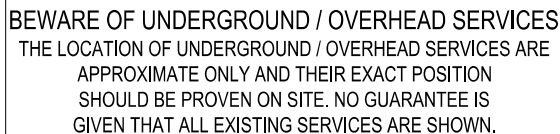


Rev.	Drawing No.	Sheet No.	Title
3	18/00373-01	1	Locality Plan, Schedules & Notes
3	18/00373-02	2	Detail Plan - Sheet 1
3	18/00373-03	3	Detail Plan - Sheet 2
1	18/00373-04	4	Long Sections - Sheet 1
2	18/00373-05	5	Long Sections - Sheet 2
2	18/00373-06	6	Long Sections - Sheet 3
3	18/00373-07	7	Long Sections - Sheet 4
3	18/00373-08	8	Long Sections - Sheet 5
1	18/00373-09	9	Construction Details
1	18/00373-10	10	Backfill Specifications



20. Test results shall be provided to the superintendent prior to practical completion / acceptance of works.
21. The contractor is required to undertake all testing of fill compaction in accordance with MRWA Backfill Specification 04-03.2.

29. On commencement of construction works the contractor must comply with the recommendations of the EPA publication "construction techniques for sediment pollution control" (publication no 275 1991).
30. Prior to the commencement of work the contractor shall submit a site environmental management plan to Melbourne Water if any Melbourne Water assets or water ways are involved in the works.
31. All trees and vegetation are to be protected unless otherwise indicated for removal.
The extent of any vegetation removal shall be confirmed on site with the superintendent and local council prior to commencement, and in accordance with any planning permits. Any removal shall be documented.
32. All areas containing creek vegetation, trees and revegetated areas near the construction zone are to be fenced off during the works with secure and highly visible material such as para-webbing fencing.
33. Ensure all machinery, equipment and/or footwear entering the site is weed and pathogen free.

Street	Gas		Water		NDW		Comms	Elec	Lighting			
BARRABOOL BOULEVARD (SOUTH OF ROUNDABOUT)	W	2.10	W	3.25	W	2.50	E	2.73	E	3.60	0.80*	BOK
BARRABOOL BOULEVARD (NORTH OF ROUNDABOUT)	W	2.10	W	3.25	W	2.50	E	1.73	E	2.60	0.80*	BOK
PLANE AVENUE	S	2.25	S	3.65	S	2.90	N	1.73	N	2.60	0.80*	BOK
COURSE STREET	N	2.10	N	2.95	N	2.50	S	1.73	S	2.60	0.80*	BOK
SHALLOW STREET	W	2.10	W	2.95	W	2.50	S	1.73	E	2.60	0.80*	BOK
SEDGE STREET	E	2.10	E	2.95	E	2.50	W	1.73	W	2.60	0.80*	BOK
YARD STREET	N	2.10	N	2.95	N	2.50	S	1.73	S	2.60	0.80*	BOK
FLOW STREET	W	2.10	W	2.95	W	2.50	E	1.73	E	2.60	0.80*	BOK
WEBB STREET	W	2.10	W	3.00	W	2.50	E	1.73	E	2.60	0.80*	BOK
GLOVER STREET	W	2.10	W	2.95	W	2.50	E	1.73	E	2.60	0.80*	BOK

Maintenance Structure ID	Type - (IS/MS/MC)	Cover Class	Depth to Invert (mm)	Shaft Connections	Comments/ References (Offsets/Details)
3-2MS	MS	B	1980	-	-
3-3MS	MS	B	1190	-	-
3-4MS	MS	B	1680	-	-
3-5MS	MS	B	1330	-	-
3-5IS	IS	B	1270	-	-
3-6IS	IS	B	1100	-	-
3-7MS	MS	B	1700	-	-
3-8MS	MS	B	1670	-	-
3-9MS	MS	B	1960	-	-
3-10MS	MS	B	2000	-	-
3-11MS	MS	B	2680	-	-
3-12MS	MS	B	2470	-	-
3-12IS	IS	B	1090	-	-
3-13MS	MS	B	2610	2 x DN100	-
3-14MS	MS	B	1800	-	-
3-15MS	MS	B	1870	1 x DN100	-
3-15IS	IS	B	1160	-	-
3-16MS	MS	B	2530	1 x DN100	-
3-17MS	MS	B	1690	-	-
3-17IS	IS	B	1080	-	-
3-20MC	MC	B	3640	-	-
3-22MS	MS	B	2710	1 x DN100	-
3-24MS	MS	B	1930	-	-

