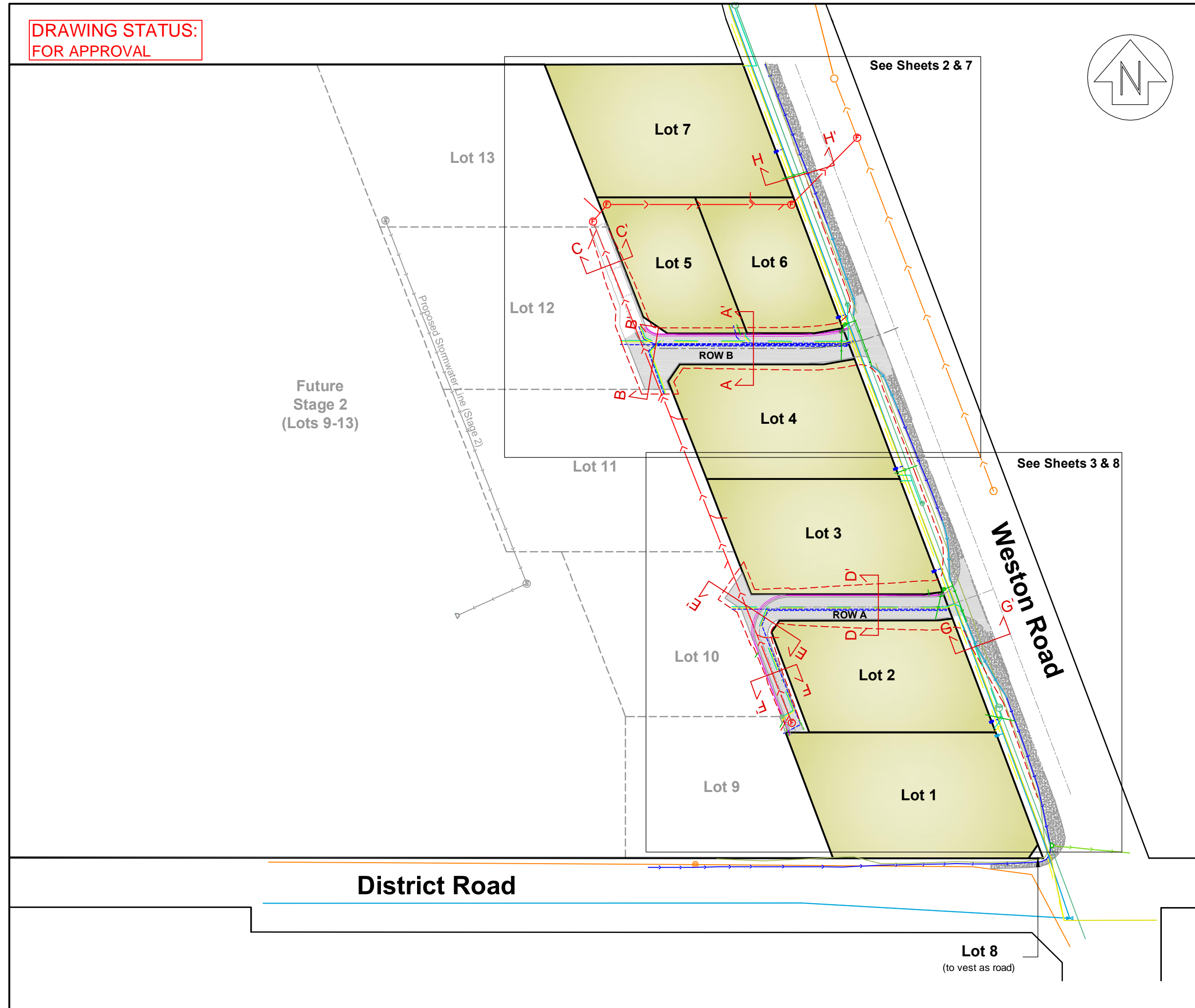
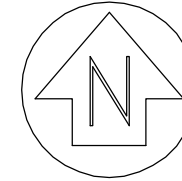


**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

- Notes**
1. Location and extent of existing services shown on these drawings are indicative only.
 2. Contractor to ascertain the extent and location of all existing underground services prior to commencing any excavation work.
 3. Contractor shall reinstate and make good any damage to existing carriageways, road markings, street signs, footpaths, street furniture, berms, utility services and structures.
 4. Refer to Sheets 4-6 for drainage long sections.
 5. Refer to Sheets 9 & 10 for ROW long sections.
 6. Refer to Sheets 11-13 for typical ROW cross sections.
 7. Refer to Sheet 14 for kerb profiles and typical ROW/driveway details.

Verify all dimensions on site before commencing work. Do not scale off drawings. Refer all discrepancies to Terramark Ltd.

No.	Revision

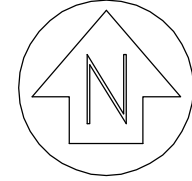
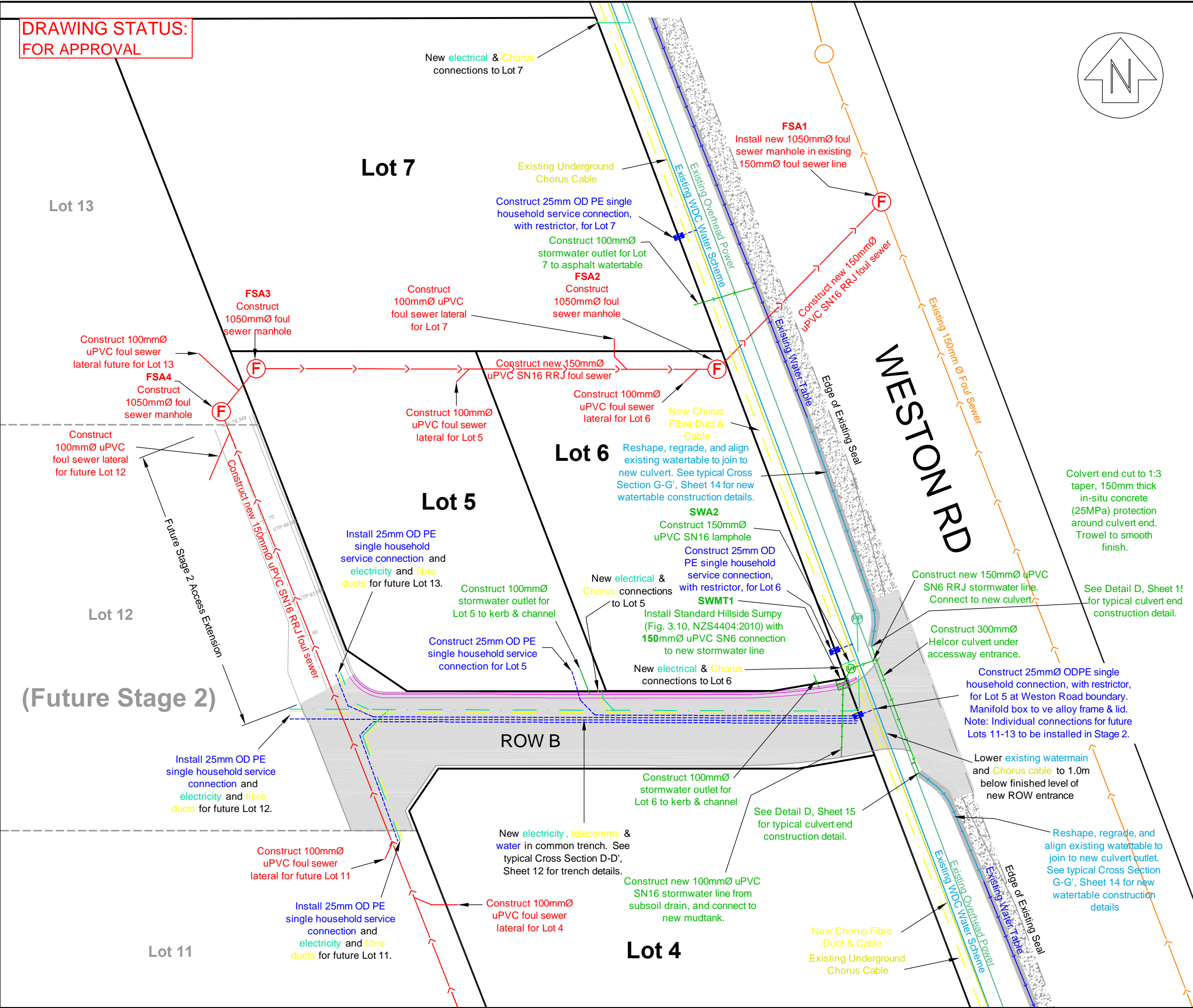
terramark
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 Surveying, Resource Management & Engineering
 Dunedin 03-4774783 Mosgiel 03-4897107 Balclutha 03-4180470

Project Title
**86 Weston Road Subdivision
 Stage 1**

Sheet Title
Index Sheet 1

Horizontal	Scale	Datum
Horizontal	1:750 @ A3	Observation Point 2000
Vertical	-	-
Job No.	Plan No.	Revision
D11812	6	0
Sheet 1 of 16	Drawing	11812/6/0

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

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 4. Contractor to obtain 'Close Approach Permit' from Network Waitaki where excavations are within 5m of a power pole.
 5. Contractor to liaise with WDC & Chorus with regards to lowering existing water scheme pipe and underground telecommunications services beneath the new entrance to ROW A, and shall coordinate the trenching programme with the respective authorities to ensure there are no delays to the overall construction programme.
 6. 150mm x 50mm uPVC heavy wall kerb adaptors shall be used where individual 100mmØ stormwater laterals connect to the ROW kerb & channel.
 7. Individual water connections (with restrictors) to the existing WDC water scheme pipe are to be made in accordance with WDC water services requirements.

Verify all dimensions on site before commencing work. Do not scale off drawings. Refer all discrepancies to Terramark Ltd.

