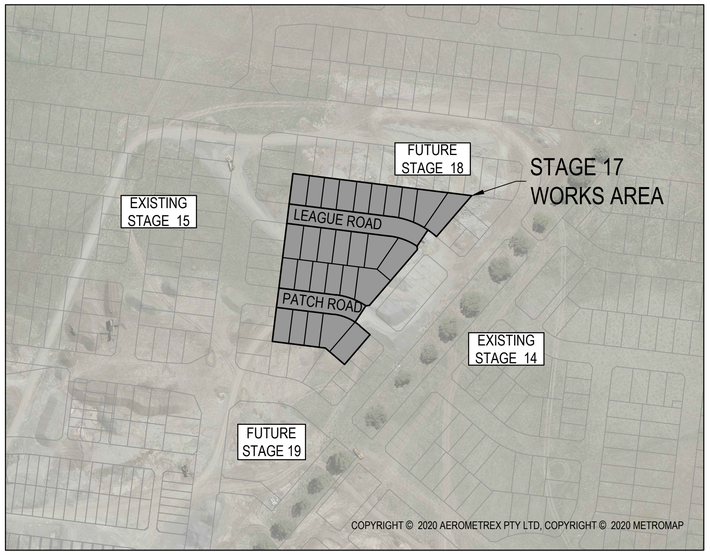
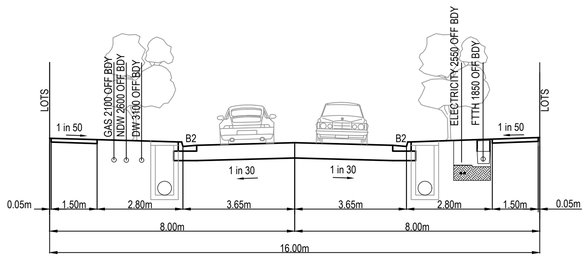
Olivine Estate
Stage 17

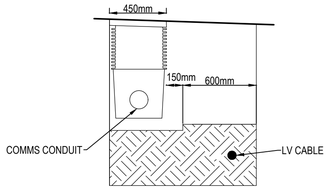




16m ACCESS STREET
PATCH ROAD, LEAGUE ROAD

Drawing Index

TBM SETOUT TABLE				
POINT	EAST	NORTHING	ELEVATION	DESCRIPTION
C258SSPL	323,128.75	5,844,209.10	246.32	STAR PICKET
C260SSPL	323,096.98	5,844285.91	245.43	STAR PICKET
C187SSPL	323,225.68	5,844,163.21	246.66	STAR PICKET



TYPICAL SHARED TRENCH DETAIL
LEAGUE ROAD, PATCH ROAD

GENERAL NOTES (WHITTLESEA CITY COUNCIL)

1. THE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MPA MANUAL AND SPECIFICATIONS. WORKS TO BE CARRIED OUT TO THE SATISFACTION OF COUNCIL'S SUPERVISING OFFICER.
2. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF WORK ON SITE IN ACCORDANCE WITH APPROPRIATE LEGISLATION. THEY SHALL ERECT AND MAINTAIN ALL SHORING, PLANKING AND STRUTTING, DEWATERING DEVICES, BARRICADES, SIGNS, LIGHTS, ETC. NECESSARY TO KEEP WORKS IN A SAFE AND STABLE CONDITION, AND TO PROTECT THE PUBLIC FROM HAZARDS ASSOCIATED WITH THE WORKS.
3. THE CONTRACTOR SHALL:
   - 3.1. COMPLY WITH THE SAFETY REQUIREMENTS OF THE MINES ACT, GENERAL REGULATIONS AND STATUTORY RULES, AND THE MINES (TRENCHES) REGULATIONS 1982.
   - 3.2. NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY OF HIS INTENTION TO COMMENCE TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.
   - 3.3. ENSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.
4. THE CONTRACTOR IS TO NOTIFY COUNCIL AND ALL SERVICE AUTHORITIES SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL RELEVENT SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
6. REDGUM TREES MARKED ON THE APPROVED PLANS FOR REMOVAL MUST BE REMOVED IN ACCORDANCE WITH COUNCIL'S PLANNING PERMIT. NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY EXISTING TREE WITHOUT WRITTEN APPROVAL FROM COUNCIL'S SUPERVISING OFFICER.
7. ALL ROAD CHAINAGES ARE MEASURED ALONG THE ROAD CENTRELINE EXCEPT KERB RETURNS AND COURTHEADS, WHERE LIP OF KERB CHAINAGES ARE SPECIFIED. ALL DIMENSIONS AND RADII ARE GIVEN TO THE LIP OF KERB. DO NOT SCALE OFF THESE DRAWINGS, WRITTEN DIMENSIONS ONLY SHALL BE USED.
8. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM.
9. WHEN ENGAGED IN BLASTING OPERATIONS THE CONTRACTOR SHALL NOT BLAST WITHIN 4.5m OF AN EXISTING LINE OF WATER, GAS OR SEWER PIPES OR WITHIN 15m OF ANY COMPLETED PART OF THE WORKS WITHOUT THE CONSENT OF THE SUPERINTENDENT. BLASTING REQUIRES A BLASTING PERMIT FROM COUNCIL.
10. ALL EXCAVATED OR FILLED AREAS OUTSIDE THE ROAD RESERVES TO BE STRIPPED OF TOPSOIL AND STOCKPILED PRIOR TO EARTHWORKS COMMENCING. THESE AREAS SHALL BE SURFACED WITH A 100mm MINIMUM TO 200mm MAXIMUM LAYER OF TOPSOIL AS SPECIFIED.
11. NO TOPSOIL TO BE REMOVED FROM SITE.
12. NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE UNLESS DIRECTED BY THE SUPERINTENDENT.
13. FILLING ON ALLOTMENTS AND UNDER ROAD PAVEMENTS TO HAVE LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798-1996. INDIVIDUAL LOT CERTIFICATES ARE TO BE PROVIDED TO THE SUPERINTENDENT.
14. FILLING UNDER DRIVEWAYS AND FOOTPATH IS TO BE APPROVED BY THE SUPERINTENDENT AND CONSTRUCTED IN LAYERS 150mm DEPTH. COMPACTION ACHIEVING 98% AUSTRALIAN STANDARD DENSITY.
15. CUT AND FILL BATTERS ARE NOT TO EXCEED 1 in 6 UNLESS SHOWN OTHERWISE.
16. ALLOTMENTS TO BE GRADED TO ENSURE A MINIMUM GRADE OF 1 in 150.
17. ALL STORMWATER DRAINS ARE TO BE CLASS 2 R.C. OR RIGID F.R.C PIPES WITH ADCOL FLEXIBLE COLLARS UNLESS NOTED OTHERWISE. ALL PIPES UP TO AND INCLUDING 750MM DIA. ARE TO BE RUBBER RING JOINTED. INTERLOCKING / FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPE SIZES OVER 750MM DIA.
18. ALL DRAINAGE TRENCHES UNDER ROAD PAVEMENTS, KERB & CHANNEL, PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERBS & CHANNEL SHALL BE BACKFILLED WITH CRUSHED ROCK AS SPECIFIED.
19. ALL PITS GREATER THAN OR EQUAL TO 900mm DEPTH TO BE PROVIDED WITH STEP IRONS IN ACCORDANCE WITH SD1041.
20. PROPERTY INLETS AS PER WHITTLESEA CITY COUNCIL STANDARD DRAWING EDCM 701-704 AND ARE TO BE LOCATED 1.0m FROM LOW SIDE BOUNDARY UNLESS SHOWN OTHERWISE.
21. ALL HOUSE DRAIN CONNECTIONS ARE TO BE LOCATED NO CLOSER THAN 7.0m FROM THE SIDE BOUNDARY OR FROM EASEMENT ALONG THE SIDE BOUNDARY UNLESS NOTED OTHERWISE AND CONNECTED DIRECTLY TO UNDERGROUND DRAIN OR PIT. HOUSE DRAIN LOCATION TO BE MARKED (50mm STAMPED IMPRESSION) ON THE TOP OF THE KERB.
22. SUBSOIL DRAINS SHALL BE INSTALLED BEHIND OR BELOW ALL KERB AND CHANNEL AS PER STANDARD DRAWING EDCM 202.
23. CONDUIT LOCATIONS ARE SUBJECT TO AMENDMENT AND CONDUITS SHALL NOT BE LAID UNTIL WRITTEN APPROVAL IS GIVEN BY THE SUPERINTENDENT. CONDUITS TO BE EXTENDED TO PROPERTY LINE AND ARE REQUIRED WHEN CONNECTIONS EXTEND UNDER ROAD PAVEMENT, FOOTPATH OR OTHER INFRASTRUCTURE. BOTH KERBS ARE TO BE MARKED WITH THE LETTERS H (PROPERTY STORMWATER CONNECTION), E (ELECTRICAL), G (GAS), T (TELEPHONE), W (WATER) AND C (COUNCIL COMMUNICATION) AS PER STANDARD DRAWING EDCM 303.
24. ALL SERVICING TRENCHES UNDER ROADS, DRIVEWAYS, FOOTPATHS ETC. ARE TO BE BACKFILLED & COMPACTED WITH F.C.R. IN THE CASE OF TRENCHES UNDER ROADS WHERE BACKFILLING HAS NOT ACHIEVED THE SPECIFIED COMPACTION OR SHOWS EXCESSIVE MOVEMENT UNDER PROFFROLLING, THE BACKFILLING SHALL BE REMOVED AND REPLACED WITH 2% STABILISED COMPACTED F.C.R. ALL SERVICES ARE TO BE PLACED PRIOR TO THE CAPPING LAYER.
25. NO TELSTRA PITS ARE TO BE LOCATED IN THE FOOTPATH.
26. VEHICULAR CROSSINGS TO BE LOCATED CLEAR OF DRAINAGE PITS, SEWER MAINTENANCE HOLES AND EXISTING TREES. VEHICLE CROSSINGS TO BE 1.5m FROM PROPERTY BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN. VEHICULAR CROSSINGS TO BE CONSTRUCTED AS PER WHITTLESEA CITY COUNCIL'S SPECIFICATIONS AND EDCM 501 TO 503.
27. ALL PEDESTRIAN CROSSING THROUGH SPLITTER ISLANDS TO BE IN ACCORDANCE WITH SD606.
28. ALL STREET SIGNS TO BE IN ACCORDANCE WITH SD812. STREET SIGNS TO BE ATTACHED TO LIGHT POLES USING 'SINGLE DIRECTION COLLAR' OR '90° RIGHT ANGLE COLLAR' UNLESS SHOWN OTHERWISE.
29. ALL PAVEMENT MARKINGS AND TRAFFIC SIGNS SHOULD BE TO AS1742.2 AND AS1742.1 STANDARD RESPECTIVELY. TEMPORARY LINEMARKING TO BE PLACED DURING MAINTENANCE PERIOD PRIOR TO PLACEMENT OF WEARING COURSE. FINAL LINEMARKING TO BE LONG LIFE ROAD MARKING WITH LONGITUDINAL LINES IN THERMOPLASTIC AND TRANSVERSE MARKINGS IN COLD APPLIED.
30. THE CAPPING LAYER MUST BE DEMONSTRATED THROUGH TESTING THAT ITS PROPERTIES (CBR, PERMEABILITY, ETC.) SATISFY LIMITS AS OUTLINED IN THE TECHNICAL SPECIFICATION TABLE 20.3.5B WITH A MINIMUM MODULAS OF 100MPa.
31. UPON COMPLETION OF CONSTRUCTION THE WHOLE SITE SHALL BE CLEANED UP, GRADED, ALL RUBBISH REMOVED AND LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.