Structure Type	Boundary Trap	Water Seals	Syphons
Quantity	-	-	-

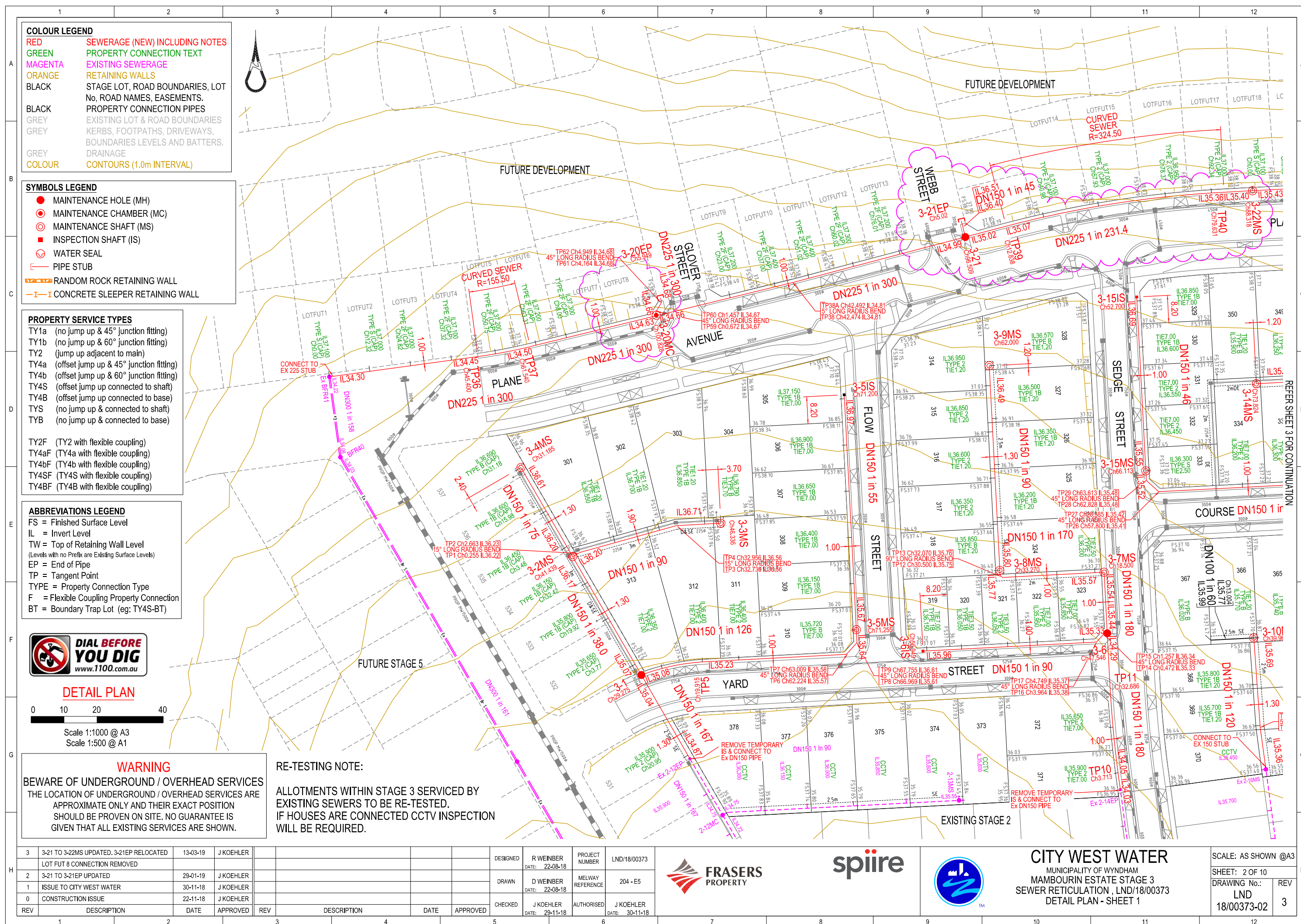
Maintenance Hole ID	MH Shaft Type (GRP/PP (Plastic) / Concrete)	MH Top Type (Conical/Flat)	Cover Class	Internal Diameter (mm)	Min. Wall Thickness (mm)	Depth to Invert (mm)	Drops	Ladder (L) Step Irons (S) Landing (Ld)	Corrosion Protection (Coating / PE or PVC Lining)	Shaft Re-inforcement	Comments (Offsets / Details)
3-1	Approved Product	Flat Top	B	1050	150	2430	-	S	None	-	-
3-6	Approved Product	Flat Top	B	1050	150	2740	2 x DN150	S	None	-	-
3-8	Approved Product	Flat Top	B	1050	150	3020	1 x DN100	S	None	-	-
3-21	Approved Product	Flat Top	B	1050	150	3310	-	S	None	-	-
3-23	Approved Product	Flat Top	B	1050	150	2200	1 x DN150	S	None	-	-