No.	Revision

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Surveying, Resource Management & Engineering
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Project Title
**86 Weston Road Subdivision
Stage 1**

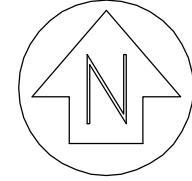
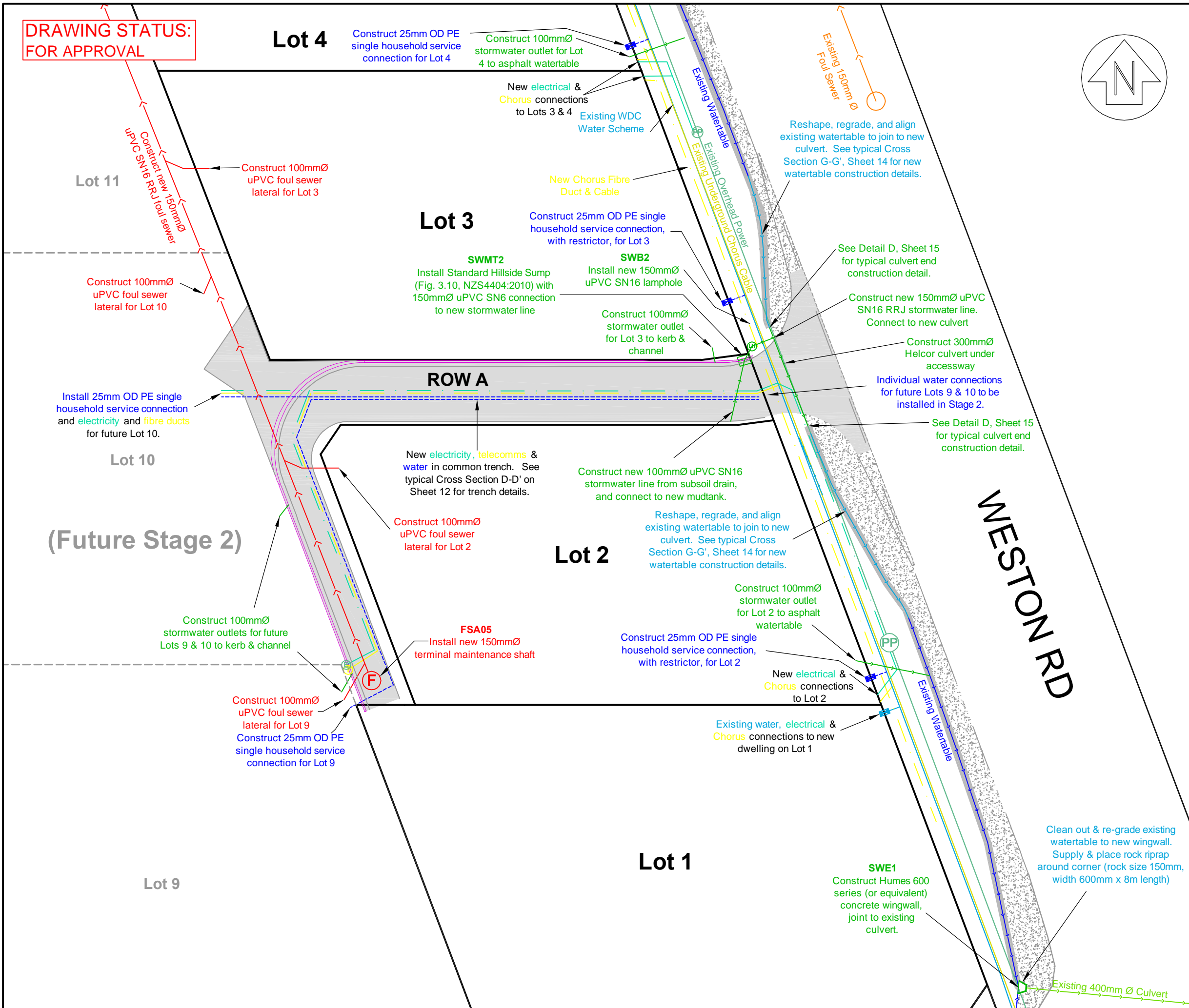
Sheet Title
**Drainage & Services Design
Sheet 2**

Scale	Datum
Horizontal 1:300 @ A3	Observation Point 2000
Vertical -	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 2 of 16 Drawing **11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

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 4. Contractor to obtain 'Close Approach Permit' from Network Waitaki where excavations are within 5m of a power pole.
 5. Contractor to liaise with WDC & Chorus with regards to lowering existing water scheme pipe and underground telecommunications services beneath the new entrance to ROW B, and shall coordinate the trenching programme with the respective authorities to ensure there are no delays to the overall construction programme.
 6. 150mm x 50mm uPVC heavy wall kerb adaptors shall be used where individual 100mmØ stormwater laterals connect to the ROW kerb & channel.
 7. Individual water connections (with restrictors) to the existing WDC water scheme pipe are to be made in accordance with WDC water services requirements.
- Verify all dimensions on site before commencing work. Do not scale off drawings. Refer all discrepancies to Terramark Ltd.

No.	Revision

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Project Title
86 Weston Road Subdivision Stage 1

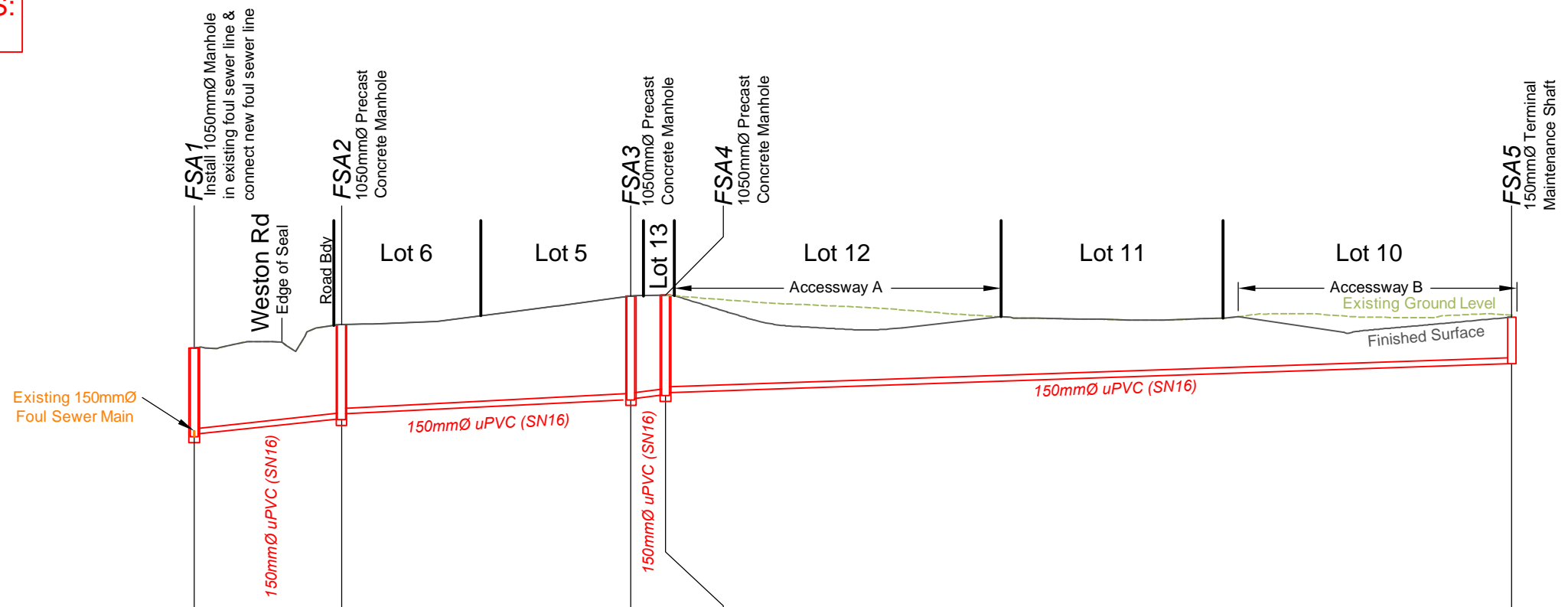
Sheet Title
Drainage & Services Design Sheet 3

Scale	Datum
Horizontal 1:300 @ A3	Observation Point 2000
Vertical -	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 3 of 16 Drawing **11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



DATUM R.L. 72.00

Pipe Gradient	1 in 49.7		1 in 101		1 in 58.0		1 in 145	
Pipe Length	18.0m		36.4m		3.4m		108.6m	
Depth to Invert	2.29	2.21	2.46	2.31	2.69	2.64	2.61	2.53
Invert Level	78.385	78.465	78.829	78.979	79.339	79.389	79.449	79.529
Finished Surface Level	80.68	81.29	82.03	82.06	80.276	81.48	170.73	1.20
Chainage	0.00	19.09	56.57	61.07				

Status	Date
For Approval	4/12/2017

Notes
1.

Verify all dimensions on site before commencing work. Do not scale off drawings. Refer all discrepancies to Terramark Ltd.

No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

Sheet Title
**Foul Sewer Long Section
Sheet 4**

Scale	Datum
Horizontal 1:750 @ A3	Observation Point 2000
Vertical 1:200 @ A3	-

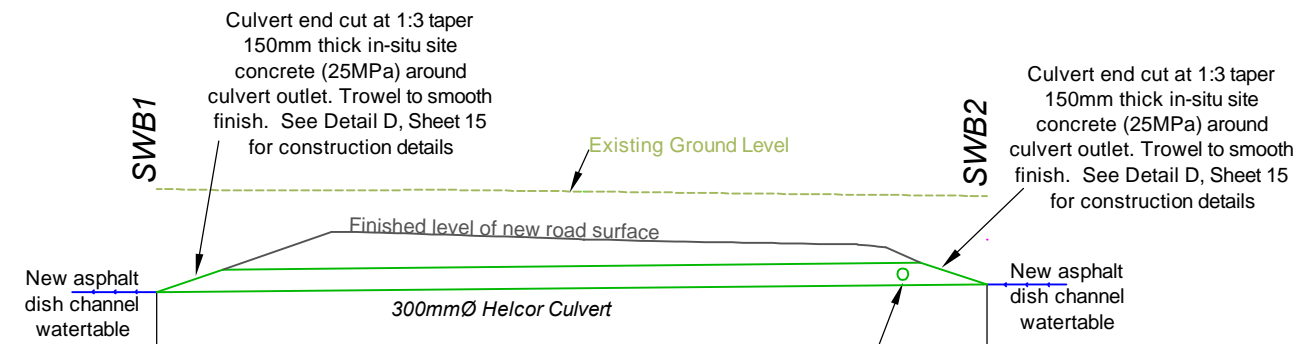
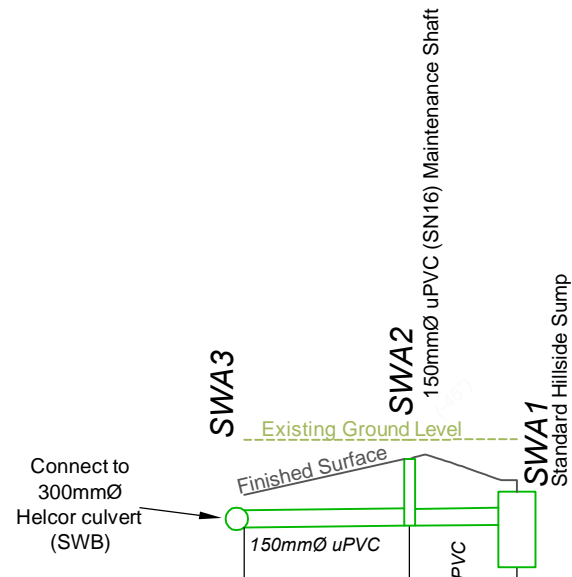
Job No.	Plan No.	Revision
D11812	6	0

Sheet 4 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**

Status	Date
For Approval	4/12/2017

Notes
1. Culvert and installation shall be in accordance with the 'Concrete Pipe selection and Installation Guide by the Concrete Pipe Association of Australasia' HS2.



