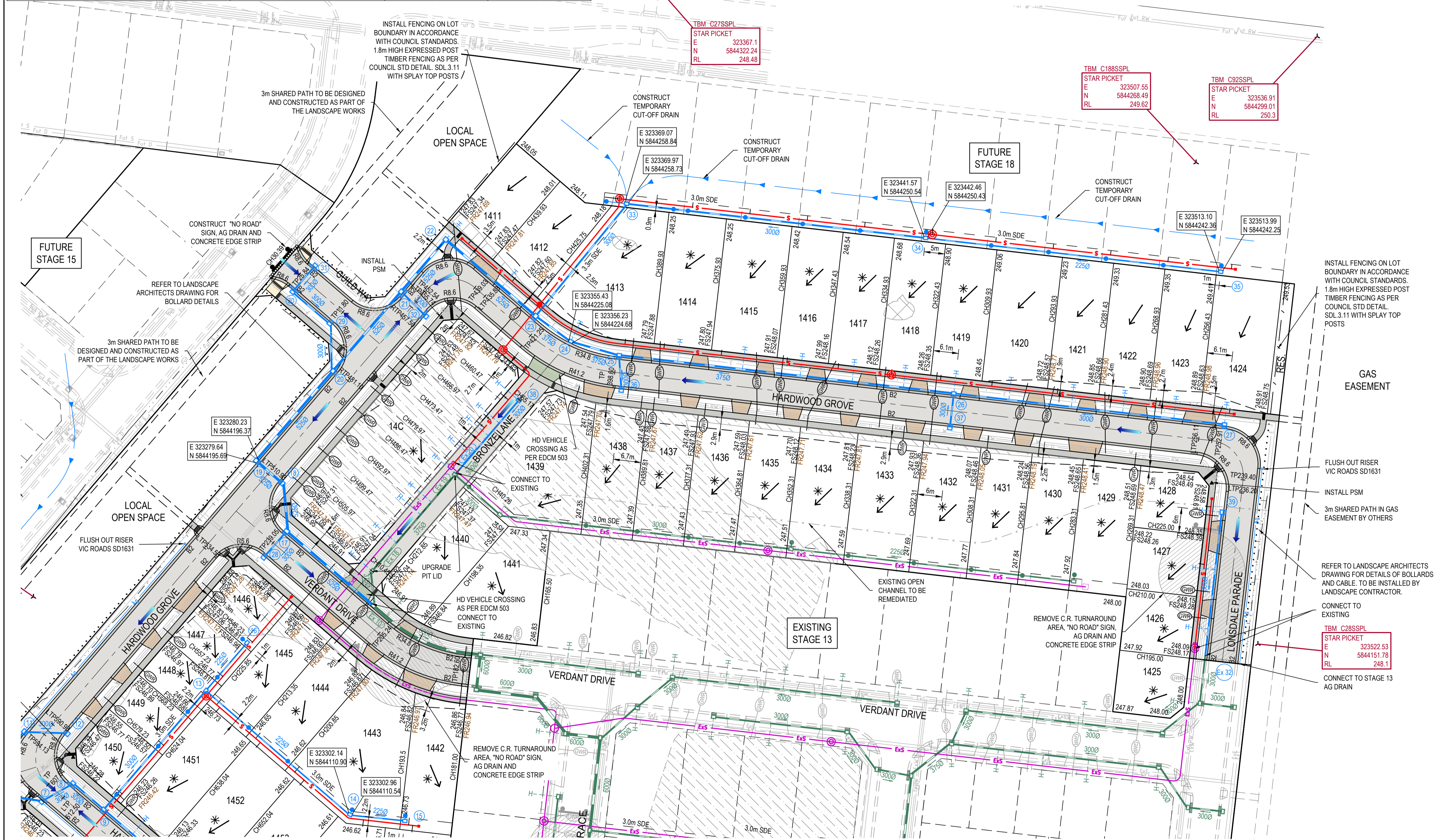


ROAD NAME	RESERVE WIDTH (m)	ROAD WIDTH (m)			KERB TYPE		VERGE WIDTH (m)	
		LIP to LIP	INV to INV	BACK to BACK	NTH/WEST	STH/EAST	NTH/WEST	STH/EAST
LONSDALE PARADE	15.00	6.40	7.30	7.60	B2	B2	4.35	3.35
HARDWOOD GROVE (LOTS 1411-1424)	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
HARDWOOD GROVE (LOCAL OPEN SPACE)	14.50	6.40	7.30	7.60	B2	B2	2.85	4.35
HARDWOOD GROVE (LOTS 1450-1455)	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
VERDANT DRIVE	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
WILLOWMEAD BOULEVARD	21.50	6.40	7.30	7.60	B2	B2	6.35	7.85
RAZIER'S LANE / MANN STREET	12.00	4.00	-	-	-	-	3.10	4.90
GUILD WAY	14.50	6.40	7.30	7.60	B2	B2	2.85	4.35
BRONZE LANE	7.00	7.00	-	-	-	-	-	-
FUTURE PAPER ROAD	4.00	4.00	-	-	-	-	-	-

ROAD NAME	SERVICES OFFSET SCHEDULE									
	GAS		NON-DRINKING WATER		DRINKING WATER		ELECTRICITY		NBN	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
LONSDALE PARADE	WEST	2.10	WEST	2.50	WEST	3.00	EAST	1.50	EAST	0.70
HARDWOOD GROVE (LOTS 1411-1424)	SOUTH	2.10	SOUTH	2.50	SOUTH	3.00	NORTH	2.65	NORTH	1.85
HARDWOOD GROVE (LOCAL OPEN SPACE)	EAST	2.10	EAST	2.50	EAST	3.00	WEST	1.15	WEST	0.30/0.35
HARDWOOD GROVE (LOTS 1450-1455)	NORTH	2.10	NORTH	2.50	NORTH	3.00	SOUTH	2.55	SOUTH	1.85
VERDANT DRIVE	NORTH	2.10	NORTH	2.50	NORTH	3.00	SOUTH	2.55	SOUTH	1.85
WILLOWMEAD BOULEVARD	NORTH	2.10	NORTH	2.50	NORTH	3.00	SOUTH	4.05	SOUTH	3.35
RAZIER'S LANE / MANN STREET	EAST	1.80	EAST	2.20	EAST	2.70	EAST	4.20	EAST	3.50
GUILD WAY	NORTH	0.50	NORTH	1.00	NORTH	1.50	SOUTH	2.40	SOUTH	1.85
BRONZE LANE	-	-	-	-	-	-	-	-	-	-
FUTURE PAPER ROAD	EAST	1.80	EAST	2.20	EAST	2.60	EAST	3.65	EAST	3.15



LEGEND - LAYOUT PLAN	
[Symbol]	STORMWATER DRAIN, PIT & PROPERTY INLET
[Symbol]	MAIN DRAIN
[Symbol]	SWALE DRAIN
[Symbol]	SEWER & MAINTENANCE STRUCTURES
[Symbol]	HOUSE DRAIN
[Symbol]	ELECTRICITY (U.GROUND)
[Symbol]	GAS
[Symbol]	TELSTRA
[Symbol]	WATER
[Symbol]	RECYCLED WATER
[Symbol]	AG. DRAIN
[Symbol]	SERVICE CONDUITS
[Symbol]	TACTILE PAVERS
[Symbol]	EXISTING STORMWATER DRAIN
[Symbol]	EXISTING MAIN DRAIN
[Symbol]	EXISTING SWALE DRAIN
[Symbol]	EXISTING SEWER & MAINTENANCE STRUCTURES
[Symbol]	EXISTING HOUSE DRAIN
[Symbol]	EXISTING ELECTRICITY (UNDER GROUND)
[Symbol]	EXISTING GAS
[Symbol]	EXISTING TELSTRA
[Symbol]	EXISTING WATER
[Symbol]	EXISTING RECYCLED WATER
[Symbol]	EXISTING AG. DRAIN
[Symbol]	M
[Symbol]	EXISTING TACTILE PAVERS
[Symbol]	FUTURE STORMWATER DRAIN
[Symbol]	FUTURE MAIN DRAIN
[Symbol]	FUTURE SWALE DRAIN
[Symbol]	FUTURE SEWER & MAINTENANCE STRUCTURES
[Symbol]	FUTURE HOUSE DRAIN
[Symbol]	FUTURE ELECTRICITY (UNDER GROUND)
[Symbol]	FUTURE GAS
[Symbol]	FUTURE WATER
[Symbol]	FUTURE RECYCLED WATER
[Symbol]	FUTURE AG. DRAIN
[Symbol]	FUTURE SERVICE CONDUITS
[Symbol]	FUTURE TACTILE PAVERS
[Symbol]	ZERO LOT LINES
[Symbol]	EXISTING SURFACE LEVEL
[Symbol]	FS140.35 FINISHED BUILDING LEVEL
[Symbol]	FR157.40 FINISHED RIDGE LINE LEVEL
[Symbol]	CH270.00 CHAINAGE
[Symbol]	TW159.60 TOP OF RETAINING WALL LEVEL
[Symbol]	BW159.00 BOTTOM OF RETAINING WALL LEVEL
[Symbol]	STRUCTURAL FILL > 200mm DEEP
[Symbol]	EXISTING STRUCTURAL FILL > 200mm DEEP
[Symbol]	CUT > 200mm DEEP
[Symbol]	DIRECTION OF FALL
[Symbol]	OVERLAND FLOW
[Symbol]	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
[Symbol]	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
[Symbol]	EXISTING RED GUM TREE & CANOPY TO BE REMOVED
[Symbol]	EXISTING OTHER SPECIES TREE & CANOPY TO BE REMOVED
[Symbol]	EXISTING RED GUM TO BE RETAINED
[Symbol]	EXISTING OTHER SPECIES TO BE RETAINED
[Symbol]	PERMANENT SURVEY MARK
[Symbol]	TEMPORARY BENCH MARK
[Symbol]	PROPOSED DRIVEWAY & FOOTPATH
[Symbol]	PROPOSED SHARED FOOTPATH
[Symbol]	PROPOSED ROAD PAVING
[Symbol]	PROPOSED INDUSTRIAL VEHICLE CROSSING

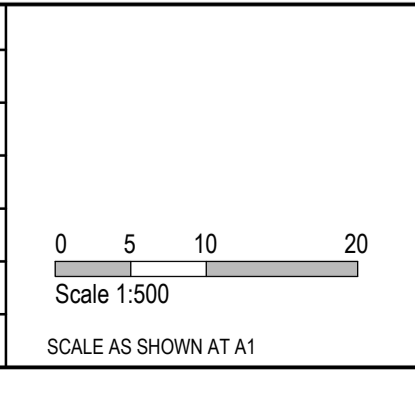
WARNING
BEWARE OF UNDERGROUND SERVICES
 The locations of underground services are approximate only and their exact position should be proven on site.
 No guarantee is given that all existing services are shown.
 Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

FOR CONTINUATION REFER SHEET 1700E-14-03

AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.		TITLE	NAME
Quality Management ISO 9001	OH&S Management AS/NZS 3500	DRAFTER	Y.Song
Global-Mark.com.au	Global-Mark.com.au	DESIGNER	Y.Song
Global-Mark.com.au	Global-Mark.com.au	CHECKED	M.Angay
Global-Mark.com.au	Global-Mark.com.au	AUTHORISED	A.Burrows
Global-Mark.com.au	Global-Mark.com.au	REFERENCE No. 1	1700E-14
Global-Mark.com.au	Global-Mark.com.au	REFERENCE No. 2	



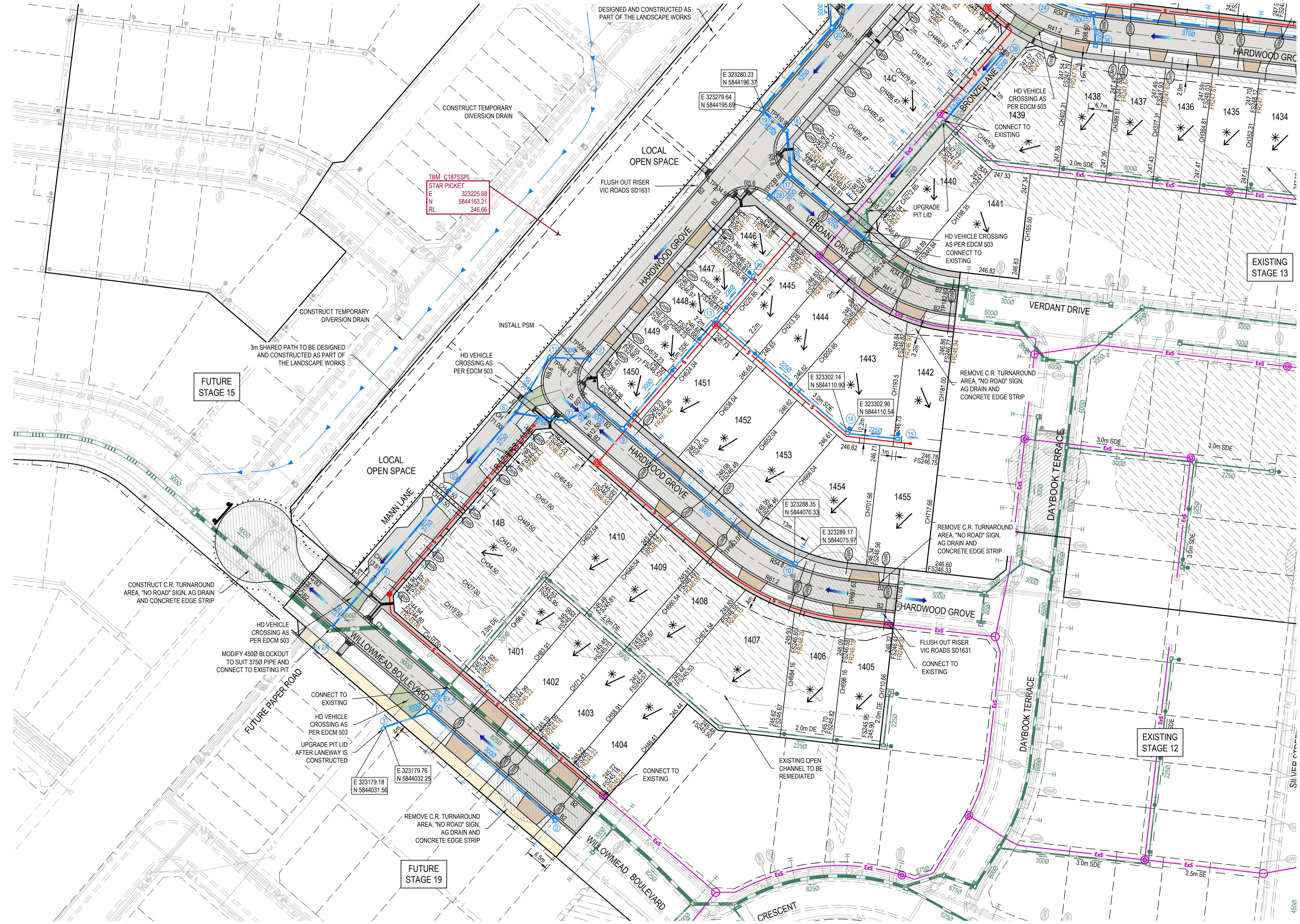
SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Layout Plan - 1

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-02	SHEET No. 02 of 27	REVISION 2
---------------------	--------------------------------------	-----------------------	---------------

FOR CONTINUATION REFER SHEET 1700E-14-02



LEGEND - LAYOUT PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	ELECTRICITY (U. GROUND)
	GAS
	TELSTRA
	WATER
	RECYCLED WATER
	AG. DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING SWALE DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
	EXISTING ELECTRICITY (UNDER GROUND)
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING AG. DRAIN
	M
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE ELECTRICITY (UNDER GROUND)
	FUTURE GAS
	FUTURE TELSTRA
	FUTURE WATER
	FUTURE RECYCLED WATER
	FUTURE AG. DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	ZERO LOT LINES
	141.34 EXISTING SURFACE LEVEL
	FS140.35 FINISHED BUILDING LINE LEVEL
	FR157.40 FINISHED RIDGE LINE LEVEL
	CH270.00 CHAINAGE
	TW159.60 TOP OF RETAINING WALL LEVEL
	BW159.00 BOTTOM OF RETAINING WALL LEVEL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING RED GUM TREE & CANOPY TO BE REMOVED
	EXISTING OTHER SPECIES TREE & CANOPY TO BE REMOVED
	EXISTING RED GUM TO BE RETAINED
	EXISTING OTHER SPECIES TO BE RETAINED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	PROPOSED INDUSTRIAL VEHICLE CROSSING

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. Locate all underground services before commencement of works. **DIAL 1100 BEFORE YOU DIG**
www.1100.com.au

AS CONSTRUCTED PLANS
The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

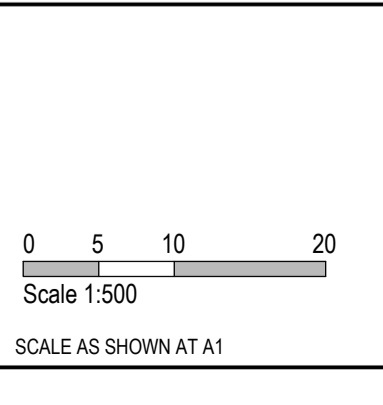
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
Global Mark.com.au®

OH&S Management AS/NZS 45001
Global Mark.com.au®

Environmental Management ISO 14001
Global Mark.com.au®

TITLE	NAME
DRAFTER	Y. Song
DESIGNER	Y. Song
CHECKED	M. Angay
AUTHORISED	A. Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

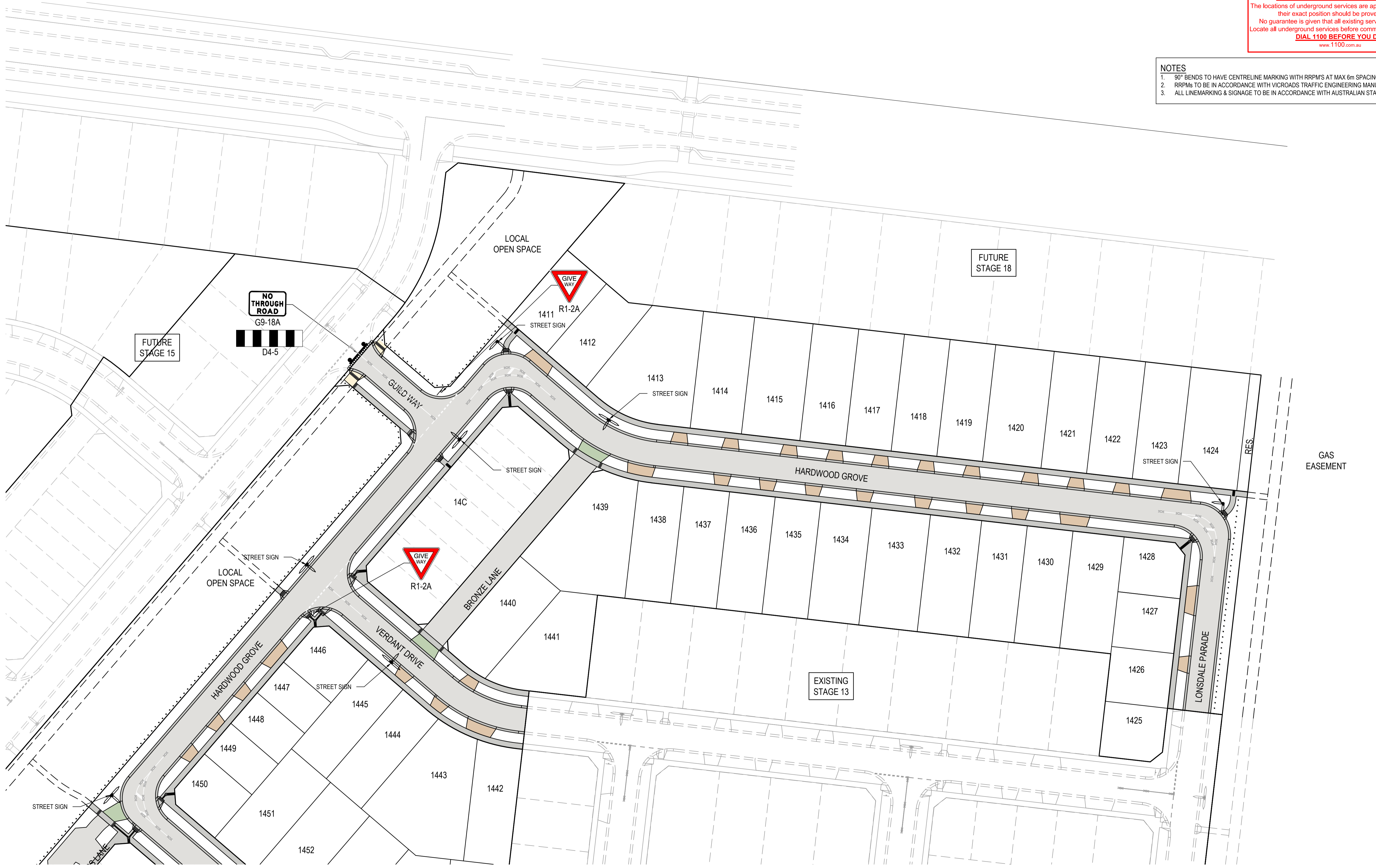
mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Layout Plan - 2

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-03	SHEET No. 03 of 27	REVISION 2
----------------------------	---	------------------------------	----------------------

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.
 Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
 www.1100.com.au

NOTES
 1. 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPMS AT MAX 6m SPACING.
 2. RRPMS TO BE IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOL 2.
 3. ALL LINEMARKING & SIGNAGE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742.



FOR CONTINUATION REFER SHEET 1700E-14-05

AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

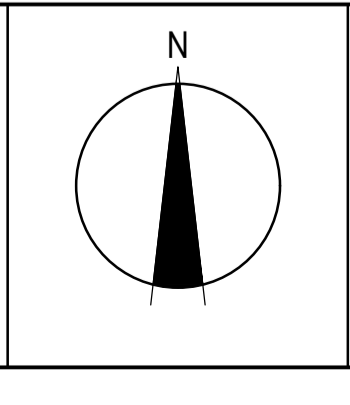
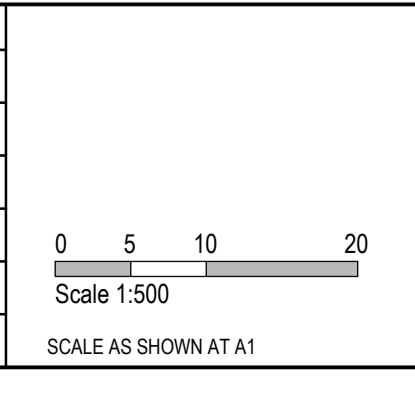
AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 OHS Management AS/NZS 4500
 Environmental Management ISO 14001

Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC
 Member of the **Surbana Jurong Group**
 © ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500



Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Signage & Linemarking Plan - 1

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-04	SHEET No. 04 of 27	REVISION 1
---------------------	--------------------------------------	-----------------------	---------------

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.
 Locate all underground services before commencement of works.
DIAL 1100 BEFORE YOU DIG
 www.1100.com.au

- NOTES**
- 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPMS AT MAX 6m SPACING.
 - RRPMS TO BE IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL MANUAL VOL 2.
 - ALL LINEMARKING & SIGNAGE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742.



AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

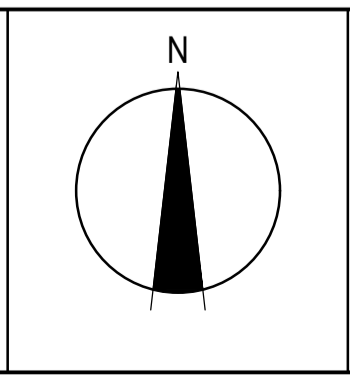
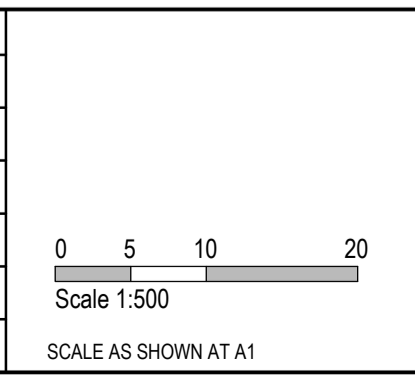
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 Global-Mark.com.au®

Oris Management - AS/NZS 1801
 Global-Mark.com.au®

Environmental Management ISO 14001
 Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC
 Member of the Surbana Jurong Group
 © ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500



Olive Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Signage & Linemarking Plan - 2

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-05	SHEET No. 05 of 27	REVISION 2
---------------------	--------------------------------------	-----------------------	---------------



LEGEND - EARTHWORKS PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	ELECTRICITY (U.GROUND)
	ELECTRICITY (O.HEAD)
	GAS
	TELSTRA
	OPTIC FIBRE
	WATER
	RECYCLE WATER
	AG. DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
	EXISTING ELECTRICITY (UNDER GROUND)
	EXISTING ELECTRICITY OVERHEAD
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING OPTIC FIBRE
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING AG. DRAIN
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE ELECTRICITY (UNDER GROUND)
	FUTURE ELECTRICITY OVERHEAD
	FUTURE GAS
	FUTURE TELSTRA
	FUTURE OPTIC FIBRE
	FUTURE WATER
	FUTURE RECYCLED WATER
	FUTURE AG. DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	ZERO LOT LINES
	141.34 EXISTING SURFACE LEVEL
	FS140.35 FINISHED BUILDING LINE LEVEL
	FR157.40 FINISHED RIDGE LINE LEVEL
	CH270.00 CHAINAGE
	TW159.60 TOP OF RETAINING WALL LEVEL
	BW159.00 BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

FOR CONTINUATION REFER SHEET 1700E-14-07

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.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

AS CONSTRUCTED PLANS
The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

Scale 1:500
Scale AS SHOWN AT A1

SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Earthworks Plan - 1

MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
8 M2	1700E-14-06	06 of 27	1

FOR CONTINUATION REFER SHEET 1700E-14-06



LEGEND - EARTHWORKS PLAN	
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY	
	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	ELECTRICITY (U.GROUND)
	ELECTRICITY (O.HEAD)
	GAS
	TELSTRA
	OPTIC FIBRE
	WATER
	RECYCLE WATER
	AG. DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
	EXISTING ELECTRICITY (UNDER GROUND)
	EXISTING ELECTRICITY OVERHEAD
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING OPTIC FIBRE
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING AG. DRAIN
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE ELECTRICITY (UNDER GROUND)
	FUTURE ELECTRICITY OVERHEAD
	FUTURE GAS
	FUTURE TELSTRA
	FUTURE OPTIC FIBRE
	FUTURE WATER
	FUTURE RECYCLED WATER
	FUTURE AG. DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	ZERO LOT LINES
	141.34 EXISTING SURFACE LEVEL
	FS140.35 FINISHED BUILDING LINE LEVEL
	FR157.40 FINISHED RIDGE LINE LEVEL
	CH270.00 CHAINAGE
	TW159.60 TOP OF RETAINING WALL LEVEL
	BW159.00 BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

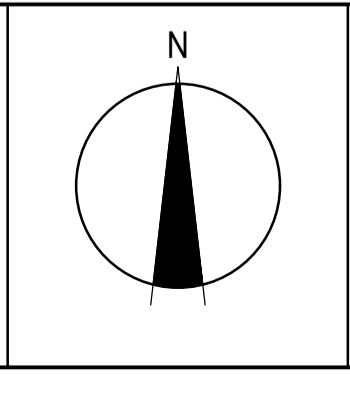
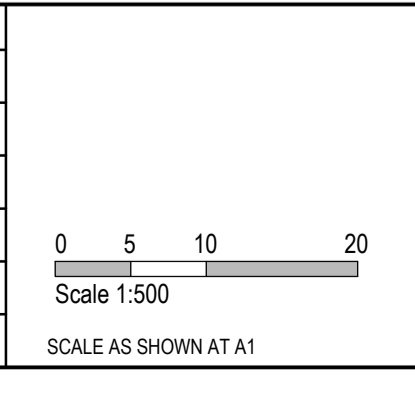
WARNING
BWARE OF UNDERGROUND SERVICES
 The locations of underground services are approximate only and their exact position should be proven on site.
 No guarantee is given that all existing services are shown.
 Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



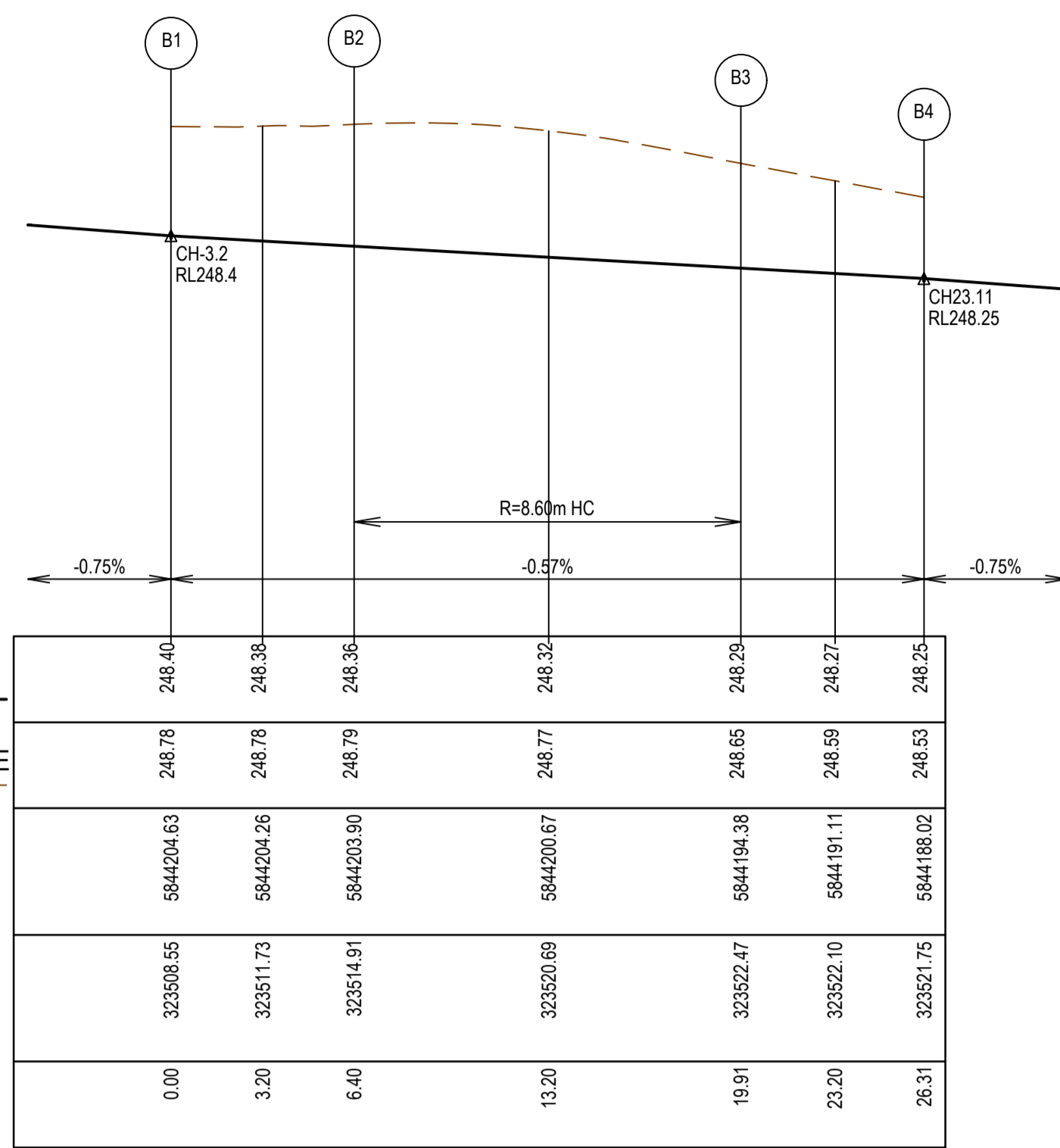
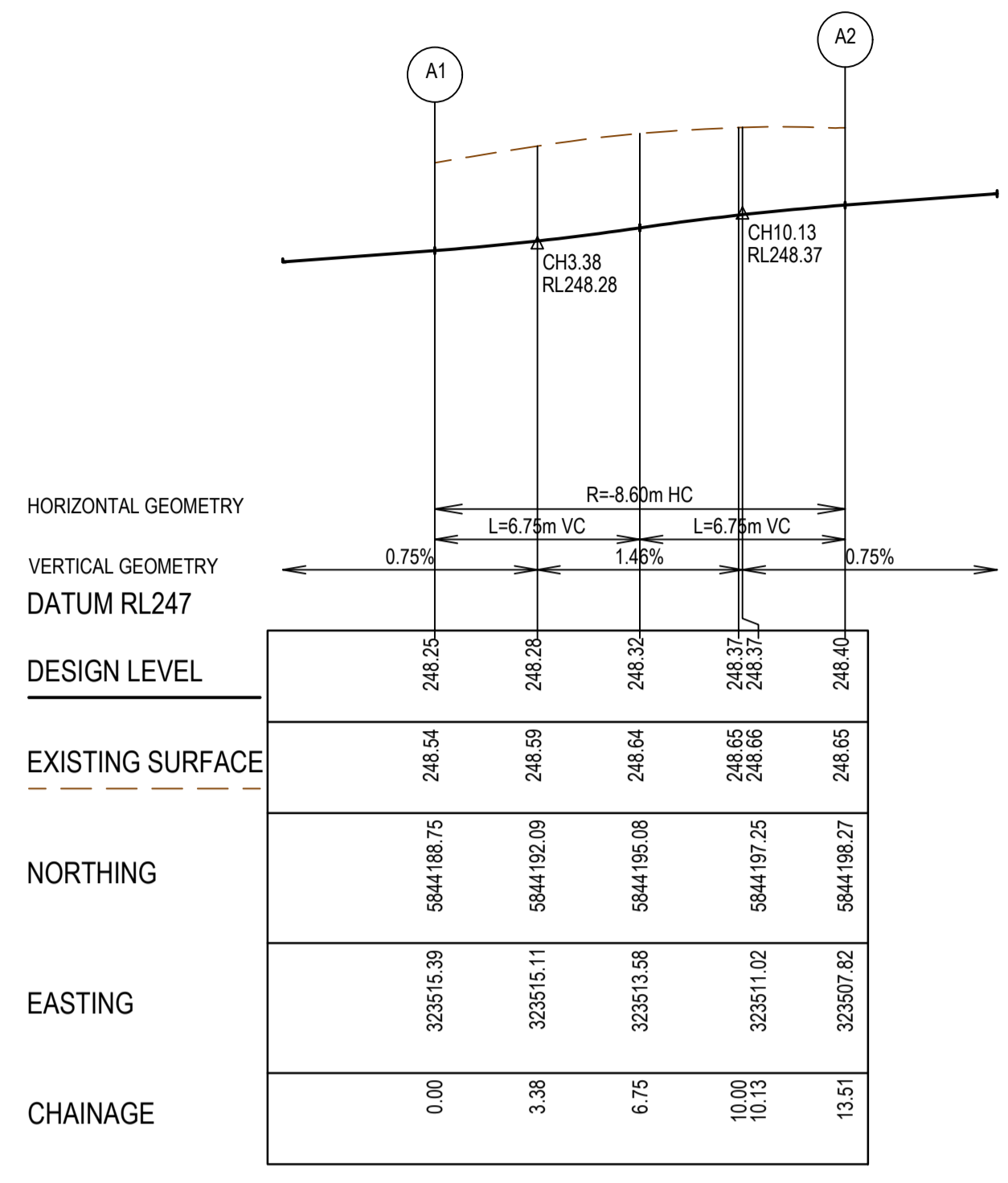
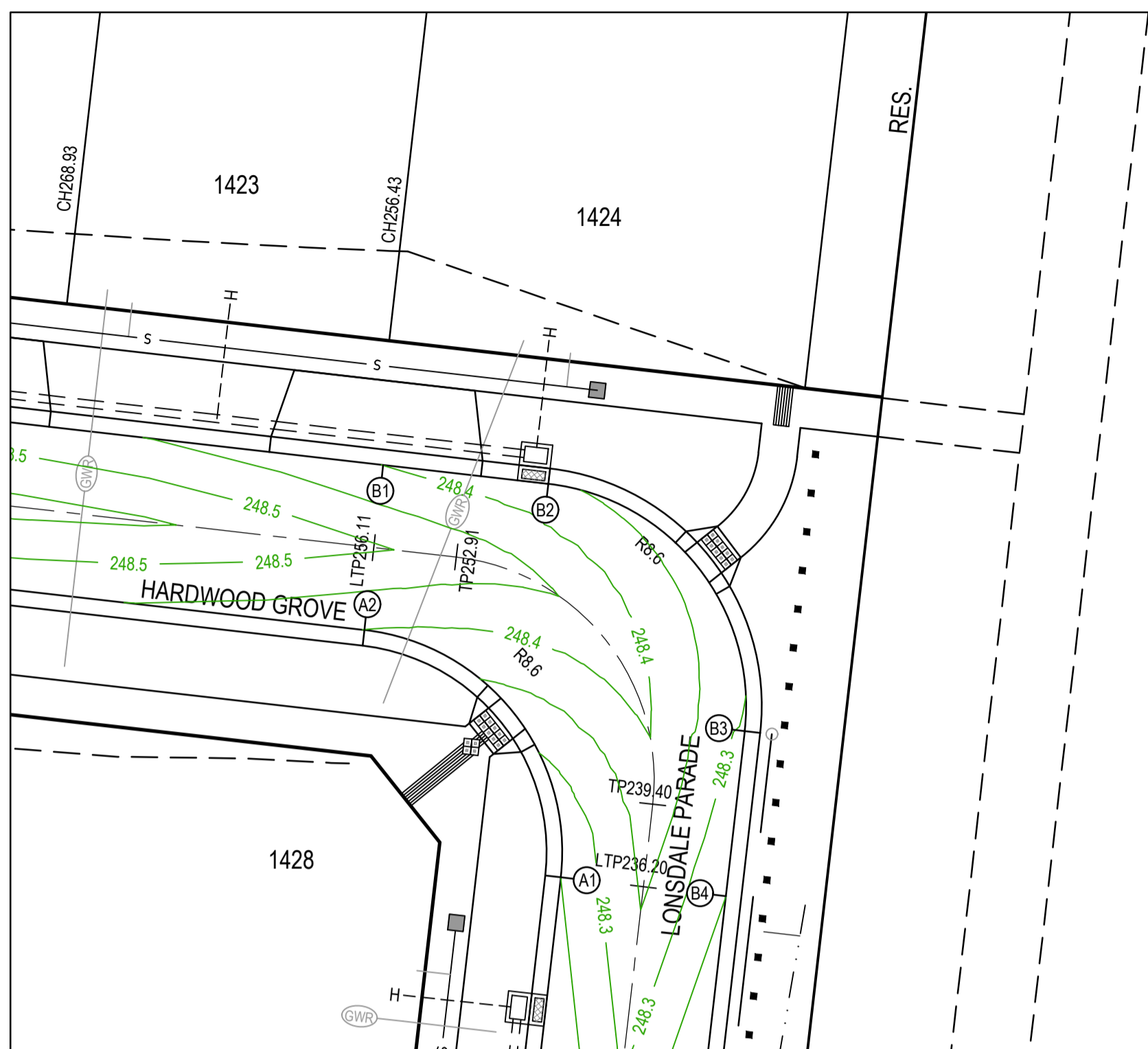
SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Earthworks Plan - 2