NOTES FOR WORKS UNDER OVERHEAD ELECTRICAL POWERLINES

1. MAINTENANCE AND REFUELLING OF VEHICLES AND EQUIPMENT MUST NOT BE CARRIED OUT UNDER POWERLINES
2. THE STORAGE OR HANDLING OF FLAMMABLE LIQUIDS OR GASSES IS NOT PERMITTED UNDER POWERLINES
3. THE PARKING OF LARGE VEHICLES OR CARAVANS, SITE HUTS OR SIMILIAR IS NOT PERMITTED UNDER POWERLINES
4. STOCKPILING OF EXCAVATED MATERIAL IS NOT PERMITTED UNDER POWERLINES
5. VEHICLES AND EQUIPMENT EXCEEDING 3 METRES MAXIMUM OPERATING HEIGHT ARE NORMALLY NOT PERMITTED UNDER AUSNETS POWERLINES. A HIGHER OPERATING HEIGHT LIMIT IS SUBJECT TO SUFFICIENT CLEARANCE TO THE CONDUCTORS AND WRITTEN APPROVAL
6. SP AUSNET'S LINES CONTRACT SUPERVISOR MUST BE NOTIFIED AT LEAST 10 WORKING DAYS PRIOR TO THE WORKS COMMENCING SO THAT APPROPRIATE PERMITS CAN BE ARRANGED. ADDITIONAL SAFETY PRECAUTIONS DEEMED NECESSARY WILL BE ADVISED AT THIS TIME. ALL PERSONS COMMENCING WORK ON THE SITE MUST BE MADE AWARE OF PERMIT CONDITIONS AND SAFETY PRECAUTIONS
7. ALL WORK IN THE VICINITY MUST BE IN ACCORDANCE WITH THE INDUSTRIES NO GO ZONE REQUIREMENTS AND SP AUSNET MUST BE SATISFIED THAT ALL SUB CONTRACTORS WORKING IN THE AREA IN THE VICINITY OF THE OVERHEAD LINES WORK WITHIN THESE GUIDELINES, INCLUDING THE PROVISION OF A SPOTTER AS REQUIRED.

WARNING
SAFETY MEASURES REQUIRED
Please note there are risks attached to the construction of this project, and any ongoing maintenance of structures. Consider the safety of all. For potential risks, consequences and controls refer to Safety In Design Risk Register
SID P4.E6. 1700E-017-500
ASSESS THE RISK - STAY SAFE

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
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AS CONSTRUCTED PLANS
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PLAN OF SUB. NO. PS817192J
PERMIT REF. NO. 717158

AS CONSTRUCTED

0 25 50 100
Scale 1:2500
SCALE AS SHOWN AT A1

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Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Cover Plan & General Notes

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-101	01 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-101.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:23:04 PM

ROAD LAYOUT TABLE								
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
LEAGUE ROAD	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
PATCH ROAD	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35

SERVICES OFFSET SCHEDULE										
ROAD NAME	GAS		NON-DRINKING WATER		DRINKING WATER		ELECTRICITY		NBN	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
LEAGUE ROAD	NORTH	2.10	NORTH	2.60	NORTH	3.10	SOUTH	2.55	SOUTH	1.85
PATCH ROAD	SOUTH	2.10	SOUTH	2.60	SOUTH	3.10	NORTH	2.55	NORTH	1.85

LEGEND - LAYOUT PLAN

ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
S	SEWER & MAINTENANCE STRUCTURES
H	HOUSE DRAIN
E	ELECTRICITY (U.GROUND)
O/H	ELECTRICITY (O.HEAD)
G	GAS
T	TELSTRA
O	OPTIC FIBRE
W	WATER
RW	RECYCLE WATER
Ag	AG. DRAIN
GW	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
Ex S	EXISTING SEWER & MAINTENANCE STRUCTURES
Ex H	EXISTING HOUSE DRAIN
Ex E	EXISTING ELECTRICITY (UNDER GROUND)
Ex O/H	EXISTING ELECTRICITY OVERHEAD
Ex G	EXISTING GAS
Ex T	EXISTING TELSTRA
Ex O	EXISTING OPTIC FIBRE
Ex W	EXISTING WATER
Ex RW	EXISTING RECYCLED WATER
Ex Ag	EXISTING AG. DRAIN
GWR	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
Fut D	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
FUT S	FUTURE SEWER & MAINTENANCE STRUCTURES
Fut H	FUTURE HOUSE DRAIN
Fut E	FUTURE ELECTRICITY (UNDER GROUND)
Fut O/H E	FUTURE ELECTRICITY OVERHEAD
Fut G	FUTURE GAS
Fut T	FUTURE TELSTRA
Fut O	FUTURE OPTIC FIBRE
Fut W	FUTURE WATER
Fut RW	FUTURE RECYCLED WATER
Fut Ag	FUTURE AG. DRAIN
GWR	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

BEWARE OF UNDERGROUND SERVICES

The locations of underground services are approximate only and their exact position should be proven on site.
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Locate all underground services before commencement of works

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AS CONSTRUCTED PLANS

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0 5 10 20
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Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Layout Plan

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-111	02 of 13	1

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LEGEND - EARTHWORKS PLAN

ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
S T	SEWER & MAINTENANCE STRUCTURES
H	HOUSE DRAIN
E	ELECTRICITY (U.GROUND)
O/H	ELECTRICITY (O.HEAD)
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T	TELSTRA
O	OPTIC FIBRE
W	WATER
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Ex O/H E	EXISTING ELECTRICITY OVERHEAD
Ex G	EXISTING GAS
Ex T	EXISTING TELSTRA
Ex O	EXISTING OPTIC FIBRE
Ex W	EXISTING WATER
Ex RW	EXISTING RECYCLED WATER
Ex.Ag	EXISTING AG. DRAIN
GWR	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
Fut D	FUTURE STORMWATER DRAIN
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	PERMANENT SURVEY MARK
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	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

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0 5 10 20
Scale 1:500
SCALE AS SHOWN AT A1

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Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Earthworks & Retaining Wall Setout Plan

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-131	03 of 13	1

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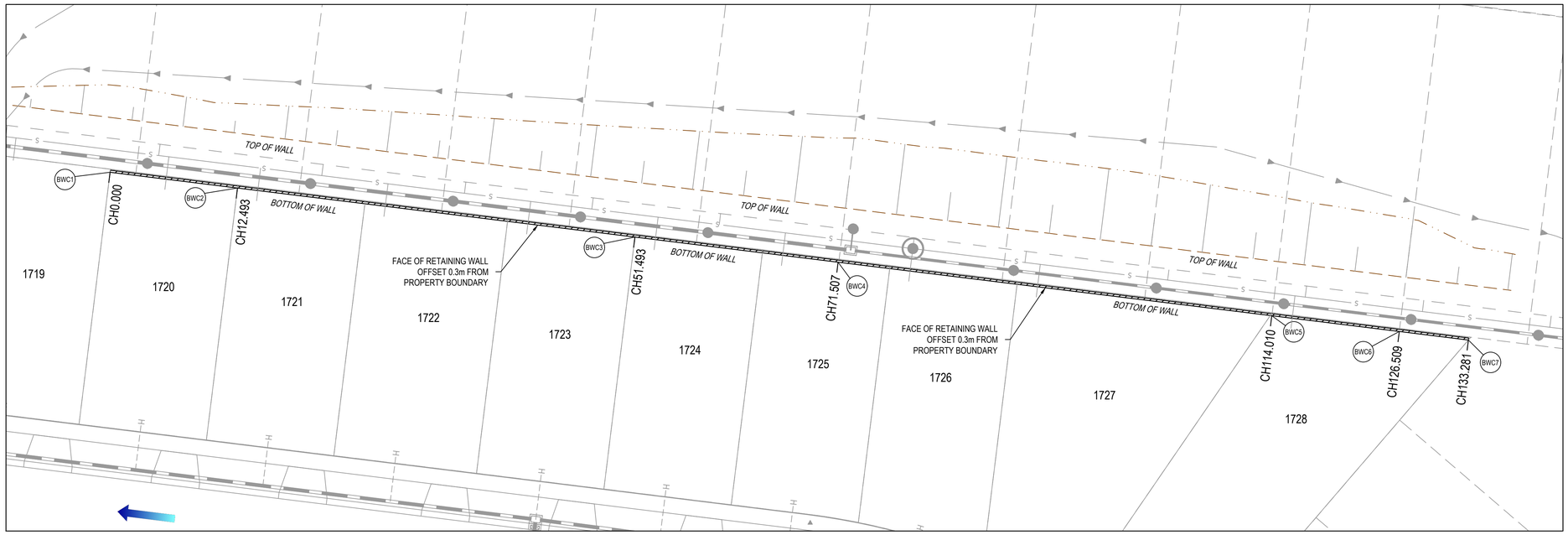

PLAN
SCALE 1:250

LONGITUDINAL SECTION LEGEND

- EXISTING SURFACE
- BOTTOM OF WALL
- RETAINING WALL - CONCRETE SLEEPER
- TOP OF WALL

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

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
S	SEWER & MAINTENANCE STRUCTURES
H	HOUSE DRAIN
E	ELECTRICITY (U.GROUND)
O/H	ELECTRICITY (O.HEAD)
G	GAS
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O	OPTIC FIBRE
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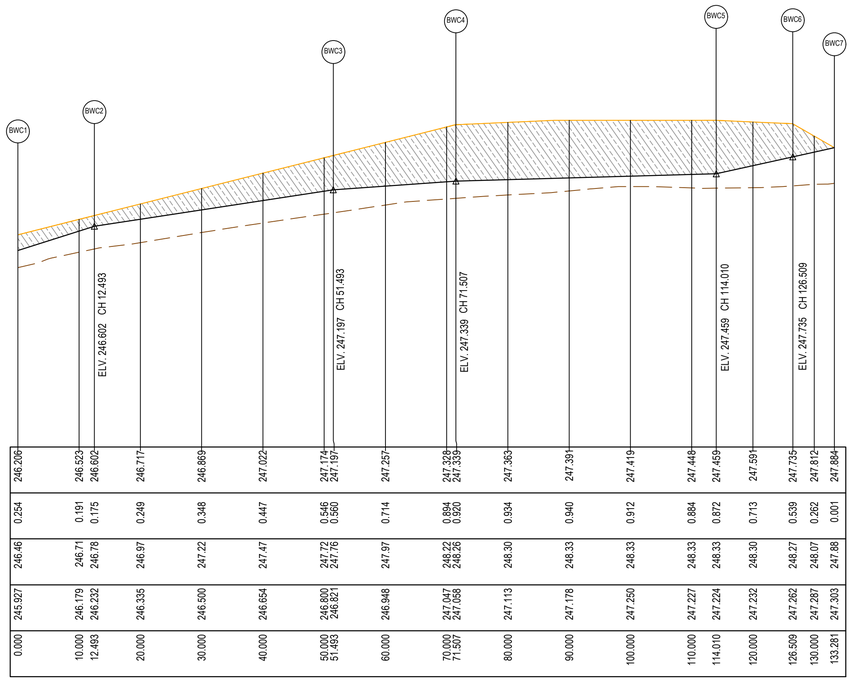
BW159.00	BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
Ag	AG. DRAIN

RETAINING WALL DESIGN AND APPROVALS REQUIREMENTS

NOTE: RETAINING WALL DETAILS AND DESIGN CERTIFICATION TO BE SUBMITTED TO COUNCIL PRIOR TO COMMENCEMENT OF CONSTRUCTION OF WALLS

ROCK RETAINING WALLS

- CONTRACTOR TO OBTAIN ANY RELEVANT BUILDING PERMITS. COPY OF BUILDING PERMIT TO BE PROVIDED TO PRINCIPAL.
- CONTRACTOR TO PROVIDE STRUCTURAL ENGINEER INSPECTION AND CERTIFICATION FOR CONSTRUCTION OF ALL WALLS, IRRESPECTIVE OF NEED FOR PERMIT OR OTHERWISE.
- CONTRACTOR TO ENSURE ALL REQUIREMENTS OF BUILDING PERMIT HAVE BEEN ADDRESSED.