DATUM R.L.	76.00	
Pipe Gradient	1 in 100	1 in 100
Pipe Length	2.1m	1.1m
Depth to Invert	0.56	0.56
Invert Level	80.379	80.379
Finished Surface Level	80.94	81.28
Chainage	0.00	2.19
	0.56	0.88
	0.88	0.44
	0.44	1.00
	80.400	80.400
	80.400	80.411
	80.411	79.850
	79.850	80.85

	1.00	1.01	1.01	0.60
	80.253	80.239	80.239	80.347
	80.54			80.65
	0.00			10.98

Verify all dimensions on site before commencing work. Do not scale off drawings. Refer all discrepancies to Terramark Ltd.

No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

Sheet Title
**Stormwater Long Section
Sheet 5**

Scale	Datum
Horizontal 1:100 @ A3	Observation Point 2000
Vertical 1:100 @ A3	-

Job No.	Plan No.	Revision
D11812	6	0

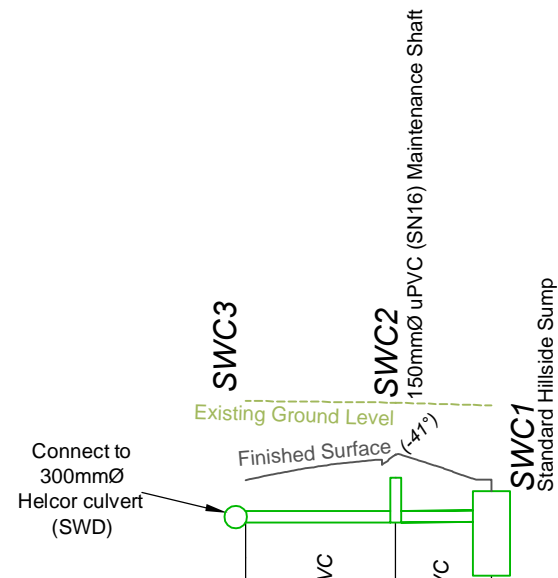
Sheet 5 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**

Status	Date
For Approval	4/12/2017

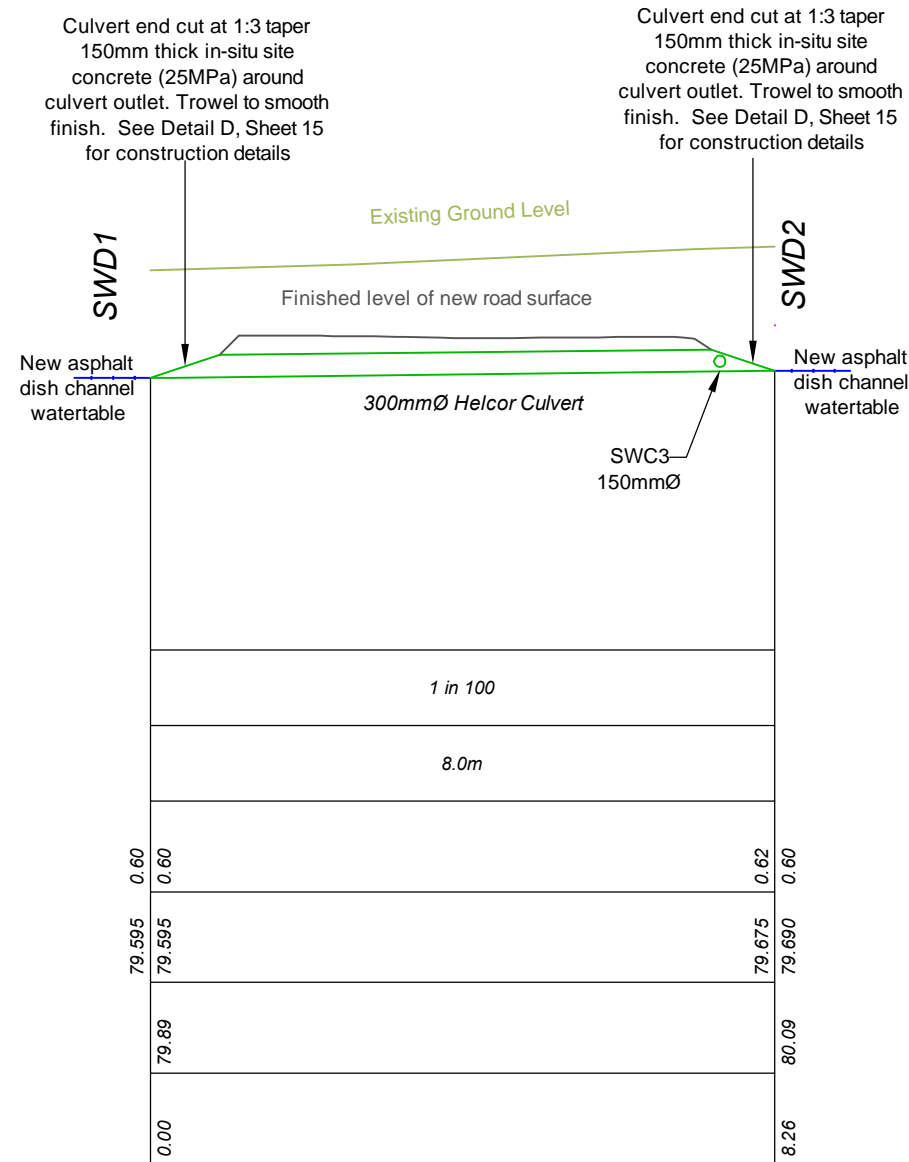
Notes

- Culvert and installation shall be in accordance with the 'Concrete Pipe selection and Installation Guide by the Concrete Pipe Association of Australasia' HS2.



DATUM R.L. 76.00

Pipe Gradient	1 in 100	1 in 101
Pipe Length	1.9m	0.9m
Depth to Invert	-0.47	-0.47
Invert Level	79.707	79.707
Finished Surface Level	79.24	80.30
Chainage	0.00	1.98
		3.25
		79.000
		79.112



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Project Title
**86 Weston Road Subdivision
Stage 1**

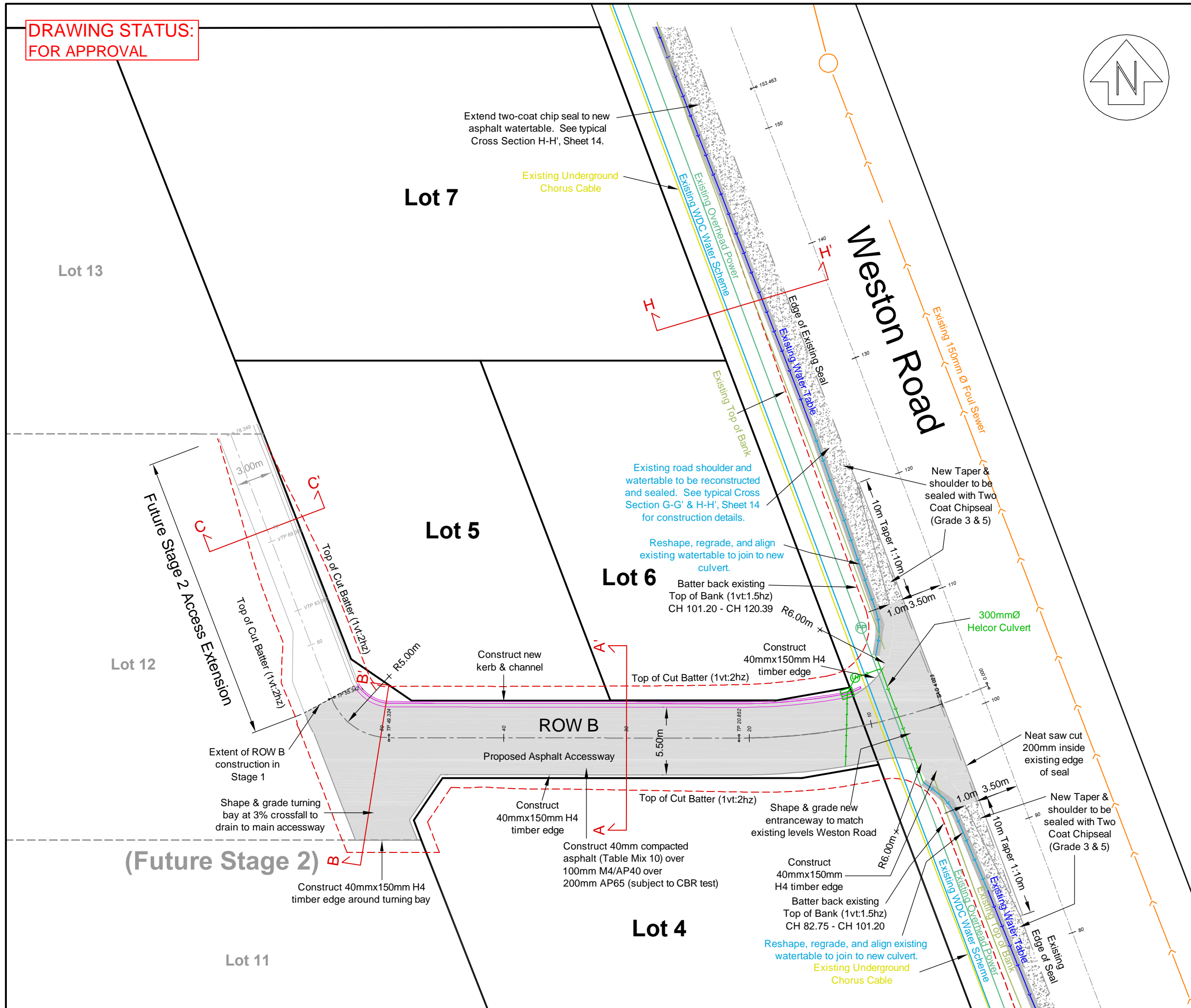
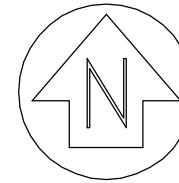
Sheet Title
**Stormwater Long Sections
Sheet 6**