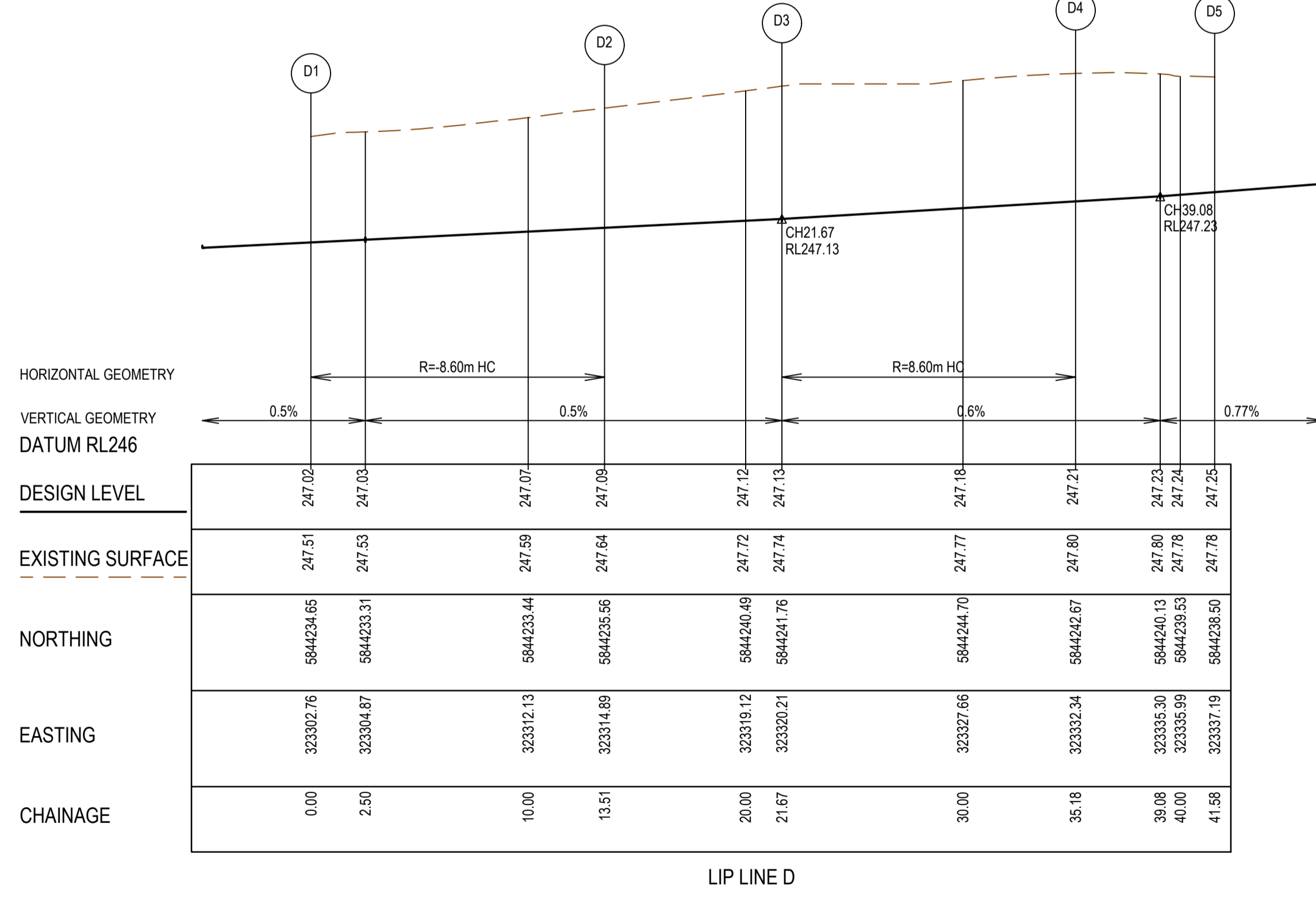
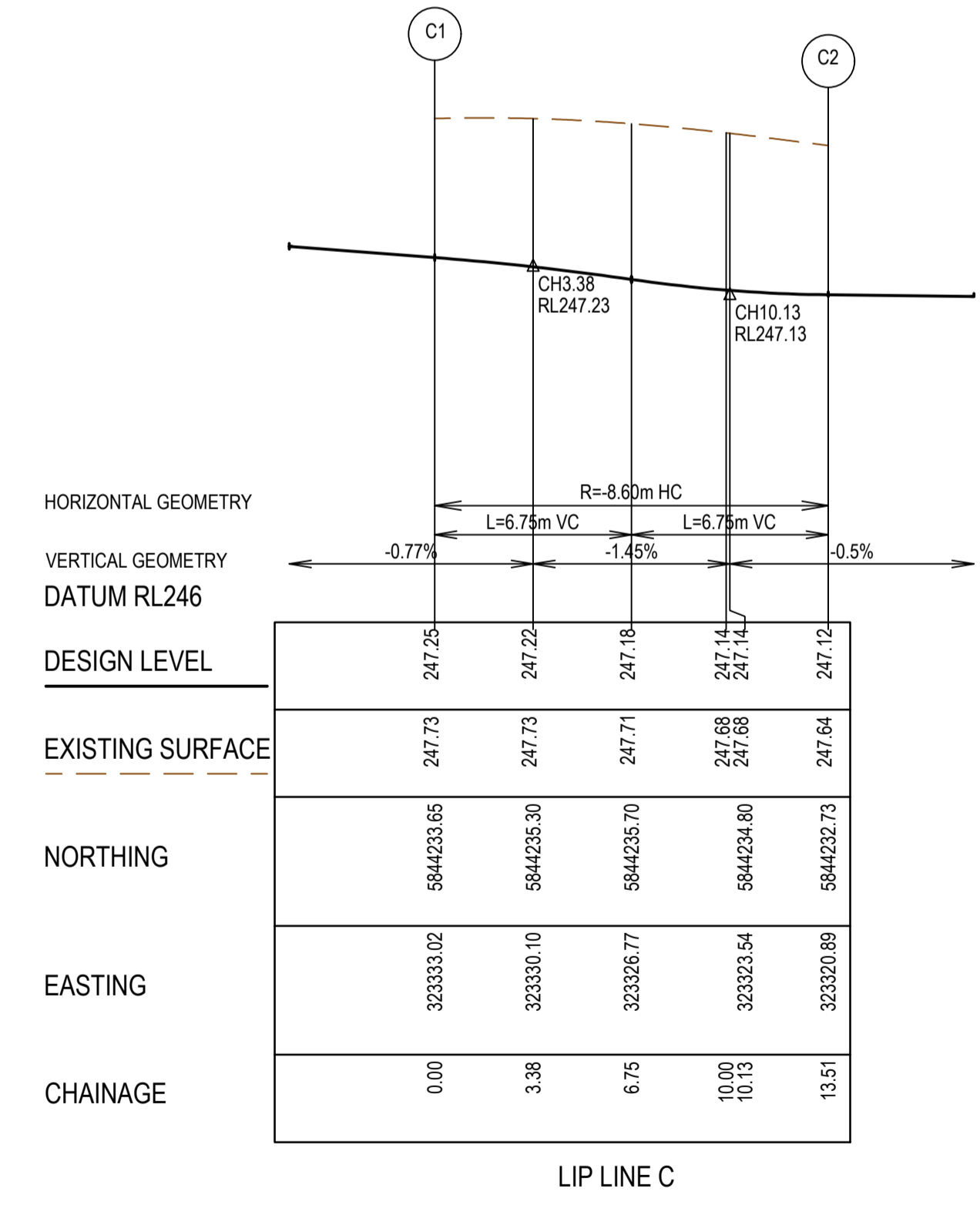
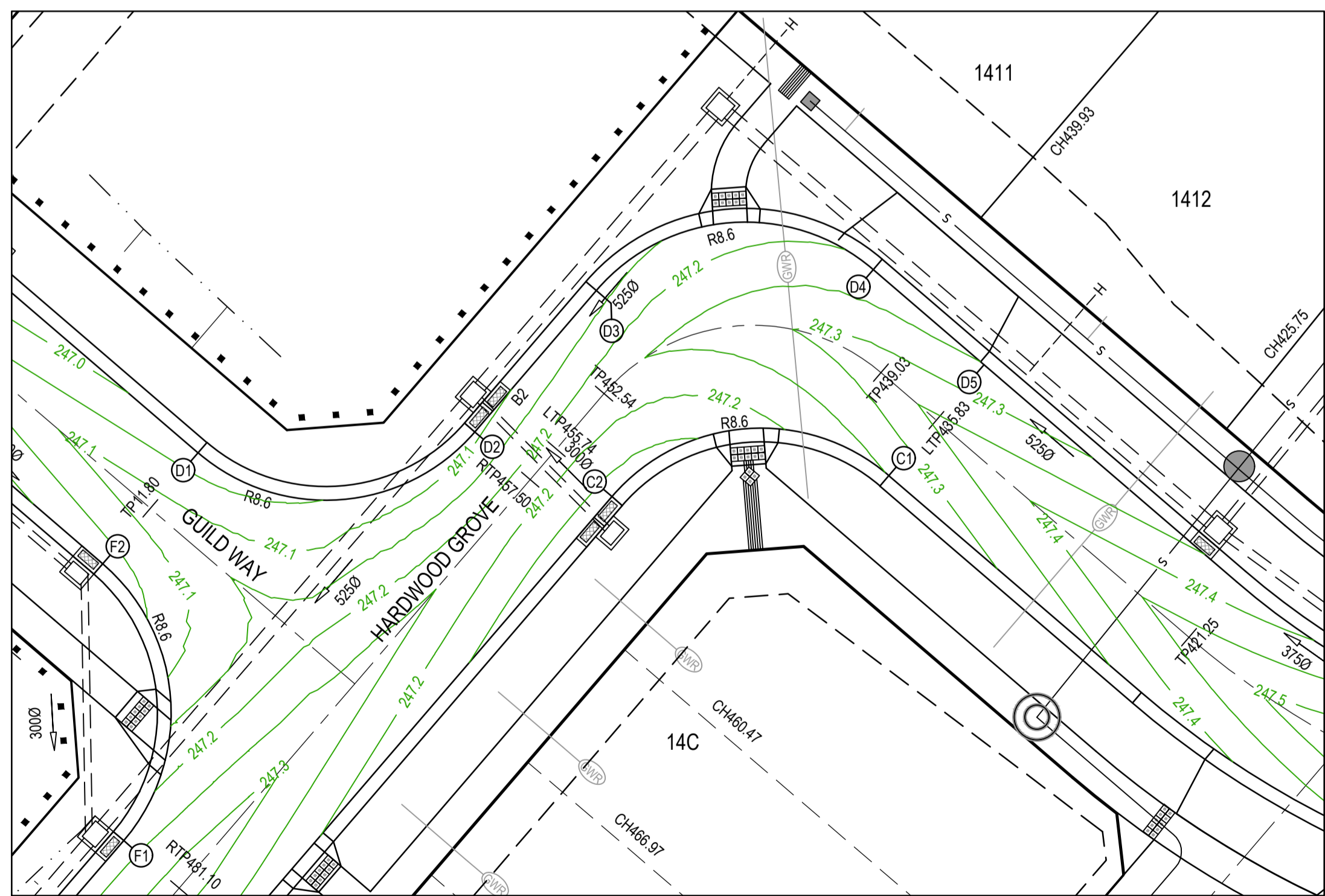
MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-07	SHEET No. 07 of 27	REVISION 2
----------------------------	---	------------------------------	----------------------

- NOTES**
1. ALL VEHICLE CROSSINGS AND PRAM CROSSINGS TO BE MINIMUM OF 0.75m FROM PITTS.
 2. ALL PRAM CROSSINGS TO BE MINIMUM OF 2.0m FROM VEHICLE CROSSINGS.
 3. VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF THE LANDSCAPE WORKS.
 4. INDUSTRIAL DRIVEWAYS TO COUNCIL RESERVES TO BE PROVIDED AS PART OF LANDSCAPE WORKS.
 5. SHARE PATH THROUGH CREEK CORRIDOR TO FORM PART OF LANDSCAPE WORKS.



LEGEND - INTERSECTION DETAIL PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH



AS CONSTRUCTED PLANS

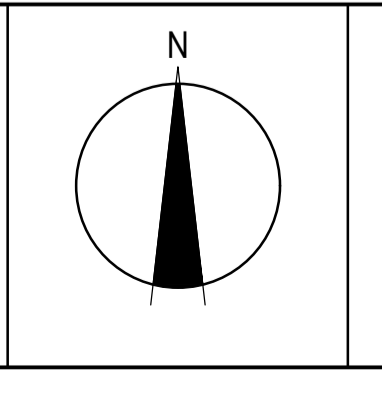
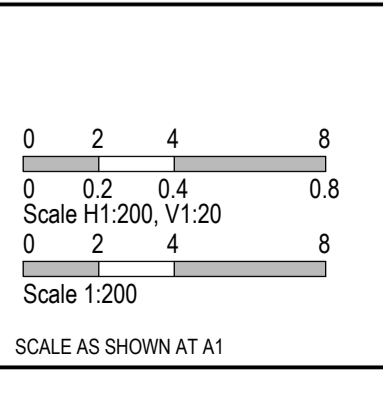
The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
OHS Management AS/NZS 1801
Environmental Management ISO 14001

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

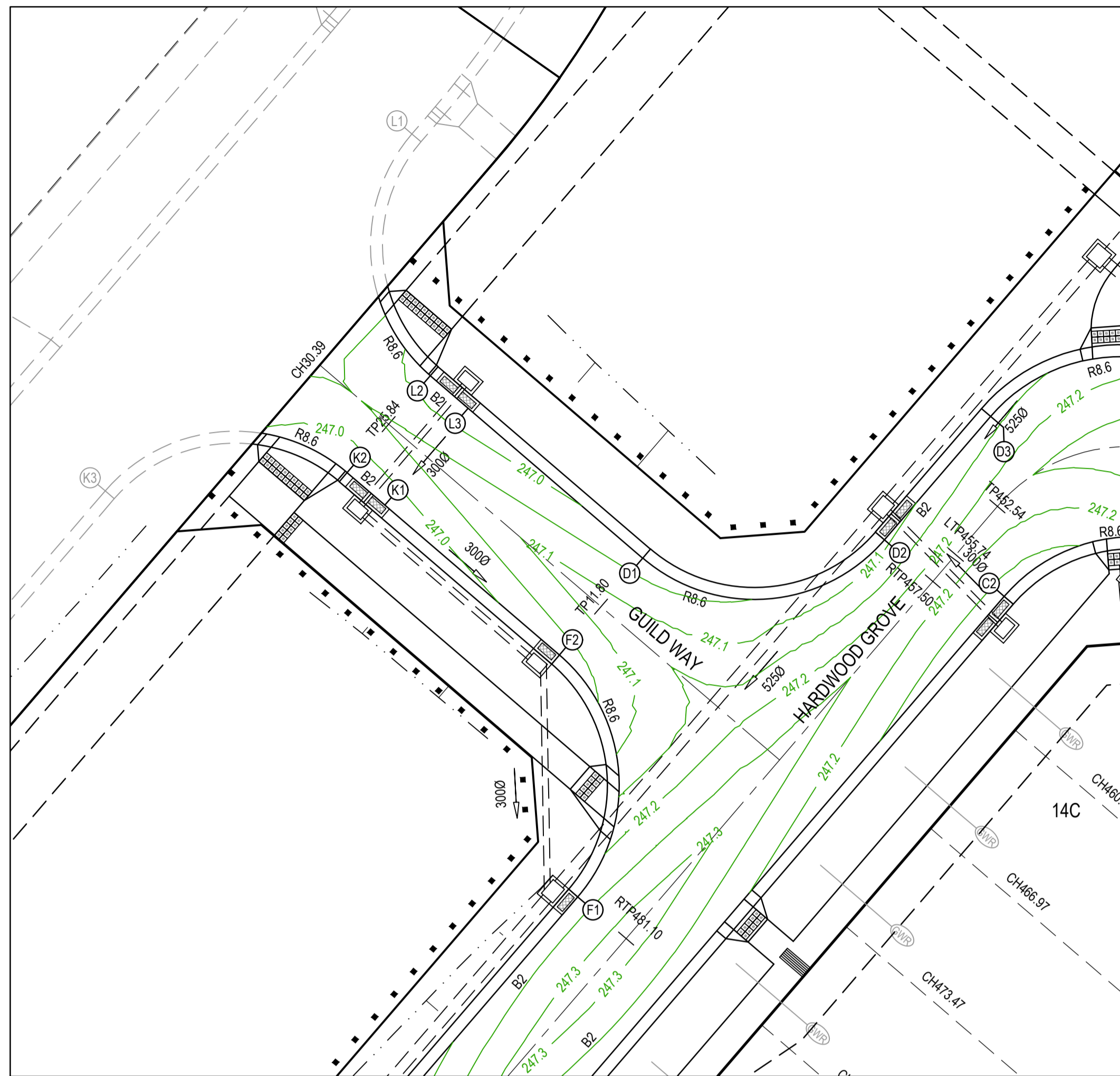


SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Intersection Detail Plan - 1
Lip Profiles A - D

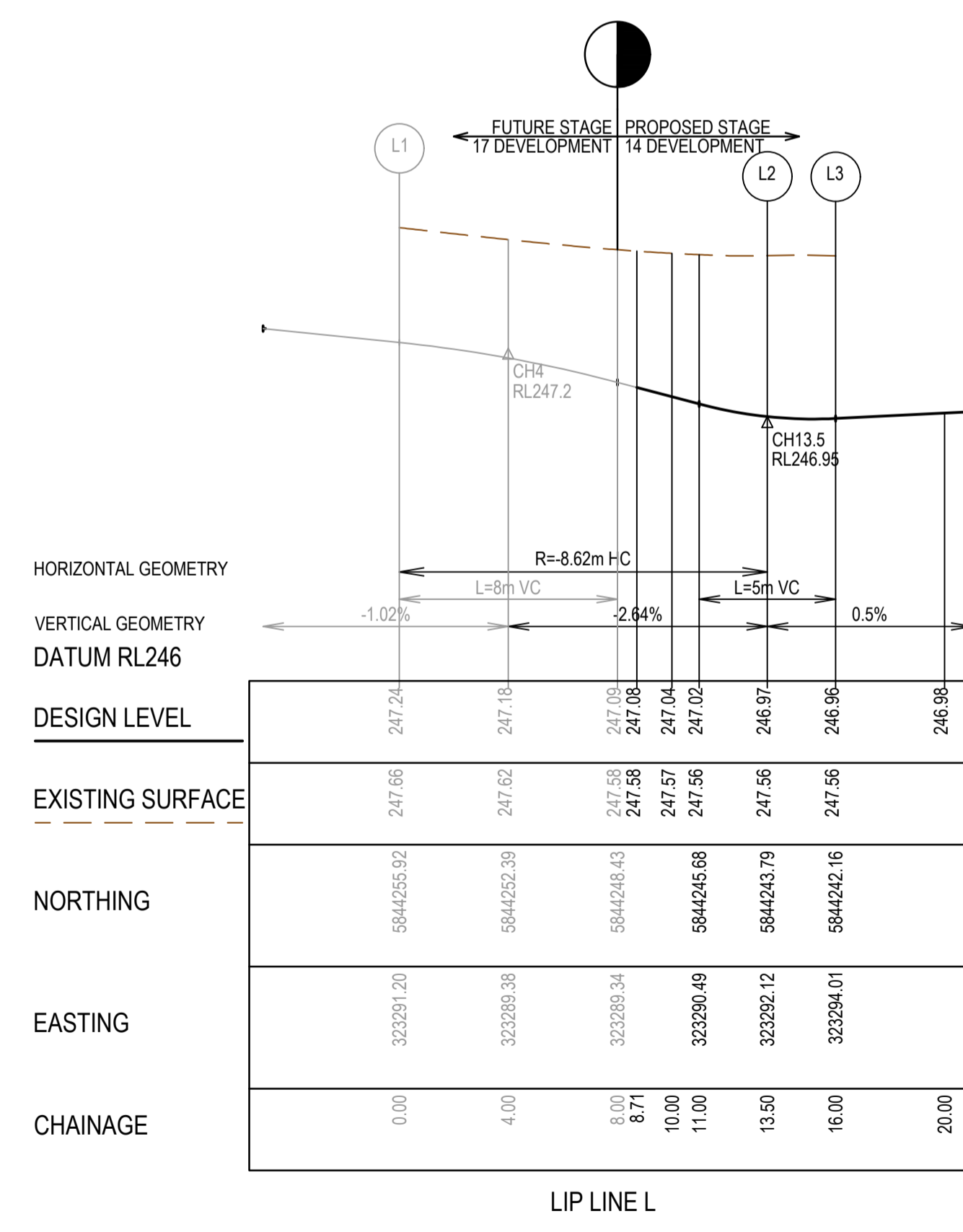
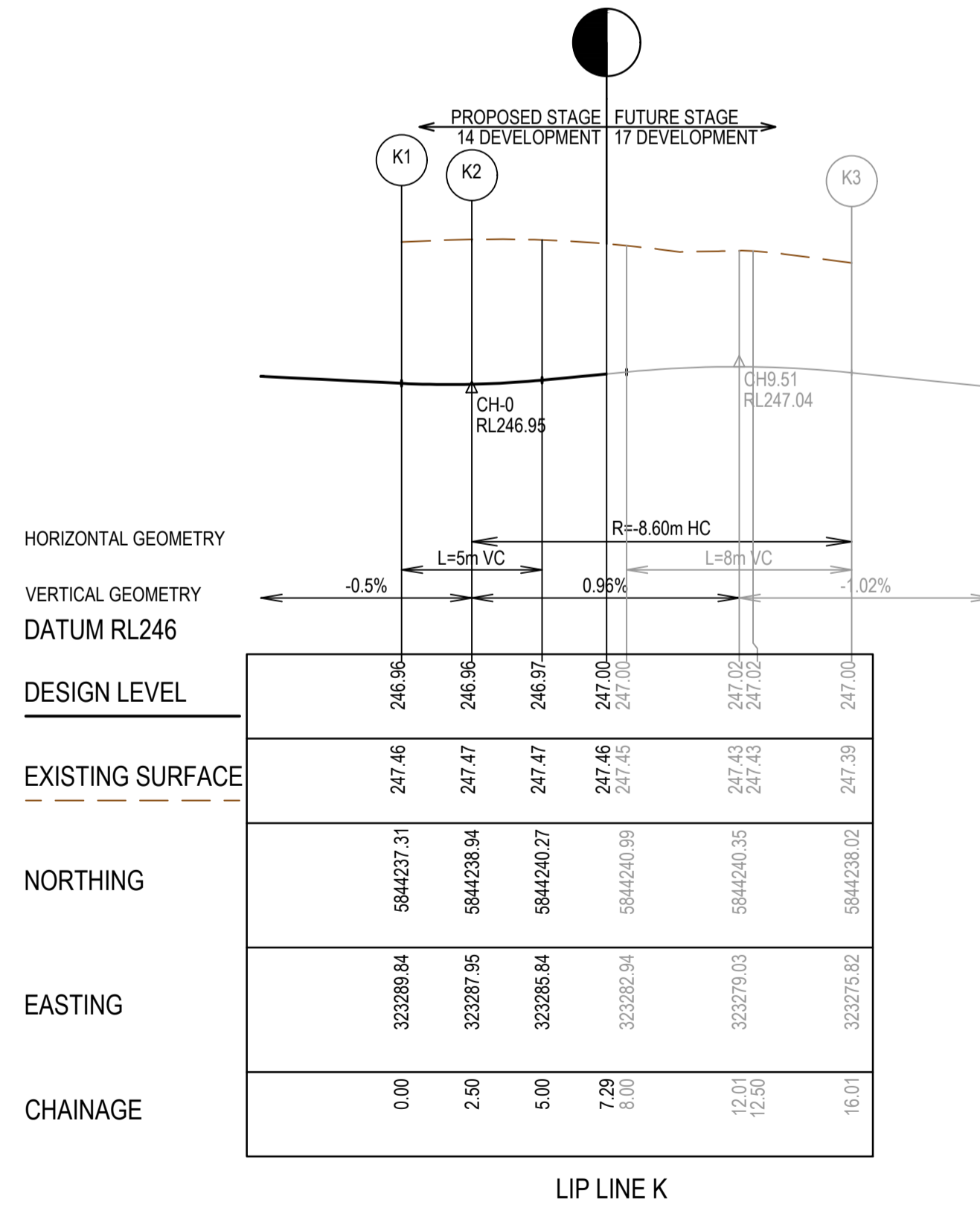
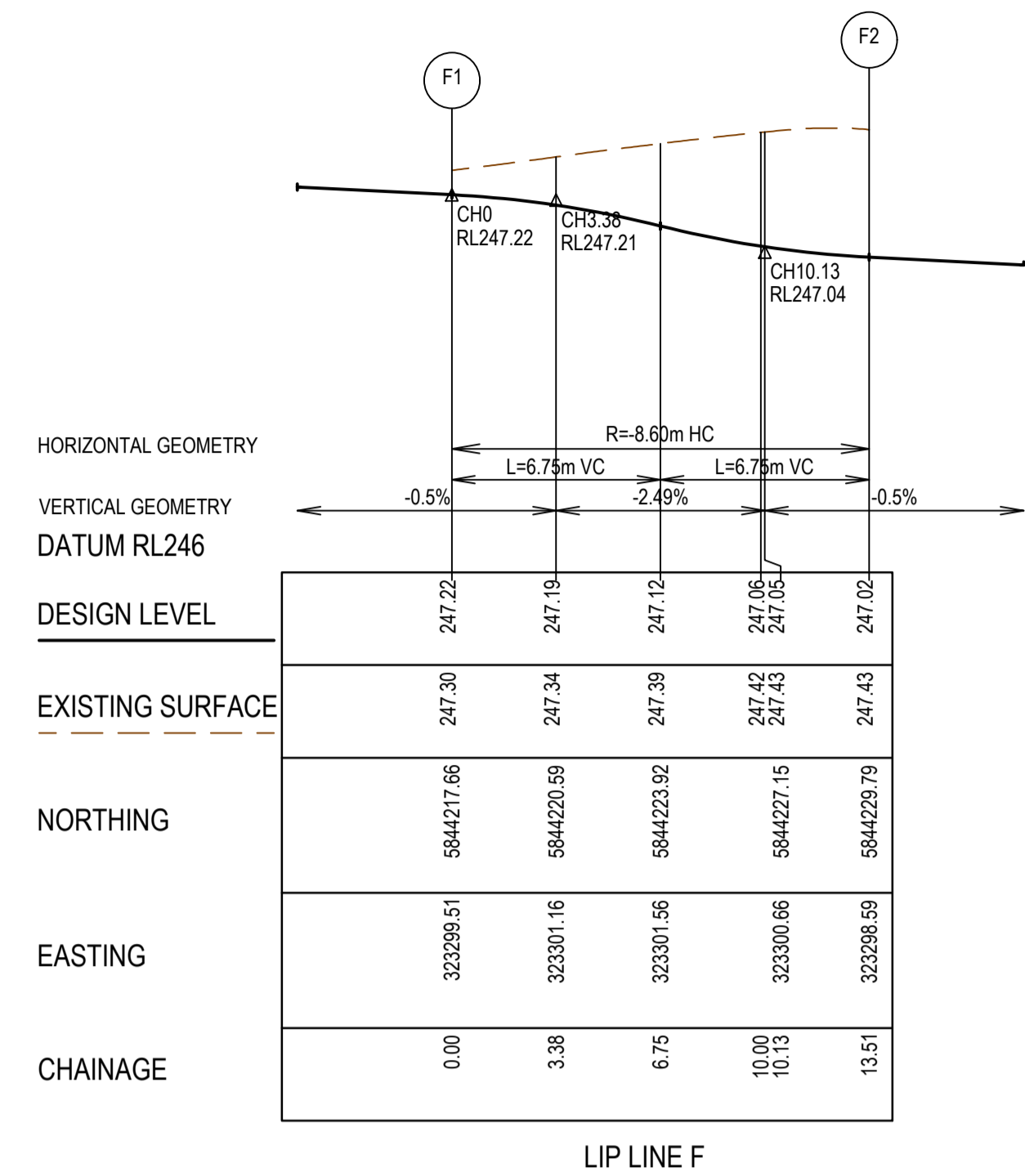
MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
8 M2	1700E-14-08	08 of 27	1



- NOTES**
1. ALL VEHICLE CROSSINGS AND PRAM CROSSINGS TO BE MINIMUM OF 0.75m FROM PITTS.
 2. ALL PRAM CROSSINGS TO BE MINIMUM OF 2.0m FROM VEHICLE CROSSINGS.
 3. VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF THE LANDSCAPE WORKS.
 4. INDUSTRIAL DRIVEWAYS TO COUNCIL RESERVES TO BE PROVIDED AS PART OF LANDSCAPE WORKS.
 5. SHARE PATH THROUGH CREEK CORRIDOR TO FORM PART OF LANDSCAPE WORKS.