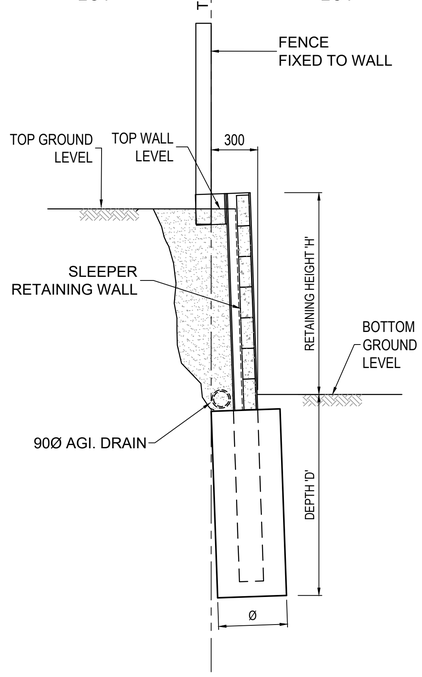


	BWC1	BWC2	BWC3	BWC4	BWC5	BWC6	BWC7
HORIZONTAL GEOMETRY							
DATUM RL243							
BOTTOM OF WALL	246.206	246.602	247.197	247.339	247.459	247.735	247.884
HEIGHT OF WALL	0.254	0.175	0.560	0.920	0.872	0.539	0.001
TOP OF WALL	246.46	246.78	247.76	248.26	248.33	248.27	247.88
EXISTING SURFACE	245.927	246.232	246.821	247.068	247.224	247.262	247.303
CHAINAGE	0.000	12.493	51.493	71.507	114.010	126.509	133.281

RETAINING WALL - LONGITUDINAL SECTION
HORIZONTAL SCALE 1:500 @ A1
VERTICAL SCALE 1:50 @ A1

Alignment BWC

Point no	Easting	Northing	RL
BWC1	323119.852	5844288.070	246.206
BWC2	323132.261	5844286.539	246.602
BWC3	323170.967	5844281.764	247.197
BWC4	323190.743	5844279.324	247.339
BWC5	323232.981	5844274.112	247.459
BWC6	323245.399	5844272.580	247.735
BWC7	323252.130	5844271.750	247.884



RETAINING WALL TYPICAL SECTION
NOT TO SCALE

AS CONSTRUCTED PLANS

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PLAN OF SUB. NO. PS817192J
PERMIT REF. NO. 717158

AS CONSTRUCTED

0 5 10 20
0 0.5 1 2
Scale H1:500, V1:50
0 2.5 5 10
Scale 1:250
SCALE AS SHOWN AT A1

N

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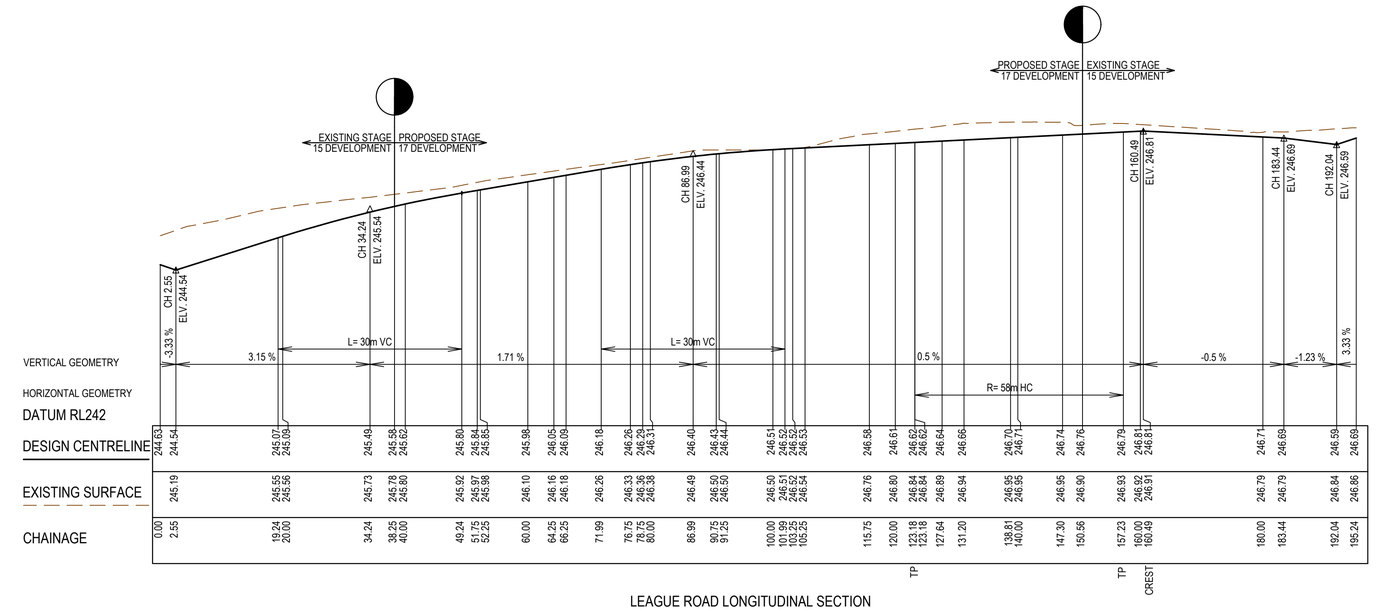
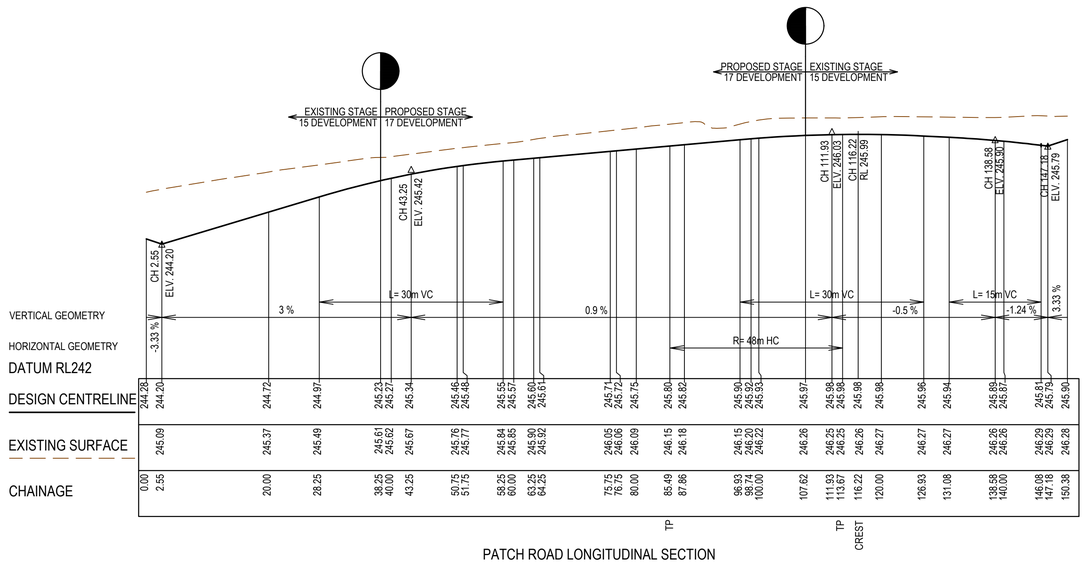
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Retaining Wall Longitudinal Sections

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-132	04 of 13	1

LEGEND
- EXISTING SURFACE
- DESIGN LINE
- FUTURE DESIGN LINE
- EXISTING DESIGN LINE



LEAGUE ROAD LONGITUDINAL SECTION



PATCH ROAD LONGITUDINAL SECTION

AS CONSTRUCTED PLANS

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PLAN OF SUB. NO. PS817192J

PERMIT REF. NO. 717158

AS CONSTRUCTED

0 5 10 20
0 0.5 1 2
Scale H1:500, V1:50
SCALE AS SHOWN AT A1

N

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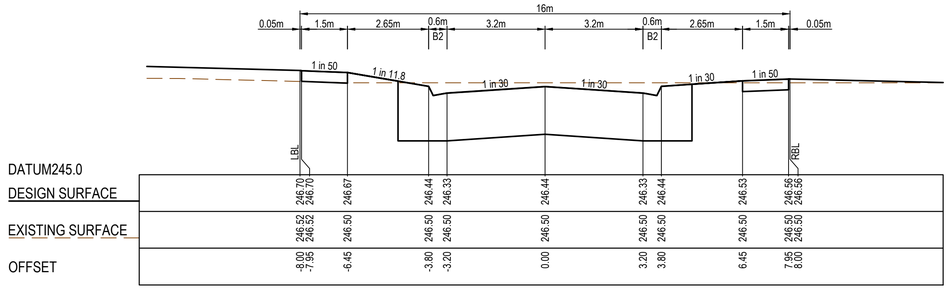
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Longitudinal Sections - 1

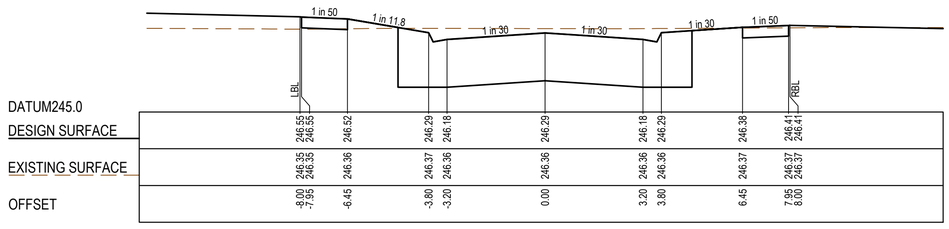
MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-201	05 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-201.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:24:42 PM

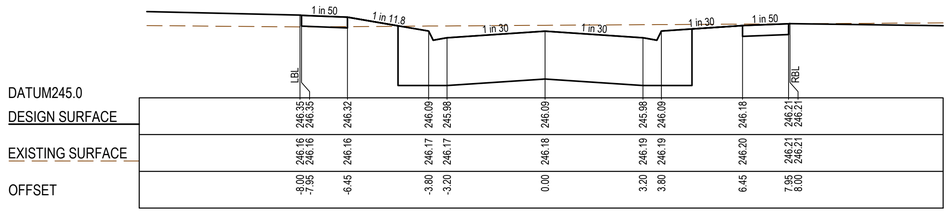
STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE EXISTING SURFACE