Scale	Datum
Horizontal 1:100 @ A3	Observation Point 2000
Vertical 1:100 @ A3	-

Job No. D11812	Plan No. 6	Revision 0
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Sheet 6 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

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Project Title
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Stage 1**

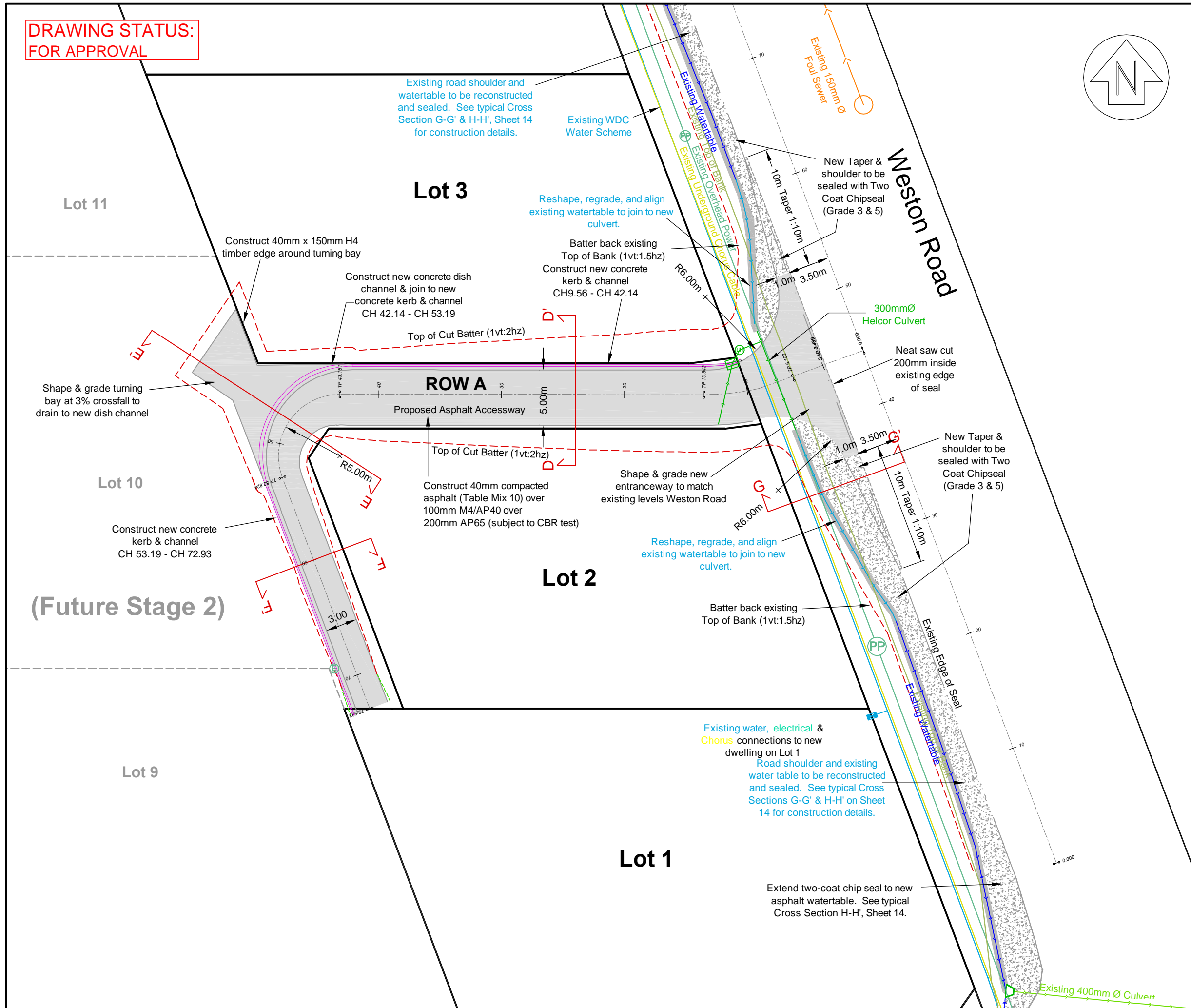
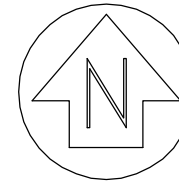
Sheet Title
**Roading Design - ROW B
Sheet 7**

Horizontal	Scale	Datum
Horizontal	1:300 @ A3	Observation Point 2000
Vertical	-	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 7 of 16 Drawing **11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

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Project Title
**86 Weston Road Subdivision
Stage 1**

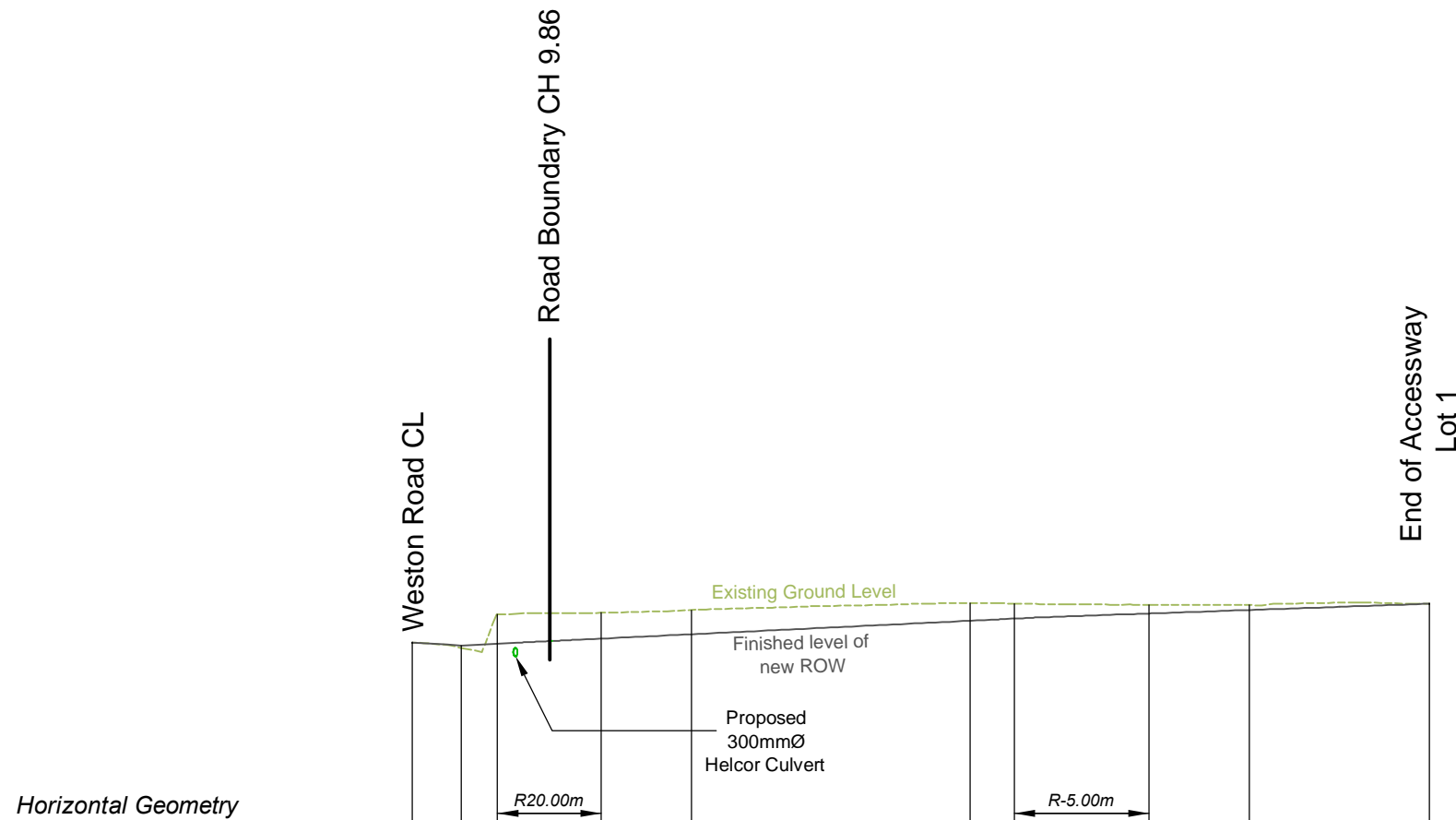
Sheet Title
**Roading Design - ROW A
Sheet 8**

Horizontal	Scale	Datum
Horizontal	1:300 @ A3	Observation Point 2000
Vertical	-	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 8 of 16 Drawing **11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Horizontal Geometry

Datum R.L. 69.00

Vertical Curve Length											
Vertical Geometry		1:-33						1:46			
Existing Ground Level	80.131	79.939	81.130	81.191	81.293	81.533	81.524	81.480	81.467	81.521	
Cut(-)/Fill(+) to Finished Level	0.000	0.087	-1.048	-0.949	-0.912	-0.721	-0.644	-0.392	-0.224	-0.000	
Finished Level	80.132	80.026	80.082	80.242	80.381	80.812	80.880	81.088	81.243	81.521	
Chainage	0.00	3.49	6.10	13.54	20.00	40.00	43.16	52.82	60.00	72.93	

Longsection: ROW A

Status	Date
For Approval	4/12/2017

Notes
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No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