LEGEND - INTERSECTION DETAIL PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH



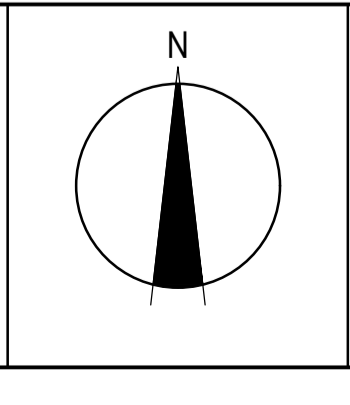
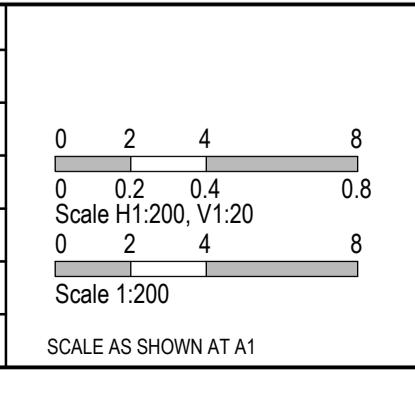
AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC

Member of the Surlana Jurong Group

ABN 47 065 475 149

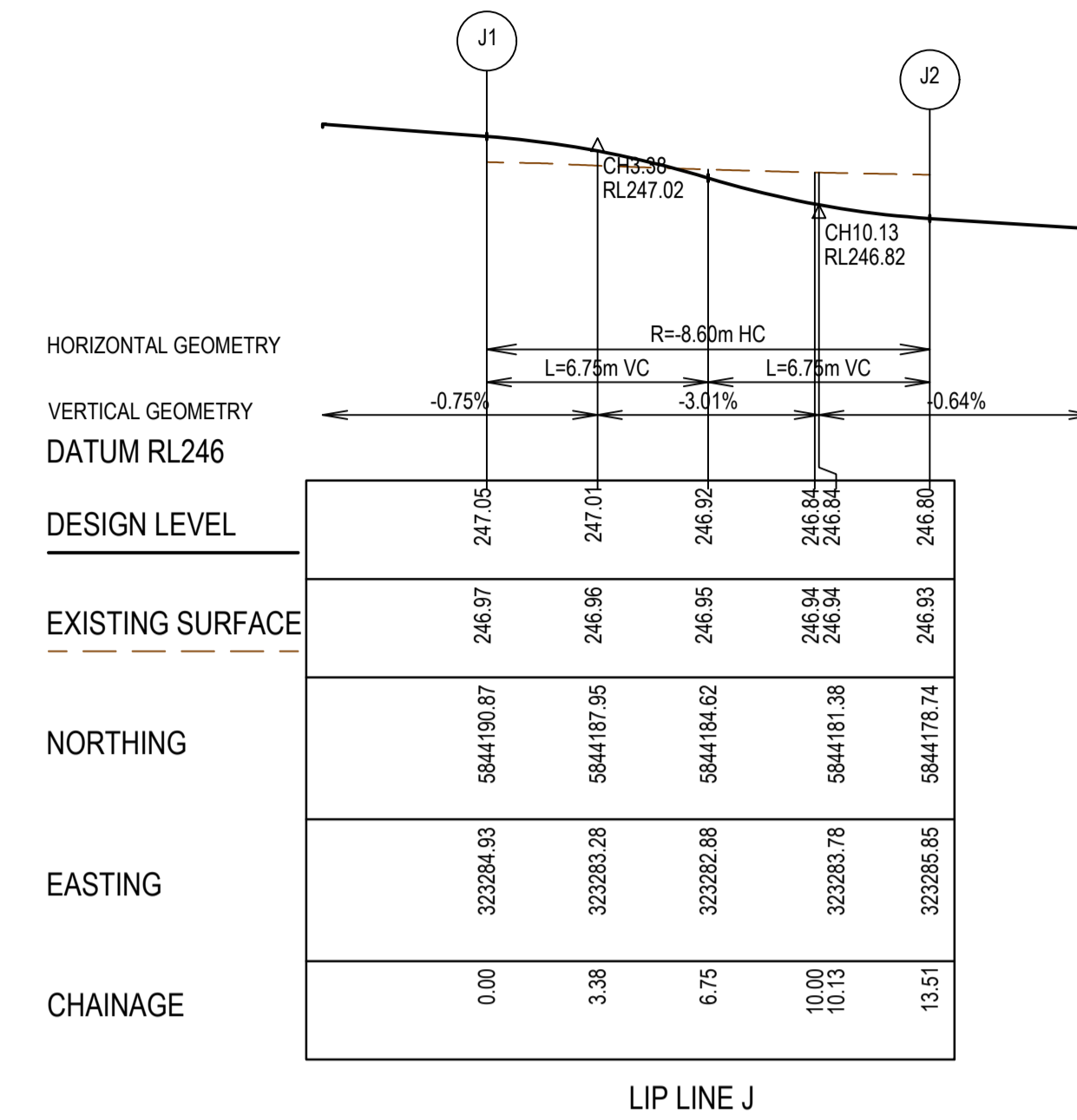
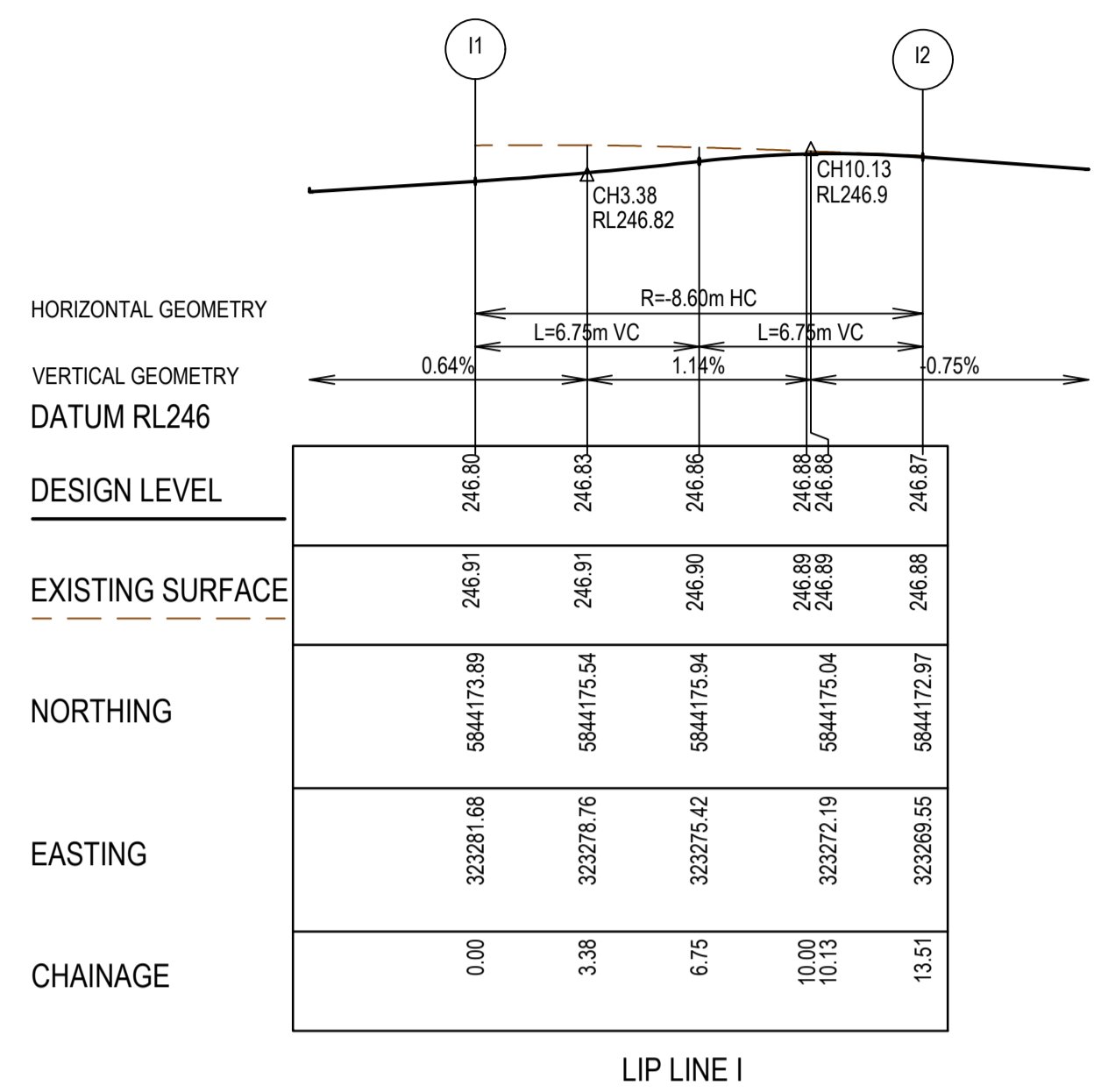
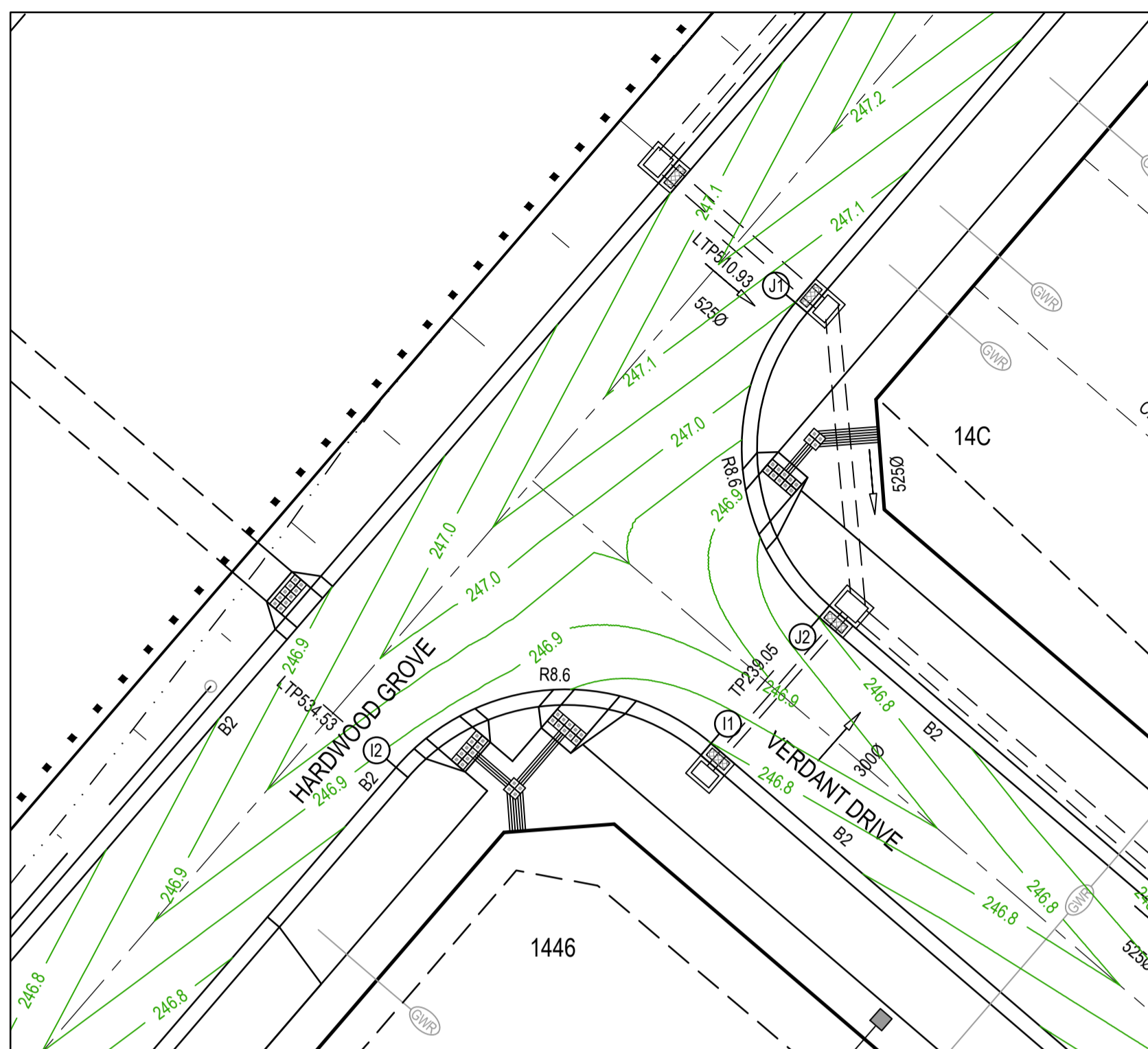
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500



Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Intersection Detail Plan - 2
Lip Profiles F, K & L

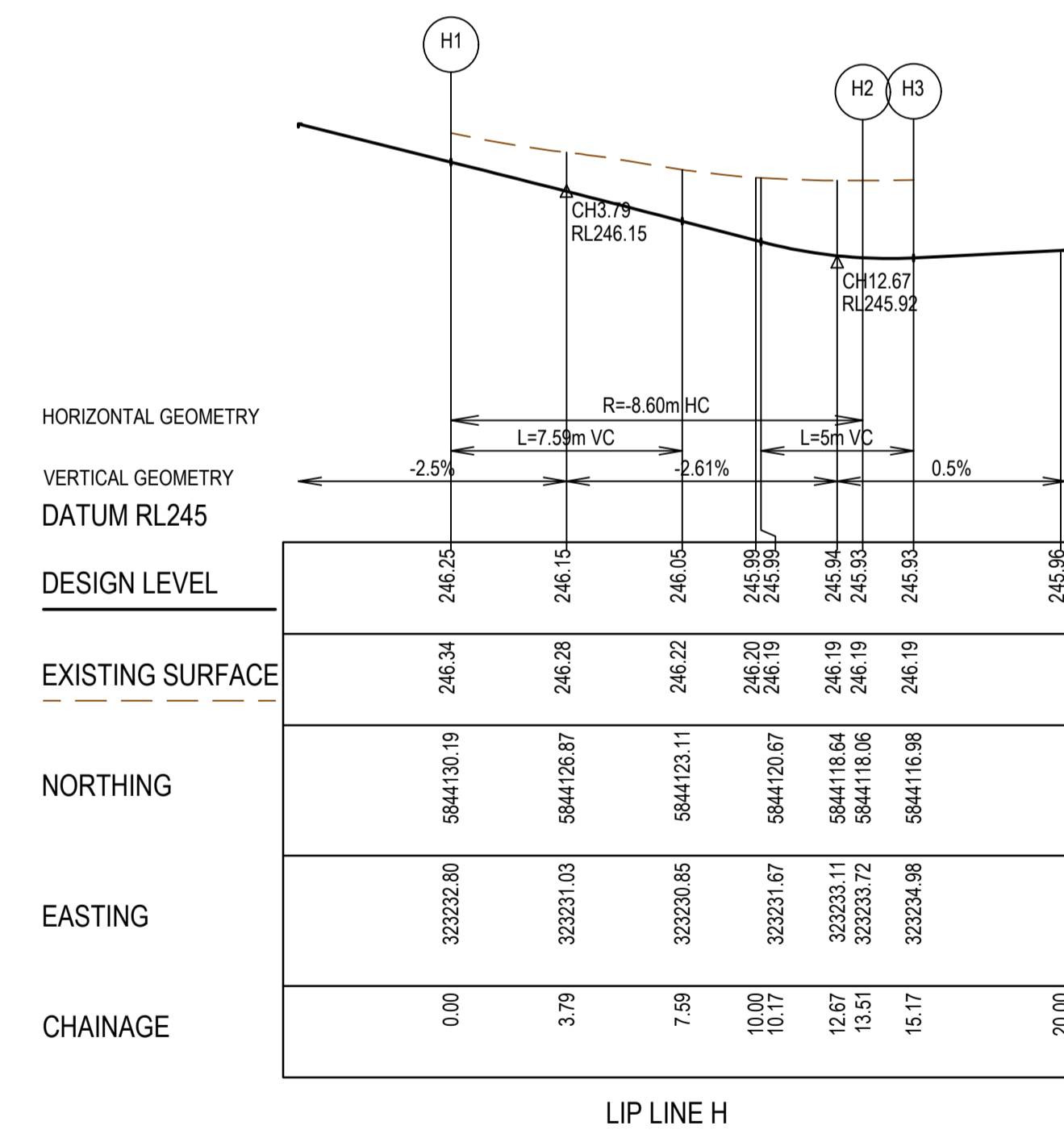
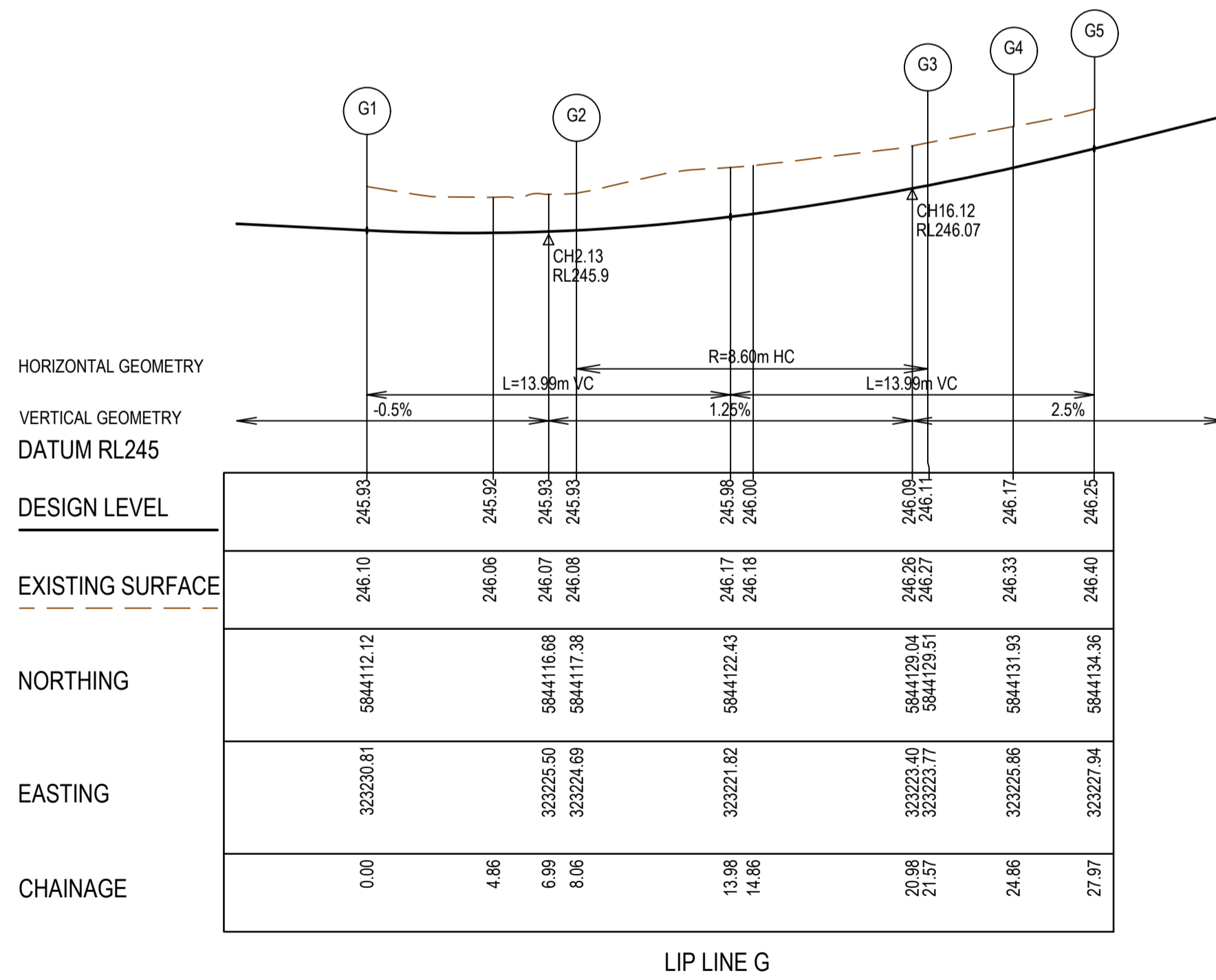
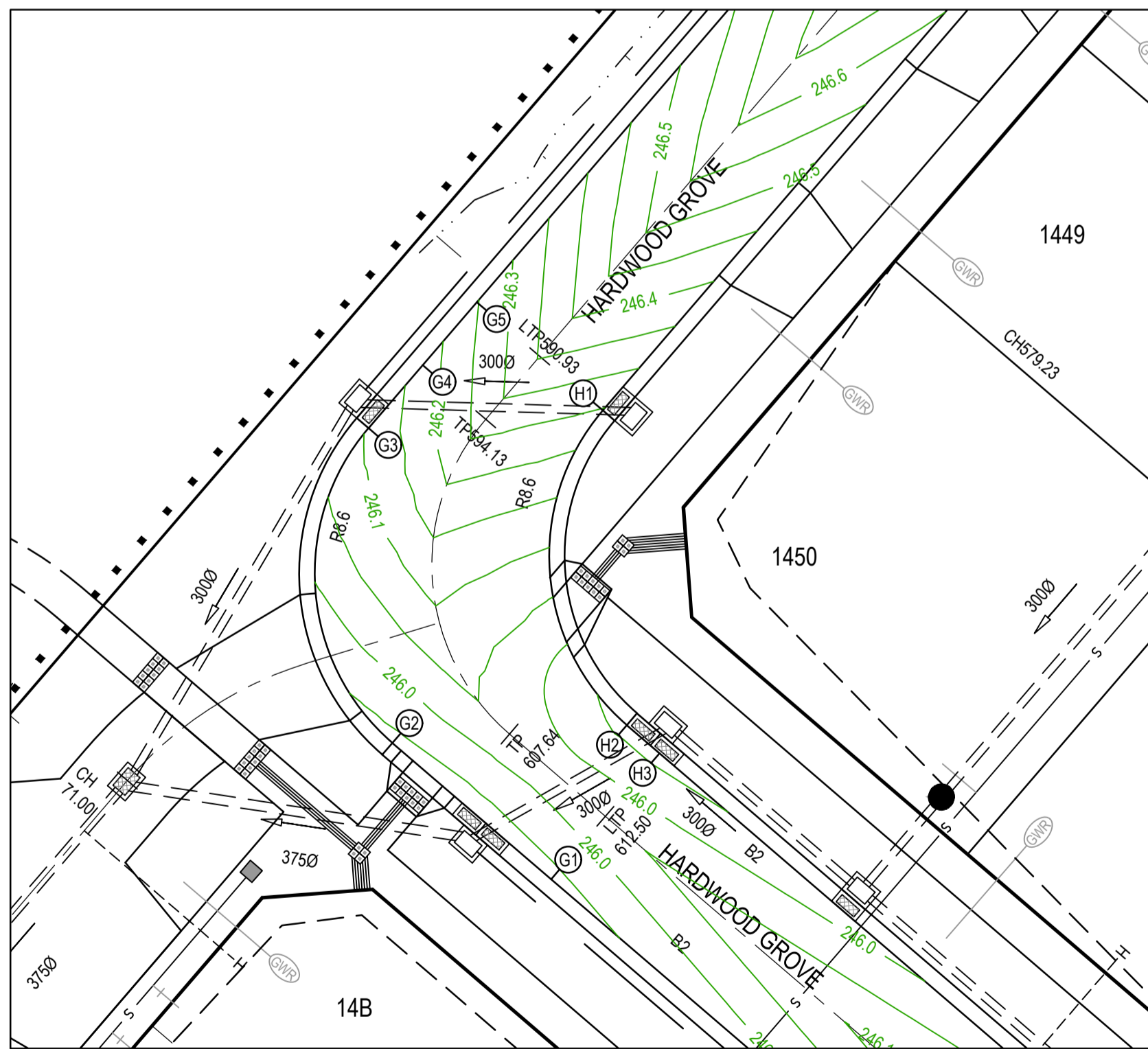
MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
8 M2	1700E-14-09	09 of 27	1

- NOTES**
1. ALL VEHICLE CROSSINGS AND PRAM CROSSINGS TO BE MINIMUM OF 0.75m FROM PITS.
 2. ALL PRAM CROSSINGS TO BE MINIMUM OF 2.0m FROM VEHICLE CROSSINGS.
 3. VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF THE LANDSCAPE WORKS.
 4. INDUSTRIAL DRIVEWAYS TO COUNCIL RESERVES TO BE PROVIDED AS PART OF LANDSCAPE WORKS.
 5. SHARE PATH THROUGH CREEK CORRIDOR TO FORM PART OF LANDSCAPE WORKS.



LEGEND - INTERSECTION DETAIL PLAN
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH



AS CONSTRUCTED PLANS

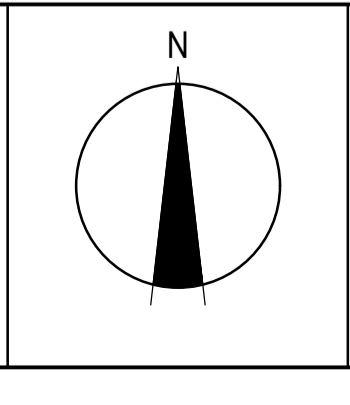
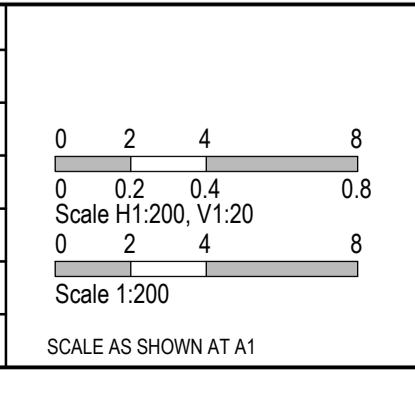
The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
OHS Management AS/NZS 1801
Environmental Management ISO 14001

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

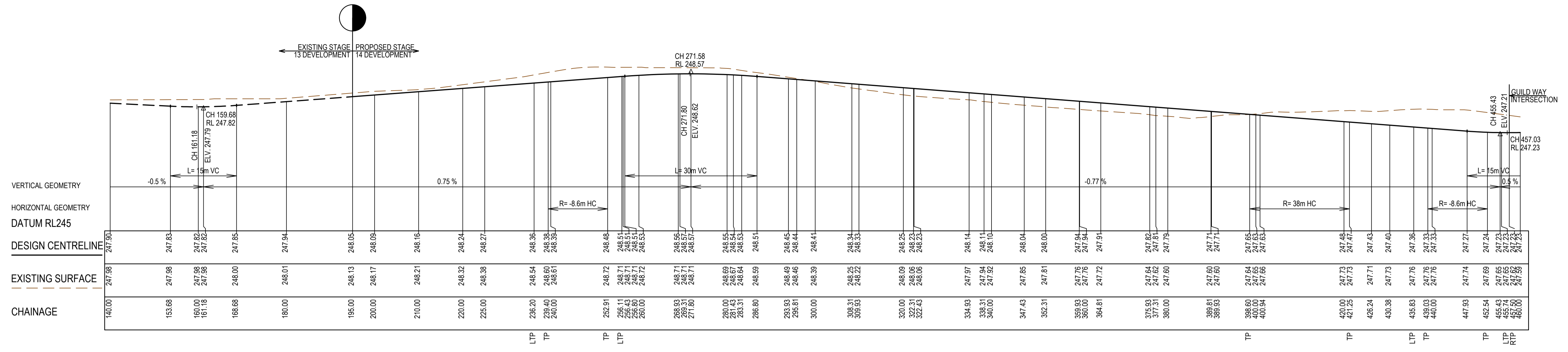


SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

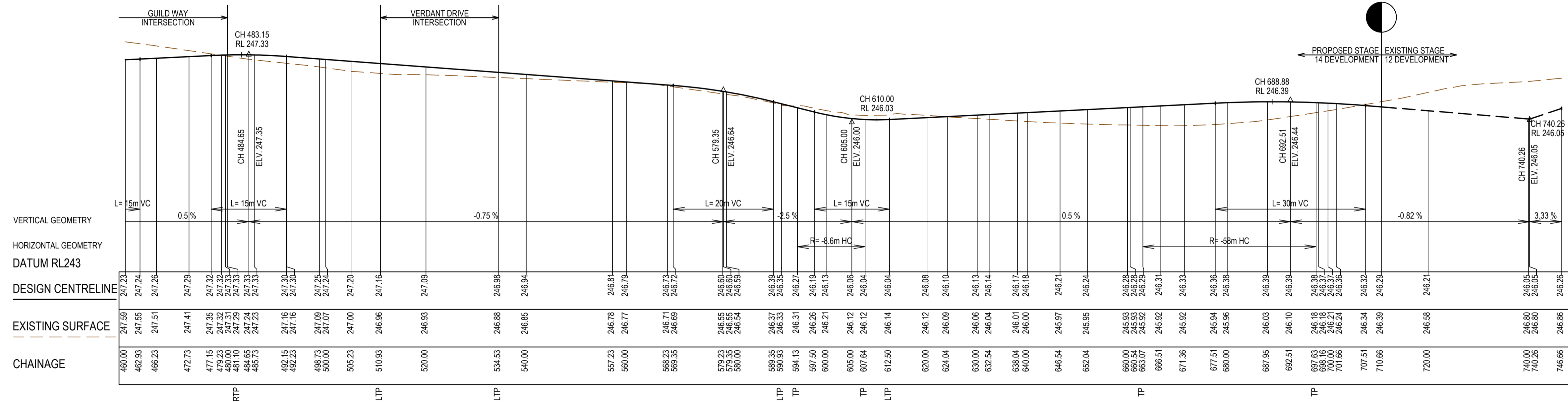
mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Intersection Detail Plan - 3
Lip Profiles I, J, G & H

MELBOURNE REF	PROJECT / DRAWING No	SHEET No	REVISION
8 M2	1700E-14-10	10 of 27	1



LONSDALE PARADE & HARDWOOD GROVE LONGITUDINAL SECTION



LONSDALE PARADE & HARDWOOD GROVE LONGITUDINAL SECTION

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 OHS Management AS/NZS 1881
 Environmental Management ISO 14001

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

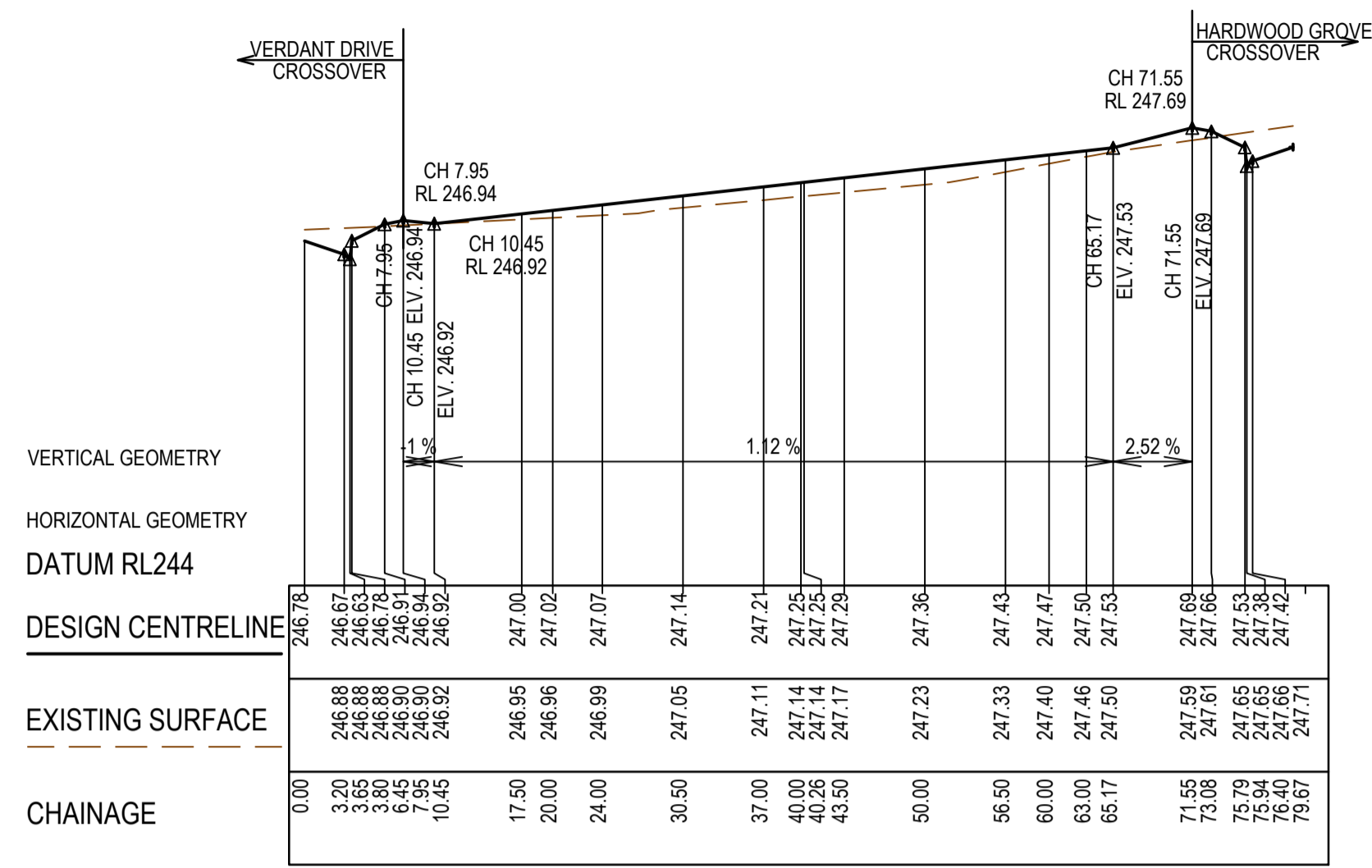
0 5 10 20
 0 0.5 1 2
 Scale H1:500, V1:50
 SCALE AS SHOWN AT 1

SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

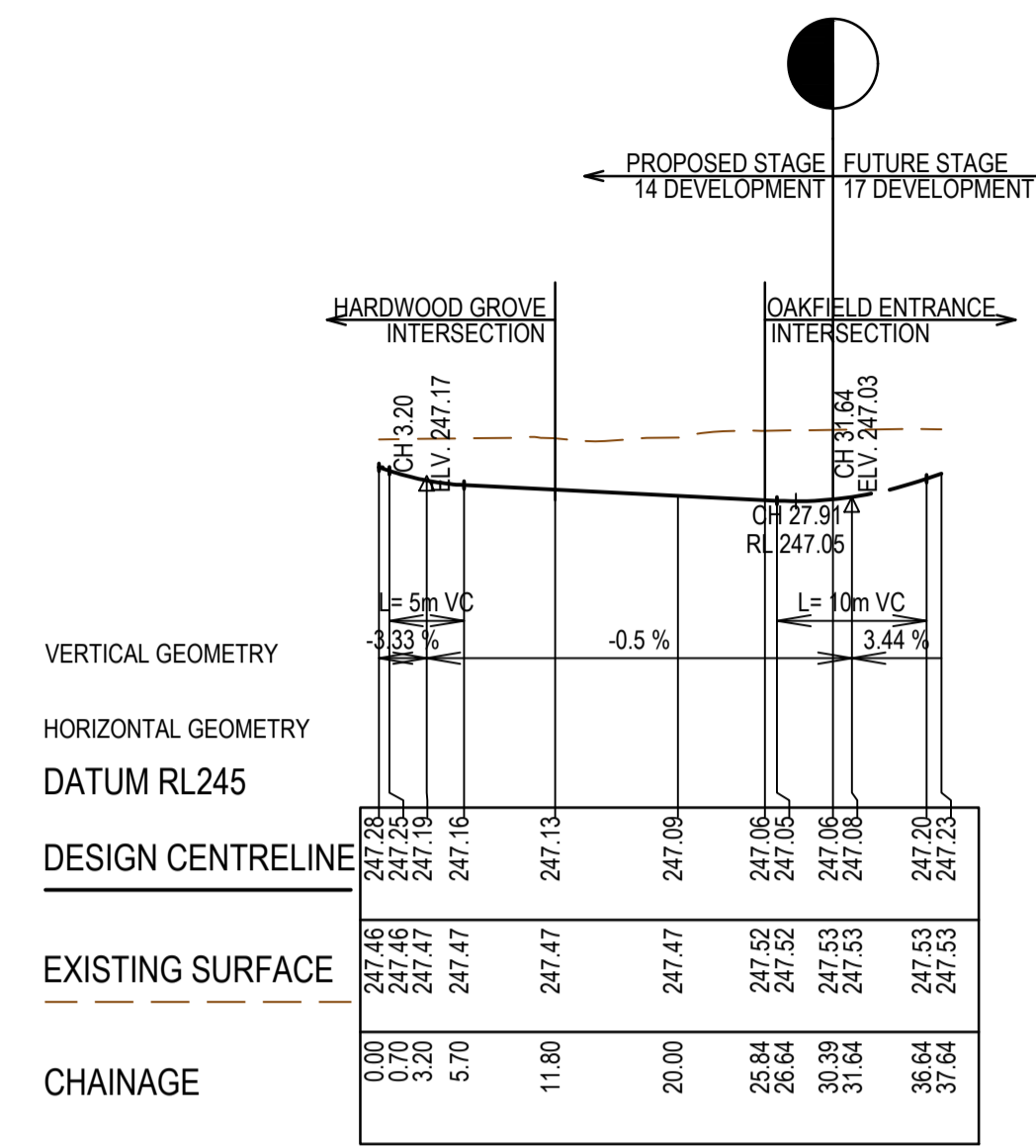
mirvac

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Longitudinal Sections - 1
 Lonsdale Parade & Hardwood Grove

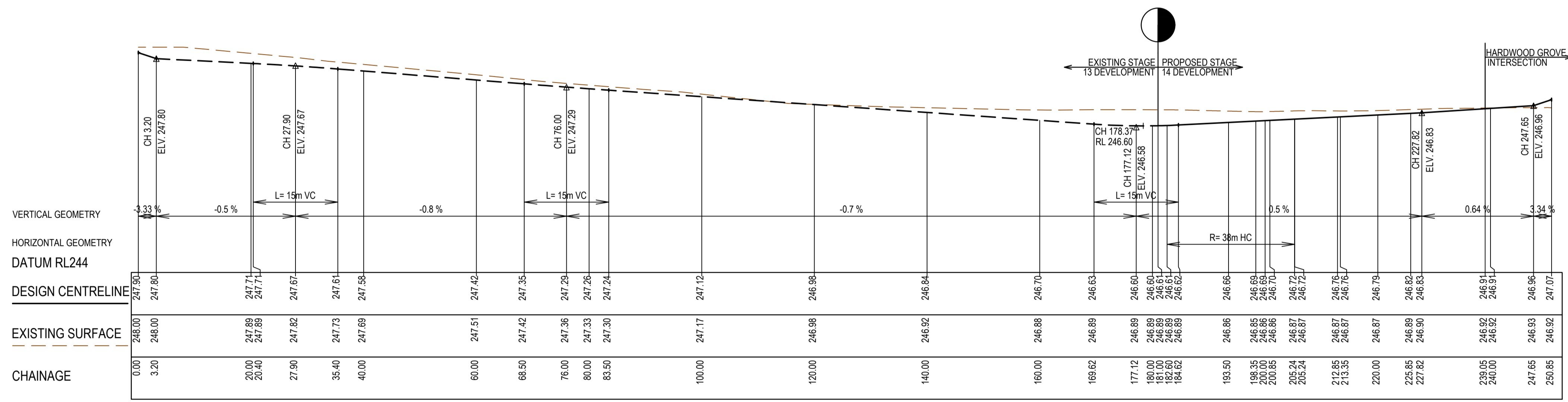
MELWAYS REF 8 M2	PROJECT / DRAWING No 1700E-14-11	SHEET No 11 of 27	REVISION 1
----------------------------	--	-----------------------------	----------------------



BRONZE LANE LONGITUDINAL SECTION



GUILD WAY LONGITUDINAL SECTION



VERDANT DRIVE LONGITUDINAL SECTION

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

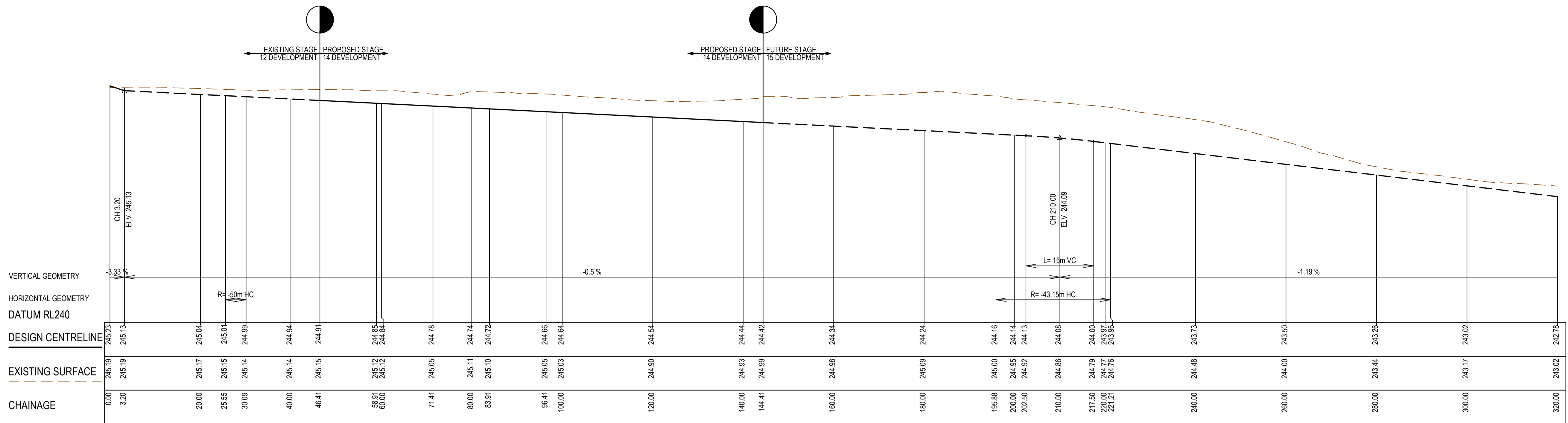
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	
TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

0 5 10 20
0 0.5 1 2
Scale H1:500, V1:50
SCALE AS SHOWN AT 1

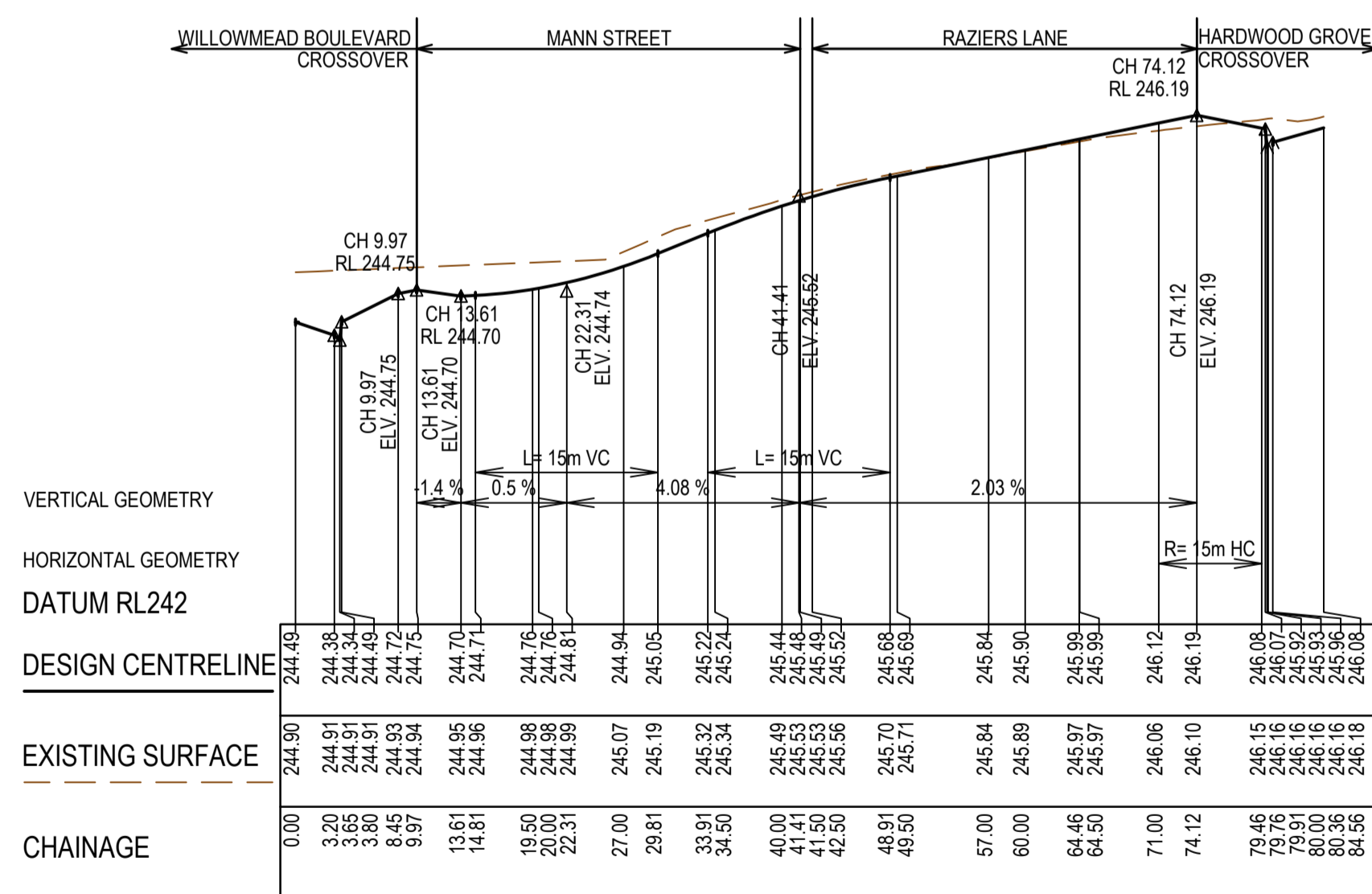
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Longitudinal Sections - 2
Bronze Lane, Guild Way & Verdant Drive

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
8 M2	1700E-14-12	12 of 27	1



WILLOWMEAD BOULEVARD LONGITUDINAL SECTION



MANN STREET & RAZIERS LANE LONGITUDINAL SECTION

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

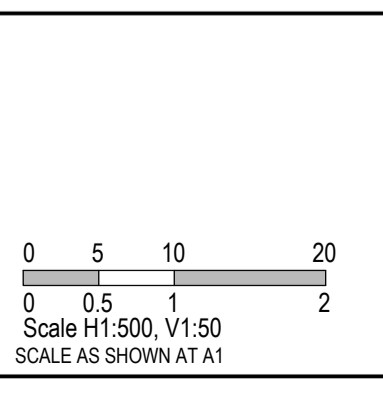
AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 OHS Management AS/NZS 1880
 Environmental Management ISO 14001

Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

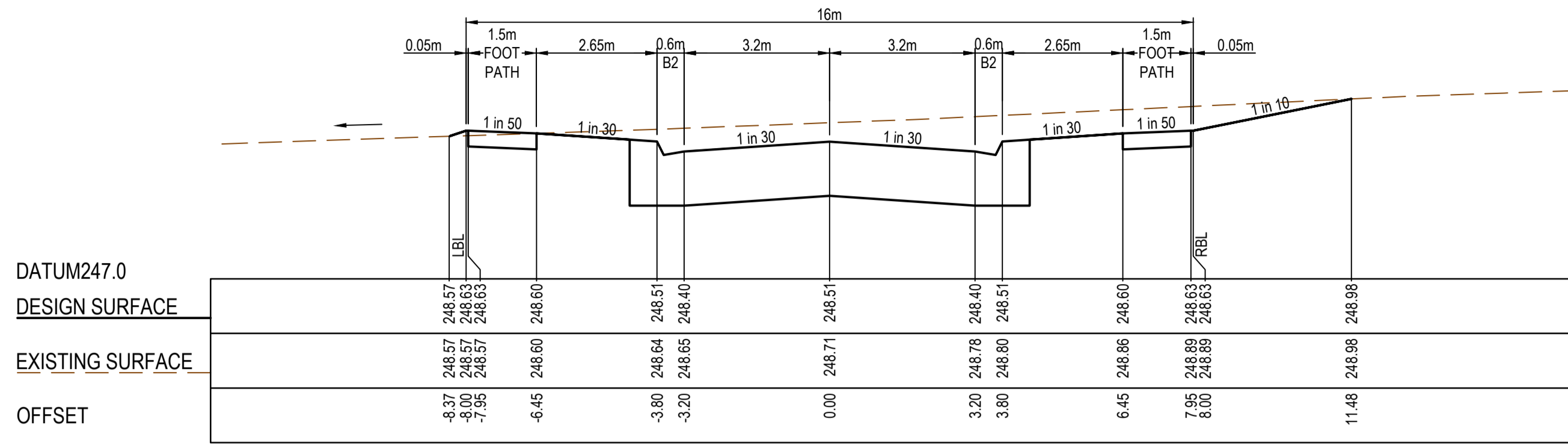


SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

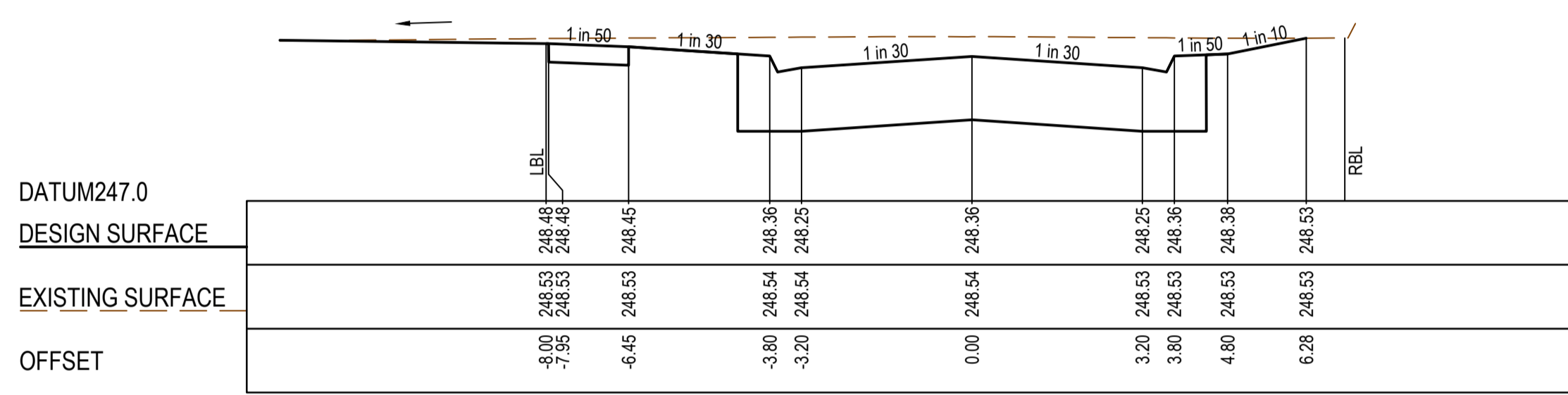
Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Longitudinal Sections - 3
 Willowmead Boulevard, Mann Street & Raziers Lane

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-13	SHEET No. 13 of 27	REVISION 1
----------------------------	---	------------------------------	----------------------

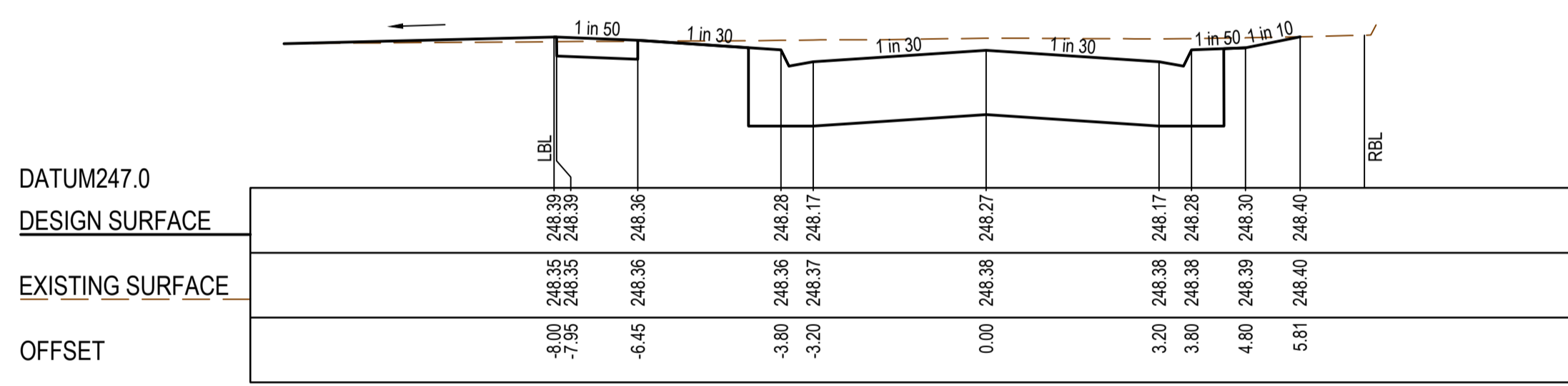
FILLING UNDER FOOTPATHS MUST BE TYPE A SELECTED MATERIAL IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION 204.



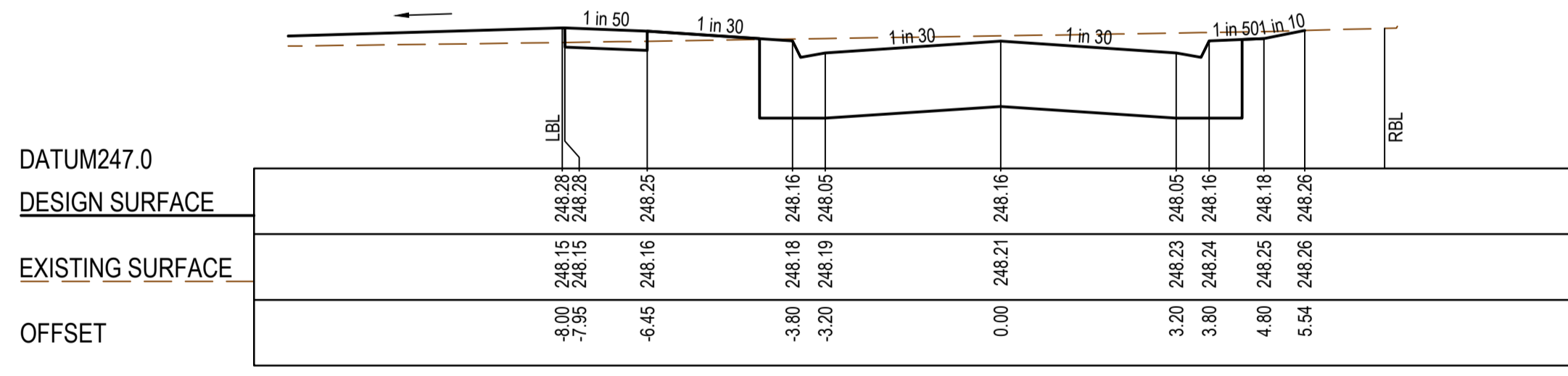
LTP 256.11



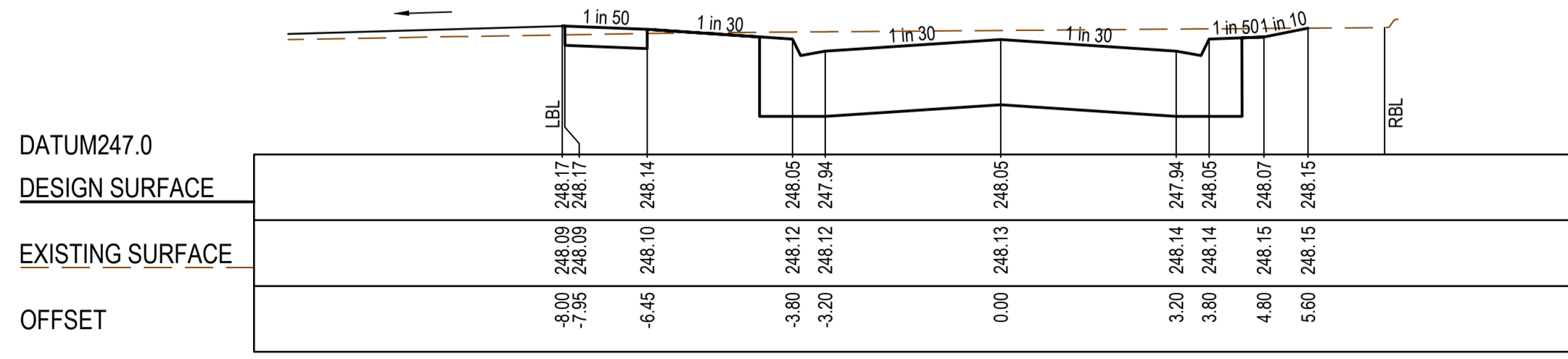
LTP 236.20



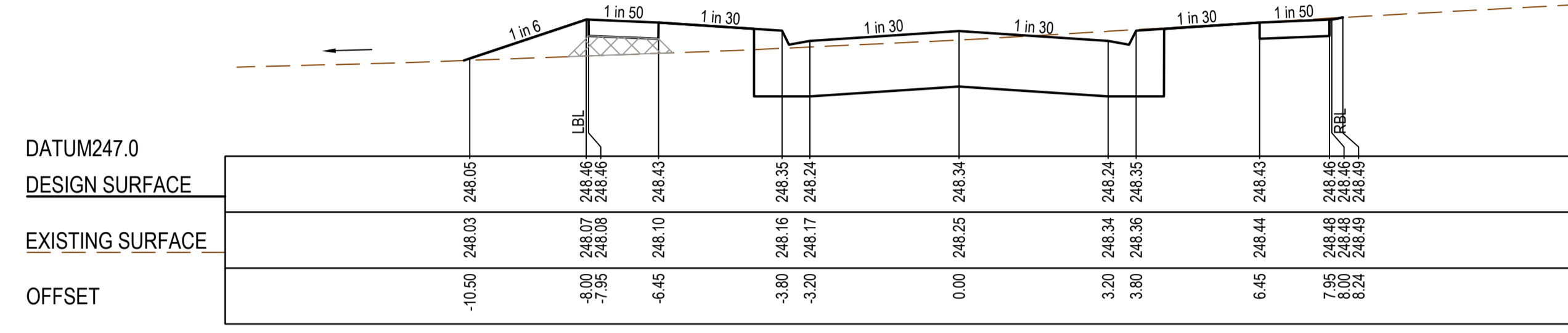
CH 225.00



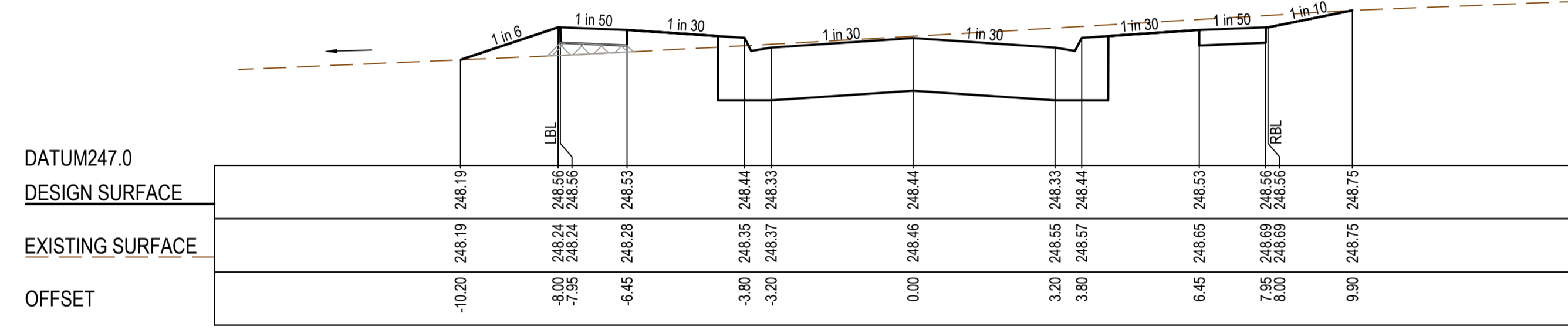
CH 210.00



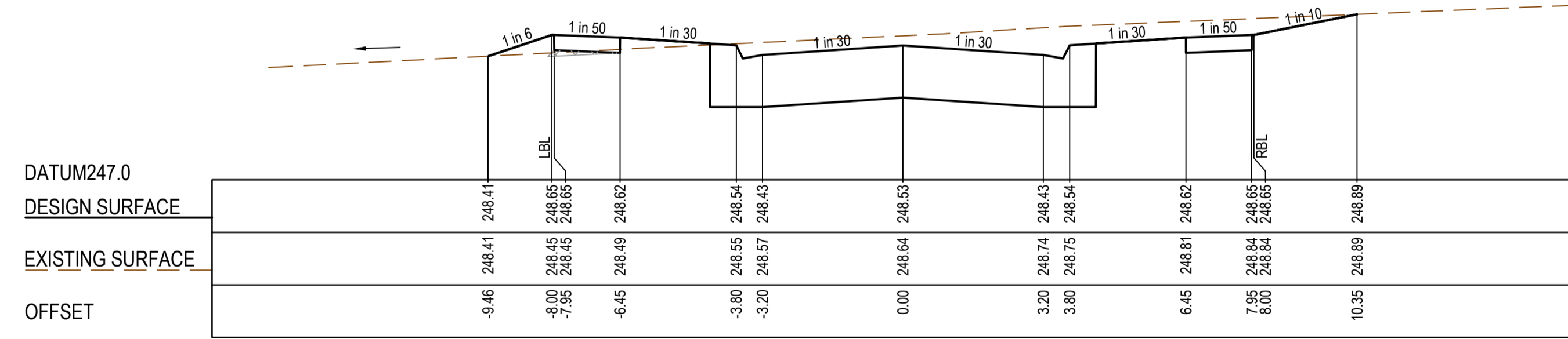
CH 195.00



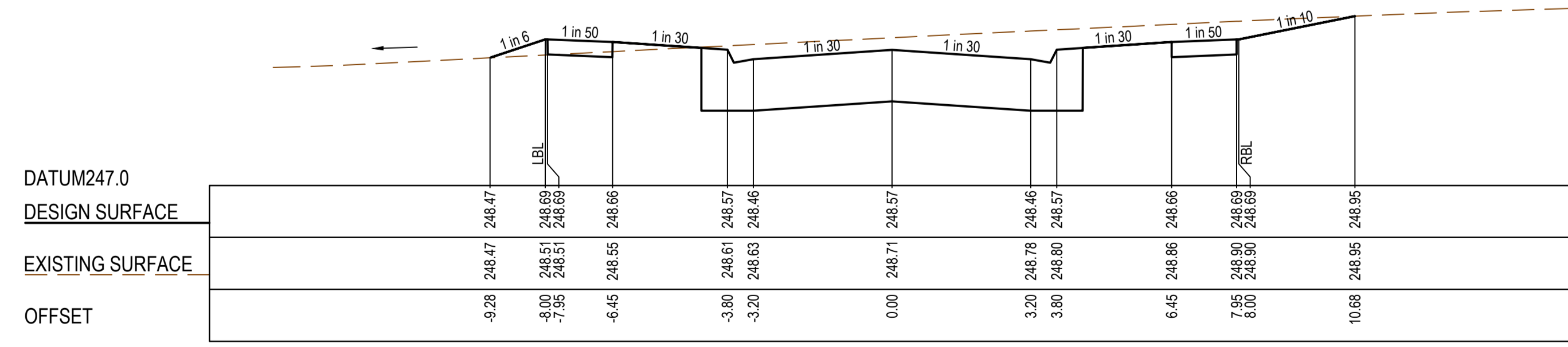
CH 308.31



CH 295.81



CH 283.31



CH 269.31

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.		TITLE	NAME
		DRAFTER	Y.Song
		DESIGNER	Y.Song
		CHECKED	M.Angay
		AUTHORISED	A.Burrows
		REFERENCE No. 1	1700E-14
		REFERENCE No. 2	