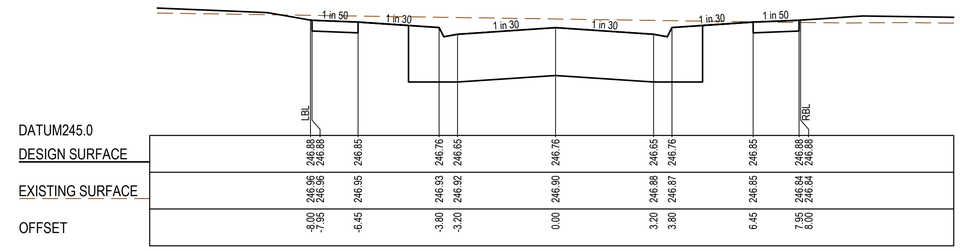
CH 91.25



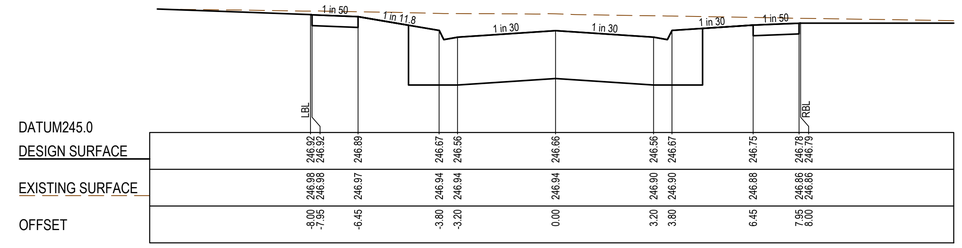
CH 78.75



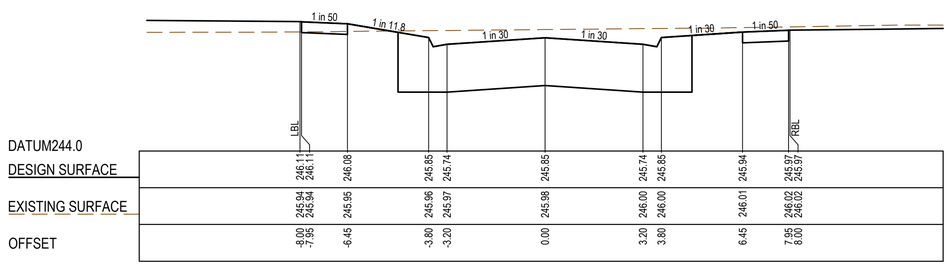
CH 66.25



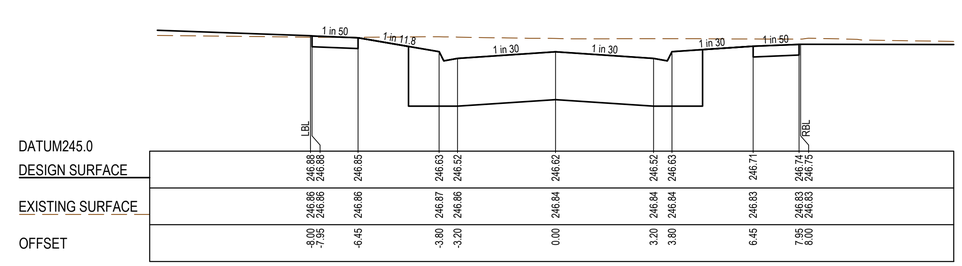
CH 150.56



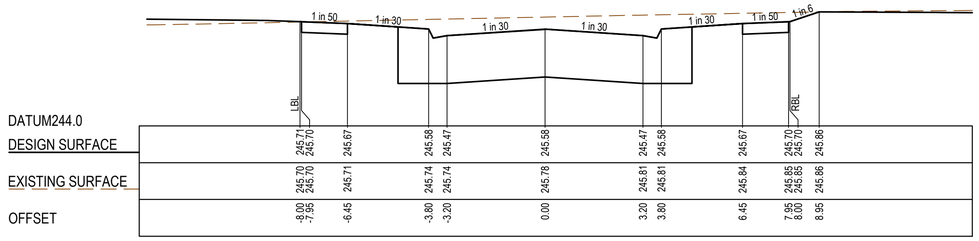
CH 131.20



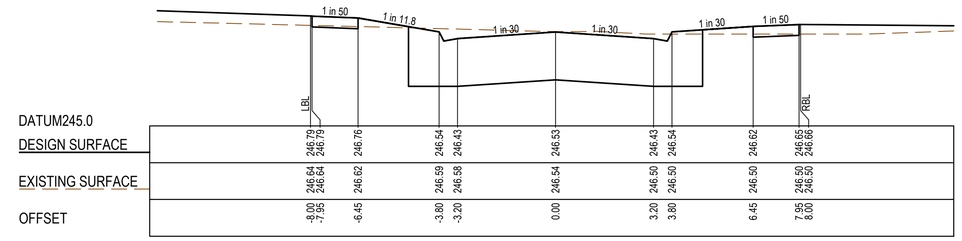
CH 52.25



TPCH 123.18



CH 38.25



CH 105.25

AS CONSTRUCTED PLANS

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PLAN OF SUB. NO. PS817192J

PERMIT REF. NO. 717158

AS CONSTRUCTED

0 1 2 4
0 0.5 1 2
Scale H1:100, V1:50
SCALE AS SHOWN AT A1

N

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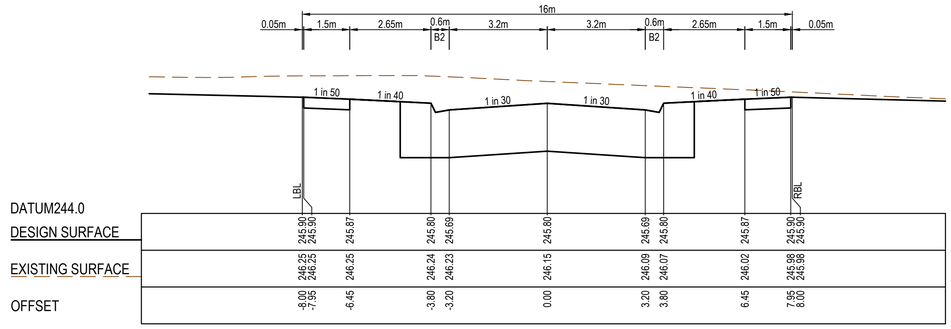
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Cross Sections: League Road
Ch 38.25 - Ch 150.56

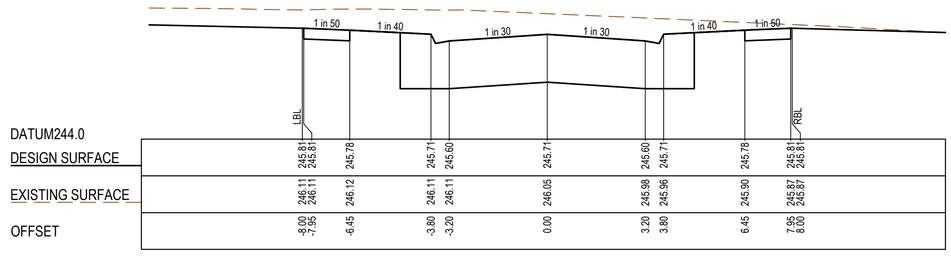
MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-251	06 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-251.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:25:07 PM

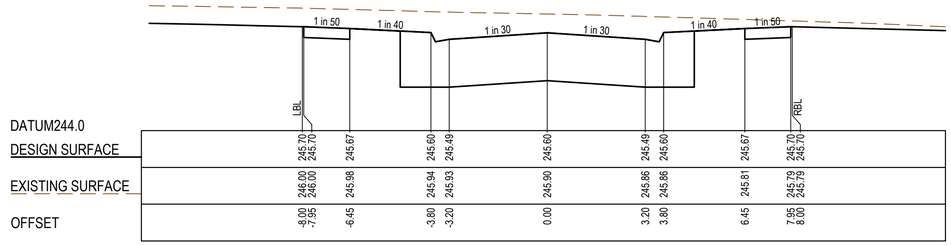
STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE EXISTING SURFACE



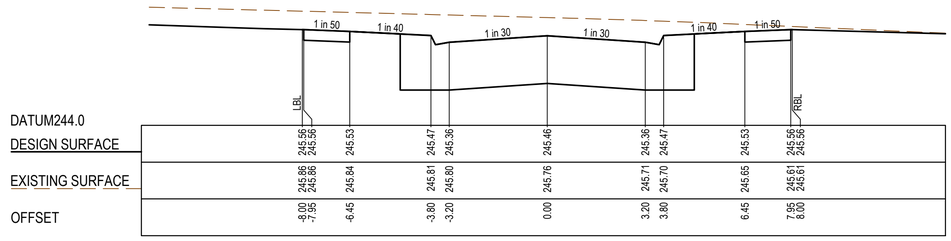
TPCH 85.49



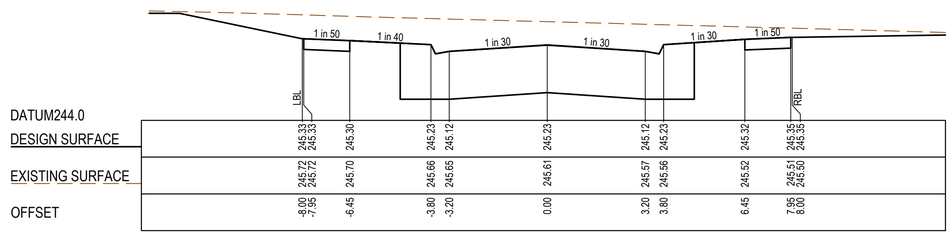
CH 75.75



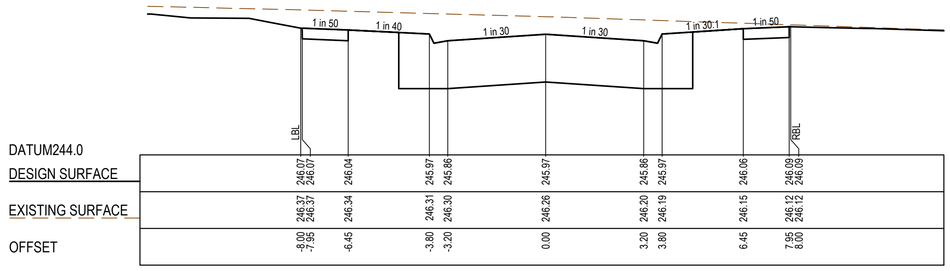
CH 63.25



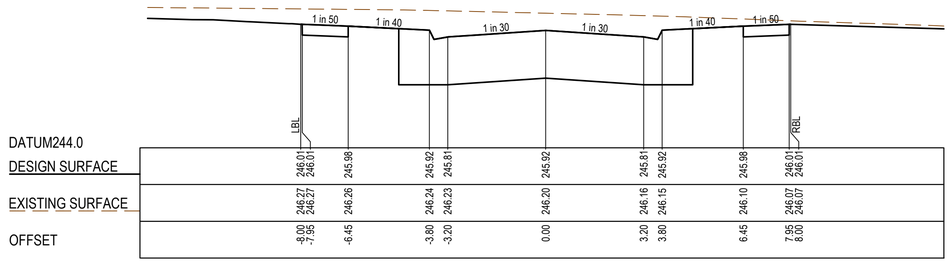
CH 50.75



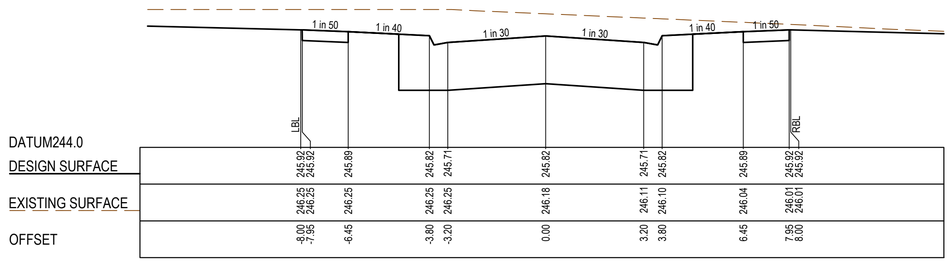
CH 38.25



CH 107.62



CH 98.74



CH 87.86

AS CONSTRUCTED PLANS

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PLAN OF SUB. NO. PS817192J

PERMIT REF. NO. 717158

AS CONSTRUCTED

0 1 2 4
0 0.5 1 2
Scale H1:100, V1:50
SCALE AS SHOWN AT A1

N

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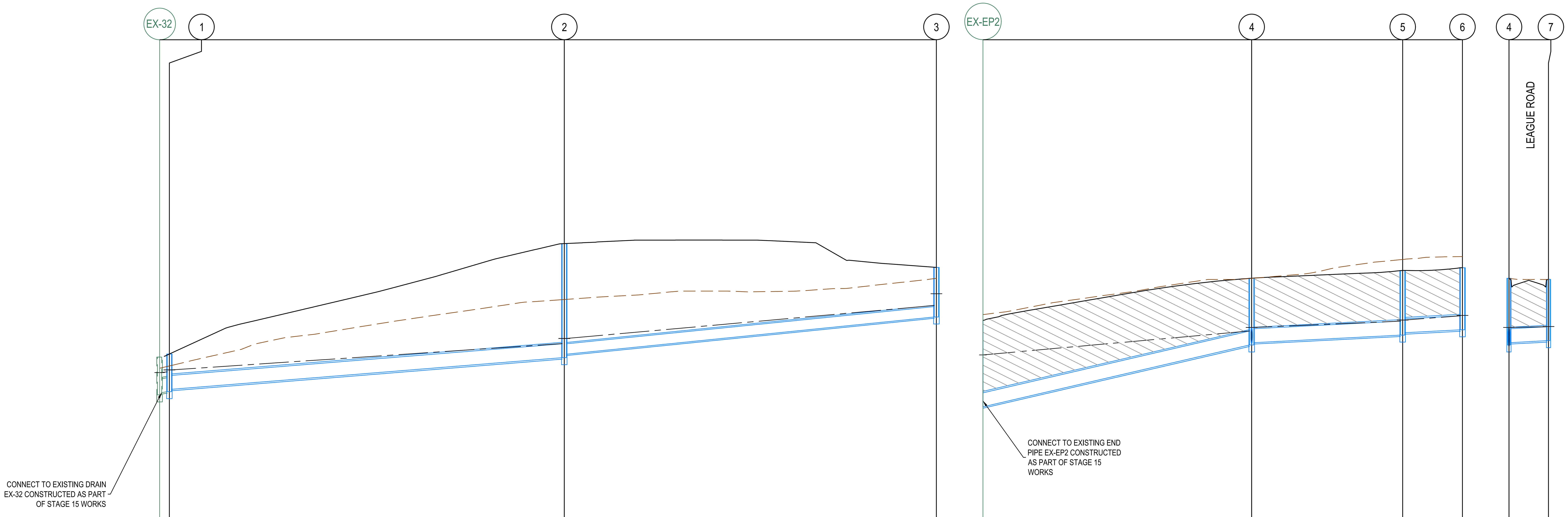
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Cross Sections: Patch Road
Ch 38.25 - Ch 107.62

