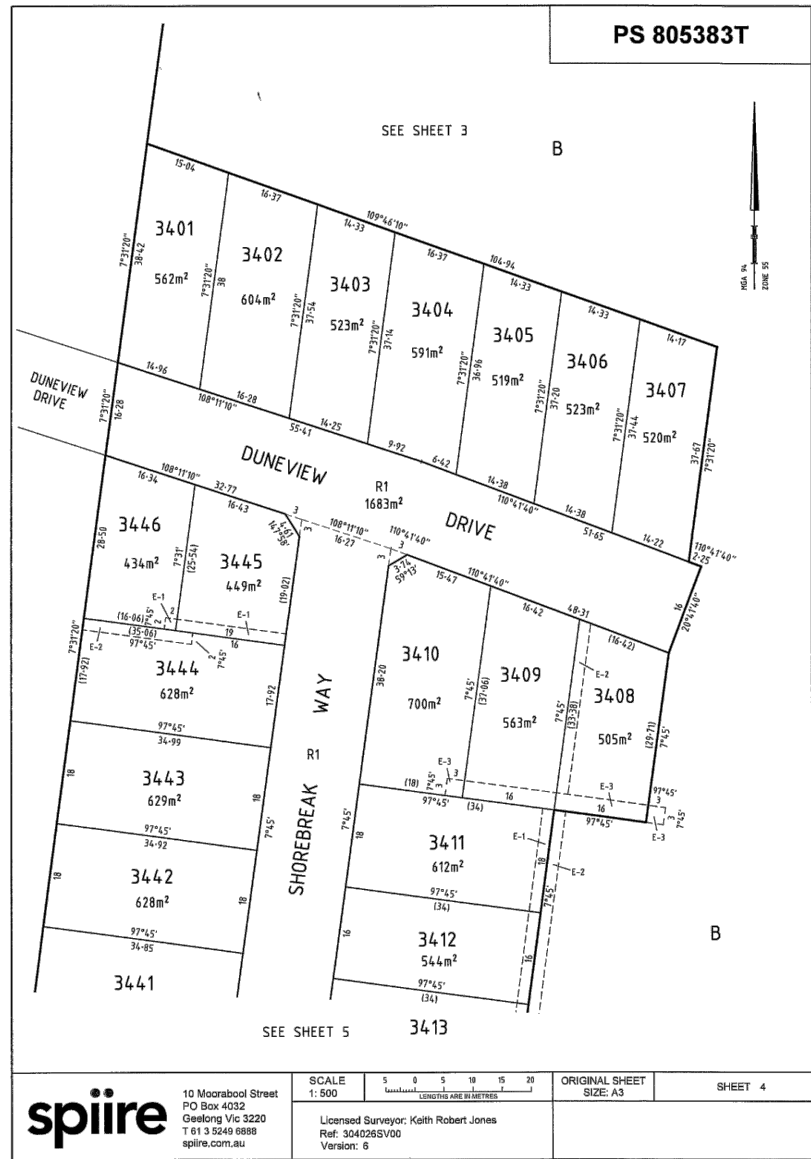
- NOTE
- A) ALL SIGNS AND LINEMARKING ARE TO BE IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2 - SIGNS AND MARKINGS.
- B) LOCATION OF STREET SIGNS ARE TO BE APPROVED BY THE COGG WORKS INSPECTOR.
- C) ALL SIGN POSTS ARE TO BE SLEEVED IN ACCORDANCE WITH COGG STANDARD DRAWING (SD CGG710).


DETAIL PLANS  
SCALE (A1) 1 : 250



AMENDMENTS			 Peter Berry & Associates Pty. Ltd.				153 Yarra Street	
			Civil Engineers				Geelong Victoria 3220	
							Telephone: 5223 2799	
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34 STREET SIGNS & LINEMARKING PLAN				MUNICIPALITY
			SURVEYED					GREATER GEELONG
			DESIGNED P.J.B					REFERENCE
	DATE	DESCRIPTION	DESIGNED P.J.B	DRAWN C.S.				REFERENCE
								0211 E/34
A1	1: 250	 METRES	DRAWN C.S.	CHECKED				SHEET 20 OF 21
				SCALE AS SHOWN	DATUM	AHD	DATE NOV '17	





AMENDMENTS				Peter Berry & Associates Pty. Ltd. Civil Engineers				153 Yarra Street Geelong Victoria 3220 Telephone: 5223 2799		
	04.04.18	VERSION B	MELWAY REF.	KINGSTON DOWNS ESTATE STAGE 34 PAN OF SUBDIVISION				MUNICIPALITY		
			SURVEYED					GREATER GEELONG		
	DATE	DESCRIPTION	DESIGNED					REFERENCE		
			P.J.B.					0211 E <sub>34</sub>		
A1			DRAWN	C.S.					SHEET 21 OF 21	
			CHECKED		SCALE AS SHOWN	DATUM	AHD	DATE	NOV '17	