Scale H1:100, V1:50
SCALE AS SHOWN AT 1

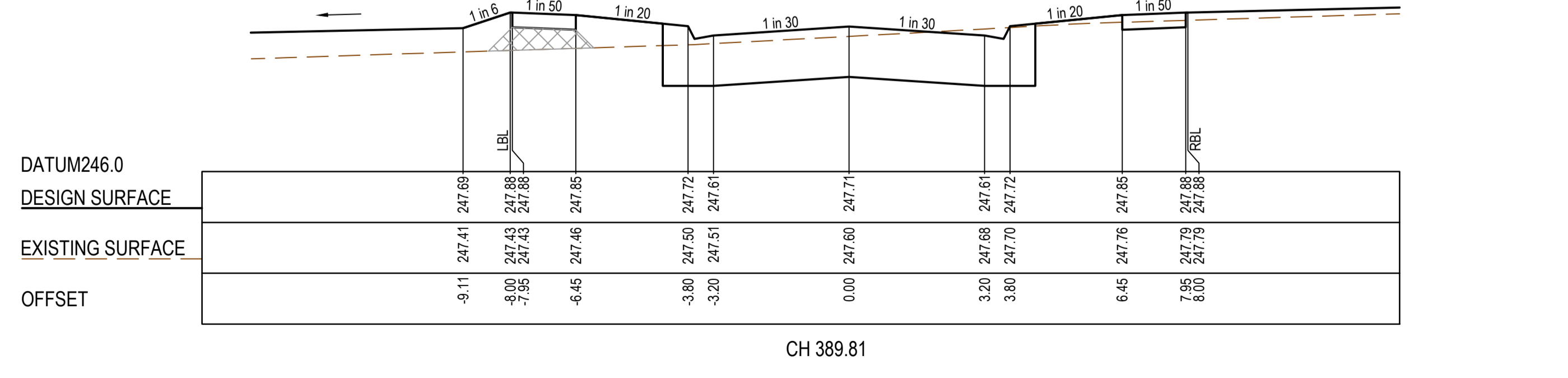
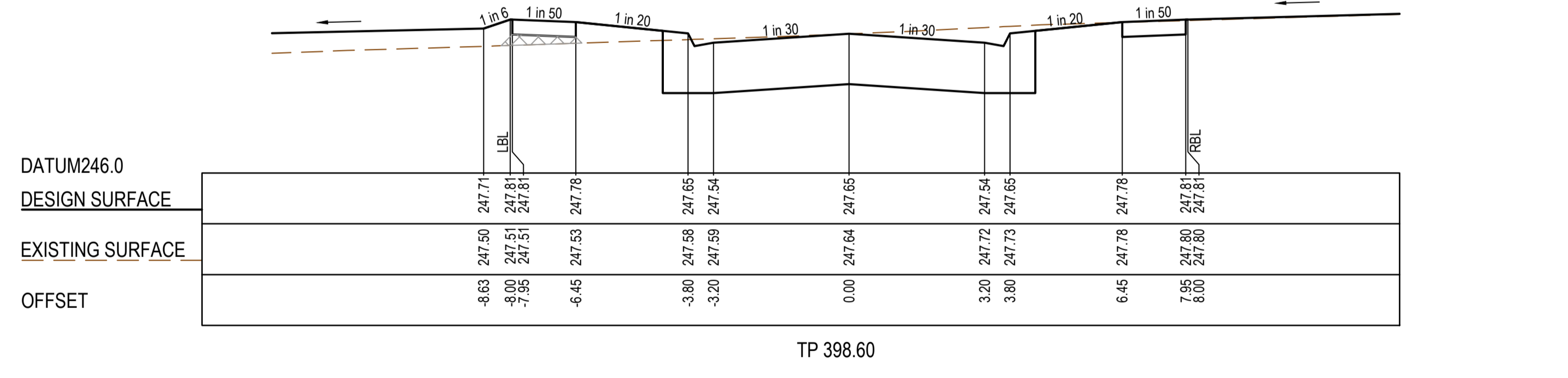
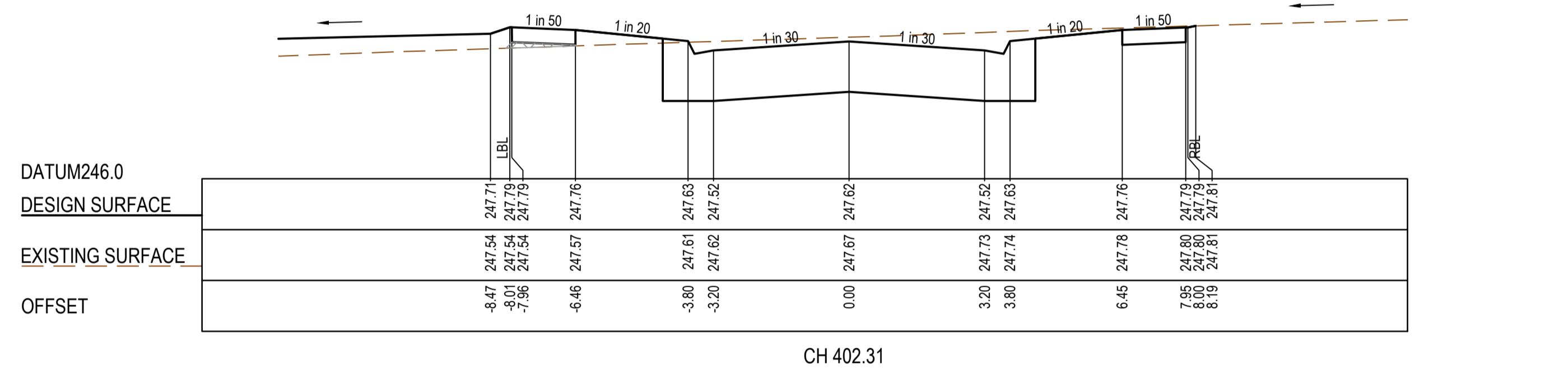
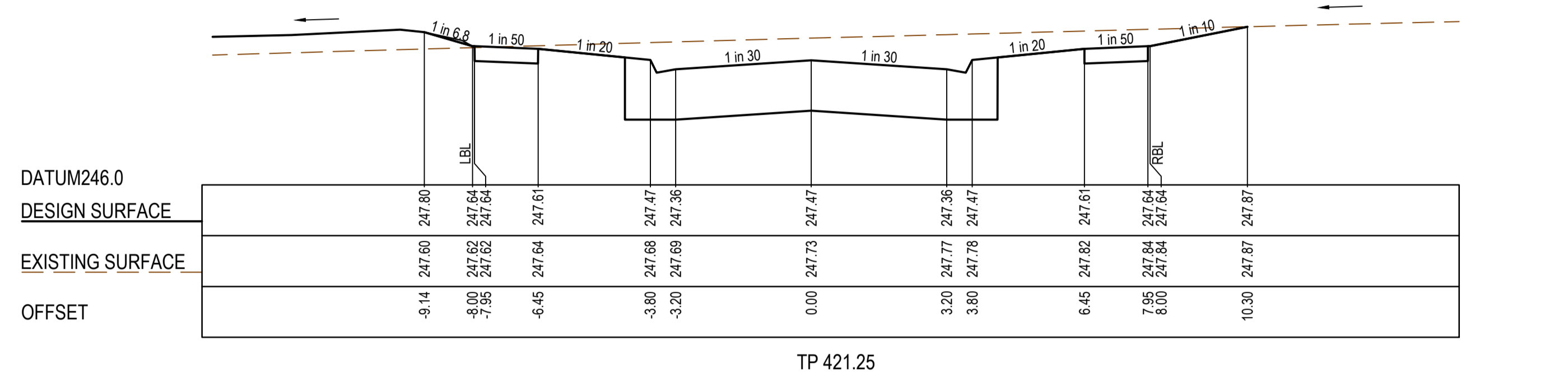
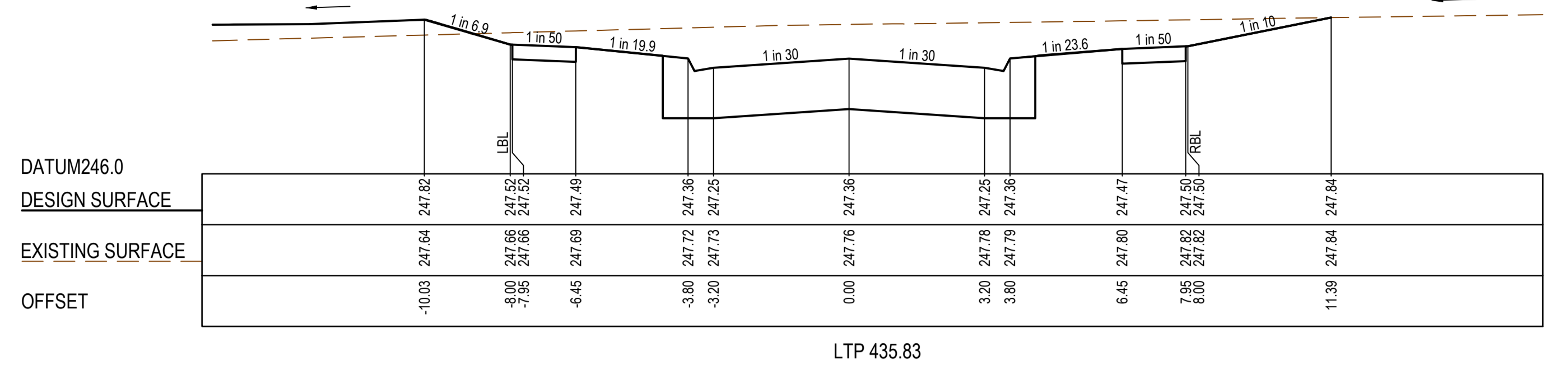
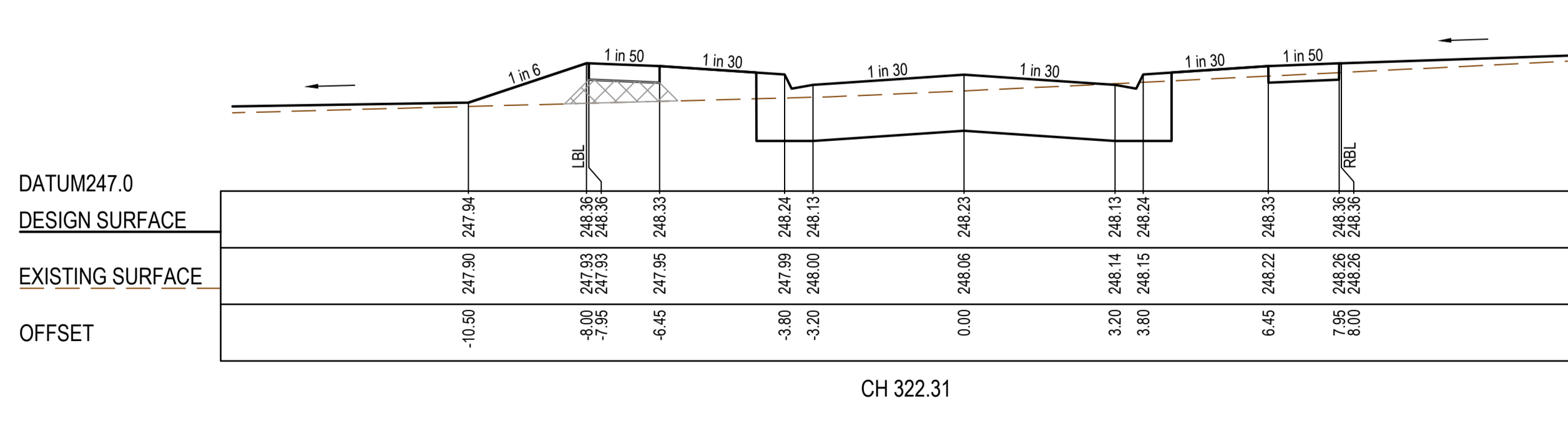
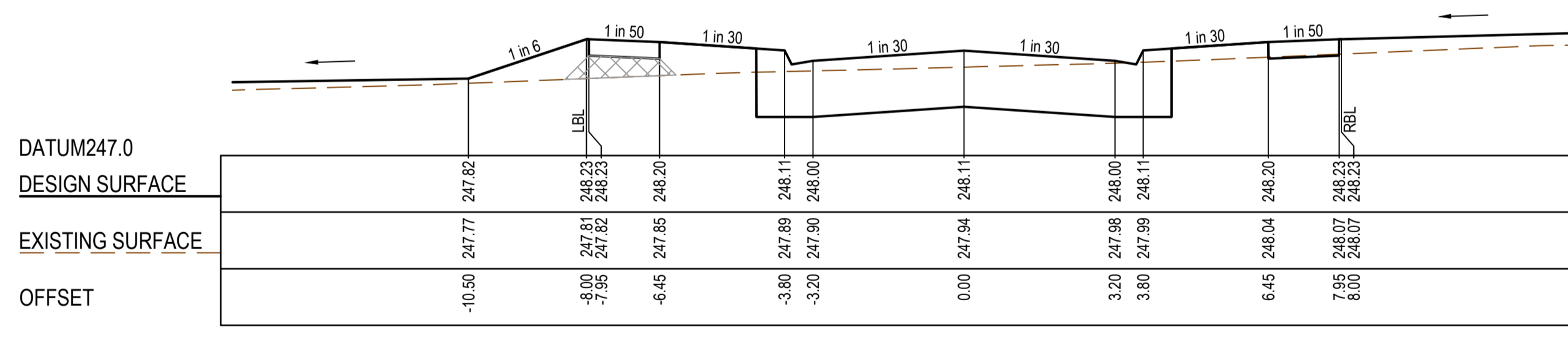
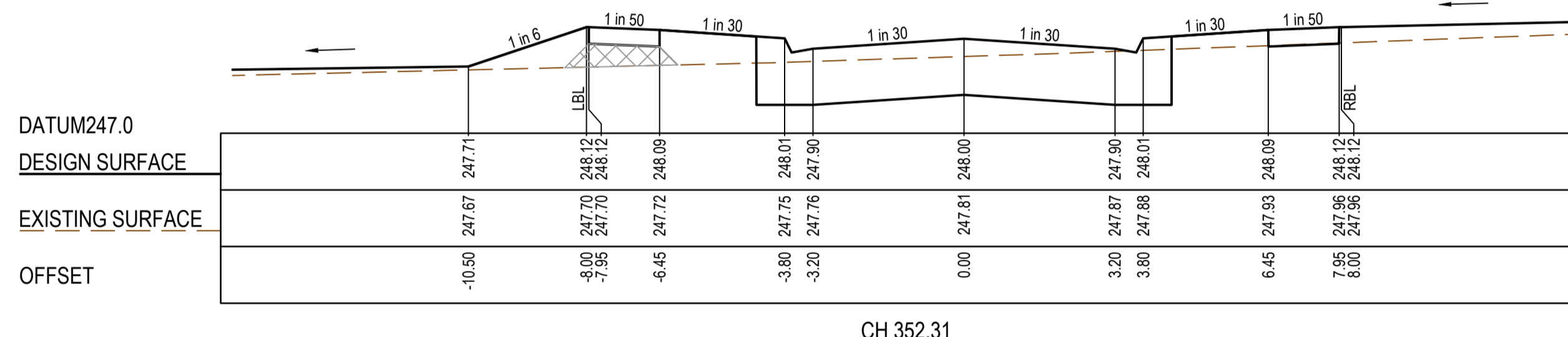
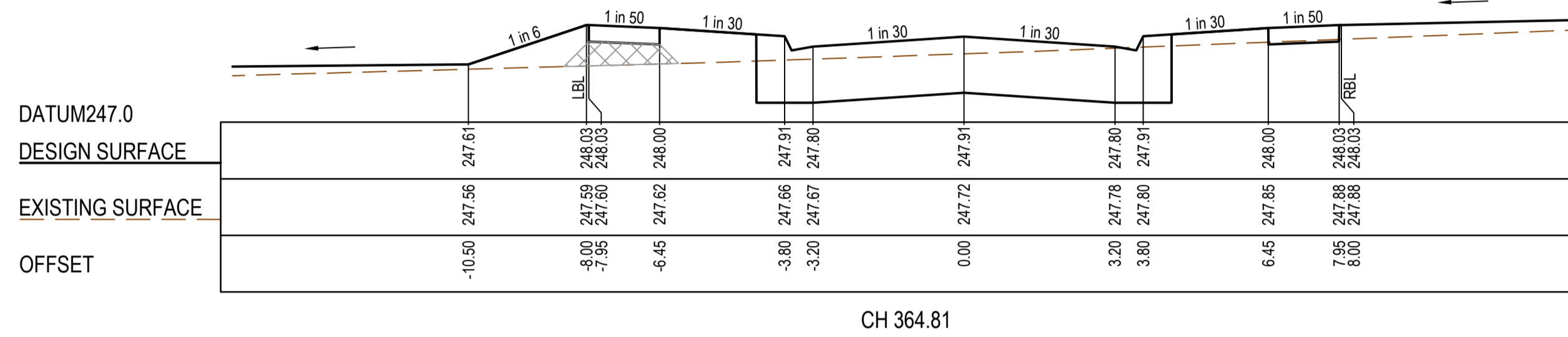
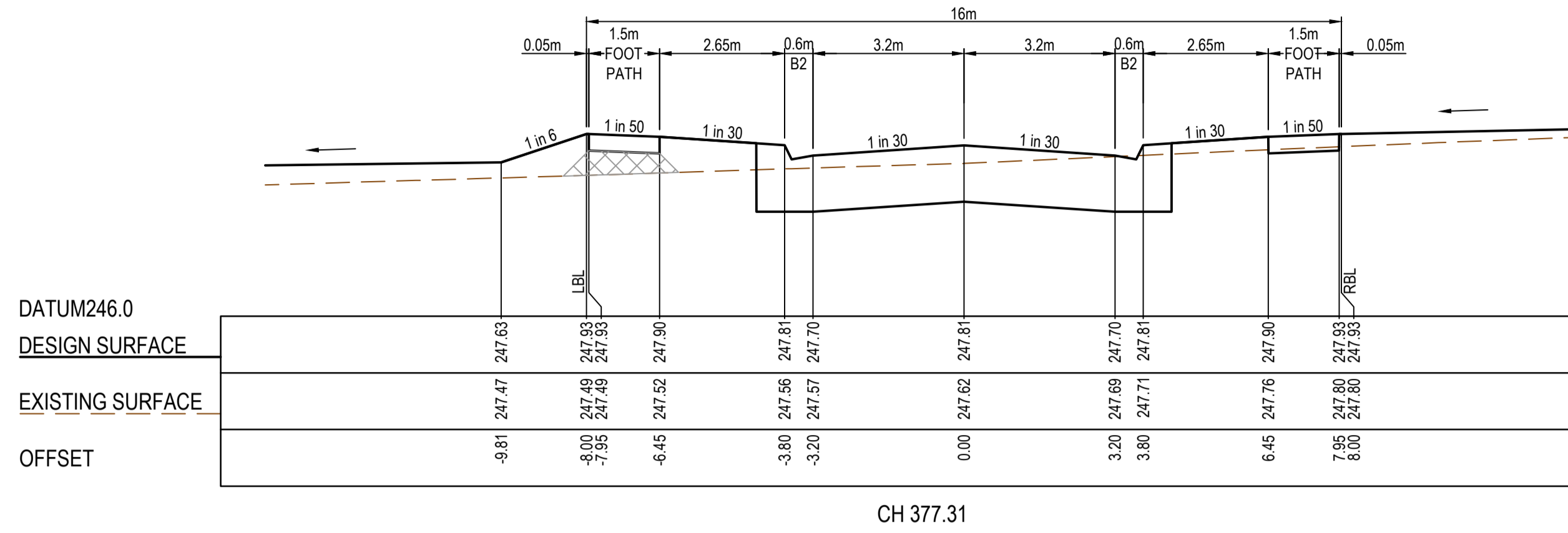
SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Cross Sections: Lonsdale Parade & Hardwood Grove
Ch. 195.00 - Ch 308.31

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-14	SHEET No. 14 of 27	REVISION 1
---------------------	--------------------------------------	-----------------------	---------------

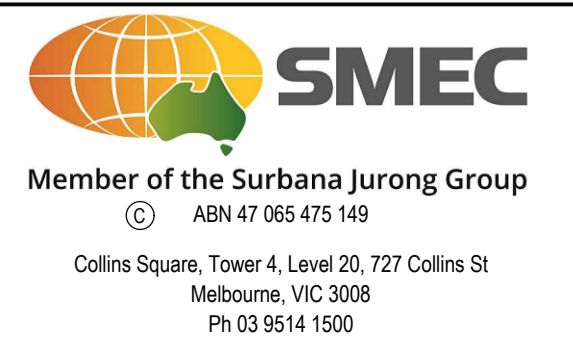
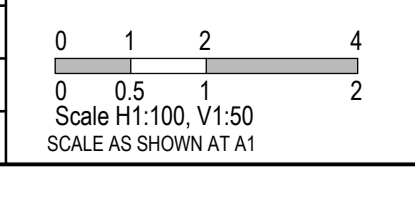
FILLING UNDER FOOTPATHS MUST BE TYPE A SELECTED MATERIAL IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION 204.



AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

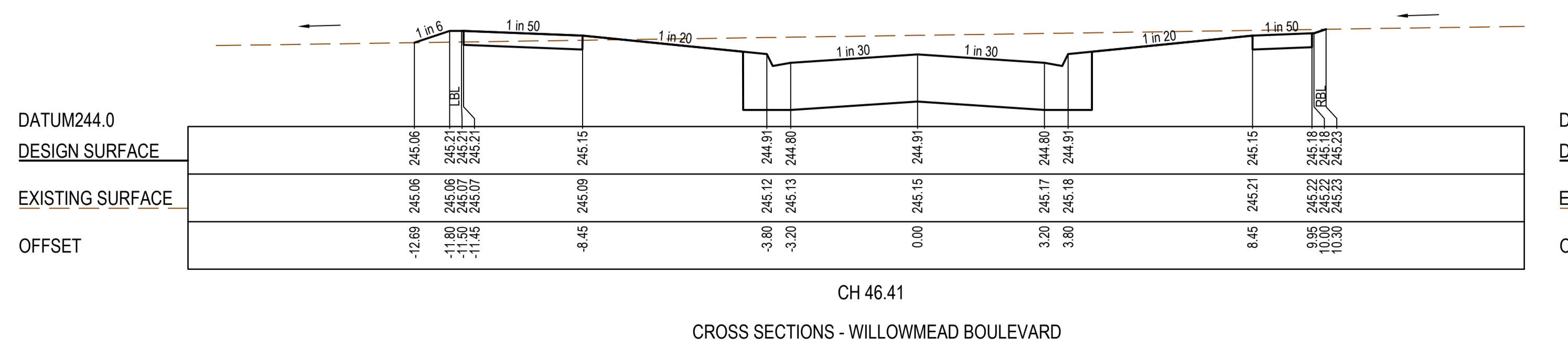
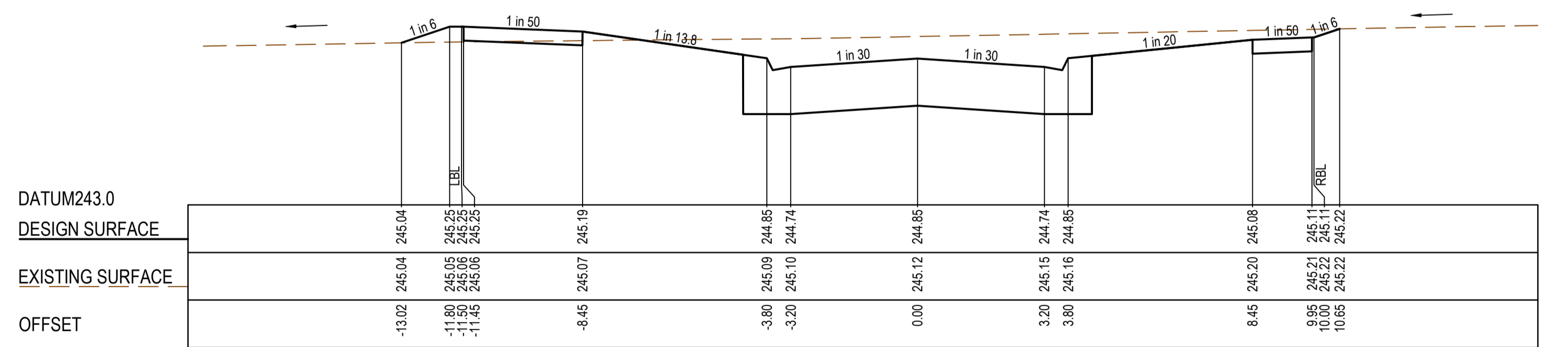
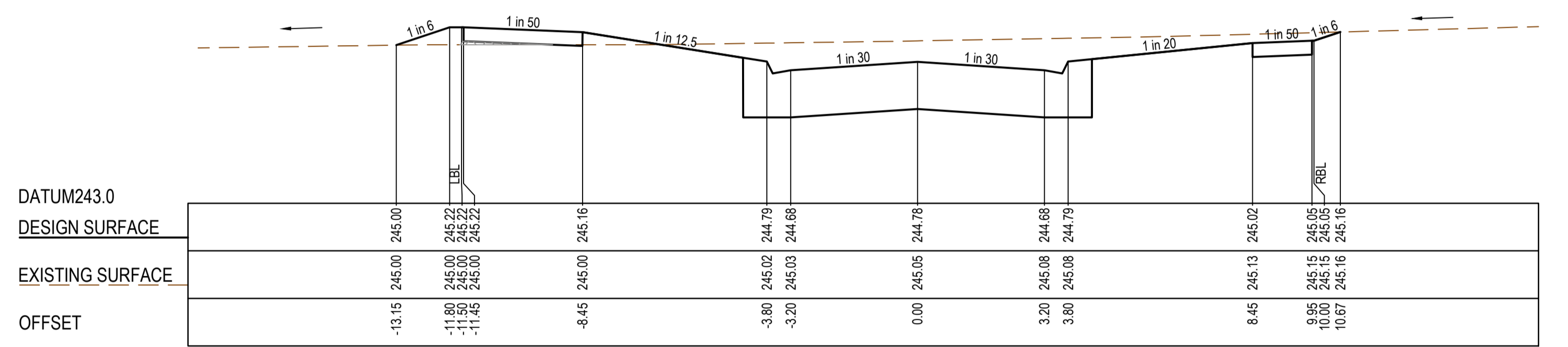
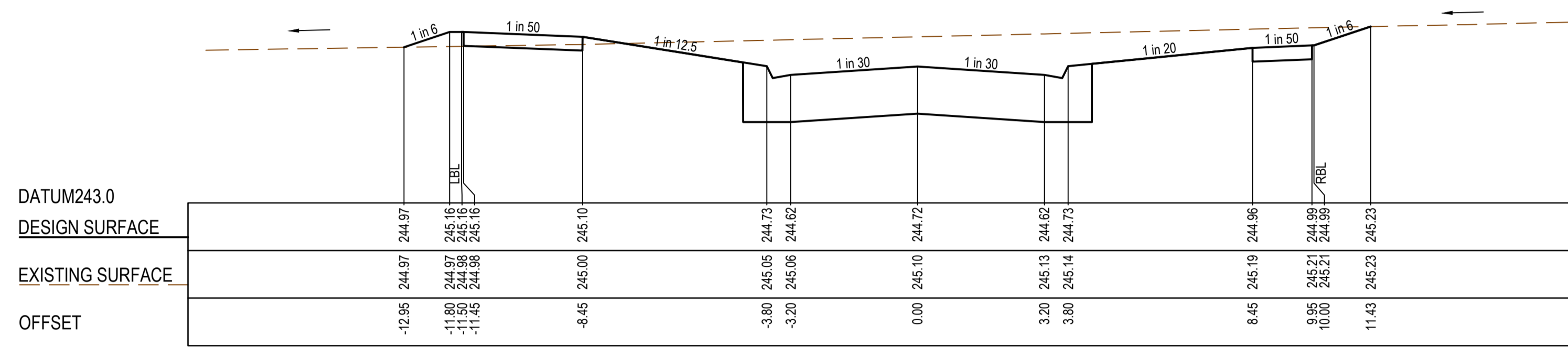
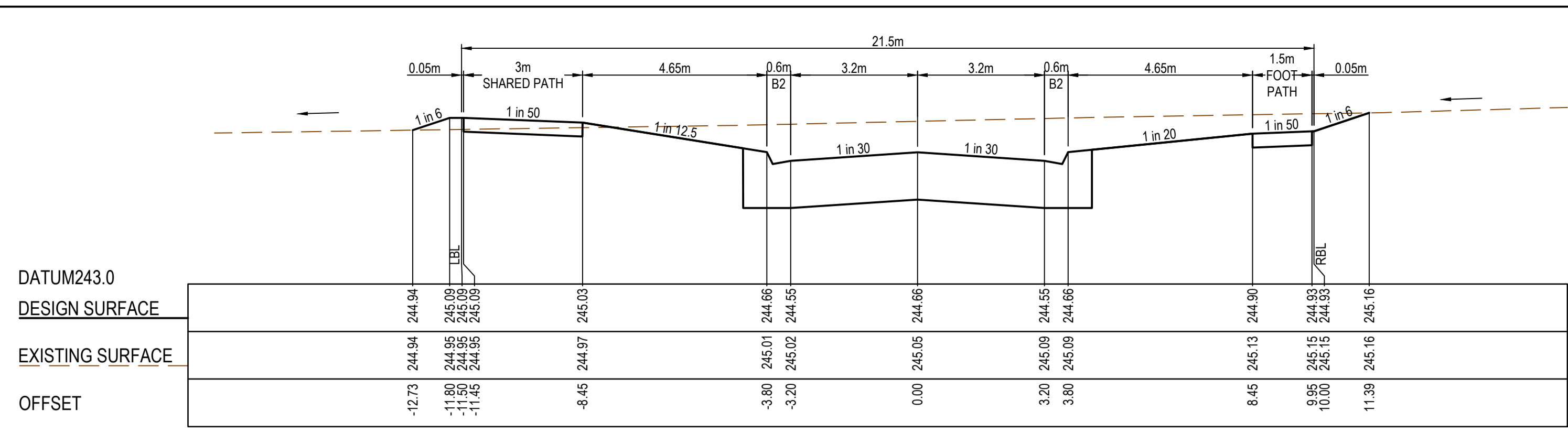
AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	
TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

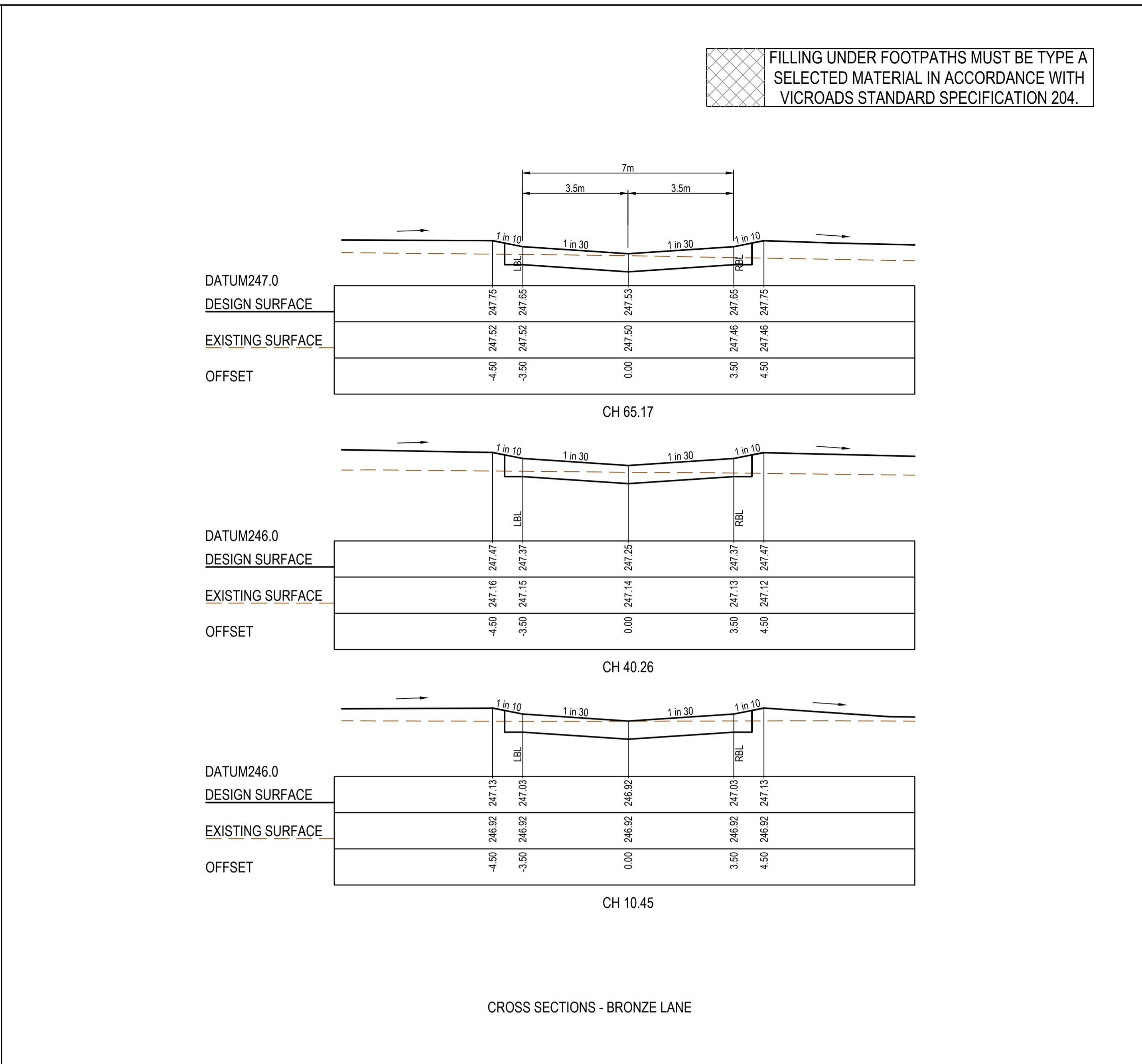


Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Cross Sections: Lonsdale Parade & Hardwood Grove
 Ch. 322.31 - Ch 435.83

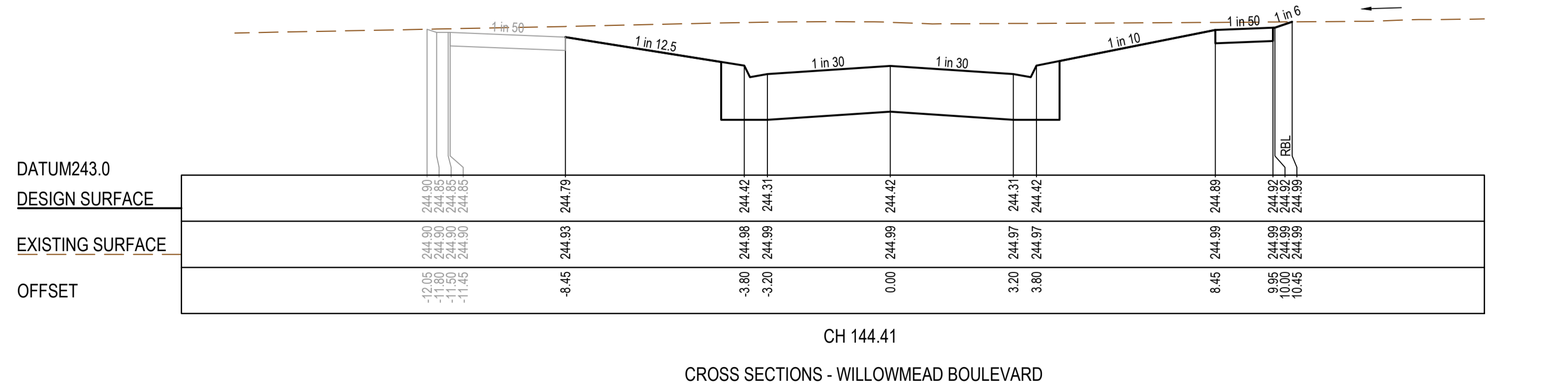
MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
8 M2	1700E-14-15	15 of 27	1



CROSS SECTIONS - WILLOWMEAD BOULEVARD



CROSS SECTIONS - BRONZE LANE



CROSS SECTIONS - WILLOWMEAD BOULEVARD

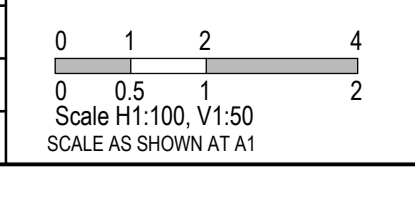
FILLING UNDER FOOTPATHS MUST BE TYPE A SELECTED MATERIAL IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION 204.