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-252	07 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-252.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:25:21 PM

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



Section EX-32 – 1 – 2 – 3 (DATUM 239.0)

	EX-32 – 1	1 – 2	2 – 3
DESIGN FLOW (m3/s)	0.081	0.079	0.042
CAPACITY (m3/s)	0.099	0.087	0.045
AT GRADE VELOCITY (m/s)	1.4	1.22	1.13
NOMINAL PIPE SIZE (mm)	300Ø	300Ø	225Ø
PIPE TYPE	RCP	RCP	RCP
GRADE	1 in 95.4	1 in 125	1 in 100
(Reach Length)	(2.11)	(84.90)	(80.00)

	EX-32	1	2	3
DEPTH TO INVERT	0.81, 0.76	0.81, 0.76	2.45, 2.38	1.07
HYDRAULIC GRADE LINE	245.50	245.51, 245.56	246.12, 246.23	246.94, 247.19
INVERT LEVEL	245.02, 245.07	245.09, 245.14	245.82, 245.89	246.69
FINISHED SURFACE LEVELS	245.83	245.90	248.27	247.76
EXISTING SURFACE LEVEL	245.59	245.64	247.07	247.53
CHAINAGE	-2.11	0.00	84.90	164.89

Section EX-EP2 – 4 – 5 – 6 (DATUM 238.0)

	EX-EP2 – 4	4 – 5	5 – 6
DESIGN FLOW (m3/s)	0.060	0.027	0.010
CAPACITY (m3/s)	0.147	0.068	0.068
AT GRADE VELOCITY (m/s)	2.08	0.97	0.97
NOMINAL PIPE SIZE (mm)	300Ø	300Ø	300Ø
PIPE TYPE	RCP	RCP	RCP
GRADE	1 in 43.5	1 in 200	1 in 200
(Reach Length)	(57.78)	(32.46)	(12.86)

	EX-EP2	4	5	6
DEPTH TO INVERT	1.86, 1.86	1.43, 1.38	1.39, 1.34	1.33
HYDRAULIC GRADE LINE	244.88	245.39, 245.47	245.60, 245.63	245.72, 245.73
INVERT LEVEL	243.76, 243.76	245.09, 245.14	245.30, 245.35	245.42
FINISHED SURFACE LEVELS	245.62	246.53	246.69	246.75
EXISTING SURFACE LEVEL	245.75	246.52	246.93	246.99
CHAINAGE	0.00	57.78	90.24	103.09

Section 4 – 7 (DATUM 238.0)

	4 – 7
DESIGN FLOW (m3/s)	0.007
CAPACITY (m3/s)	0.068
AT GRADE VELOCITY (m/s)	0.97
NOMINAL PIPE SIZE (mm)	300Ø
PIPE TYPE	RCP
GRADE	1 in 200
(Reach Length)	(8.50)

	4	7
DEPTH TO INVERT	1.43, 1.38	1.32
HYDRAULIC GRADE LINE	245.39, 245.47	245.48
INVERT LEVEL	245.09, 245.14	245.18
FINISHED SURFACE LEVELS	246.53	246.50
EXISTING SURFACE LEVEL	246.52	246.50
CHAINAGE	0.00	8.50

AS CONSTRUCTED PLANS

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AS CONSTRUCTED

PLAN OF SUB. NO.: PS817192J
PERMIT REF. NO.: 717158

0 5 10 20
0 0.5 1 2
Scale H1:500, V1:50
SCALE AS SHOWN AT A1

N

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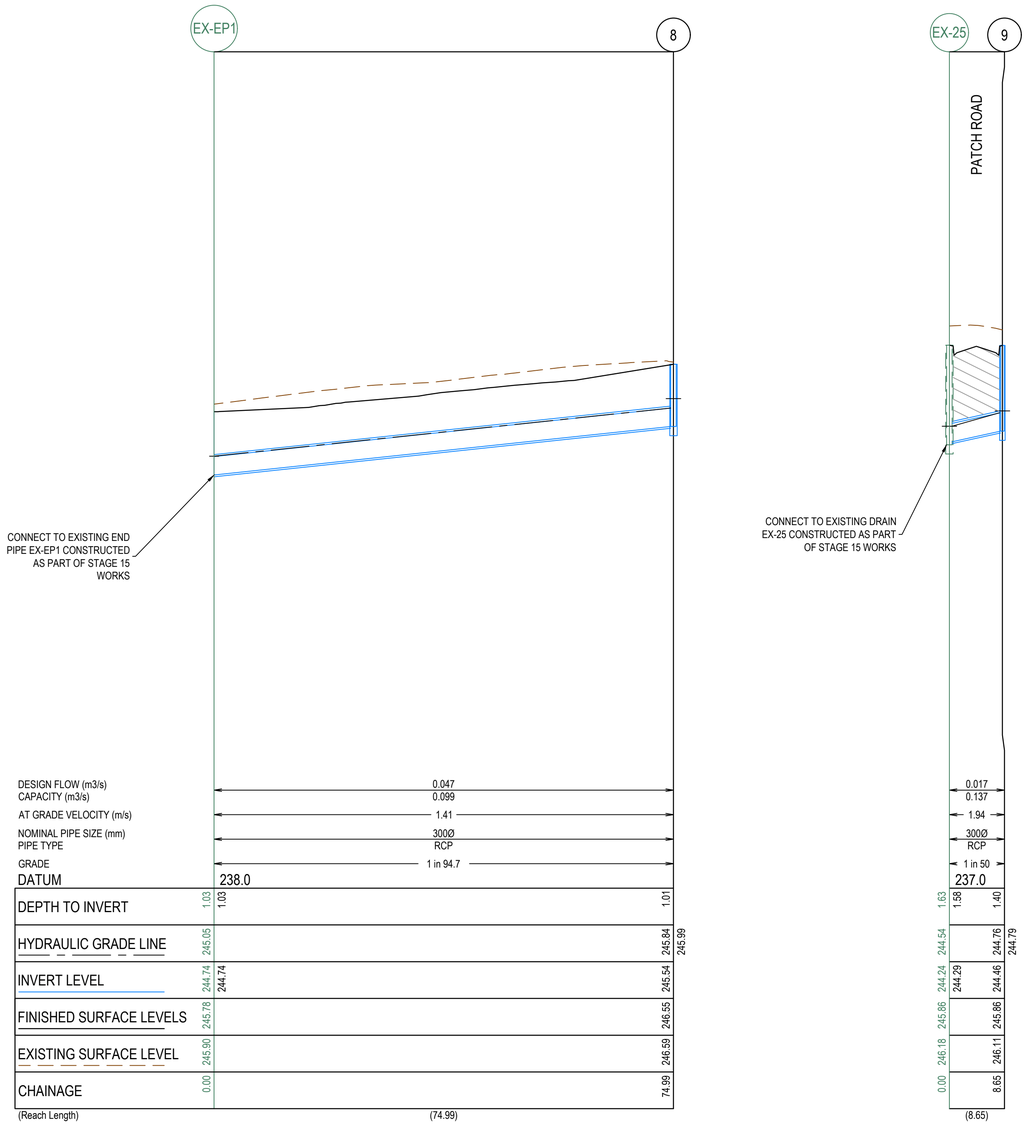
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Drainage Longitudinal Sections - 1

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-301	08 of 13	1

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



PIT SCHEDULE

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-32	Ex	900	600	300	245.067			245.832			CONNECT TO EXISTING PIT
1	JUNCTION PIT	600	900	300	245.14	300	245.09	245.898	0.808	EDCM 605	V-NOTCH PIT
2	JUNCTION PIT	600	900	225	245.894	300	245.819	248.271	2.452	EDCM 605	
3	JUNCTION PIT	600	900			225	246.694	247.759	1.066	EDCM 605	V-NOTCH PIT
Ex-EP2	Ex ENDPIPE			300	243.764			245.62	1.855		CONNECT TO EXISTING ENDPIPE
4	SIDE ENTRY PIT	600	900	300	245.142	300	245.092	246.526	1.434	EDCM 601	
				300	245.142						
5	SIDE ENTRY PIT	600	900	300	245.355	300	245.305	246.693	1.388	EDCM 601	
6	SIDE ENTRY PIT	600	900			300	245.419	246.753	1.334	EDCM 601	
7	SIDE ENTRY PIT	600	900			300	245.185	246.503	1.318	EDCM 601	
Ex-EP1	Ex ENDPIPE			300	244.744			245.777	1.072		CONNECT TO EXISTING ENDPIPE
8	JUNCTION PIT	600	900			300	245.536	246.55	1.015	EDCM 605	
Ex-25	Ex	900	900	300	244.286			245.862			CONNECT TO EXISTING PIT
9	SIDE ENTRY PIT	600	900			300	244.459	245.858	1.399	EDCM 601	

AS CONSTRUCTED PLANS
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PLAN OF SUB. NO. PS817192J
PERMIT REF. NO. 717158

AS CONSTRUCTED

0 5 10 20
0 0.5 1 2
Scale H1:500, V1:50
SCALE AS SHOWN AT A1

N

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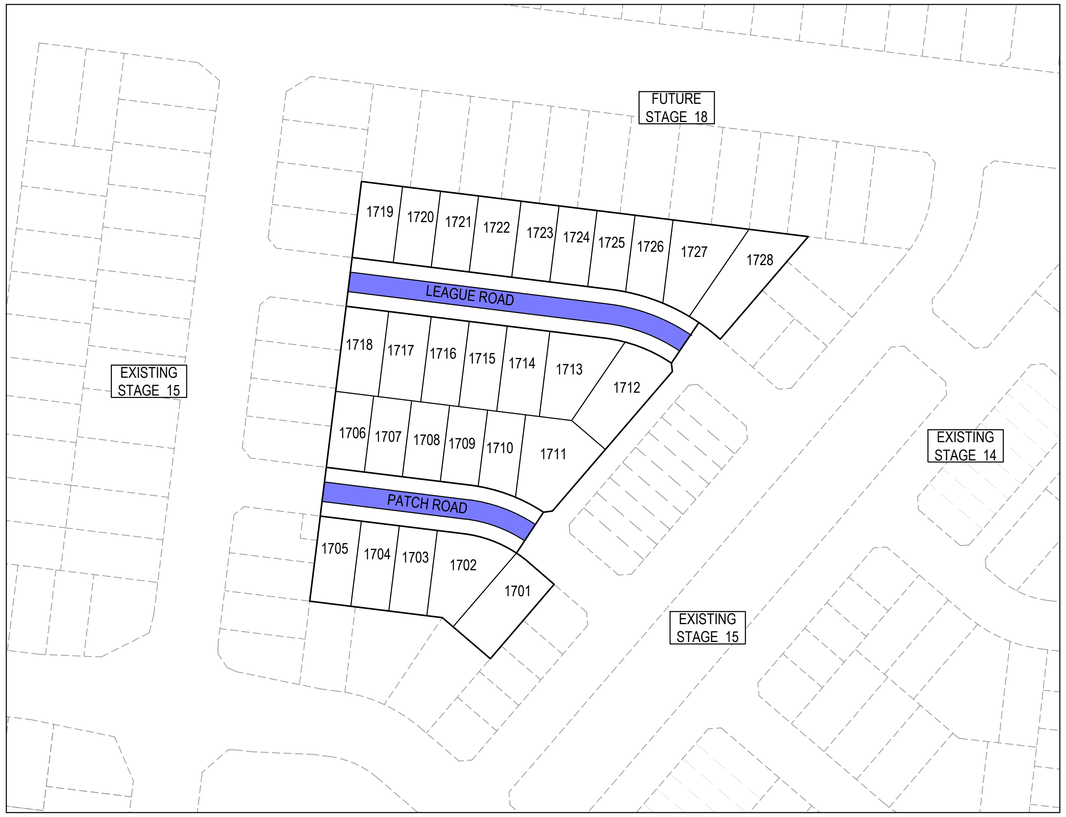
Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Drainage Longitudinal Sections - 2 and Pit Schedule