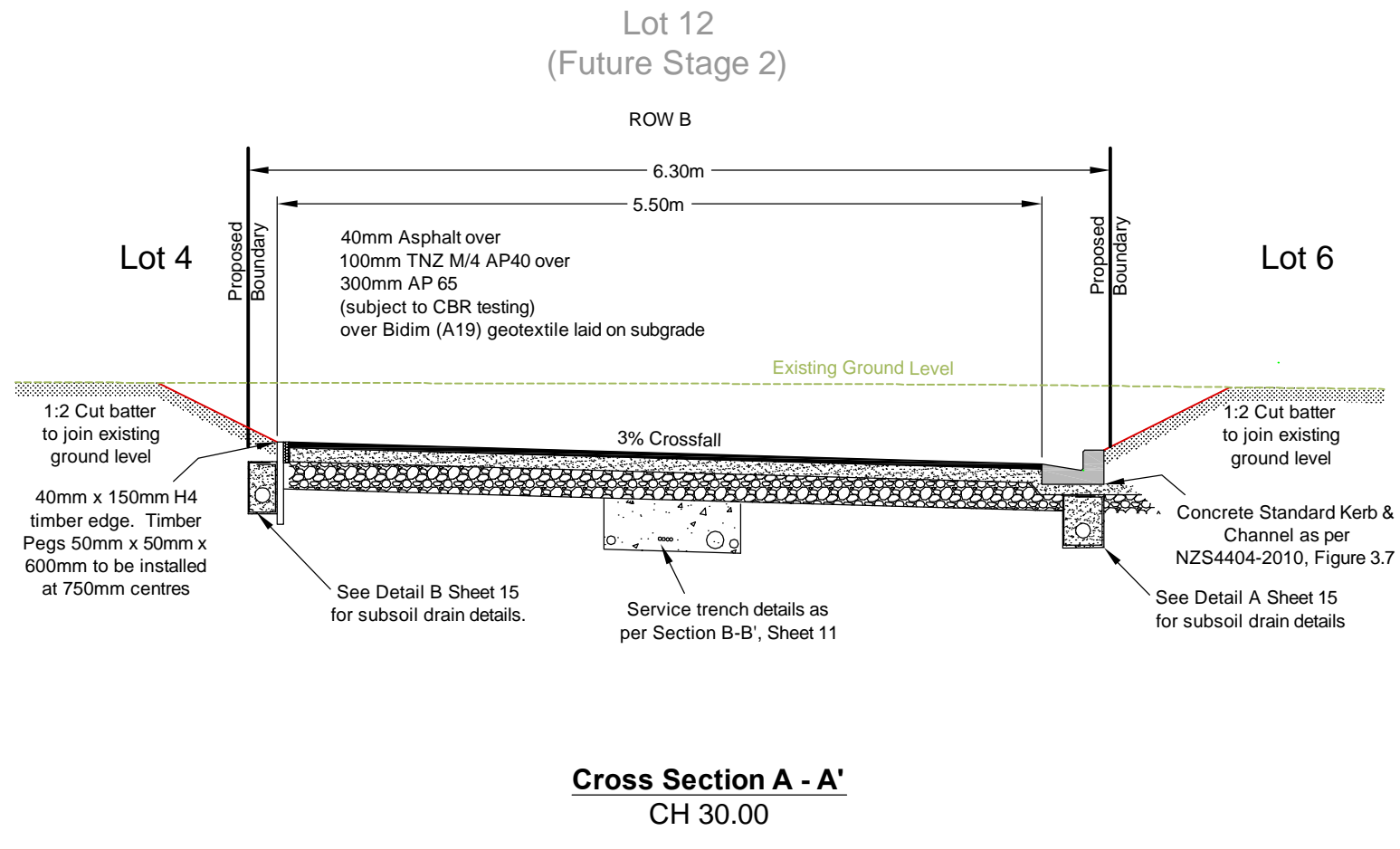
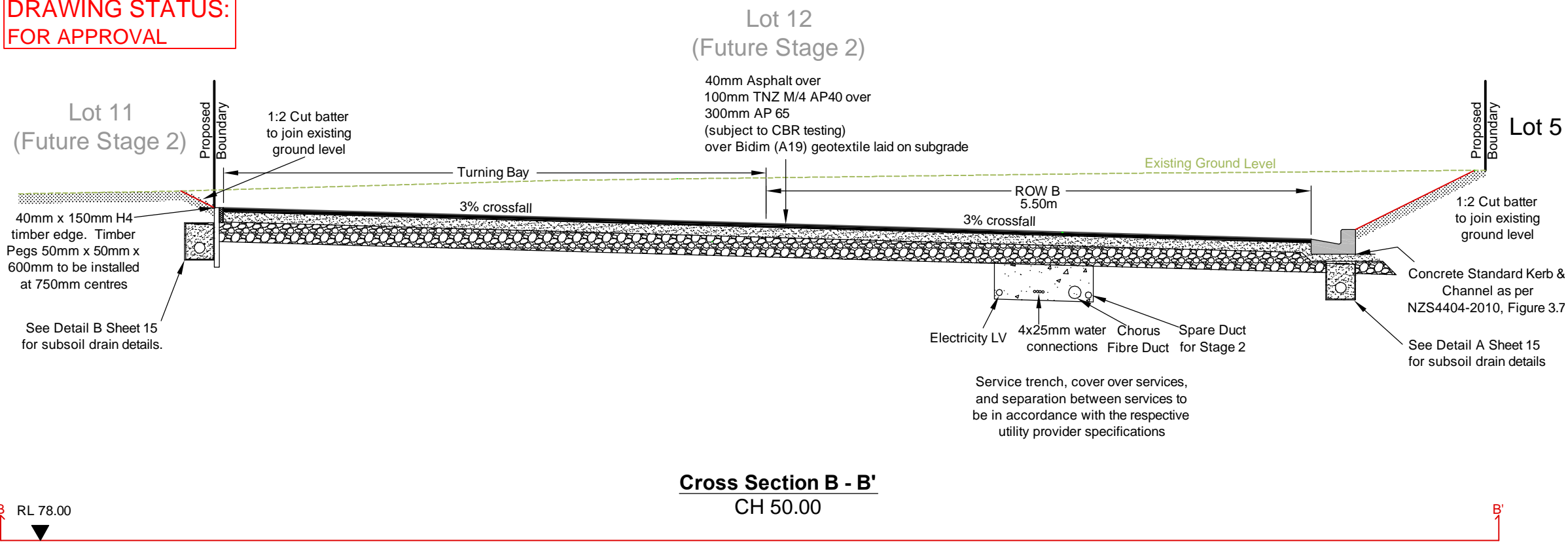
Sheet Title
**ROW A Long Section
Sheet 10**

Scale	Datum
Horizontal 1:500 @ A3	Observation Point 2000
Vertical 1:250 @ A3	-

Job No. D11812	Plan No. 6	Revision 0
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Sheet 10 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
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Status	Date
For Approval	4/12/2017

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Project Title
**86 Weston Road Subdivision
Stage 1**

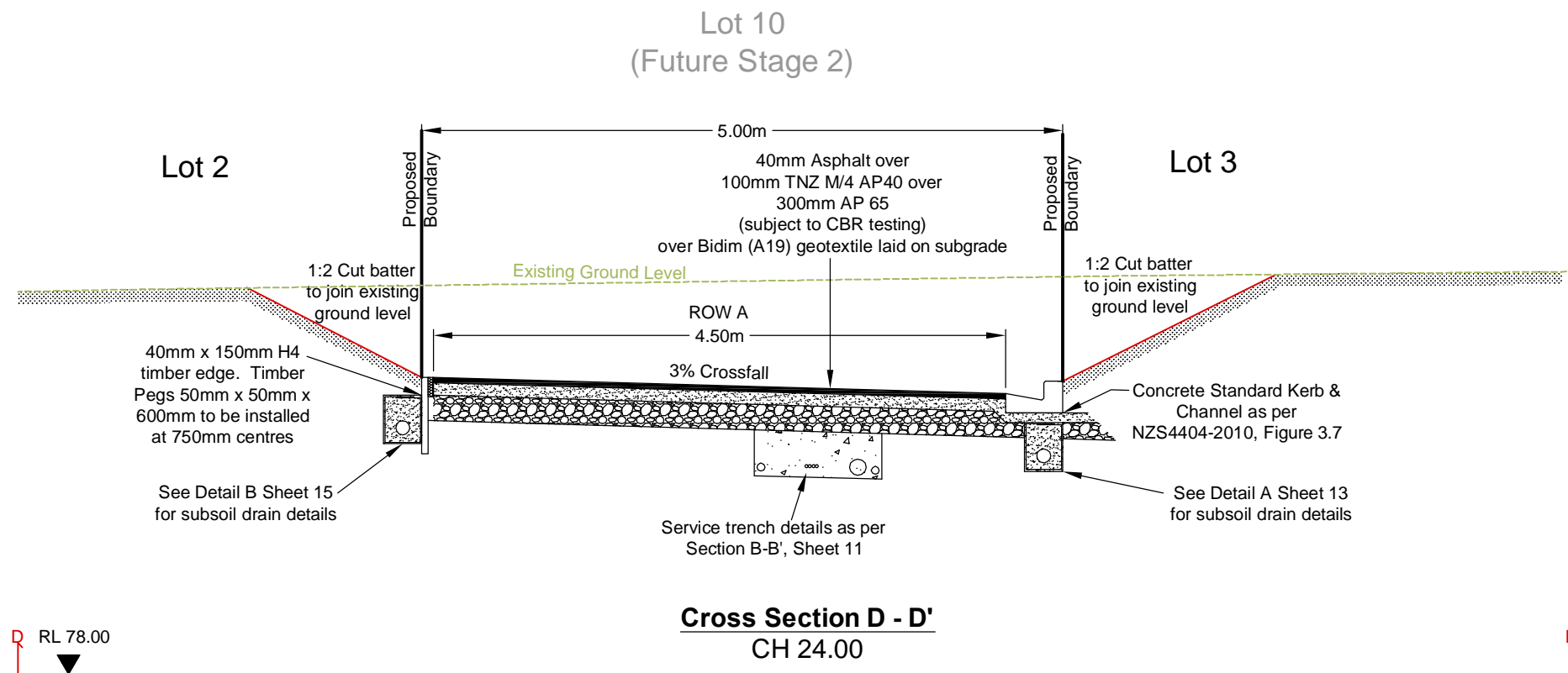
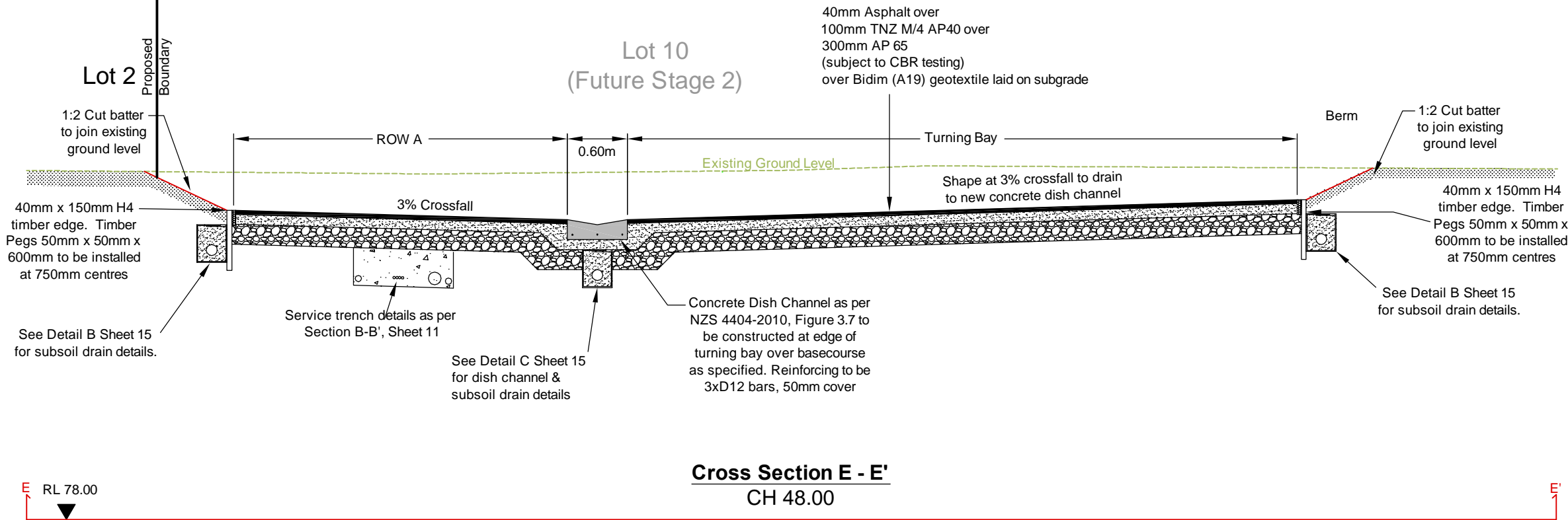
Sheet Title
**ROW B Cross Sections
Sheet 11**