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	
TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC

Member of the **Surbana Jurong Group**

ABN 47 065 475 149

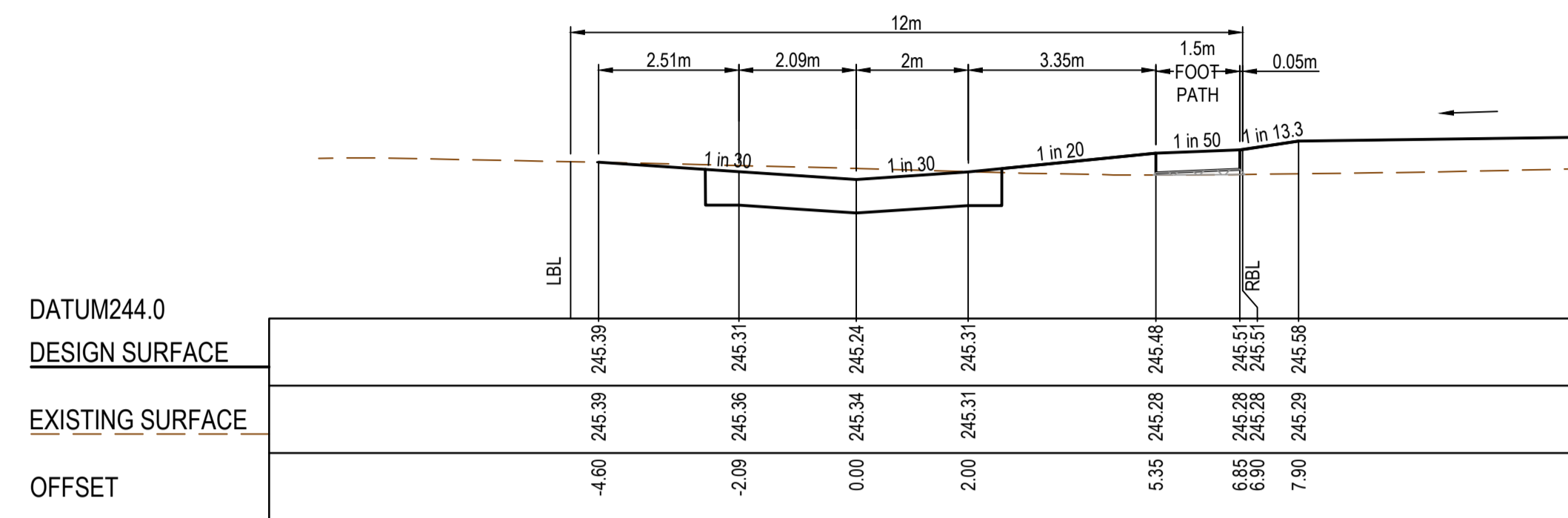
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

mirvac

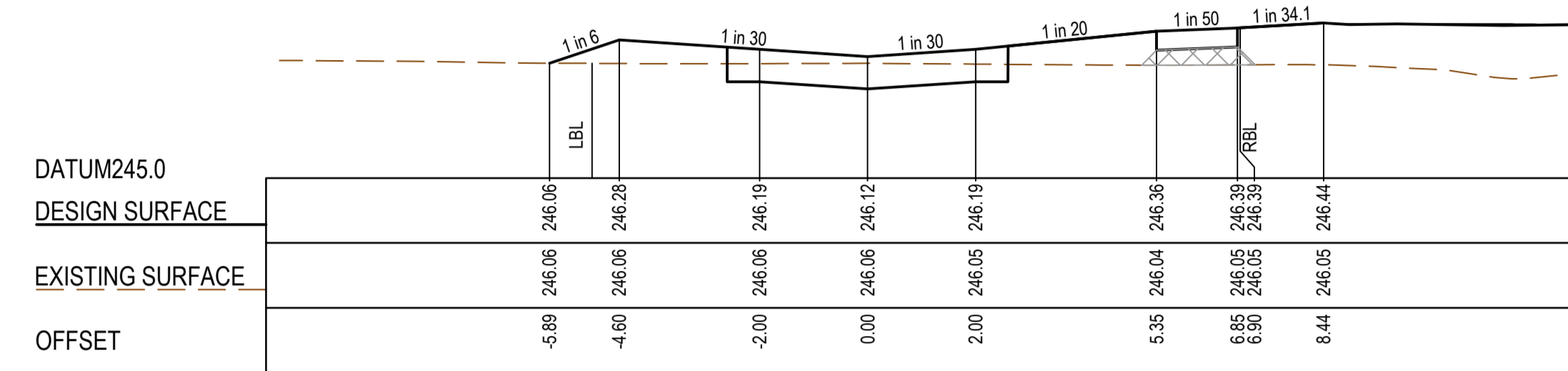
Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Cross Sections: Willowmead Boulevard & Bronze Lane

MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
8 M2	1700E-14-19	19 of 27	1

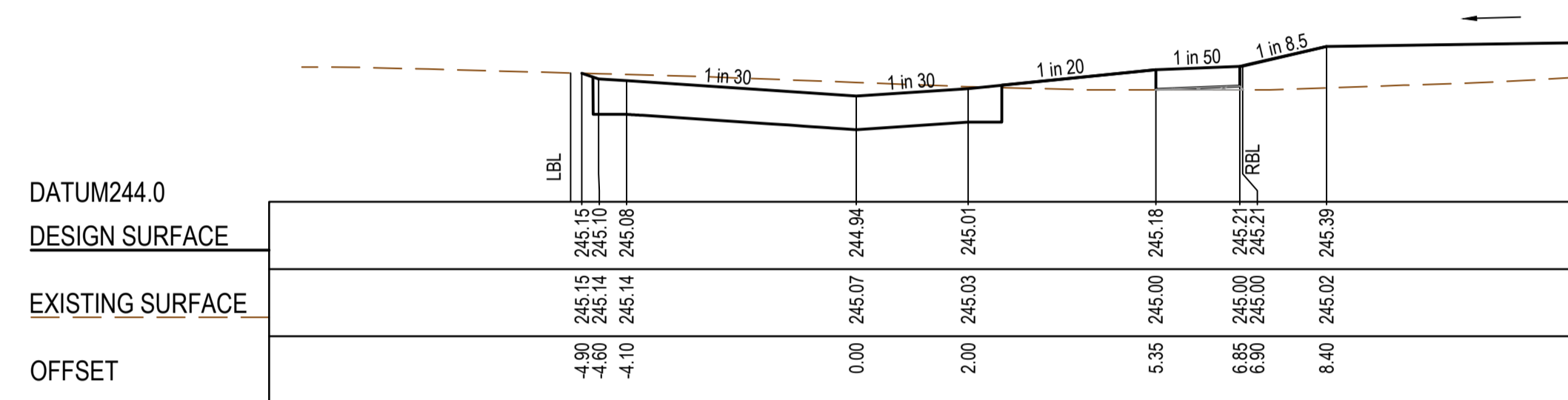
FILLING UNDER FOOTPATHS MUST BE TYPE A SELECTED MATERIAL IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION 204.



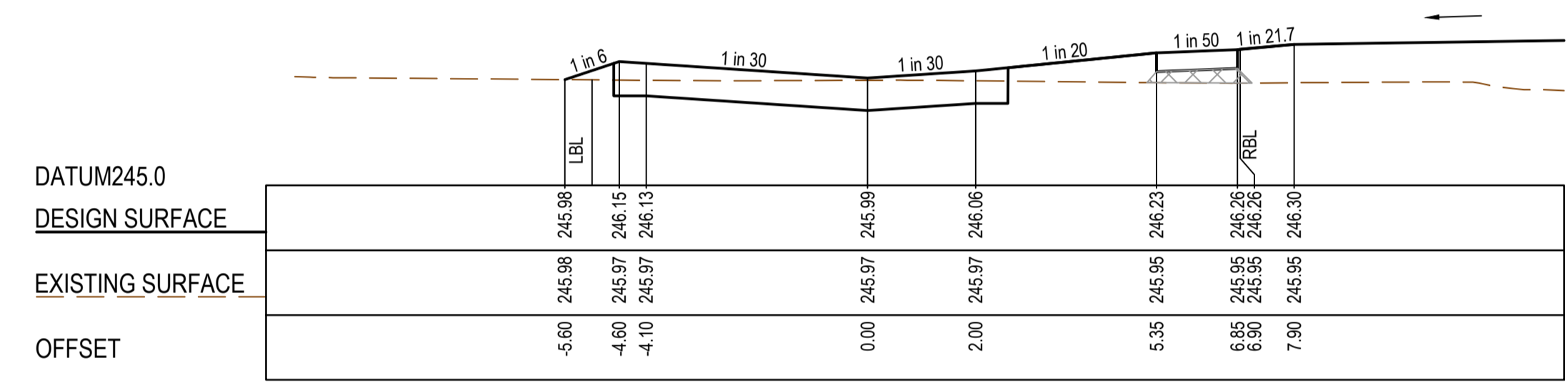
CH 34.50



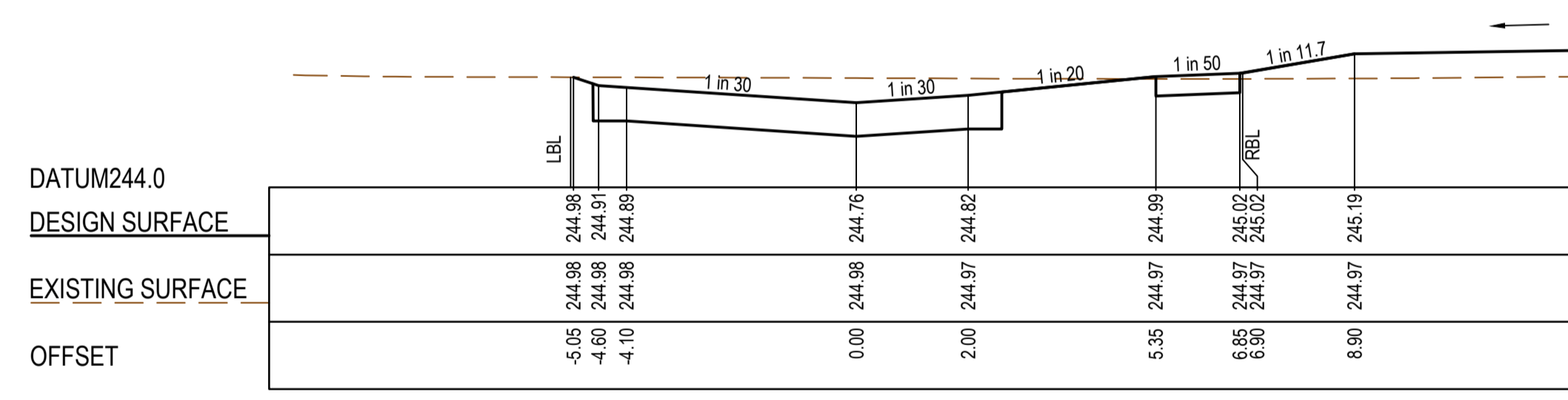
CH 71.00



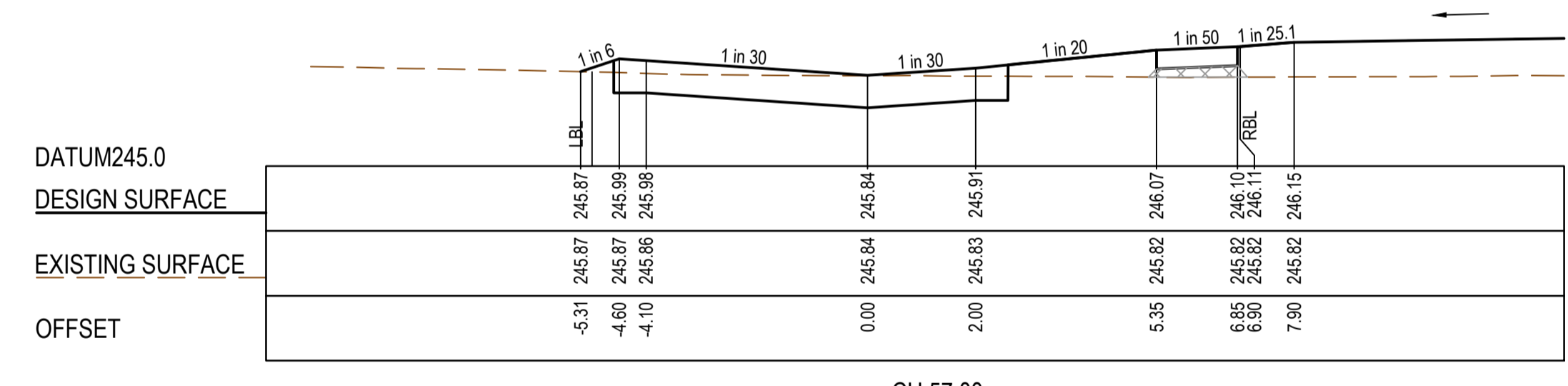
CH 27.00



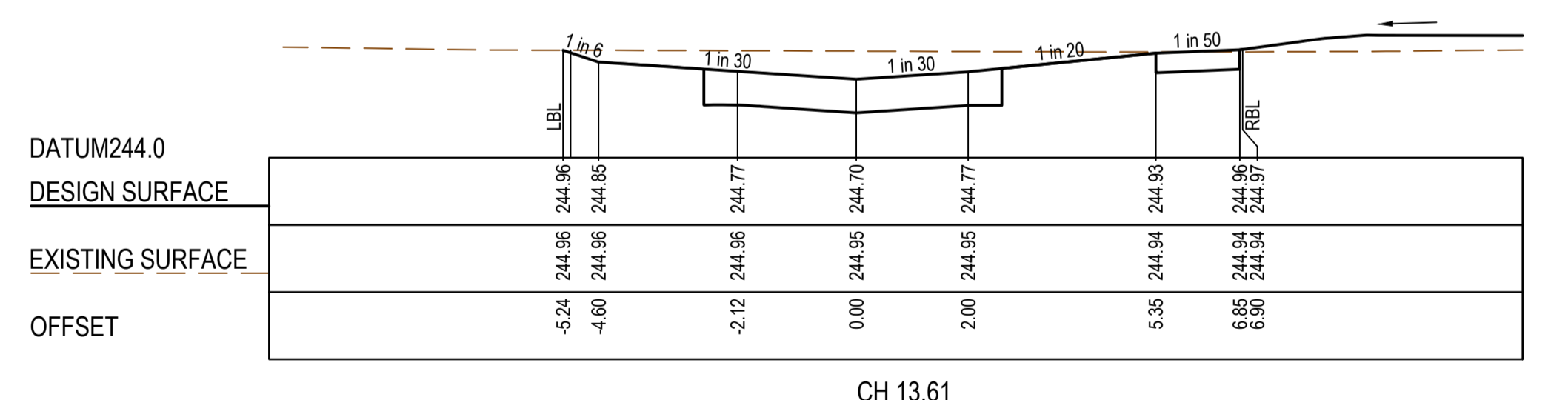
CH 64.50



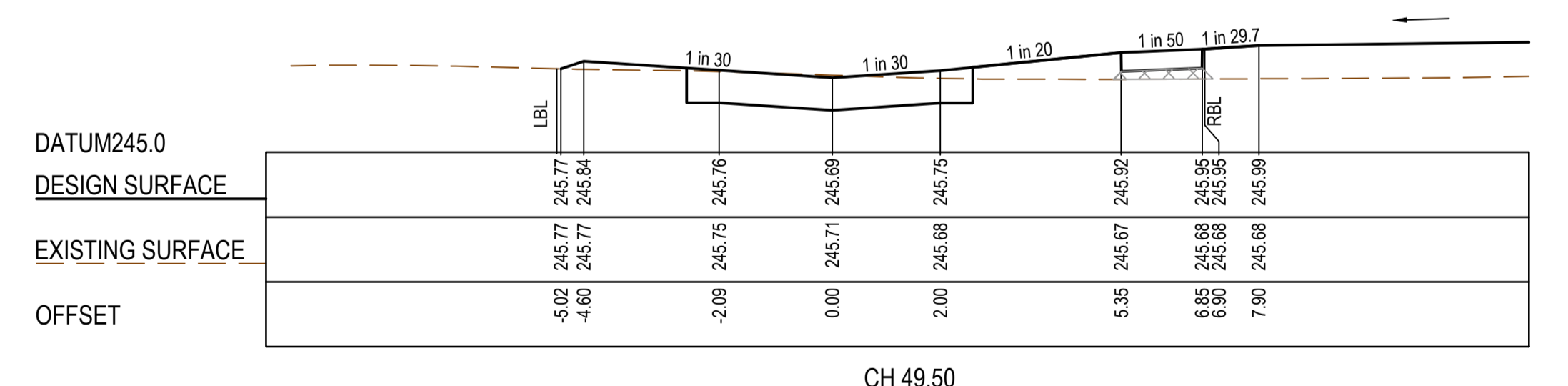
CH 19.50



CH 57.00



CH 13.61



CH 49.50

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	
TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

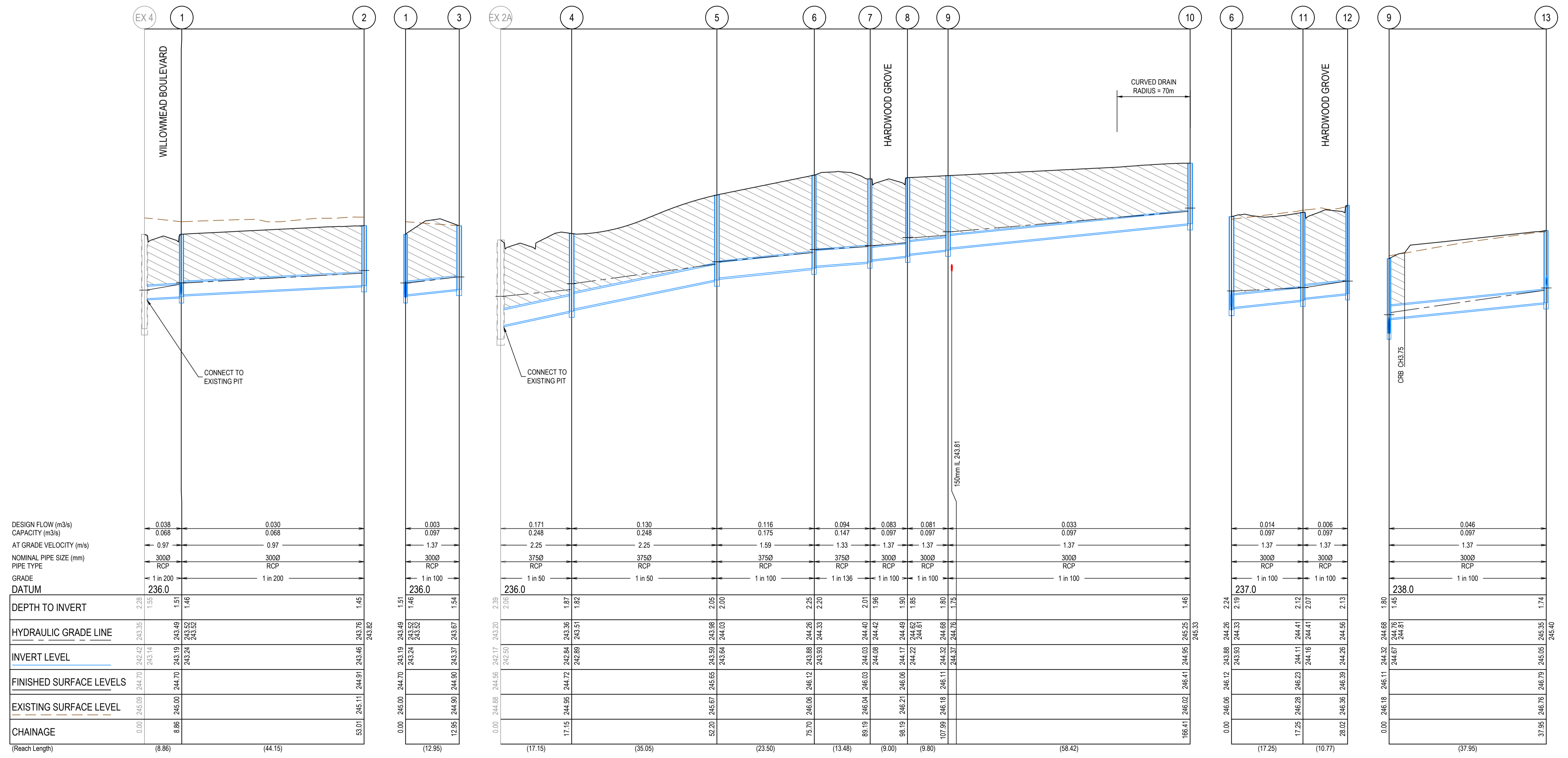
Scale H1:100, V1:50
SCALE AS SHOWN AT 1

Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Cross Sections: Mann Lane & Raziers Lane

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-20	SHEET No. 20 of 27	REVISION 2
---------------------	--------------------------------------	-----------------------	---------------

CRUSHED ROCK BACKFILL
 CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE WITH COUNCIL STANDARDS & SPECIFICATIONS, CLASS 3 UNLESS SPECIFIED OTHERWISE



DESIGN FLOW (m ³ /s)	0.038	0.030	0.003	0.171	0.130	0.116	0.094	0.083	0.081	0.033	0.014	0.006	0.046
CAPACITY (m ³ /s)	0.068	0.068	0.097	0.248	0.248	0.175	0.147	0.097	0.097	0.097	0.097	0.097	0.097
AT GRADE VELOCITY (m/s)	0.97	0.97	1.37	2.25	2.25	1.59	1.33	1.37	1.37	1.37	1.37	1.37	1.37
NOMINAL PIPE SIZE (mm)	3000	3000	3000	3750	3750	3750	3750	3000	3000	3000	3000	3000	3000
PIPE TYPE	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP	RCP
GRADE	1 in 200	1 in 200	1 in 100	1 in 50	1 in 50	1 in 100	1 in 136	1 in 100	1 in 100	1 in 100	1 in 100	1 in 100	1 in 100
DATUM	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	236.0	237.0	237.0	238.0
DEPTH TO INVERT	2.28	1.51	1.46	1.51	1.46	1.51	1.46	1.51	1.46	1.51	1.46	1.51	1.46
HYDRAULIC GRADE LINE	242.42	243.35	243.32	242.84	243.36	243.98	244.03	244.40	244.42	244.62	244.33	244.33	244.61
INVERT LEVEL	243.14	243.19	243.32	242.88	243.51	243.83	244.08	244.42	244.62	244.68	244.26	244.26	244.56
FINISHED SURFACE LEVELS	244.70	244.70	244.90	244.72	244.95	246.12	246.04	246.21	246.11	246.11	246.12	246.12	246.12
EXISTING SURFACE LEVEL	245.09	245.00	244.90	244.95	244.90	246.06	246.06	246.21	246.11	246.11	246.12	246.12	246.12
CHAINAGE	0.00	8.86	53.01	17.15	52.20	75.70	89.19	98.19	107.99	166.41	0.00	17.25	28.02
(Reach Length)	(8.86)	(44.15)	(12.95)	(17.15)	(35.05)	(23.50)	(13.48)	(9.00)	(9.80)	(58.42)	(17.25)	(10.77)	(37.95)

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 Global-Mark.com.au®

Oric Management AS/NZS 1880
 Global-Mark.com.au®

Environmental Management ISO 14001
 Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

0 5 10 20
 0 0.5 1 2
 Scale H1:500, V1:50
 SCALE AS SHOWN AT 1

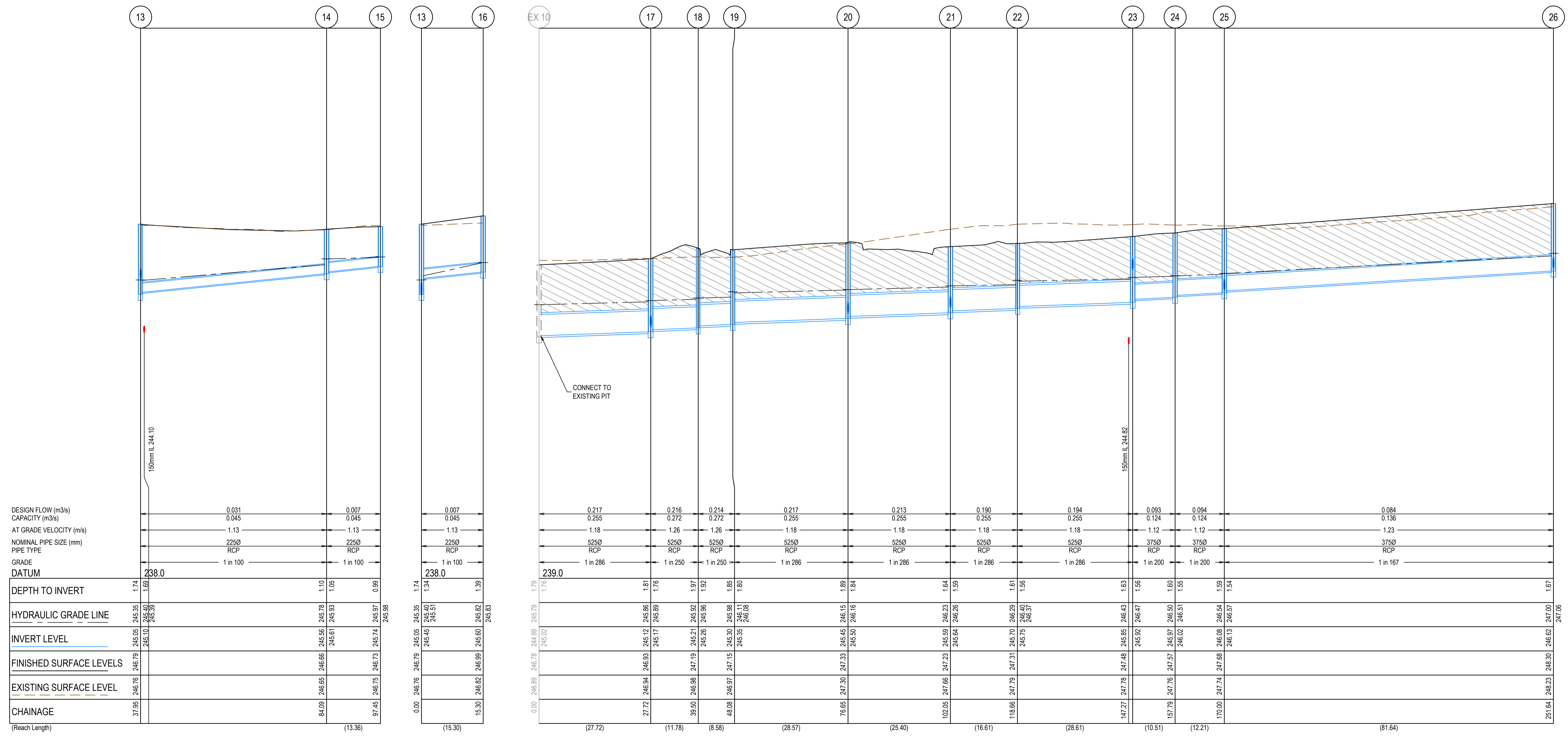
SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Drainage Longitudinal Sections - 1

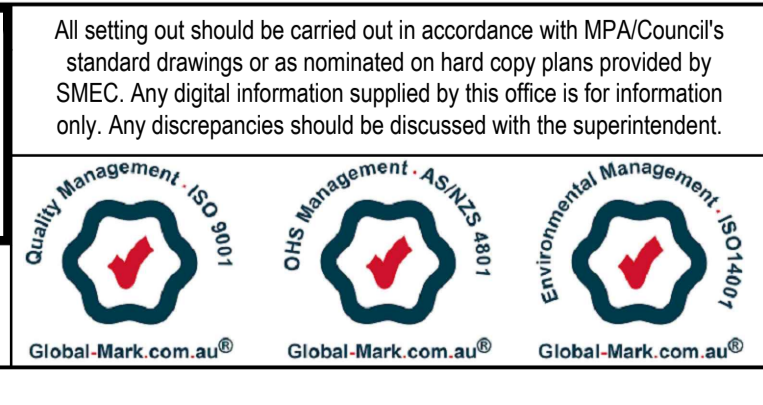
MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-21	SHEET No. 21 of 27	REVISION 1
----------------------------	---	------------------------------	----------------------

CRUSHED ROCK BACKFILL
 CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE WITH COUNCIL STANDARDS & SPECIFICATIONS, CLASS 3 UNLESS SPECIFIED OTHERWISE

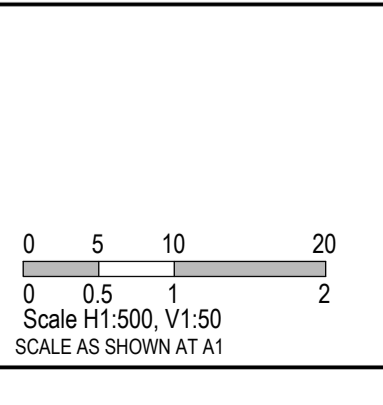


AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED



TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



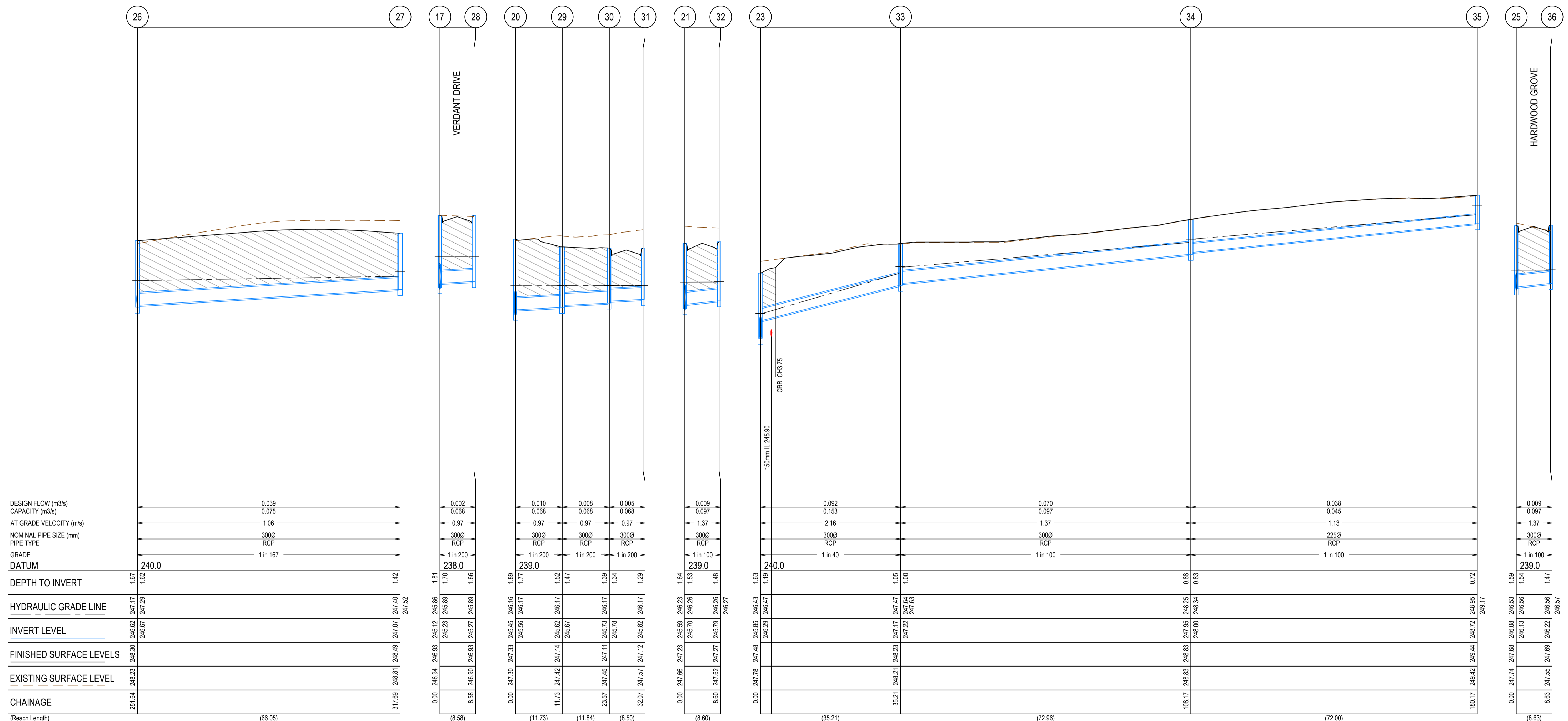
SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500



Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Drainage Longitudinal Sections - 2

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-22	SHEET No. 22 of 27	REVISION 1
----------------------------	---	------------------------------	----------------------

CRUSHED ROCK BACKFILL
 CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE WITH COUNCIL STANDARDS & SPECIFICATIONS, CLASS 3 UNLESS SPECIFIED OTHERWISE



AS CONSTRUCTED PLANS
 The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

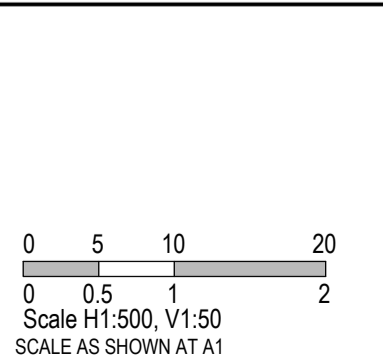
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 Global-Mark.com.au®

Site Management AS/NZS 1800
 Global-Mark.com.au®

Environmental Management ISO 14001
 Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



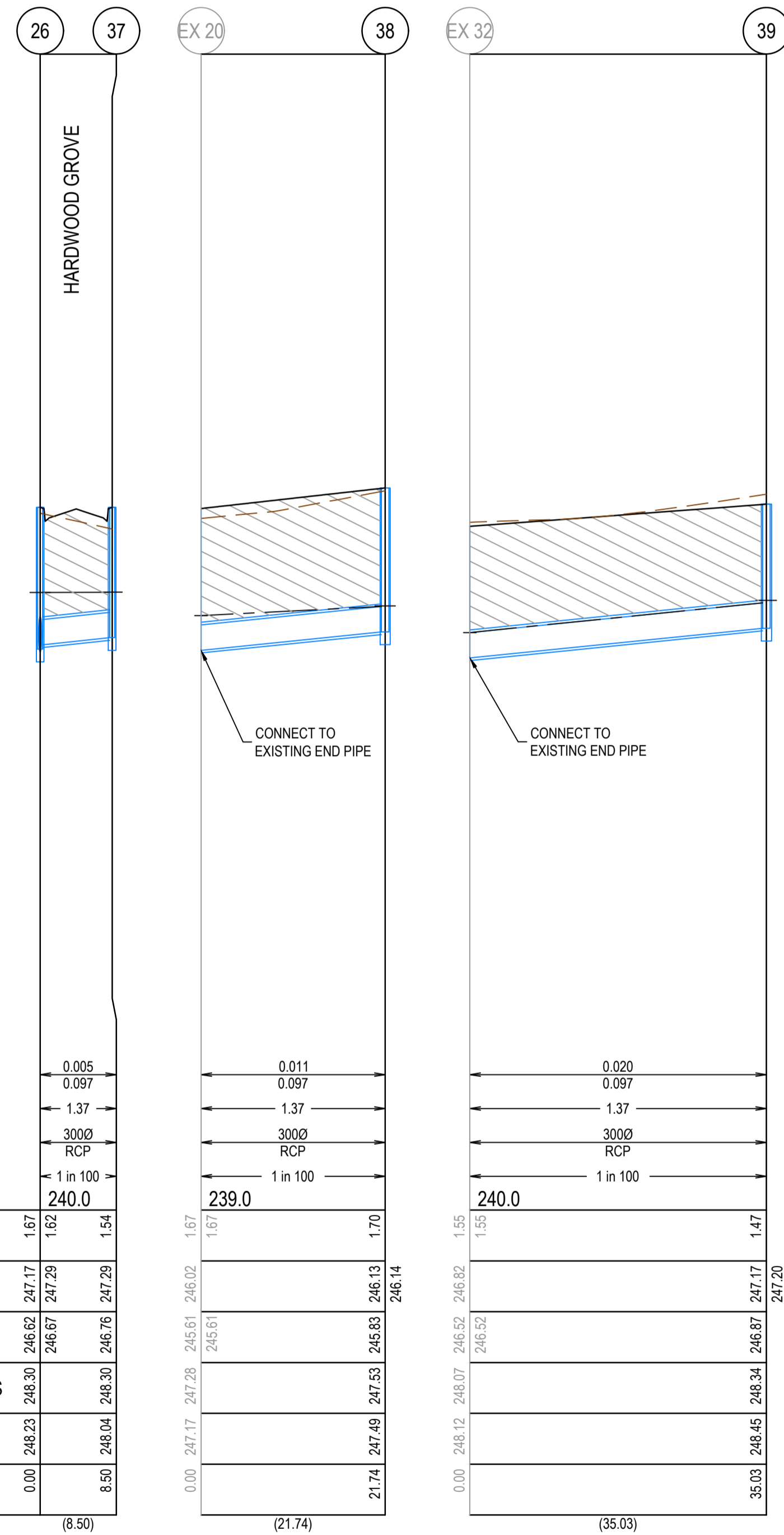
SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500



Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Drainage Longitudinal Sections - 3

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-23	SHEET No. 23 of 27	REVISION 1
----------------------------	---	------------------------------	----------------------

CRUSHED ROCK BACKFILL
 CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE WITH COUNCIL STANDARDS & SPECIFICATIONS, CLASS 3 UNLESS SPECIFIED OTHERWISE



DESIGN FLOW (m ³ /s)	0.005
CAPACITY (m ³ /s)	0.097
AT GRADE VELOCITY (m/s)	1.37
NOMINAL PIPE SIZE (mm)	300Ø
PIPE TYPE	RCP
GRADE	1 in 100
DATUM	240.0
DEPTH TO INVERT	1.67 1.62 1.54
HYDRAULIC GRADE LINE	246.62 247.17 247.29 247.29 247.29
INVERT LEVEL	246.62 246.67 246.76 246.76
FINISHED SURFACE LEVELS	246.30 246.30 246.30 246.30
EXISTING SURFACE LEVEL	246.23 246.23 246.23 246.23
CHAINAGE	0.00 8.50
(Reach Length)	(8.50)

PIT NUMBER	TYPE	INTERNAL		INLET		OUTLET		F.S.L.	DEPTH	STANDARD DRAWING	REMARKS
		WIDTH (mm)	LENGTH (mm)	DIAMETER (mm)	INV R.L. (m)	DIAMETER (mm)	INV R.L. (m)				
Ex 4	Ex	1200	900	300	243.14			244.7	2.28		CONNECT TO EXISTING PIT
1	GRATED ENTRY PIT	600	900	300	243.24	300	243.19	244.7	1.51	EDCM 601 & 605	
2	GRATED ENTRY PIT	600	900			300	243.46	244.91	1.45	EDCM 601 & 605	
3	JUNCTION PIT	600	900			300	243.37	244.91	1.54	EDCM 605	PIT LID TO BE UPGRADED WITH CONSTRUCTION OF FUTURE LANEWAY.
Ex 2A	Ex	1500	900	375	242.5			244.56	2.39		CONNECT TO EXISTING PIT
4	GRATED PIT	900	600	375	242.89	375	242.84	244.72	1.87	EDCM 605	GRATED JUNCTION PIT LID. REFER DETAIL.
5	GRATED PIT	900	600	375	243.64	375	243.59	245.65	2.05	EDCM 605	GRATED JUNCTION PIT LID. REFER DETAIL.
6	GRATED PIT	900	600	375	243.93	375	243.88	246.12	2.25	EDCM 605	GRATED JUNCTION PIT LID. REFER DETAIL.
7	DOUBLE GRATED ENTRY PIT	600	900	300	244.08	375	244.03	246.03	2.01	EDCM 602 & 605	
8	DOUBLE GRATED ENTRY PIT	600	900	300	244.22	300	244.17	246.06	1.9	EDCM 602 & 605	
9	GRATED ENTRY PIT	600	900	300	244.37	300	244.32	246.11	1.8	EDCM 601 & 605	
10	GRATED ENTRY PIT	600	900			300	244.95	246.41	1.46	EDCM 601 & 605	
11	GRATED ENTRY PIT	600	900	300	244.16	300	244.11	246.23	2.12	EDCM 601 & 605	
12	GRATED ENTRY PIT	600	900			300	244.26	246.39	2.13	EDCM 601 & 605	
13	JUNCTION PIT	600	900	225	245.1	300	245.05	246.79	1.74	EDCM 605	
14	JUNCTION PIT	600	900	225	245.45						
15	JUNCTION PIT	600	900	225	245.61	225	245.56	246.66	1.1	EDCM 605	
16	JUNCTION PIT	600	900	225	245.74	225	245.6	246.99	1.39	EDCM 605	
Ex 10	GRATED ENTRY PIT	750	900	525	245.02			246.78	1.79		
17	GRATED ENTRY PIT	750	1050	525	245.17	525	245.12	246.93	1.81	EDCM 601 & 607	HAUNCH PIT COVER TO 600x900
18	GRATED ENTRY PIT	600	900	525	245.26	525	245.21	247.19	1.97	EDCM 601 & 605	
19	GRATED ENTRY PIT	900	750	525	245.35	525	245.3	247.15	1.85	EDCM 601 & 607	HAUNCH PIT COVER TO 600x900
20	GRATED ENTRY PIT	750	900	525	245.5	525	245.45	247.33	1.89	EDCM 601 & 607	HAUNCH PIT COVER TO 600x900
21	DOUBLE SIDE ENTRY PIT	750	900	525	245.64	525	245.59	247.23	1.64	EDCM 602 & 607	HAUNCH PIT COVER TO 600x900
22	JUNCTION PIT	900	900	525	245.75	525	245.7	247.31	1.61	EDCM 605	
23	GRATED ENTRY PIT	900	900	375	245.92	525	245.85	247.48	1.64	EDCM 601 & 605	HAUNCH PIT COVER TO 600x900
24	GRATED ENTRY PIT	600	900	375	246.02	375	245.97	247.57	1.6	EDCM 601 & 605	
25	GRATED ENTRY PIT	600	900	300	246.13	375	246.08	247.68	1.59	EDCM 601 & 605	
26	GRATED ENTRY PIT	600	900	300	246.13	300	246.13	248.3	1.67	EDCM 601 & 605	
27	GRATED ENTRY PIT	600	900	300	246.67	300	246.67	248.3	1.67	EDCM 601 & 605	
28	GRATED ENTRY PIT	600	900			300	247.07	248.49	1.42	EDCM 601 & 605	
29	GRATED ENTRY PIT	600	900			300	245.27	246.93	1.66	EDCM 601 & 605	
30	GRATED ENTRY PIT	600	900	300	245.67	300	245.62	247.14	1.52	EDCM 601 & 605	
31	DOUBLE GRATED ENTRY PIT	600	900	300	245.78	300	245.73	247.11	1.39	EDCM 602 & 605	
32	DOUBLE GRATED ENTRY PIT	600	900	300	245.82	300	245.82	247.12	1.29	EDCM 602 & 605	
33	DOUBLE GRATED ENTRY PIT	600	900	300	245.79	300	245.79	247.27	1.48	EDCM 602 & 605	
34	JUNCTION PIT	600	900	300	247.22	300	247.17	248.23	1.05	EDCM 605	
35	JUNCTION PIT	600	900	225	248	300	247.95	248.84	0.88	EDCM 605	
36	JUNCTION PIT	600	900	225	248.72	225	248.72	249.44	0.72	EDCM 605	
37	GRATED ENTRY PIT	600	900			300	246.22	247.69	1.47	EDCM 601 & 605	
38	GRATED ENTRY PIT	600	900			300	246.76	248.3	1.54	EDCM 601 & 605	
Ex 20	ENDPIPE			300	245.61			247.28	1.67		CONNECT TO EXISTING END PIPE
38	GRATED PIT	600	900			300	245.83	247.53	1.7	EDCM 605	GRATED JUNCTION PIT LID. REFER DETAIL.
Ex 32	ENDPIPE			300	246.52			248.07	1.55		CONNECT TO EXISTING END PIPE
39	GRATED ENTRY PIT	600	900			300	246.87	248.34	1.47	EDCM 601 & 605	
Ex 18	GRATED PIT	Ex 600	Ex 900	Ex 375	Ex 245.24	Ex 375	Ex 245.19	246.89	1.71	EDCM 605	UPGRADE EX JUNCTION PIT TO GRATED PIT AND MATCH LID NEATLY TO SURROUNDING CONCRETE LANEWAY.
Ex 19	GRATED PIT	Ex 600	Ex 900	Ex 300	245.59	Ex 375	Ex 245.54	247.34	1.8	EDCM 605	UPGRADE EX JUNCTION PIT TO GRATED PIT AND MATCH LID NEATLY TO SURROUNDING CONCRETE LANEWAY.

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

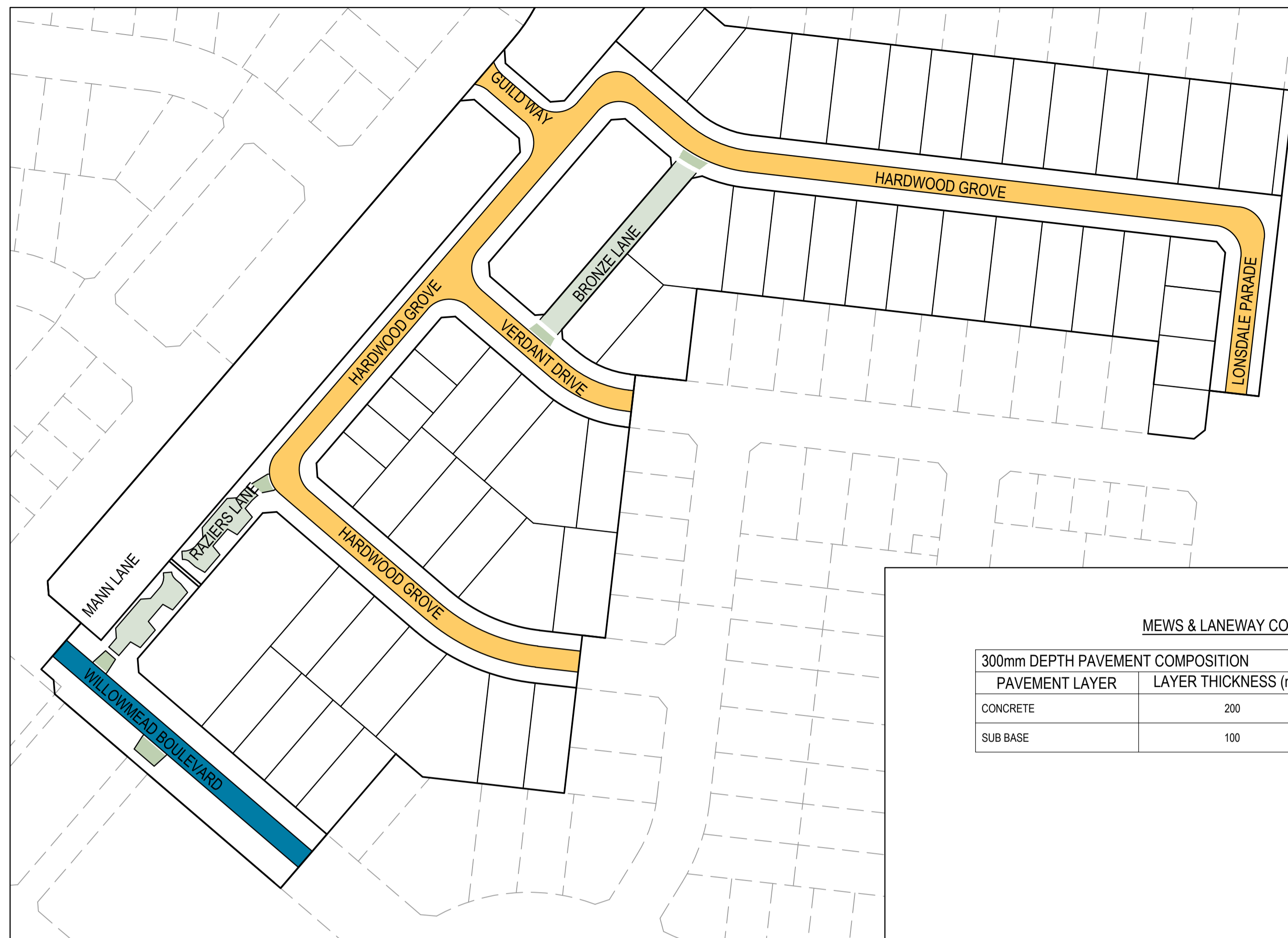
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

Member of the **Surbana Jurong Group**
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Drainage Longitudinal Sections - 4
 & Pit Schedules

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
8 M2	1700E-14-24	24 of 27	2



MEWS & LANEWAY COMPOSITION - EDCM503

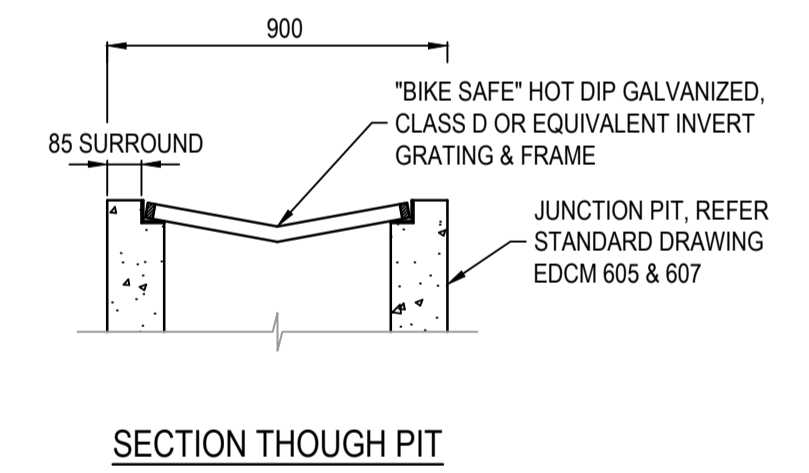
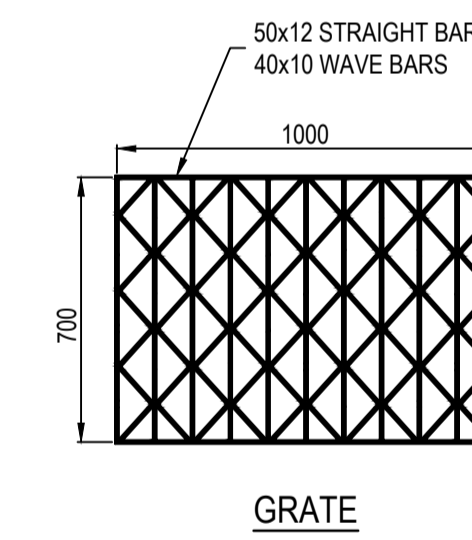
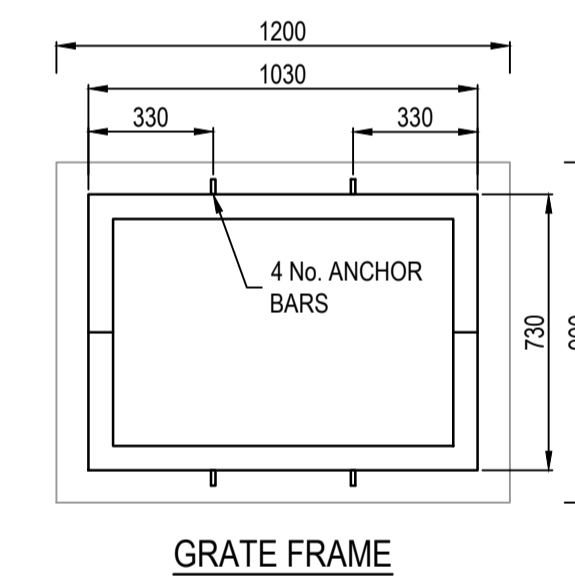
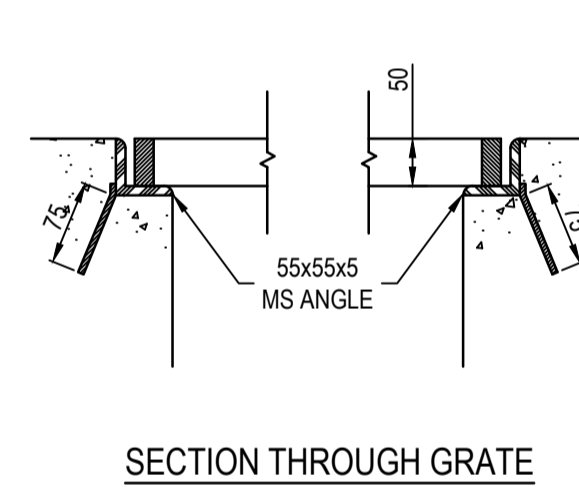
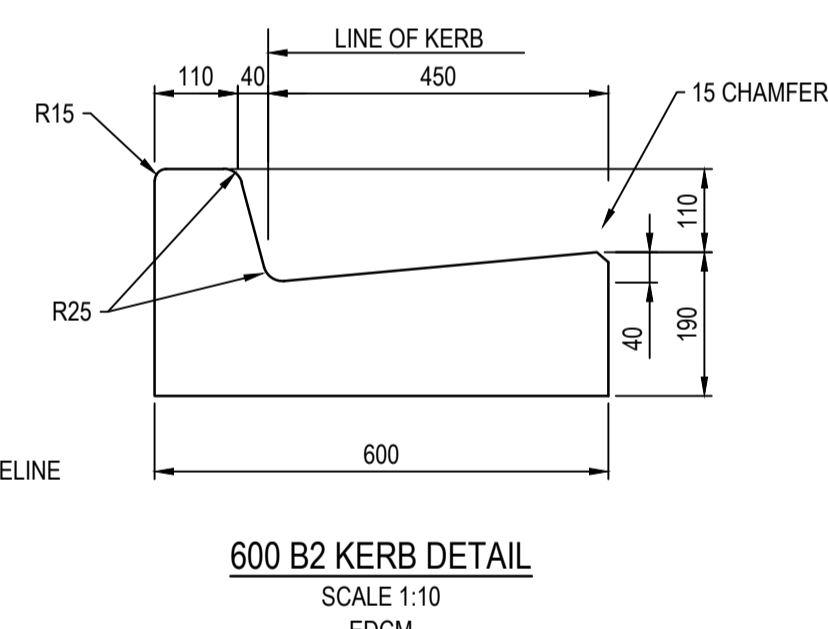
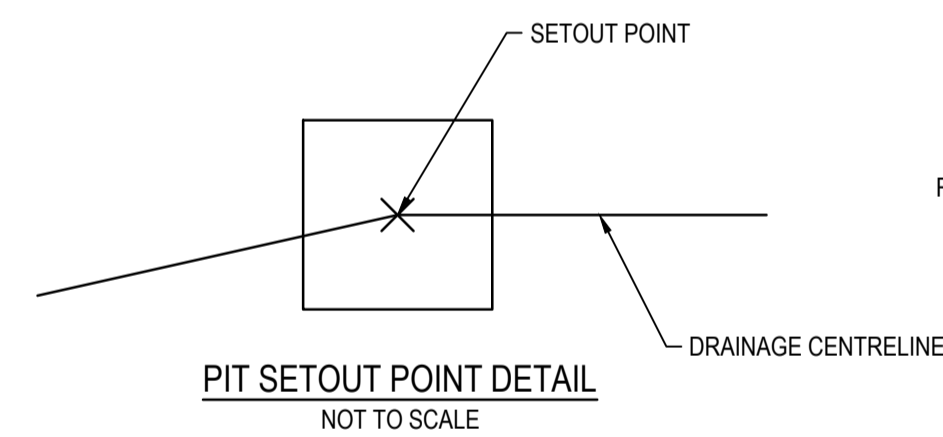
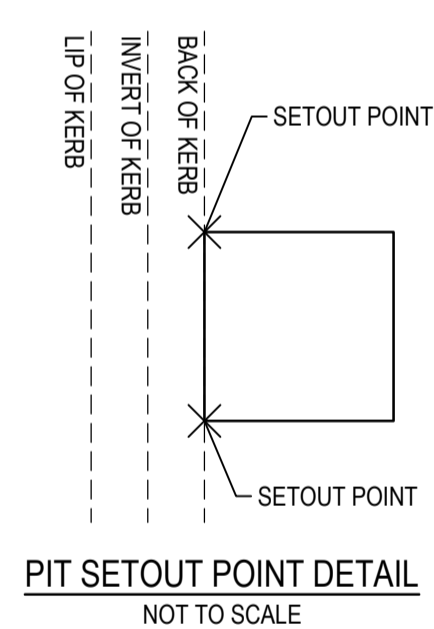
300mm DEPTH PAVEMENT COMPOSITION		
PAVEMENT LAYER	LAYER THICKNESS (mm)	MATERIAL
CONCRETE	200	N25 CONCRETE WITH SL82 MESH TOP 50 COVER. MESH TO HAVE 50 COVER TO ALL EDGES
SUB BASE	100	CLASS 3 CRUSHED ROCK OR CLASS 3 CRUSHED CONCRETE MECHANICALLY COMPACTED

ROAD PAVEMENT COMPOSITION - ACCESS STREET LEVEL 2

850mm DEPTH PAVEMENT COMPOSITION		
PAVEMENT LAYER	LAYER THICKNESS (mm)	MATERIAL
A ASPHALT WEARING COURSE	40	SIZE 14 TYPE N ASPHALT (CLASS 320 BINDER)
B ASPHALT BASE COURSE	40	SIZE 14 TYPE HP ASPHALT (CLASS A10E BINDER)
C SAMII SEAL	10	SIZE 10 S18RF
D PRIME	YES	
E BASE COURSE	110	SIZE 20 CLASS 2 CRUSHED ROCK COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
F UPPER SUBBASE	160	CLASS 3 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
G LOWER SUBBASE	200	CLASS 4 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
H CAPPING LAYER	150	IMPORTED TYPE A FILL WITH CBR≥8% SWELL≤1.5% PERMEABILITY k≤5x10 ⁻⁹ m/s COMPACTED TO 98% MDD (STANDARD)
I CONSTRUCTION LAYER	150	IMPORTED TYPE A FILL WITH CBR≥8% SWELL≤1.5% PERMEABILITY k≤5x10 ⁻⁹ m/s COMPACTED TO 98% MDD (STANDARD)
J SUBGRADE		SUBGRADE CLAY AS FOUND (DESIGN CBR = 2% EXPANSIVE)

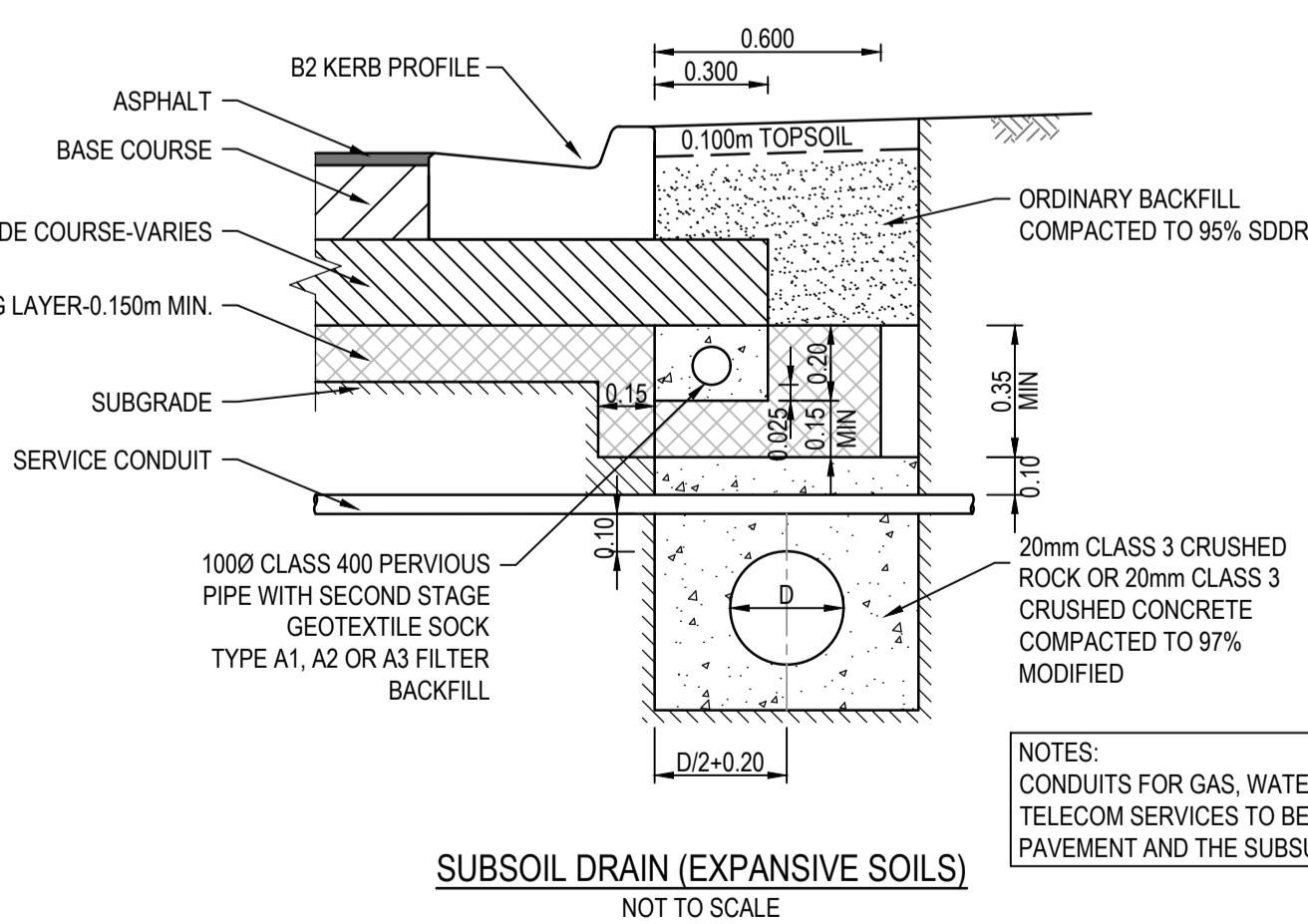
ROAD PAVEMENT COMPOSITION - ACCESS PLACE

780mm DEPTH PAVEMENT COMPOSITION		
PAVEMENT LAYER	LAYER THICKNESS (mm)	MATERIAL
A WEARING COURSE	30	SIZE 10 TYPE L ASPHALT (CLASS 320 BINDER)
B INTERMEDIATE COURSE	30	SIZE 10 TYPE N ASPHALT (CLASS 320 BINDER)
C SAMII SEAL	10	SIZE 10 S18RF
D PRIME	YES	
E BASE COURSE	130	SIZE 20 CLASS 2 CRUSHED ROCK COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
F UPPER SUBBASE	120	CLASS 3 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
G LOWER SUBBASE	170	CLASS 4 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% MDD (MODIFIED) AS1289.5.2.1
H CAPPING LAYER	150	IMPORTED TYPE A FILL WITH CBR≥8% SWELL≤1.5% PERMEABILITY k≤5x10 ⁻⁹ m/s COMPACTED TO 98% MDD (STANDARD)
I CONSTRUCTION LAYER	150	IMPORTED TYPE A FILL WITH CBR≥8% SWELL≤1.5% PERMEABILITY k≤5x10 ⁻⁹ m/s COMPACTED TO 98% MDD (STANDARD)
J SUBGRADE		SUBGRADE CLAY AS FOUND (DESIGN CBR = 2% EXPANSIVE)

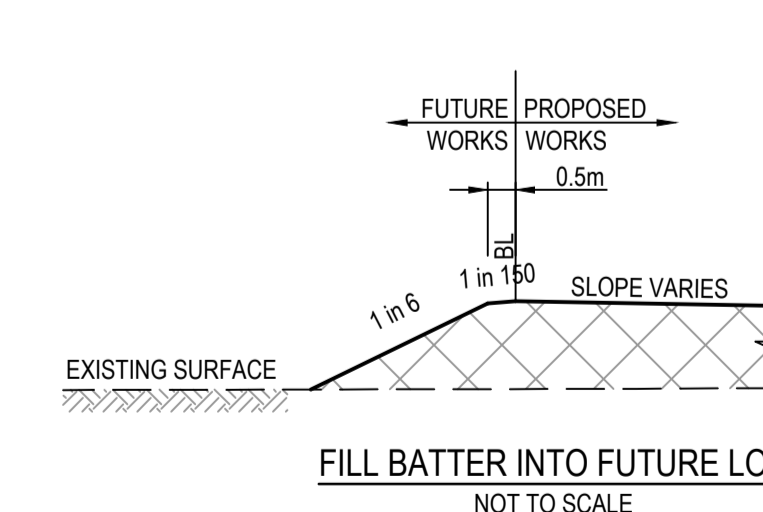
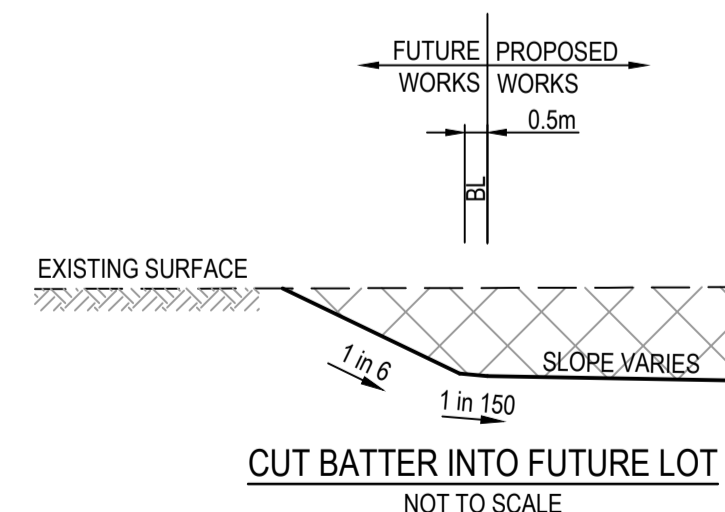
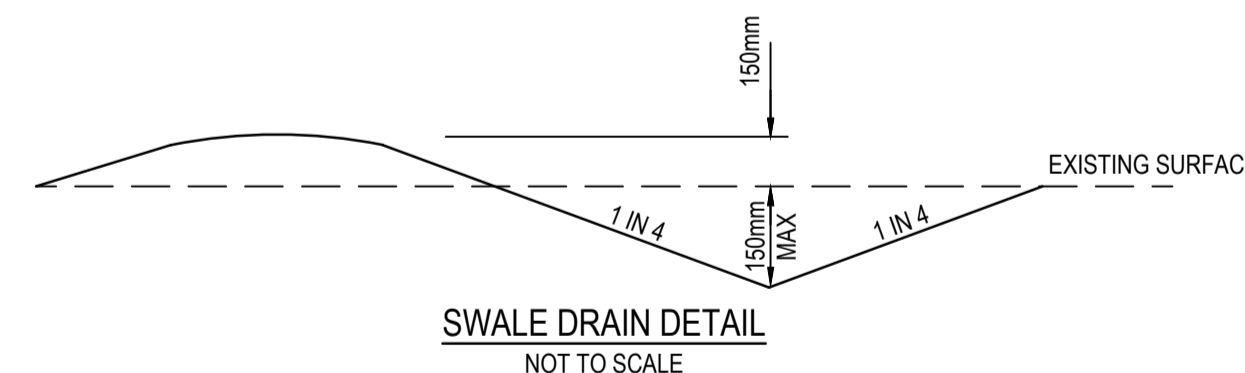
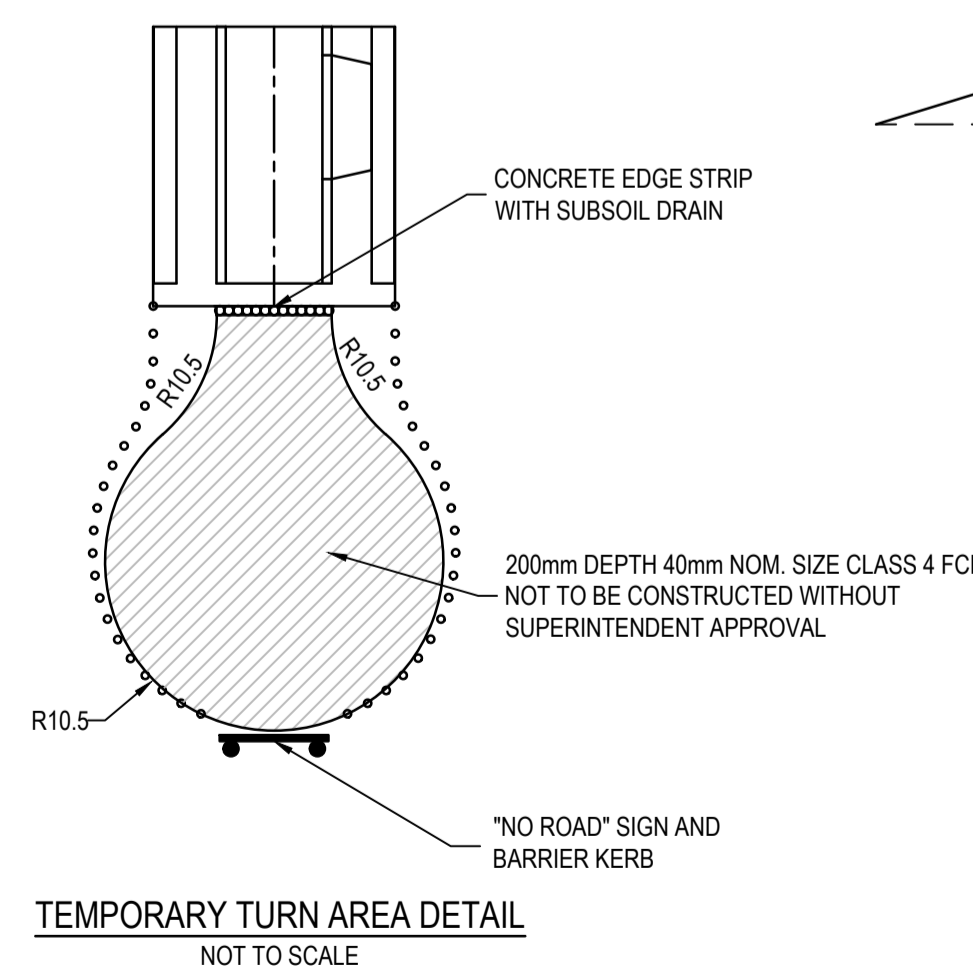


- NOTES
- REFER TO EDCM STANDARD DRAWINGS 605, 606 & 607 FOR PIT DETAILS.
 - GRATE FRAME TO BE "BIKE SAFE" TO AS3996-1992

GRATED JUNCTION PIT DETAIL NOT TO SCALE



- NOTES:
- CONDUITS FOR GAS, WATER, ELECTRICITY AND TELECOM SERVICES TO BE LOCATED CLEAR OF PAVEMENT AND THE SUBSURFACE DRAIN