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-302	09 of 13	1

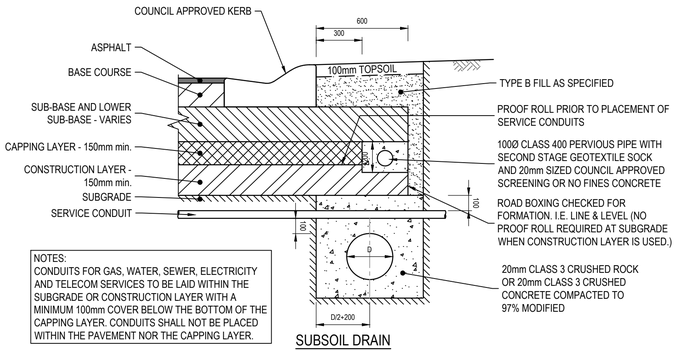
DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-302.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:25:51 PM



LEAGUE RD AND PATCH RD PAVEMENT COMPOSITION

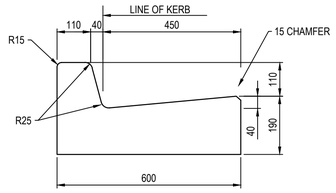
780mm DEPTH PAVEMENT COMPOSITION		LAYER THICKNESS (mm)	MATERIAL
PAVEMENT LAYER			
ASPHALT	WEARING COURSE	30	SIZE 10mm TYPE L (CLASS 320 BINDER) ASPHALT
	BASE COURSE	30	SIZE 10mm TYPE N (CLASS 320 BINDER) ASPHALT
	BITUMINOUS PRIME	-	SAMI 10 S18RF
BASE COURSE	BASE	130	20mm CLASS 2 CRUSHED ROCK COMPACTED TO A MINIMUM DENSITY OF 98% OF MDD (MODIFIED PROCTOR) AS1289,5.2.1
SUBBASE COURSE	UPPER SUBBASE	120	CLASS 3 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% OF MDD (MODIFIED PROCTOR) AS1289,5.2.1
SUBBASE COURSE	LOWER SUBBASE	170	CLASS 4 CRUSHED ROCK (OR HIGHER QUALITY MATERIAL) COMPACTED TO A MINIMUM DENSITY OF 98% OF MDD (MODIFIED PROCTOR) AS1289,5.2.1
CAPPING	CAPPING LAYER	150	IMPORTED TYPE A FILL WITH CBR ≥8%, SWELL ≤ 1.5% AND PERMEABILITY ≤ 5 X 10-9M/SEC COMPACTED TO 98% OF MDD (STANDARD PROCTOR)
CONSTRUCTION LAYER		150	IMPORTED TYPE A FILL WITH CBR ≥8%, SWELL ≤ 1.5% AND PERMEABILITY ≤ 5 X 10-9M/SEC COMPACTED TO 98% OF MDD (STANDARD PROCTOR)
SUBGRADE		-	CBR VARIES BETWEEN 1.0% AND 3.0%. SUBGRADE DESIGN CBR = 2% EXPANSIVE

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

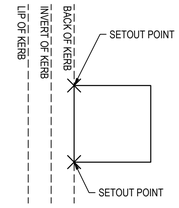


NOTES:
CONDUITS FOR GAS, WATER, SEWER, ELECTRICITY AND TELECOM SERVICES TO BE LAID WITHIN THE SUBGRADE OR CONSTRUCTION LAYER WITH A MINIMUM 100mm COVER BELOW THE BOTTOM OF THE CAPPING LAYER. CONDUITS SHALL NOT BE PLACED WITHIN THE PAVEMENT NOR THE CAPPING LAYER.

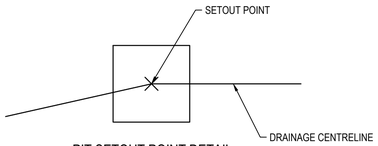
SUBSOIL DRAIN (EXPANSIVE SOILS)
REFER EDCM STD DWG 202a
NOT TO SCALE



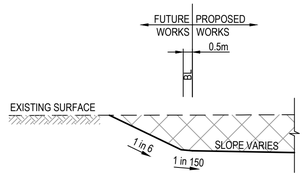
600 B2 KERB DETAIL
SCALE 1:10
EDCM



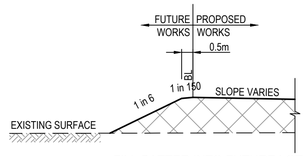
KERB PIT SETOUT POINT DETAIL
NOT TO SCALE



PIT SETOUT POINT DETAIL
NOT TO SCALE



CUT BATTER INTO FUTURE LOT
NOT TO SCALE



FILL BATTER INTO FUTURE LOT
NOT TO SCALE

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.

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PLAN OF SUB. NO. PS817192J
PERMIT REF. NO. 717158

AS CONSTRUCTED

0 0.1 0.2 0.4
Scale 1:10
0 10 20 40
Scale 1:1000
SCALE AS SHOWN AT A1

N

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mirvac

Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Pavement Details and General Details

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-411	10 of 13	1

THE FOLLOWING HAVE BEEN IDENTIFIED AS SIGNIFICANT ENVIRONMENTAL ASPECTS FOR THE SITE:

- CHMP, REF. 12653_12112014
- KANGAROO MANAGEMENT PLAN ,REF. 6406_FINAL_24062016
- RIVER RED GUM TREE MANAGEMENT PLAN, REF. 008833_22032018
- CEMP, REF. 9930_FINAL(v1)_26102017
-

THESE ASPECTS SHALL BE MANAGED WITH THE ENVIRONMENTAL PROTECTION MEASURES OUTLINED ON THIS PLAN.

I HAVE PREPARED THIS ENVIRONMENTAL MANAGEMENT PLAN AND AGREE TO UNDERTAKE WORKS AND ENSURE SUB-CONTRACTORS UNDERTAKE WORKS IN ACCORDANCE WITH THIS PLAN.

DEVELOPER Mirvac
Level 5, Building Q3, 6 Riverside Quay
Southbank VIC 3006
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0466 934 677
Randy.Javier@mirvac.com

CONSULTANT SMEC - URBAN DEVELOPMENT
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0456 859 384
Riley.Giacomini@smec.com

CONTRACTOR Winslow Constructors Pty Ltd
50 Barry Road
Campbellfield VIC 3061
NAME: Adam Stojanovski SIGNED: DATE:
0427 446 501
adams@winslow.com.au

MANAGEMENT

1. RESPONSIBILITIES:
Civil Contractor: WINSLOW CONSTRUCTORS PTY LTD

Superintendent: SMEC

EMERGENCY CONTACTS 1. SHANKAR TISSEVERASINGHE - (03) 98690947
2. RILEY GIACOMINI - (03) 95141622

4. STAGING OF WORKS:
- AS PER CONSTRUCTION PROGRAM

2. COMMUNICATION OF EMP REQUIREMENTS:
- INDUCTION OF ALL PERSONS WORKING ON SITE REGARDING REQUIREMENTS AS SET OUT ON THE EMP.
- EMP TO BE DISPLAYED IN VISIBLE LOCATION WITHIN SITE COMPOUND
EG. ON WALLS OF SITE SHEDS / OFFICE.

5. INFORMING RESIDENTS:
AS REQUIRED

3. INSPECTIONS AND MAINTENANCE:
- TWO INSPECTIONS PER WEEK
- PRIOR TO AND AFTER STORM EVENT AND/OR HEAVY RAIN.
- MAINTAINS SO REQUIRED WITH ALL RECTIFICATION TO BE ADDRESSED WITH 12 HOURS OF INCIDENT / REPORT.

6. ASSOCIATED DOCUMENTS:
——

NOISE — RISK: SIGNIFICANT

REQUIREMENT:
EPA VICTORIA AND COUNCIL REQUIREMENTS MUST BE ADHERED TO IN RELATION TO THE LEVEL OF NOISE AND WORKING HOURS, TO ENSURE THAT RESIDENTS AND OTHER APPLICABLE NEIGHBOURS TO THE SITE ARE NOT DISTURBED UNREASONABLY. THE GENERATION OF NOISE MUST BE MINIMISED.

7. WORKING HOURS: 08.00 TO 16.30 MON - FRI 09:00 TO 13.00 SATURDAY

8. NOISE MINIMISATION METHODS:
- MAINTAIN WORKING HOUR.
- RESTRICT USE OF NOISY EQUIPMENT AND PROCESSES TO AVOID DISTURBANCES TO ADJACENT RESIDENTS.
- FOLLOW EPA NOISE CONTROL GUIDELINES - TG302/92.

9. OTHER:
——

DUST — RISK: SIGNIFICANT

REQUIREMENT:
DUST GENERATION MUST BE MINIMISED TO ENSURE THERE IS NO HEALTH RISK OR LOSS OF AMENITY.

10. MINIMISING DUST GENERATION
- AVOID STRIPPING LARGE AREAS OF THE SITE WHEN NOT REQUIRED.
- WATER SPRAYING AS REQUIRED.
- MINIMISE STRIPPED AREAS.
- MINIMISE ACTIVITIES ON HIGH WIND DAYS.

12. CONTINGENCIES:
- IF HIGH WIND IS EXPECTED WHILE LARGE AREAS OF THE SITE ARE STRIPPED, SPRAY WATER IN ORDER TO ESTABLISH A THICK CRUST OVER UNVEGETATED LAND. ALSO MONITOR DRYNESS OF EXPOSED EARTH. SHOULD GROUND DRY OUT SIGNIFICANTLY, CONSIDER WATER SPRAYING OR COVER AREA WITH SOIL OR GRASS.

NOTE: IF A HOSE IS USED FOR WATER SPRAYING, THE HOSE IS TO BE FILLED WITH A LARGE TRIGGER NOZZLE. CHECK WATER RESTRICTIONS WITH LOCAL AUTHORITY FOR GUIDELINES.

11. DUST SUPPRESSION:
- WATER SPRAYING.
- REDUCE ACTIVITY ONSITE WINDY DAYS.

13. OTHER:
REFER TO DUST MANAGEMENT PLAN FOR FURTHER INFORMATION

EROSION AND SEDIMENT — RISK: SIGNIFICANT

REQUIREMENT:
EROSION AND SEDIMENT MUST BE MANAGED IN ACCORDANCE WITH CURRENT BEST PRACTICE ENVIRONMENTAL MANAGEMENT PRACTICES, TO PREVENT SEDIMENT-LADEN WATER FROM ENTERING ANY DRAINAGE SYSTEM OR NATURAL WATERWAY

14. DRAINAGE MANAGEMENT:
- STORMWATER FLOWING ONTO SITE WILL BE CONTROLLED BY CUT SWALES/ DRAINS, STRAW BALES AND SILT FENCE OR OTHER CONTROLS TO FILTER FLAW WHERE APPLICABLE.
ENSURE STORMWATER PITS AND DRAINS ARE PROTECTED FROM SILT/SEDIMENT BY USING APPROPRIATE METHODS.

17. SEDIMENT TRAPS:
- SEDIMENT BASIN/ SILT FENCE AS REQUIRED.
- PIT LIDS MUST BE FITTED AS SOON AS POSSIBLE - USE TEMPORARY PIT LIDS UNTIL INSTALLED. USE SILT FENCES, SILT SAUSAGES, CUT OFF DRAINS AND OTHER SILT PROTECTION METHODS WHERE NECESSARY AS DETAILED IN THIS EMP PLAN AND AS REQUIRED BY THE SITUATION.

18. DEWATERING:
- WHERE POSSIBLE WATER SHALL BE DIRECTED OVER EXISTING GRASS & PLANTED AREAS FRO FURTHER SEDIMENT CONTROL PRIOR TO DISCHARGE INTO STORMWATER SYSTEM.
- IF THIS IS NOT POSSIBLE, WATER TO BE COLLECTED INTO A TEMPORARY SUMP AND THEN SENT THROUGH SILT TRAPS BEFORE ENTERING INTO THE DRAINAGE SYSTEM.

15. SOIL STABILISATION
DURING CONSTRUCTION:
GRADE AND SEAL SOIL AS REQUIRED, RE-INSTATE DISTURBED AREAS AS SOON AS PRACTICAL.

POST WORKS:
- JUTE MATTING RETAINED.
- TOPSOILING AND GRASSING DISTURBED SOIL AREAS TO BE CARRIED OUT AS SOON AS PRACTICAL.