Scale	Datum
Horizontal 1:50 @ A3	Observation Point 2000
Vertical 1:50 @ A3	-

Job No. D11812	Plan No. 6	Revision 0
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Sheet 11 of 16 Drawing **D11812/6/0**

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For Approval	4/12/2017

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No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

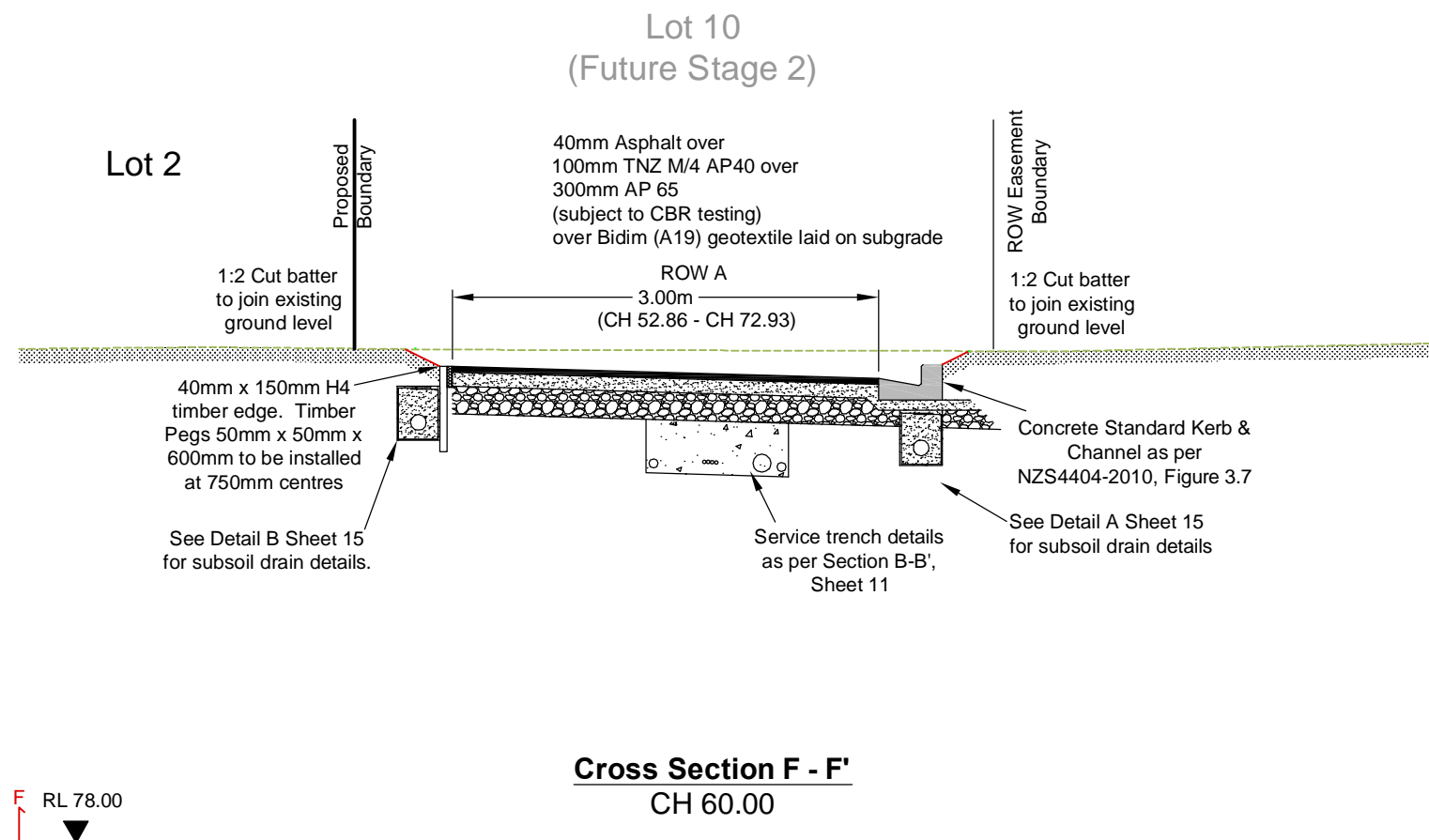
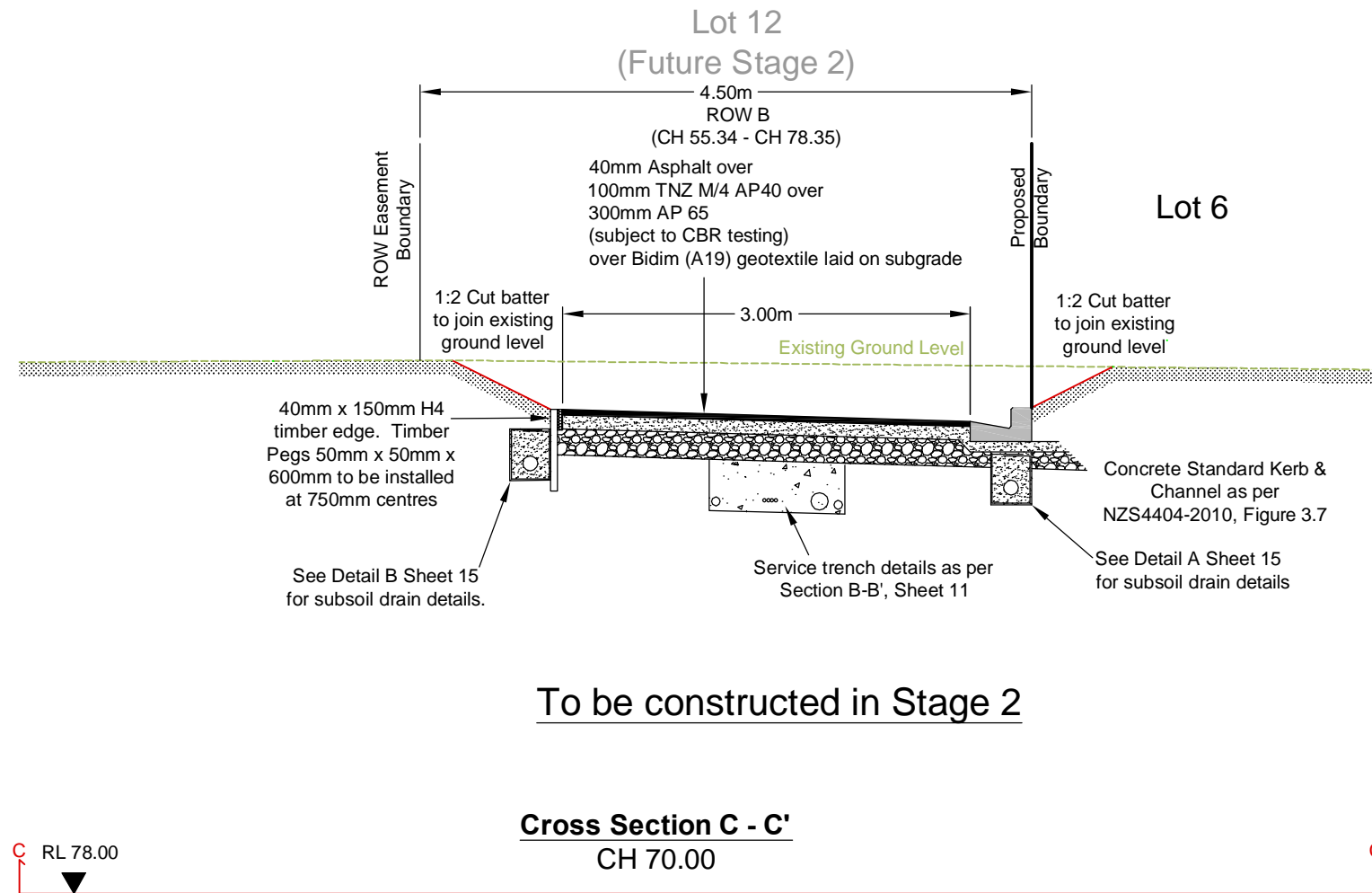
Sheet Title
**ROW A Cross Sections
Sheet 12**

Horizontal	Scale	Datum
Horizontal	1:50 @ A3	Observation Point 2000
Vertical	1:50 @ A3	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 12 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

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No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