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. Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
 www.1100.com.au

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

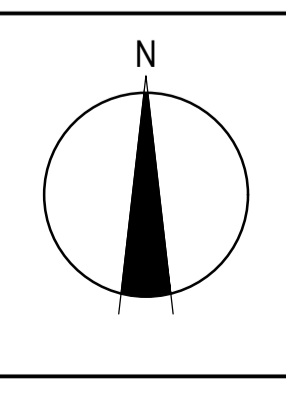
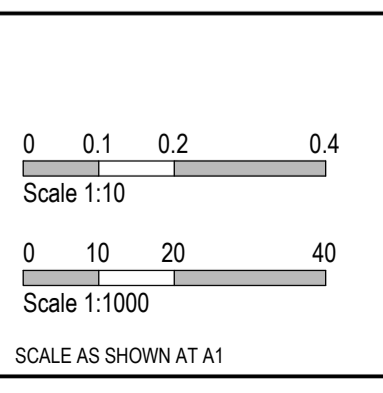
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management ISO 9001
 Global-Mark.com.au®

OH&S Management - AS/NZS 4500
 Global-Mark.com.au®

Environmental Management - ISO 14001
 Global-Mark.com.au®

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

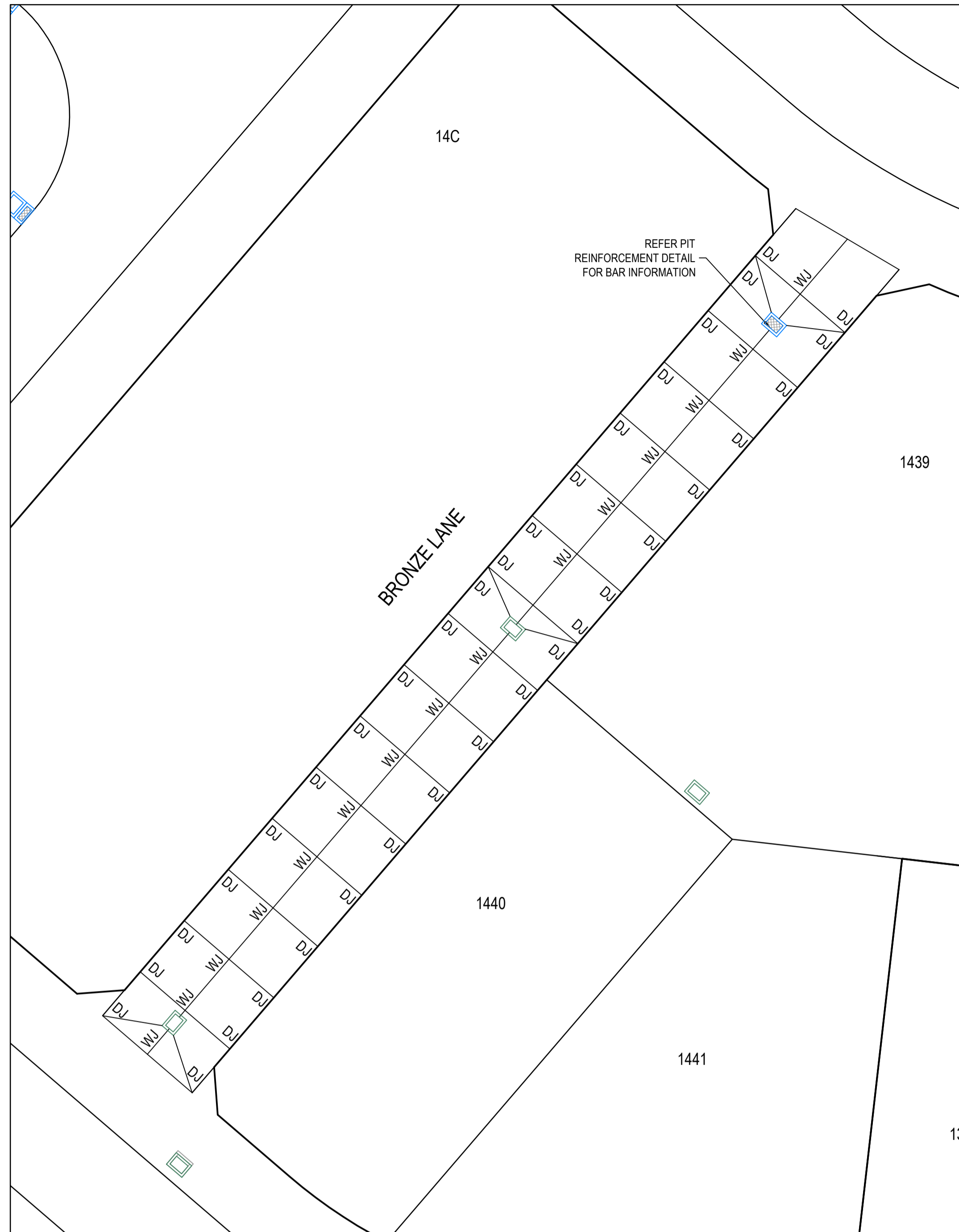


SMEC
 Member of the Surlana Jurong Group
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500

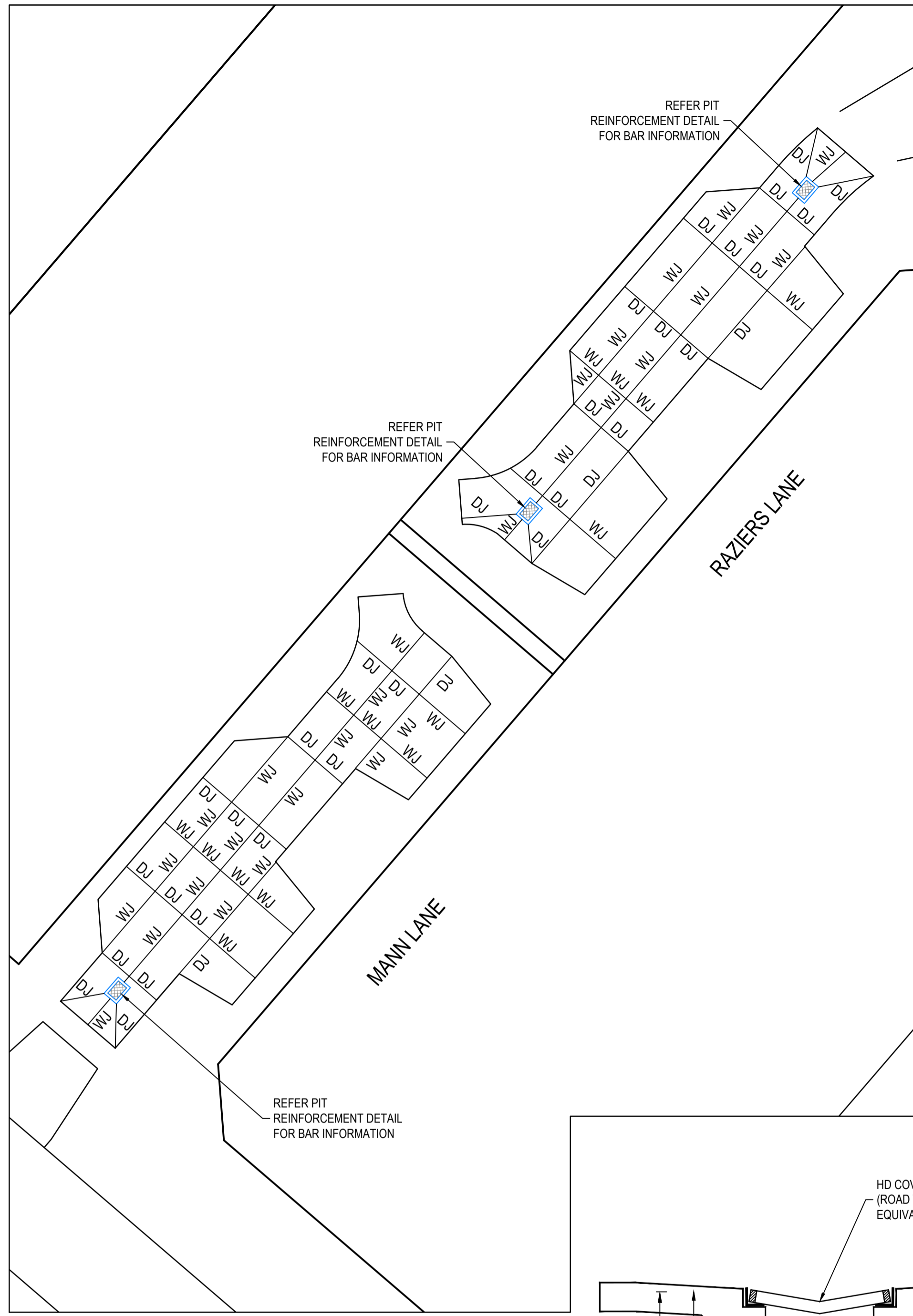
mirvac

Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Pavement Details and General Details

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-25	SHEET No. 25 of 27	REVISION 2
---------------------	--------------------------------------	-----------------------	---------------



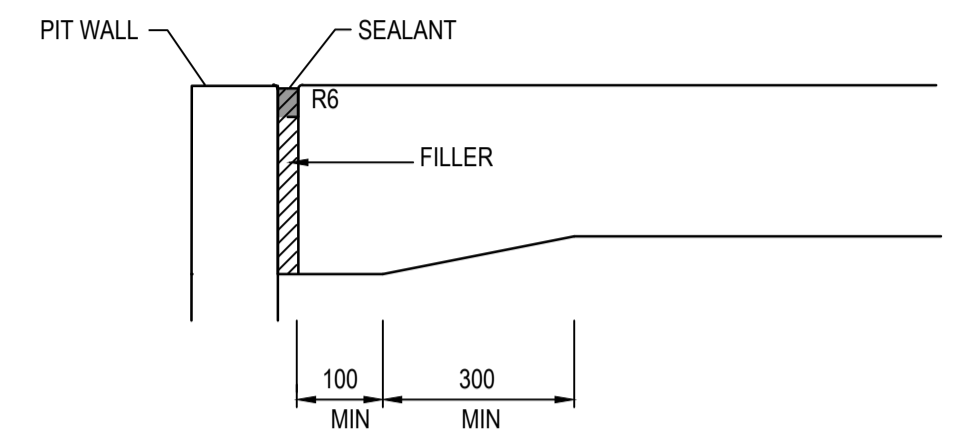
PLAN
1:200



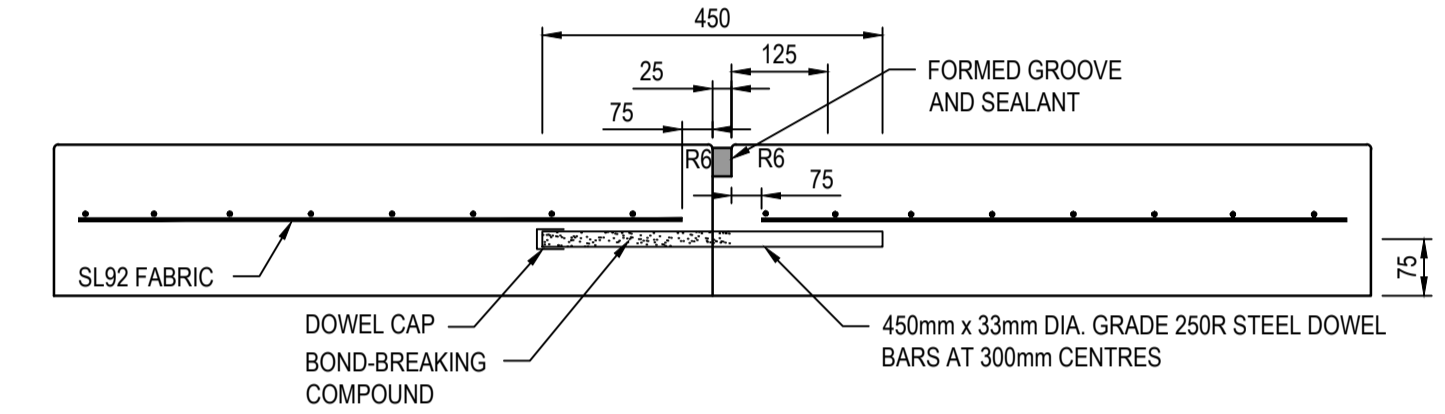
PLAN
1:200

NOTE:
CONCRETE SHALL BE CURED IN ACCORDANCE WITH AS3600 AND NOT TO BE TRAFFICKED UNTIL AT LEAST SEVEN DAYS AFTER POURING.

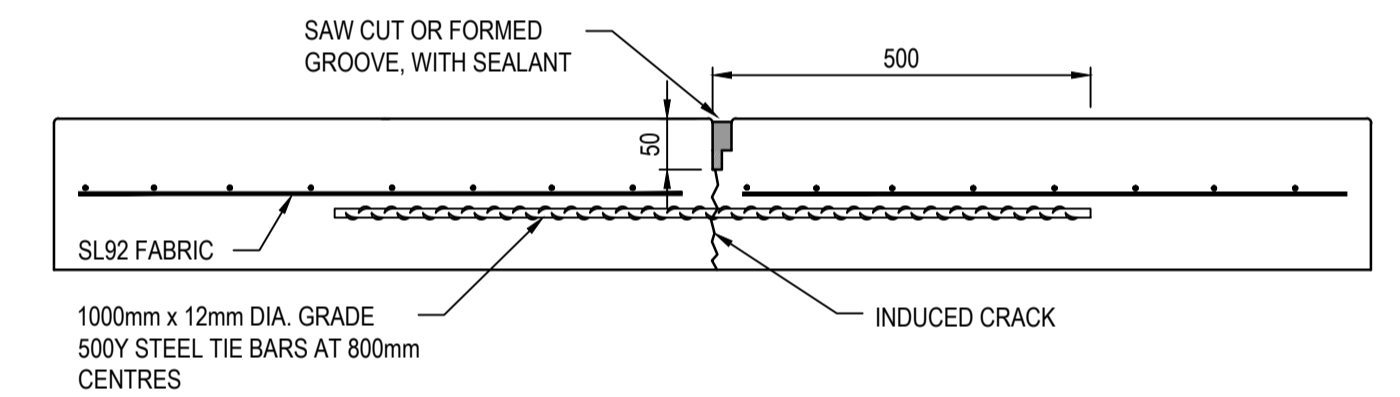
- JOINT DETAIL NOTES:**
- SAW JOINTS ARE TO BE PLACED AT A MAXIMUM 5m SPACING AT INTERSECTIONS AND CONSTRUCTED 18-24 HOURS AFTER POURING.
 - TRANSVERSE CONTRACTION JOINTS ARE TO BE PLACED AT A MAXIMUM SPACING OF 12m.
 - ISOLATION JOINTS ARE TO BE PLACED AROUND PITS.
 - ALL JOINTS SHALL BE LOCATED AND SPACED IN ACCORDANCE WITH "CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA - CONCRETE PAVEMENT DESIGN FOR RESIDENTIAL STREETS 1997".



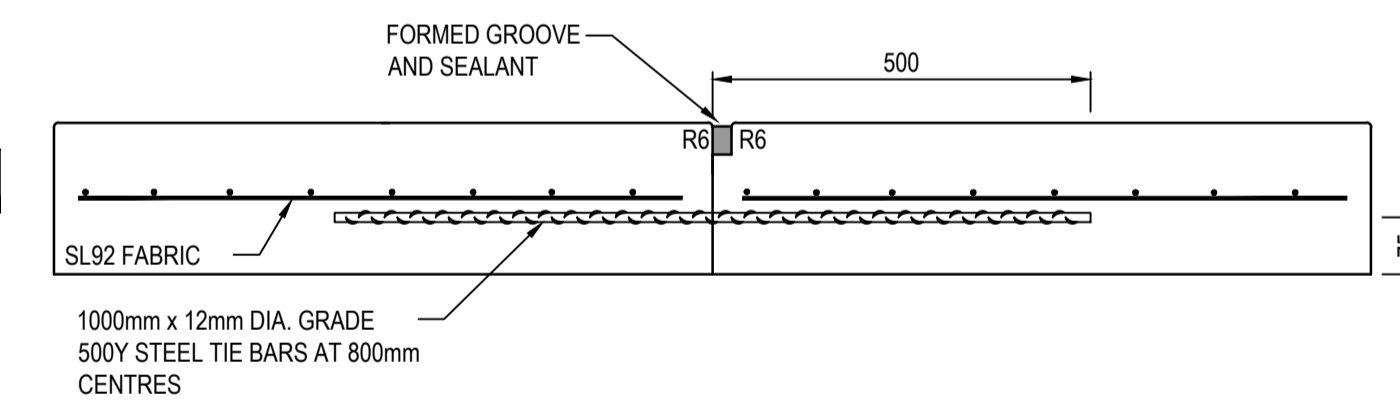
ISOLATION JOINT (IJ)



TRANSVERSE CONTRACTION JOINT - DOWELLED BUTT JOINT AT CONSTRUCTION JOINT (DJ)

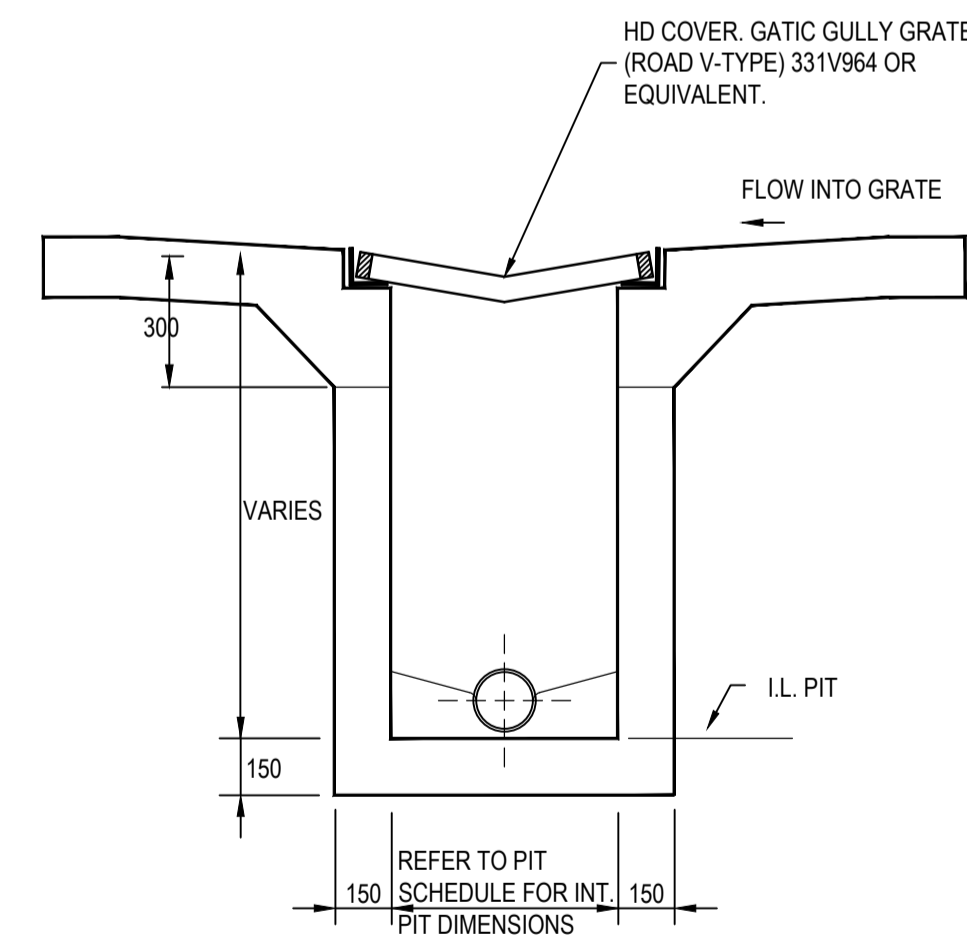


LONGITUDINAL WARPING JOINT - WEAKENED PLANE JOINT (WJ)

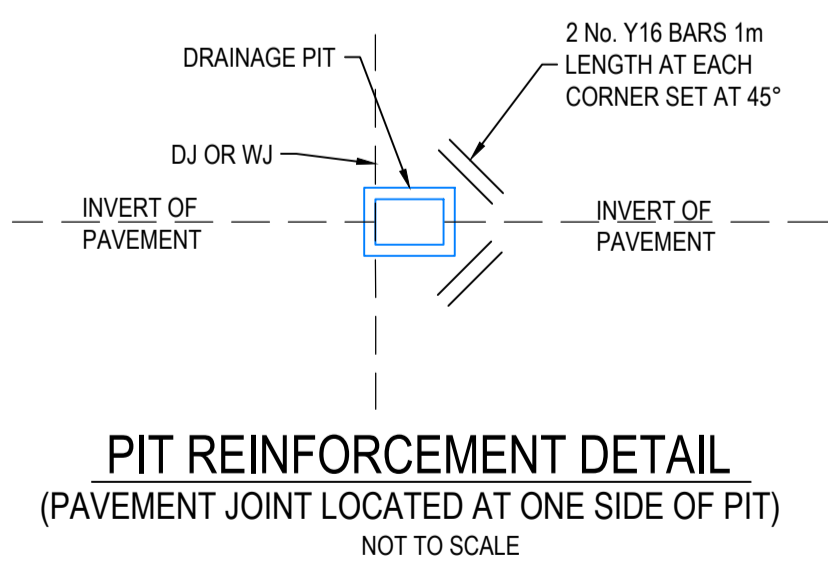


LONGITUDINAL WARPING JOINT - CONSTRUCTION JOINT (WCJ)

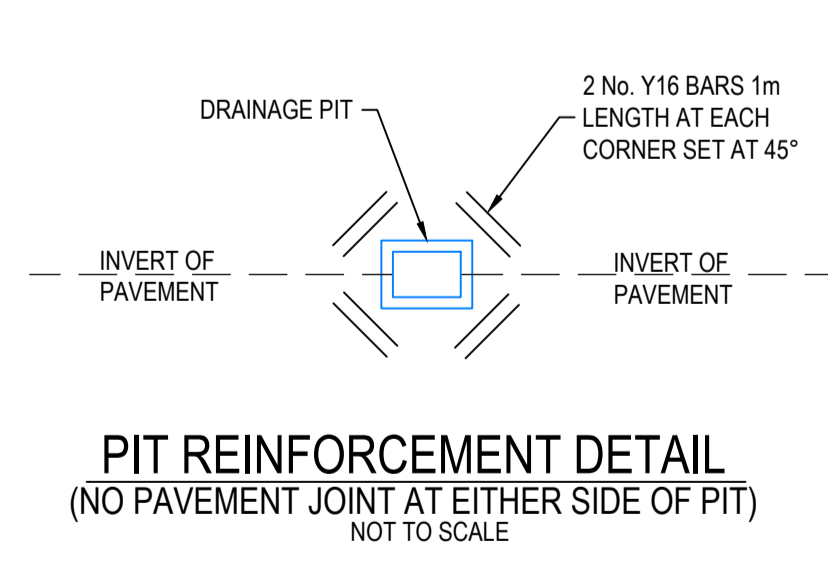
CONCRETE JOINTING DETAILS
NOT TO SCALE



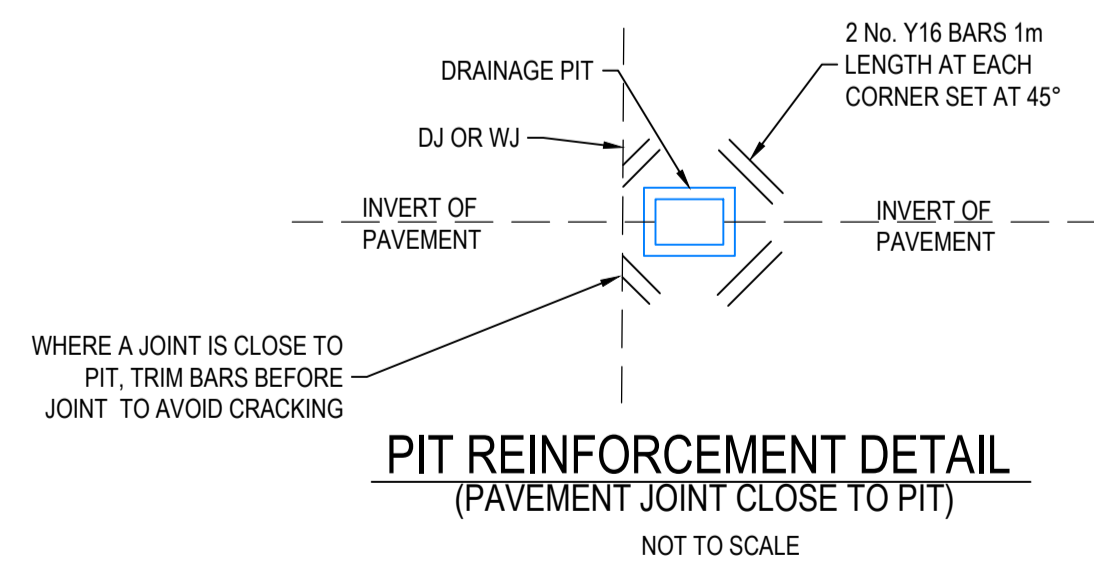
GRATED INLET PIT DETAILS
(IN CONCRETE PAVEMENT)
NOT TO SCALE



PIT REINFORCEMENT DETAIL
(PAVEMENT JOINT LOCATED AT ONE SIDE OF PIT)
NOT TO SCALE



PIT REINFORCEMENT DETAIL
(NO PAVEMENT JOINT AT EITHER SIDE OF PIT)
NOT TO SCALE



PIT REINFORCEMENT DETAIL
(PAVEMENT JOINT CLOSE TO PIT)
NOT TO SCALE

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. Locate all underground services before commencement of works. **DIAL 1100 BEFORE YOU DIG**
www.1100.com.au

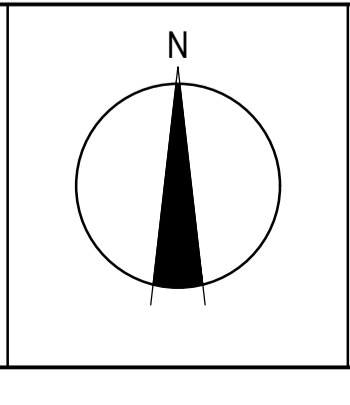
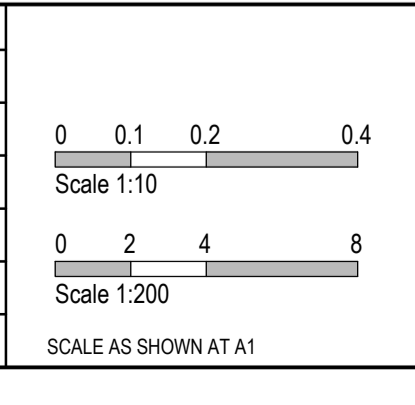
AS CONSTRUCTED PLANS
The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

Quality Management - ISO 9001
Site Management - AS/NZS 1801
Environmental Management - ISO 14001

TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	



SMEC
Member of the Surlana Jurong Group
ABN 47 065 475 149
Collins Square, Tower 4, Level 20, 727 Collins St
Melbourne, VIC 3008
Ph 03 9514 1500

mirvac

Olivine Estate - Stage 14
Whittlesea City Council
Road and Drainage
Concrete Jointing Details
Bronze Lane, Mann Street & Raziers Lane

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-26	SHEET No. 26 of 27	REVISION 2
----------------------------	---	------------------------------	----------------------

PHASE	DISCIPLINE CODE	POTENTIAL RISK (Construction, Operations, Maintenance)		RISK OWNER	POTENTIAL CONSEQUENCES	POTENTIAL ELIMINATION MEASURE, DESIGN INITIATIVE or CONTROL (Identify any Standard or Code of practice used)	HOW ISSUE ADDRESSED IN DESIGN AND/OR CONSTRUCTION OF THE WORKS	IS THE RISK ELIMINATED? YES / NO	RESIDUAL RISK LIKELIHOOD (0-5)	RESIDUAL RISK CONSEQUENCE (0-5)	RESIDUAL RISK RATING	RESIDUAL RISK OWNER
Road Furniture / Roadside Features												
Construction	RD	Roads	Construction close to live traffic	Contractor	Disruptions to live traffic, construction incident involving live traffic.	Provide safe temporary traffic control (TCP)	TCP provided within contract	N	5	3	15	Constructor
Construction	RD	Roads	Culverts	Contractor	Potential risk from culverts under construction and height / fall hazards	Temporary barriers to be provided	Temporary barrier provided in contract	N	2	5	10	Constructor
Construction	US	Utilities or Services	Utilities become a hazard within clear zones	Contractor	Vehicle conflict with utility / pit	Sequence works and protect with temp barrier or traffic control (TCP)	TCP provided within contract	N	1	5	5	Constructor
Operational	RD	Roads	Sight Lines	Road Authority	Inadequate drivers response time.	Ensure design complies with relevant standard. Undertake thorough Safety Audit	Vis lines checked and discussed with approval authority as part of design approval process	N	1	4	4	Road Authority
Operational	LS	Lines and Signs	Signs and street lights	Road Authority	Potential for drivers / riders to strike signs and street lights	Ensure design complies with relevant standard. Undertake thorough Safety Audit	Refer to appropriate standard for sign and lighting offsets	N	1	4	4	Road Authority
Operational	RF	Road Furniture	Headwalls	Road Authority	Potential vehicle conflict within clear zone	Establish adequate clear zone provision	Adequate barrier provided as per appropriate standard where within clear zone. Culvert headwall selection in accordance with authority standard	N	2	4	8	Road Authority
Operational	RD	Roads	Culverts	Relevant Authority	Potential fall hazard during maintenance, by vehicles and pedestrians	Barriers to be provided in accordance with road standards	Barriers to be provided and safe batter slopes (>1:3)	N	2	5	10	Constructor
Drainage												
Operational	DR	Drainage	Grated Pits	Relevant Authority	Trip/fall hazard with large spaced grate	Provide pedestrian/bicycle friendly grates where applicable. Refer to pit schedule	Design in accordance with authority and manufacturers standards	N	3	2	6	Authority
Operational	DR	Drainage	Non Standard Large Pits	Relevant Authority	Potential for pit failure	Structural design in accordance with relevant design principles.	Refer to structural drawings and calculations	N	1	4	4	Authority
Operational	DR	Drainage	Culvert Endwalls/Headwalls	Relevant Authority	Potential for falling from height	Fencing to be provided where culverts/headwalls are at height in accordance with relevant authority standards	Allow for fencing in Design Process	N	1	4	4	Authority
Operational	DR	Drainage	Culvert Endwall/Headwall Outlets	Relevant Authority	Children playing in large pipes / watercourses and access for maintenance	Grate provided to authority standards	Design in accordance with authority and manufacturers standards	N	2	5	10	Authority
Maintenance	DR	Drainage	Access to Pits	Relevant Authority	Lack of safe access for maintenance	Provide safe working conditions for maintenance. Provide safe landing/ access arrangements as per relevant authority standards	Where possible design pit in location for easy access and outside of permanent water bodies	N	2	5	10	Authority
Maintenance	DR	Drainage	Deep Pits	Relevant Authority	Lack of safe entry for maintenance	Contractor to be certified for work in confined spaces, step irons to be provided to appropriate authority standards. Refer to pit schedule	Design in accordance with authority standards	N	1	5	5	Authority
Maintenance	DR	Drainage	Access to drains / culverts	Relevant Authority	Lack of safe access for maintenance	Provide safe working conditions for maintenance. Access as approved by authority	Design pit in location for easy access as agreed with authority	N	2	3	6	Authority
Sewer												
Construction	SE	Sewer	Sewer Manhole located adjacent to Retaining Wall Alignment	Contractor	Falling from height during construction or commissioning of adjacent sewer manholes	Provide temporary fencing until such time that permanent fencing is constructed	Provide fencing (at heights) during design process	N	1	1	1	Constructor
Maintenance	SE	Sewer	Deep Manholes	Relevant Authority	Lack of safe entry for maintenance	Contractor to be certified for work in confined spaces, landings and step access provided as per authority standards and schedule	Design in accordance with authority standards. Refer pit schedule on drawings	N	1	5	5	Authority
Maintenance	SE	Sewer	Access to Manholes	Relevant Authority	Lack of safe access for maintenance	Provide safe working conditions for maintenance. Manholes located in compliance with authority standards	Where possible design manhole in location for easy access	N	1	5	5	Authority
Maintenance	SE	Sewer	Pump Station Access	Relevant Authority	Lack of safe access for maintenance	Provide safe working conditions for maintenance	Design pump station in location for easy access	N	2	4	8	Authority
Electricity												
Operational	ES	Electrical Services	Electrical Design	Relevant Authority	Location of assets within clear zones e.g. pits/ substations	Electrical designed by sub consultant with appropriate accreditation and in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
Telstra												
Operational	TE	Telstra	Telstra Design	Relevant Authority	Location of assets within clear zones e.g. pits	Telecommunications designed by authority consultant with appropriate accreditation and in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
Water												
Operational	WA	Water	Water Design	Relevant Authority	Location of assets within clear zones e.g. pits/ substations	Water pits designed in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
Gas												
Operational	GA	Gas	Gas Design	Relevant Authority	Location of assets within clear zones e.g. pits/ substations	Water pits designed in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	1	1	1	Authority

AS CONSTRUCTED PLANS

The purpose of these as-constructed plans is to update the design drawings to show significant changes which occurred during construction. Note that the levels shown on these plans are design levels, and have not been verified by survey. All information shown on these plans should be verified on site. SMEC Australia Pty Ltd accept no responsibility for loss or damages resulting from the inappropriate usage of these plans.

AS CONSTRUCTED


All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.





TITLE	NAME
DRAFTER	Y.Song
DESIGNER	Y.Song
CHECKED	M.Angay
AUTHORISED	A.Burrows
REFERENCE No. 1	1700E-14
REFERENCE No. 2	

SCALE AS SHOWN AT A1


SMEC
 Member of the **Surbana Jurong Group**
 ABN 47 065 475 149
 Collins Square, Tower 4, Level 20, 727 Collins St
 Melbourne, VIC 3008
 Ph 03 9514 1500



Olivine Estate - Stage 14
 Whittlesea City Council
 Road and Drainage
 Safety In Design

MELWAYS REF 8 M2	PROJECT / DRAWING No. 1700E-14-85	SHEET No. 27 of 27	REVISION 1
----------------------------	---	------------------------------	----------------------