19. VEHICLE AND ROAD MANAGEMENT: SITE ACCESS:
- ACCESS THROUGH COMO PARADE

CLEANING VEHICLES:
ALL VEHICLES LEAVING THE SITE MUST REMOVE ANY EXCESS SEDIMENTS/ CLAY COLLECTED ON THE VEHICLES WHILST ON SITE. EACH OPERATOR MUST MANUALLY REMOVE EXCESS CLAY SUCH THAT IT MINIMISES DEPOSITS ON THE ROAD.

16. STOCKPILE PROTECTION:
- SILT FENCES TO BE ERECTED AROUND THE DOWNSTREAM SIDE OF STOCKPILES WHERE APPLICABLE. STOCKPILES TO BE PLACED AWAY FROM DRAINAGE INLETS, OPEN DRAINS, WATER COURSES & PAVED AREAS. A CUT-OFF DRAIN WITH EARTH BUND TO BE INSTALLED ON THE UPSLOPE SIDE OF THE STOCKPILE TO DIVERT RUN-OFF AWAY FROM THE STOCKPILE. MINIMISE THE NUMBER OF STOCKPILES WHERE POSSIBLE.

20. OTHER:
ROADS ARE TO BE CLEANED PRIOR TO RAIN/STORMWATER EVENTS. STORMWATER PITS ALONG THE ESTABLISHED ROADWAY, WHICH ARE SUBJECT TO SEDIMENT DEPOSITS, WILL BE EITHER FITTED WITH KERB INLET PROTECTORS OR SHALL BE FITTED WITH (GEO-FABRIC) FILTER MATERIAL TO CAPTURE SEDIMENTS. ROADS ARE TO BE INSPECTED AND ANY SEDIMENT DEPOSITED ON THESE ROADS REMOVED.

WASTE — RISK: SIGNIFICANT

REQUIREMENT:
LITTER AND WASTE MUST BE CONTAINED ON SITE, BEFORE DISPOSAL IN A RESPONSIBLE MANNER. WASTE GENERATION MUST BE MINIMISED

21. MOVEMENT OF SOIL: OFF SITE
CONTAMINANT STATUS:
CLEAN

23. WASTE STORAGE AND DISPOSAL:
- WASTE BINS TO BE PLACED IN COMPOUND FRO DAILY RUBBISH AND REMOVED OFFSITE AS REQUIRED.

22. WASTE MINIMISATION METHODS:
- THE COLLECTION OF SURVEY PEGS AND OTHER MATERIALS ARE TO BE COLLECTED AND RE-USED ONSITE AND RECYCLED FRO FUTURE PROJECTS.
- MATERIALS TO BE STORED IN COMPOUND OR SITE CONTAINER.

24. OTHER:
N/A

CHEMICALS — RISK: SIGNIFICANT

REQUIREMENT:
STORAGE AND SPILL MANAGEMENT PRACTICES MUST BE IMPLEMENTED TO ENSURE THAT NO ENVIRONMENTAL DAMAGE CAN RESULT FROM THE ESCAPE OR SPILLAGE OF CHEMICALS OR FUELS.

25. STORAGE:
- MINIMAL QUANTITIES STORED IN SITE CONTAINER.

27. REFUELLING PROCEDURE:
- ALL REFUELLING TO BE CARRIED OUT BY EXTERNAL CONTRACTOR WITH PROCEDURES AND SPILL KITS AVAILABLE DURING REFUELLING.

26. SPILL MANAGEMENT:
- SEE ITEM 27. REFUELLING UNDERTAKEN BY EXTENDED FUEL CONTRACTOR WHO CARRIES ALL THE REQUIRED SPILL KITS ETC.

28. OTHER:
N/A

SIGNIFICANT FLORA / FAUNA — RISK: SIGNIFICANT

REQUIREMENT:
ALL SIGNIFICANT FLORA AND FAUNA ON AND ADJACENT TO THE SITE MUST BE PROTECTED

29. YES/NO. DETAILS:
REFER TO ENDORSED LANDSCAPE MASTER PLAN

ARCHAEOLOGICAL / HERITAGE — RISK: SIGNIFICANT

REQUIREMENT:
PLACES, SITES AND OBJECTS OF ARCHAEOLOGICAL OR HERITAGE SIGNIFICANCE MUST BE PROTECTED

30. YES/NO. DETAILS:
THE RECOMMENDATIONS WITHIN APPROVED CULTURAL HERITAGE MANAGEMENT PLAN No.12015 PREPARED BY HERITAGE INSIGHT Pty Ltd DATED 18TH JANUARY 2011, AS APPROVED BY THE SECRETARY, DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT ON 15TH APRIL 2012, OR ANY SUBSEQUENT APPROVED PLAN, MUST BE UNDERTAKEN, PRIOR TO AND DURING, THE CONSTRUCTION OF THE DEVELOPMENT HEREBY APPROVED.

------- — RISK:

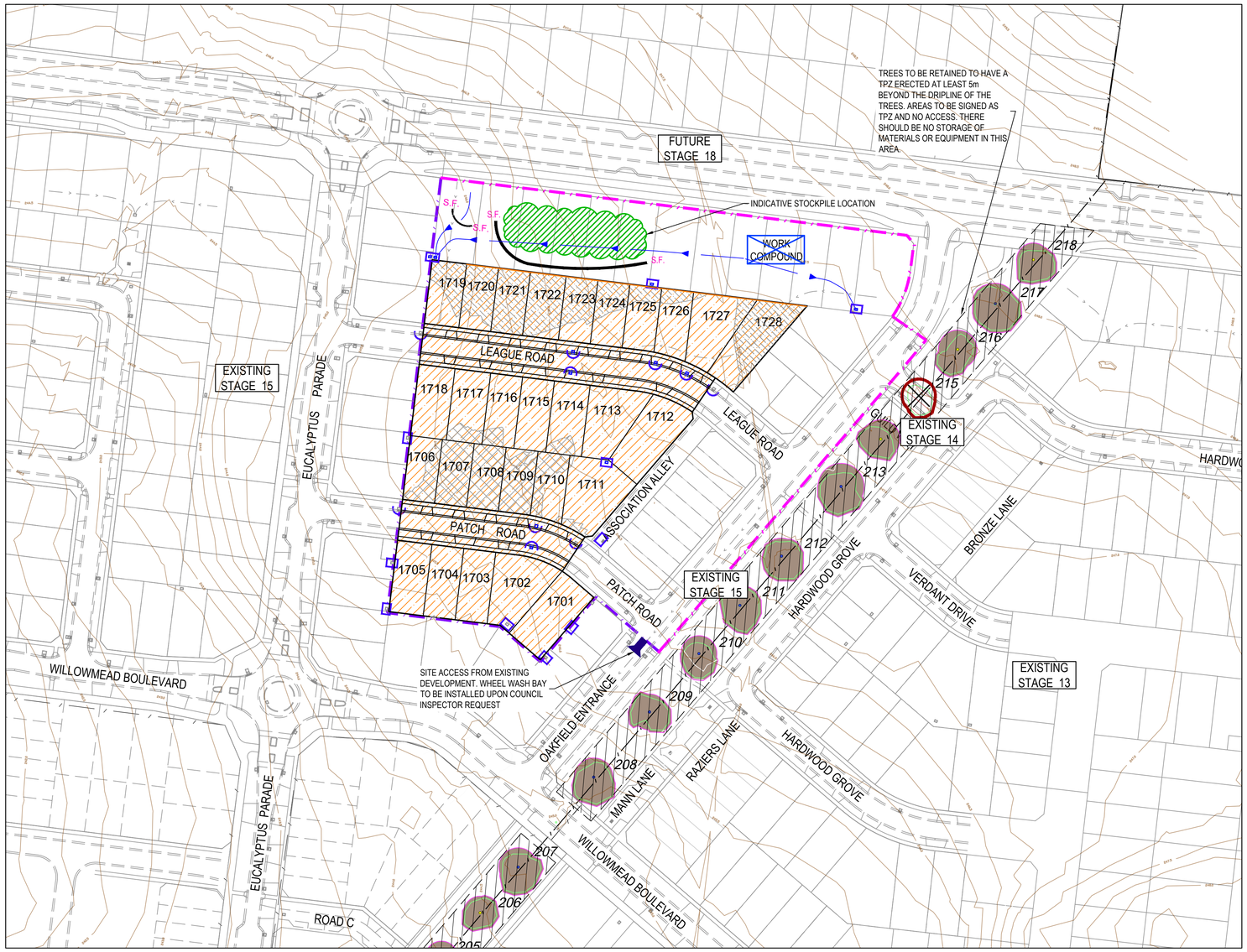
REQUIREMENT:

31.
——

------- — RISK:

REQUIREMENT:

32.
——



LEGEND - ENVIRONMENTAL MANAGEMENT PLAN

ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAINAGE PITS
	SWALE DRAIN
	EXISTING STORMWATER DRAINAGE PITS
	EXISTING SWALE DRAIN
	EXISTING RETAINING WALL
	RETAINING WALL
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION ZONE
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING REFER ARBORICULTURE REPORT
	PROPOSED DRIVEWAY & FOOTPATH
S.F. S.F.	SILT FENCE OR SIMILAR APPROVED EROSION PROTECTION FENCE
	TEMPORARY CHAINWIRE FENCE
	EXISTING CHAINWIRE FENCE
	CATCH DRAIN ALONG LOW POINTS WITH SILT CURTAINS OR SIMILAR PLACED AT MIN. 150M
S.B	CATCH DRAIN WITH STRAW BALES / SILT FENCE OR SIMILAR.
	SUGGESTED STOCKPILE LOCATION
WORK COMPOUND	SUGGESTED WORK COMPOUND, FUEL REFILLING LOCATION, AND VEHICLE CLEANING AREA
	STORMWATER PIT PROTECTION
	WORKING AREA
80	EXISTING CONTOUR LINE
	STABILIZED ACCESS POINT

GAS AND DUST MANAGEMENT NOTES

ALL WORKS TO BE UNDERTAKEN SHOULD REFER TO SMEC DUST MANAGEMENT PLAN REPORT DATED 20TH SEPTEMBER 2019 AND SMEC CONSTRUCTION MANAGEMENT PLAN WORKS IN VICINITY OF GAS TRANSMISSION MAIN DATED 3RD OCTOBER 2019.

AS CONSTRUCTED PLANS

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PLAN OF SUB. NO. PS817192J

PERMIT REF. NO. 717158

AS CONSTRUCTED

0 10 20 40
Scale 1:1000
SCALE AS SHOWN AT A1

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mirvac

Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Environmental Management plan
Layout

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-451	11 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-451.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:26:35 PM

RISK ASSESSMENT CHECKLIST

NOISE

ISSUES:
- NATURE OF NOISE GENERATING WORKS: VEHICLES, FIXED MACHINERY, CONSTRUCTION ACTIVITIES.
- POTENTIAL NOISE RECEPTORS: SURROUNDING RESIDENTS / CONTRACTORS.:
- PROXIMITY OF WORKS TO NOISE RECEPTORS: ADJACENT RESIDENTS
- THE RESIDENTS OF CRESSY WAY & EMINENCE DRIVE LIVE, 100m FROM THE SITE

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

DUST

ISSUES:
- DUST SOURCES: MOVEMENTS OF VEHICLES
- POTENTIAL DUST RECEPTORS: SURROUNDING RESIDENTS / CONTRACTORS
- PROXIMITY OF WORKS TO DUST RECEPTORS: ADJACENT RESIDENTS
- EXTENT OF EXPOSED EARTH AND DURATION OF TIME EXPOSED: DURATION OF STAGED WORKS
- WIND CONDITIONS:

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

EROSION AND SEDIMENT

ISSUES:
- EROSION AND SEDIMENT SOURCES: EXPOSED TOPSOIL
- POTENTIAL EROSION AND SEDIMENT RECEPTORS: STORMWATER SYSTEM, CREEK SYSTEM.
- PROXIMITY OF WORKS TO EROSION AND SEDIMENT RECEPTORS: ADJACENT RESIDENTS
- EXTENT OF EXPOSED EARTH AND DURATION OF TIME EXPOSED: AREA APPROXIMATELY 5 HA EXPOSED FOR 6 MONTHS.
- SLOPE: MINIMAL - 3 METRES OVER 250M
- SITE DRAINAGE REGIME: SURFACE SWALES AND UNDERGROUND DRAINAGE
- RAINFALL: 400 - 600MM / YEAR
- VEHICLE MOVEMENTS ON AND OFF SITE: TO BE KEPT TO A MINIMUM AND VIA A SINGLE ENTRY / EXIT.