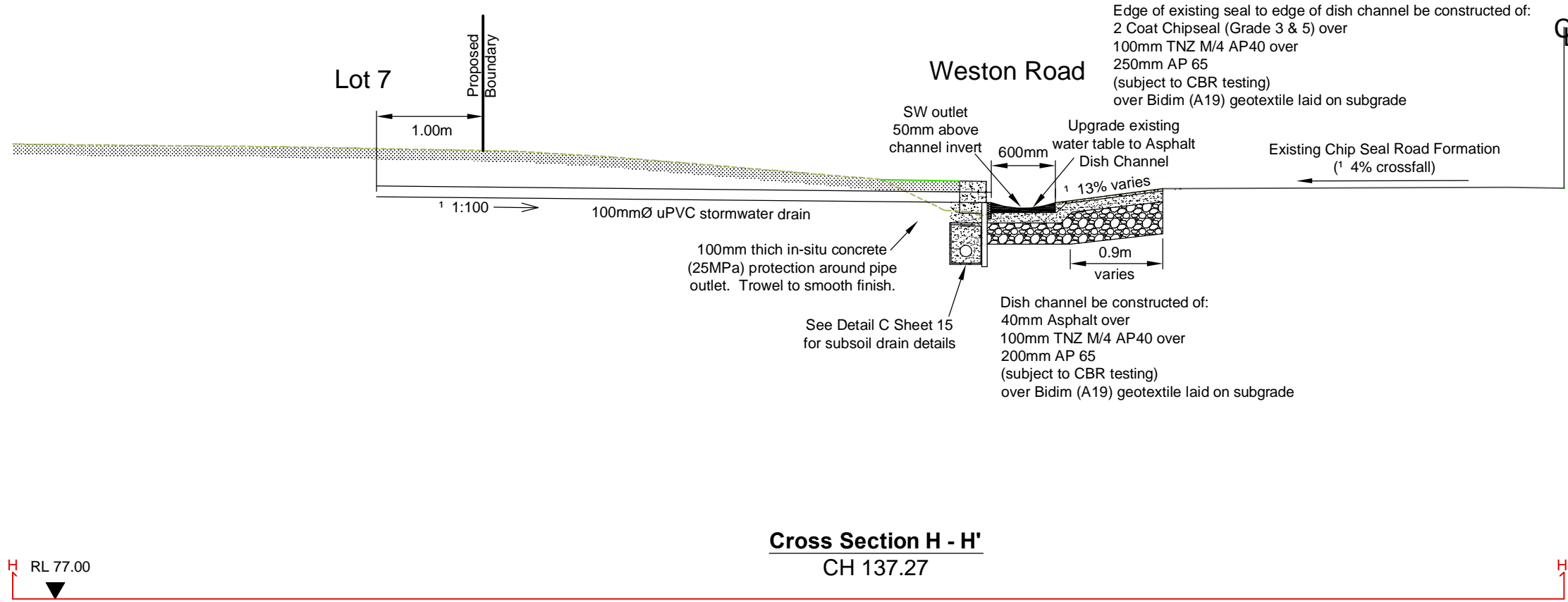
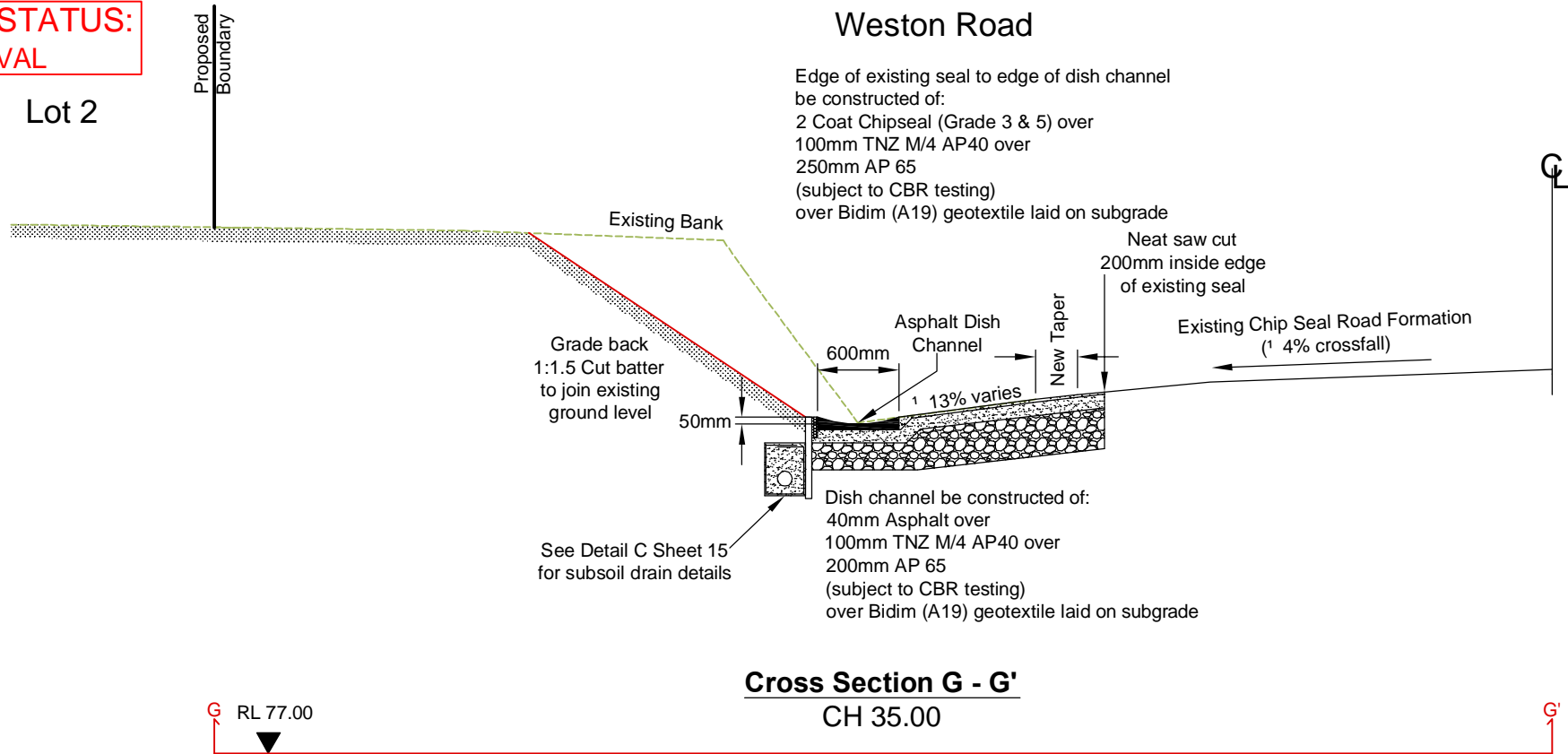
Sheet Title
**ROW A & B Cross Sections
Sheet 13**

	Scale	Datum
Horizontal	1:50 @ A3	Observation Point 2000
Vertical	1:50 @ A3	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 13 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
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Status	Date
For Approval	4/12/2017

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Project Title
**86 Weston Road Subdivision
Stage 1**

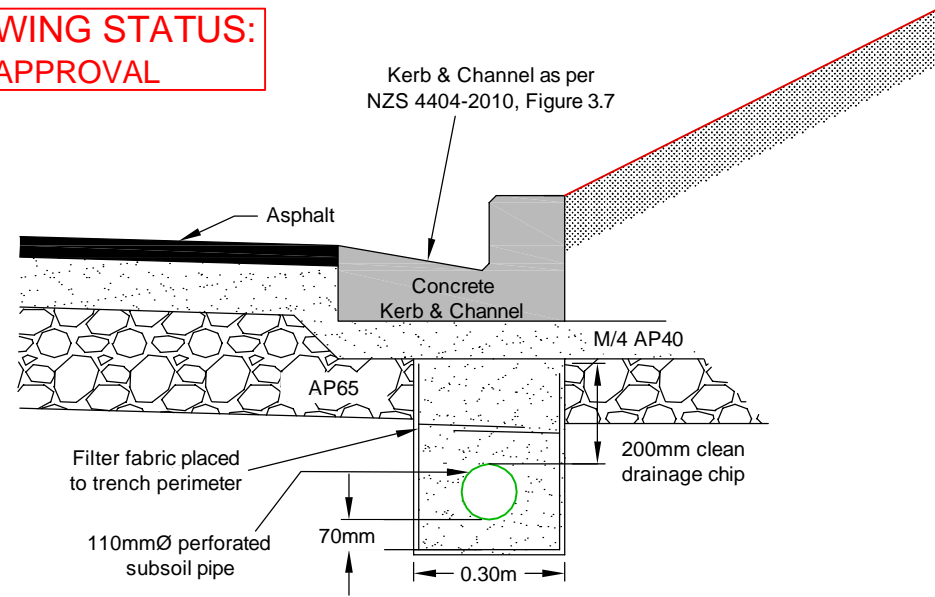
Sheet Title
**Road Cross Sections
Sheet 14**

Scale	Datum
Horizontal 1:50 @ A3	Observation Point 2000
Vertical 1:50 @ A3	-

Job No. D11812	Plan No. 6	Revision 0
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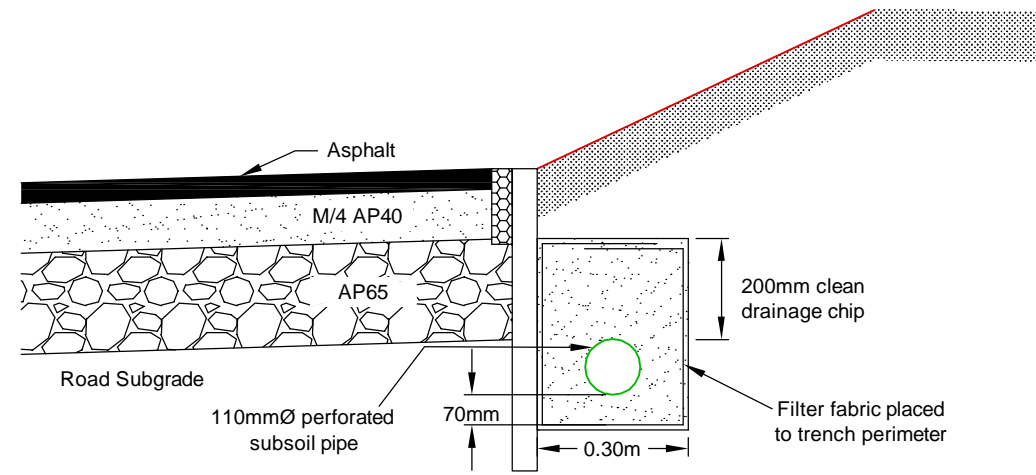
Sheet 14 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



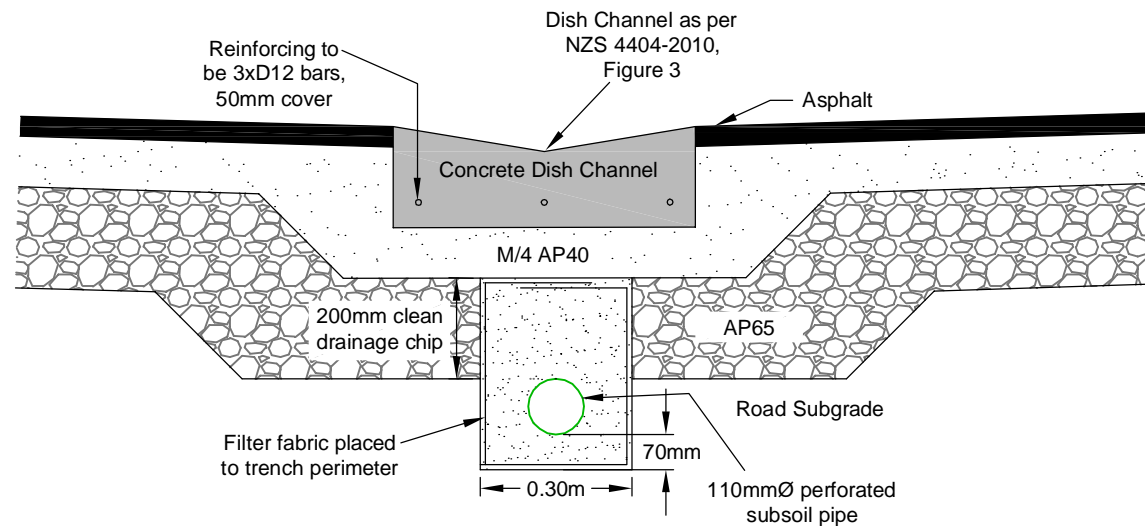
Detail A - Dish Channel Subsoil Drainage

Scale 1:15



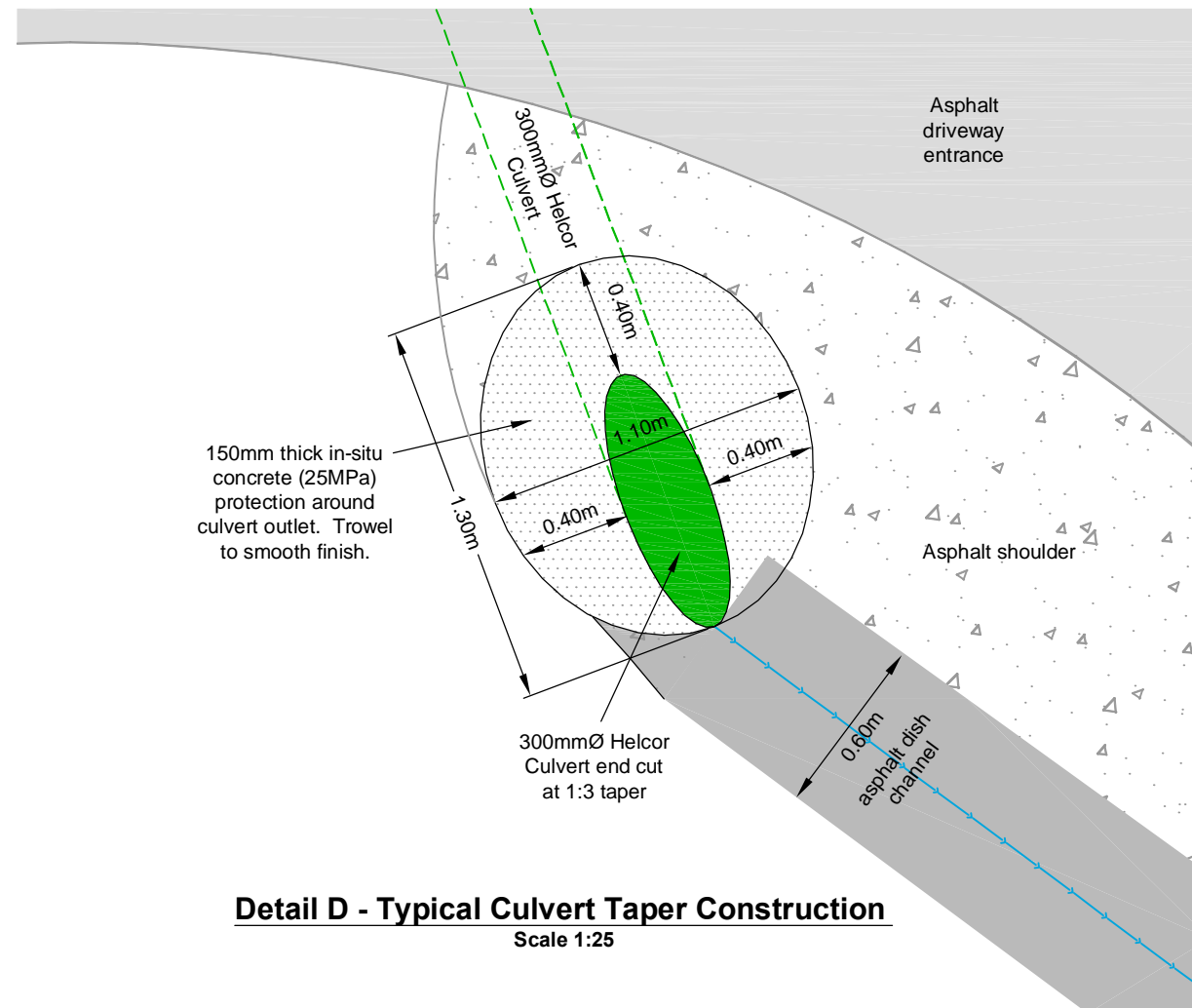
Detail B - Subsoil Drainage at Edge of Seal

Scale 1:15



Detail C - Kerb & Channel Subsoil Drainage

Scale 1:15



Detail D - Typical Culvert Taper Construction

Scale 1:25

Status	Date
For Approval	4/12/2017

Notes

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No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

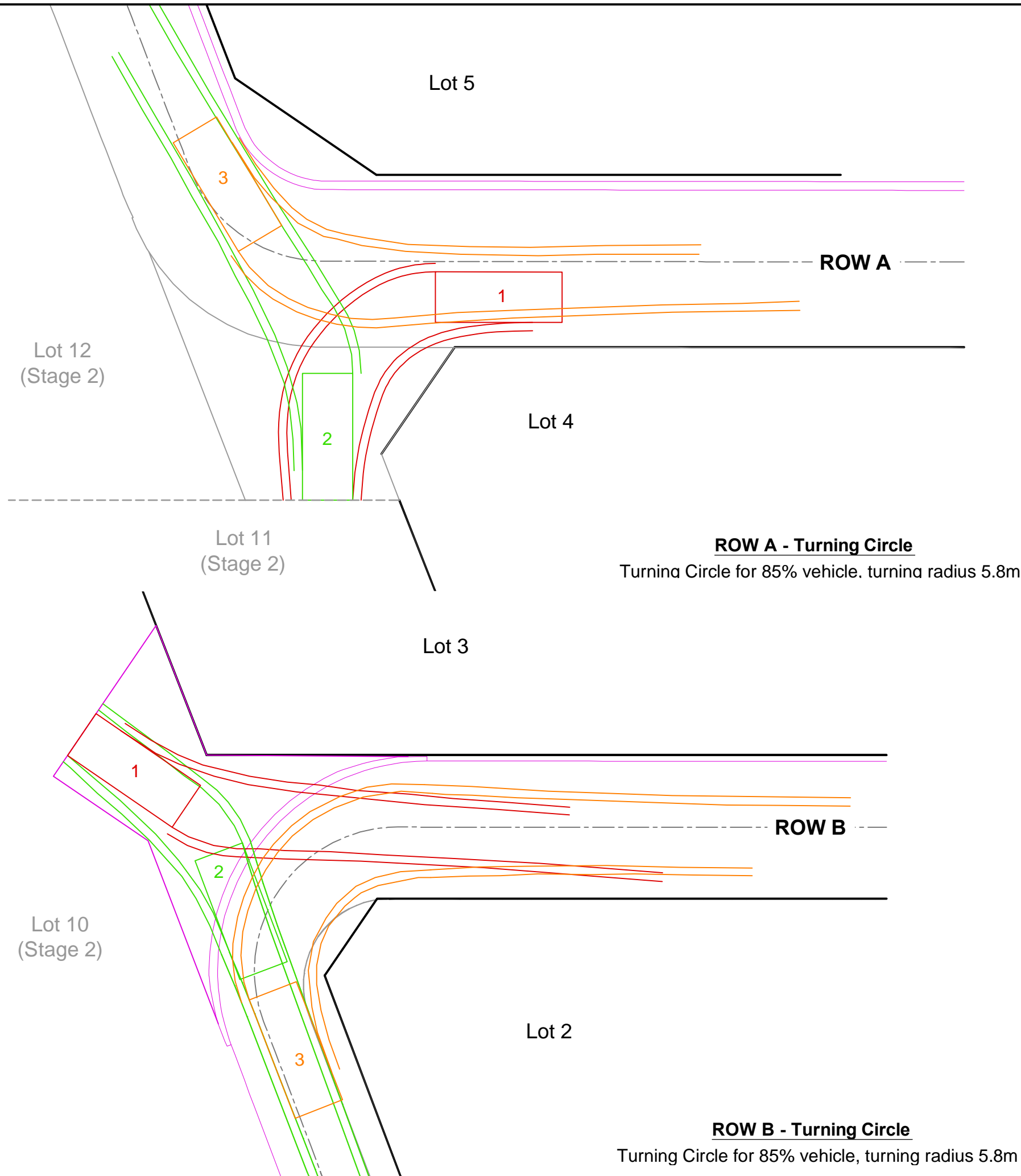
Sheet Title
**Road Details
Sheet 15**

Horizontal	Scale	Datum
Horizontal	as shown	Observation Point 2000
Vertical	-	-

Job No.	Plan No.	Revision
D11812	6	0

Sheet 15 of 16 Drawing **D11812/6/0**

**DRAWING STATUS:
FOR APPROVAL**



Status	Date
For Approval	4/12/2017

Notes
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No.	Revision



Project Title
**86 Weston Road Subdivision
Stage 1**

Sheet Title
**Turning Circles
85th Percentile Vehicle
Sheet 16**

Horizontal	Scale 1:150 @ A3	Datum Observation Point 2000
Vertical	-	-

Job No. D11812	Plan No. 6	Revision 0
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Sheet 16 of 16 Drawing **D11812/6/0**