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

WASTE

ISSUES:
- NATURE OF WASTE TO BE GENERATED: BUILDING AND CONSTRUCTION PRODUCTS. LITTER.
- PRESENCE OF WASTE ON SITE PRIOR TO WORK COMMENCEMENT: EXISTING SHEDS.
- POTENTIAL WASTE RECEPTORS: SURROUNDING RESIDENTS.
- PROXIMITY TO POTENTIAL WASTE RECEPTORS: ADJACENT RESIDENTS
- THE RESIDENTS AT CRESSY WAY & EMINENCE DRIVE LIVE < 100M FROM THE SITE

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

CHEMICALS

ISSUES:
- TYPES OF CHEMICALS AND FUELS USED AND/OR STORED ON SITE: REFER TO MATERIAL SAFETY DATA SHEET (MSDS)
- QUANTITIES OF CHEMICALS AND FUELS USED AND/OR STORED ON SITE: REFER TO MATERIAL SAFETY DATA SHEET (MSDS)
- POTENTIAL CHEMICAL RECEPTORS: SURROUNDING RESIDENTS / CONTRACTORS / WATERWAYS
- PROXIMITY TO POTENTIAL CHEMICAL RECEPTORS: 200 METRES

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

SIGNIFICANT FLORA/FAUNA

ISSUES:
- TYPES OF FLORA/ FAUNA: NIL
- VULNERABILITY OF FLORA/ FAUNA: N/A.
- PROXIMITY OF FLORA/FAUNA TO WORKS: N/A.
- WORK ACTIVITIES WHICH MAY THREATEN FLORA/ FAUNA: N/A.
- POTENTIAL IMPACTS ON FLORA/ FAUNA: N/A.
- REFER TO 0697-06-81, ITEM No.29 FOR DETAILS.

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

ARCHAEOLOGICAL/HERITAGE

ISSUES:
- TRADITIONAL LAND OWNERS CONSULTED? YES
- SURVEY OR ASSESSMENT CONDUCTED? YES
- PROBABILITY OF ENCOUNTERING ARCHAEOLOGICAL/ HERITAGE ITEMS DURING WORKS: LOW
- TYPES OF ARCHAEOLOGICAL/ HERITAGE ITEMS ON SITE: NIL
- PROXIMITY OF ARCHAEOLOGICAL/ HERITAGE ITEMS TO WORKS ON SITE: NA
- WORK ACTIVITIES WHICH MAY THREATEN ARCHAEOLOGICAL/ HERITAGE ITEMS: NIL
- REFER TO 0697-06-81, ITEM No.30 FOR DETAILS.

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

I HAVE PREPARED THIS ENVIRONMENTAL MANAGEMENT PLAN AND AGREE TO UNDERTAKE WORKS AND ENSURE SUB-CONTRACTORS UNDERTAKE WORKS IN ACCORDANCE WITH THIS PLAN.

ENVIRONMENTAL PROTECTION MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING DESIGNS.

DEVELOPER Mirvac
Level 5, Building Q3, 6 Riverside Quay
Southbank VIC 3006
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CONTRACTOR Winslow Constructors Pty Ltd
50 Barry Road
Campbellfield VIC 3061
NAME: Adam Stojanovski SIGNED: DATE:
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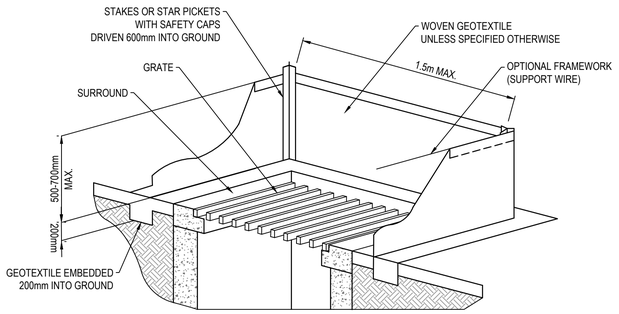
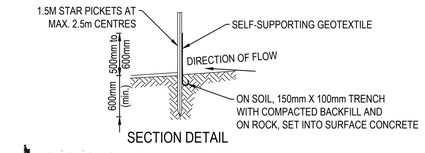
adams@winslow.com.au

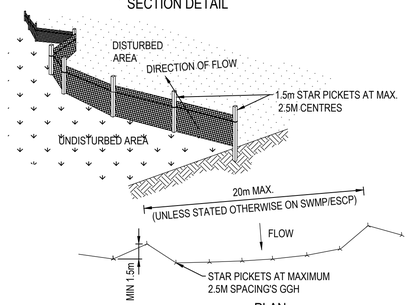
GEOTEXTILE INLET GUARD - PHASE B**



SILT/DRIFT FENCE - PHASE A**



SECTION DETAIL

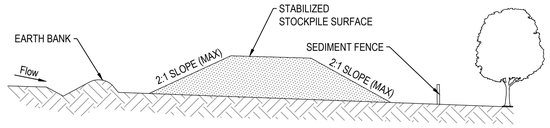


PLAN

CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150MM DEEP TRENCH ALONG THE UPSIDE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150MM OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

STOCKPILES

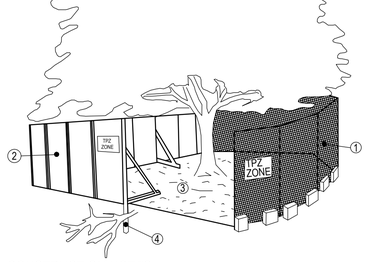


CONSTRUCTION NOTES:

1. WHERE POSSIBLE LOCATE STOCKPILE AT LEAST 5 METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS A LOW, FLAT, ELONGATED MOUND.
3. WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP.
5. CONSTRUCT EARTH BANK (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (STANDARD DRAWING 6-8) 1 TO 2 METRES DOWNSLOPE OF STOCKPILE.
6. THE PLACEMENT OF FILL MUST BE DESIGNED TO ENSURE THAT IT DOES NOT COMPROMISE NATIVE VEGETATION TO BE PROTECTED.
7. SOIL MUST NOT BE STOCKPILED ON NATIVE VEGETATION

TREE PROTECTIVE FENCING

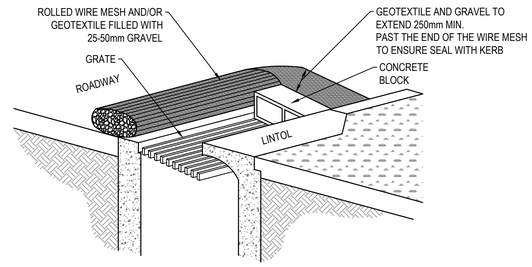
TREE PROTECTION/ NO-GO FENCING
- ALL INDIGENOUS TREES TO TWICE THE CANOPY - PROTECTIVE FENCING (HIGHLY VISIBLE) AROUND TWICE THE CANOPY DISTANCE OF EACH SCATTERED TREE AND MORE THAN 2 METRES FROM AREAS OF NATIVE VEGETATION IDENTIFIED TO BE PROTECTED.



CONSTRUCTION NOTES:

1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET.
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THIS FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ.
3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST). NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ.
4. BRACING IS PERMISSIBLE WITHIN THE TPZ. INSTALLATION OF SUPPORTS SHOULD AVOID DAMAGING ROOTS.

INLET FILTER BAG - PHASE B**



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

PRELIMINARY
NOT APPROVED FOR CONSTRUCTION
THIS PLAN HAS BEEN PREPARED FOR INFORMATION ONLY IN ACCORDANCE WITH CLAUSE XX
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING THE FINAL EMP AS PART OF THE LUMP SUM PRICE FOR THE WORKS

OTHER ISSUES 1

ISSUES:
ALL CONTRACTORS TO IMPLEMENT AND ADHERE TO THE GUIDELINES AS DESCRIBED WITHIN THIS EMP. PLEASE REFER TO ALL ASSOCIATED DOCUMENTS AND DETAILED DESIGN DRAWINGS FOR EXACT LOCATION OF ELEMENTS.

ALL CONTRACTORS TO IMPLEMENT, MONITOR AND REVIEW ENVIRONMENTAL PROTECTIVE MEASURES ON A STAGE BY STAGE BASIS.

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

OTHER ISSUES 2

ISSUES:

LIKELIHOOD: LIKELY
CONSEQUENCE: MAJOR
OVERALL RISK: LOW

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.

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PLAN OF SUB. NO. PS817192J
PERMIT REF. NO. 717158

AS CONSTRUCTED

SCALE AS SHOWN AT A1

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mirvac

Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Environmental Management plan Details
Details

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-456	12 of 13	1

DWG PATH: V:_Vault\Projects_Urban\1700E-Olivine\1700E-17\Dwgs\1700E-017-456.dwg PRINTED BY: RS16291 on 05/04/2022 at 12:26:50 PM

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 ADDRESED 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	New works will be constructed adjacent to live traffic when abutting existing stages.	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	Potential risk from culverts under construction and height / fall hazards	Contractor	Falling from a height	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	Vehicle conflict with utility / pit	Contractor	Personal injury, vehicle damage	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	Inadequate drivers response time.	Road Authority	Increased potential for accidents	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	Potential for drivers / riders to strike signs and street lights	Road Authority	Increased potential for accidents	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	Potential vehicle conflict within clear zone	Road Authority	Increased potential for accidents	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	Potential fall hazard during maintenance, by vechicles and pedestrians	Relevant Authority	Falling from a height	Barriers to be provided in accordance with road standards	Barriers to be provided and safe batter slopes (>1:3)	N	2	5	10	Constructor
Retaining Walls													
Construction	RW	Retaining Walls	Retaining Wall Alignment	Falling from height during construction or commissioning of walls and adjacent structures eg. sewer manholes	Contractor	Falling from a height	Provide temporary and permanent fencing at top of wall.	Provide fencing (at heights) during design process	N	1	1	1	Constructor
Operational	RW	Retaining Walls	Retaining Wall Alignment	Lack of safe access/setback from road	Road/ Local Authority	Increased potential for accidents	Establish adequate and accessible clear zone provision. Provide guardrail where required	Wall located in suitable position during design process and approved by authority	N	1	1	1	Authority
Operational	RW	Retaining Walls	Retaining Wall Height	Potential for falling from height	Road/ Local Authority	Personal injury	Provide temporary and permanent fencing at top of wall.	Provide fencing (at heights) during design process	N	1	5	5	Authority
Operational	RW	Retaining Walls	Retaining Wall Design	Potential for wall failure	Road/ Local Authority	Increased potential for accidents	Structural design in accordance with standards, geotechnical conditions, end use and good practise.	Refer to structural drawings and calculations	N	1	5	5	Authority
Drainage													
Operational	DR	Drainage	Grated Pits	Trip/fall hazard with large spaced grate	Relevant Authority	Increased potential for accidents	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	Potential for pit failure	Relevant Authority	Increased risk to maintenance crews/ vehicles	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	Potential for falling from height	Relevant Authority	Increased potential for accidents	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	Children playing in large pipes / watercourses and access for maintenance	Relevant Authority	Increased potential for accidents	Grate provided to authority standards	Design in accordance with authority and manufacturers standards	N	2	5	10	Authority
Maintenance	DR	Drainage	Access to Pits	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	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	Lack of safe entry for maintenance	Relevant Authority	Increased potential for accidents	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	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	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	
Sewer													
Construction	SE	Sewer	Sewer Manhole located adjacent to Retaining Wall Alignment	Falling from height during construction or commissioning of adjacent sewer manholes	Contractor	Falling from a height	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	Lack of safe entry for maintenance	Relevant Authority	Increased potential for accidents	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	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	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	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	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	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	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	Location of assets within clear zones e.g.. pits	Relevant Authority	Increased potential for accidents	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	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	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	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	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

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Olivine Estate - Stage 17
Whittlesea City Council
Road and Drainage
Safety In Design

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
367 G11	1700E-017-500	13 of 13	1

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