3	SCHEDULE 2, 5 & 8 UPDATED,	13-03-19	J KOEHLER					DESIGNED	R WEINBER DATE: 22-08-18	PROJECT NUMBER	LND/18/00373
2	SCHEDULE 1, 2, 4, 5 & 8 UPDATED, CONSTRUCTION DETAILS ADDED	29-01-19	J KOEHLER								
1	ISSUE TO CITY WEST WATER	30-11-18	J KOEHLER					DRAWN	D WEINBER DATE: 22-08-18	MELWAY REFERENCE	204 - E5
0	CONSTRUCTION ISSUE	22-11-18	J KOEHLER								
REV	DESCRIPTION	DATE	APPROVED	REV	DESCRIPTION	DATE	APPROVED	CHECKED	J KOEHLER DATE: 29-11-18	AUTHORISED	J KOEHLER DATE: 30-11-18



CITY WEST WATER
MUNICIPALITY OF WYNDHAM
MAMBOURIN ESTATE STAGE 3
SEWER RETICULATION, LND/18/00373
NOTES, SCHEDULES & LOCALITY PLAN

SCALE: AS SHOWN @A3	
SHEET: 1 OF 10	
DRAWING No.: LND 18/00373-01	REV 3



COLOUR LEGEND
RED SEWERAGE (NEW) INCLUDING NOTES
GREEN PROPERTY CONNECTION TEXT
MAGENTA EXISTING SEWERAGE
ORANGE RETAINING WALLS
BLACK STAGE LOT, ROAD BOUNDARIES, LOT No, ROAD NAMES, EASEMENTS, PROPERTY CONNECTION PIPES
BLACK EXISTING LOT & ROAD BOUNDARIES
GREY KERBS, FOOTPATHS, DRIVEWAYS, BOUNDARY LEVELS AND BATTERS.
GREY DRAINAGE
COLOUR CONTOURS (1.0m INTERVAL)

SYMBOLS LEGEND
● MAINTENANCE HOLE (MH)
○ MAINTENANCE CHAMBER (MC)
○ MAINTENANCE SHAFT (MS)
■ INSPECTION SHAFT (IS)
○ WATER SEAL
— PIPE STUB
--- RANDOM ROCK RETAINING WALL
--- CONCRETE SLEEPER RETAINING WALL

PROPERTY SERVICE TYPES
TY1a (no jump up & 45° junction fitting)
TY1b (no jump up & 60° junction fitting)
TY2 (jump up adjacent to main)
TY4a (offset jump up & 45° junction fitting)
TY4b (offset jump up & 60° junction fitting)
TY4S (offset jump up connected to shaft)
TY4B (offset jump up connected to base)
TYS (no jump up & connected to shaft)
TYB (no jump up & connected to base)

TY2F (TY2 with flexible coupling)
TY4aF (TY4a with flexible coupling)
TY4bF (TY4b with flexible coupling)
TY4SF (TY4S with flexible coupling)
TY4BF (TY4B with flexible coupling)

ABBREVIATIONS LEGEND
FS = Finished Surface Level
IL = Invert Level
TW = Top of Retaining Wall Level
(Levels with no Prefix are Existing Surface Levels)
EP = End of Pipe
TP = Tangent Point
TYPE = Property Connection Type
F = Flexible Coupling Property Connection
BT = Boundary Trap Lot (eg: TY4S-BT)



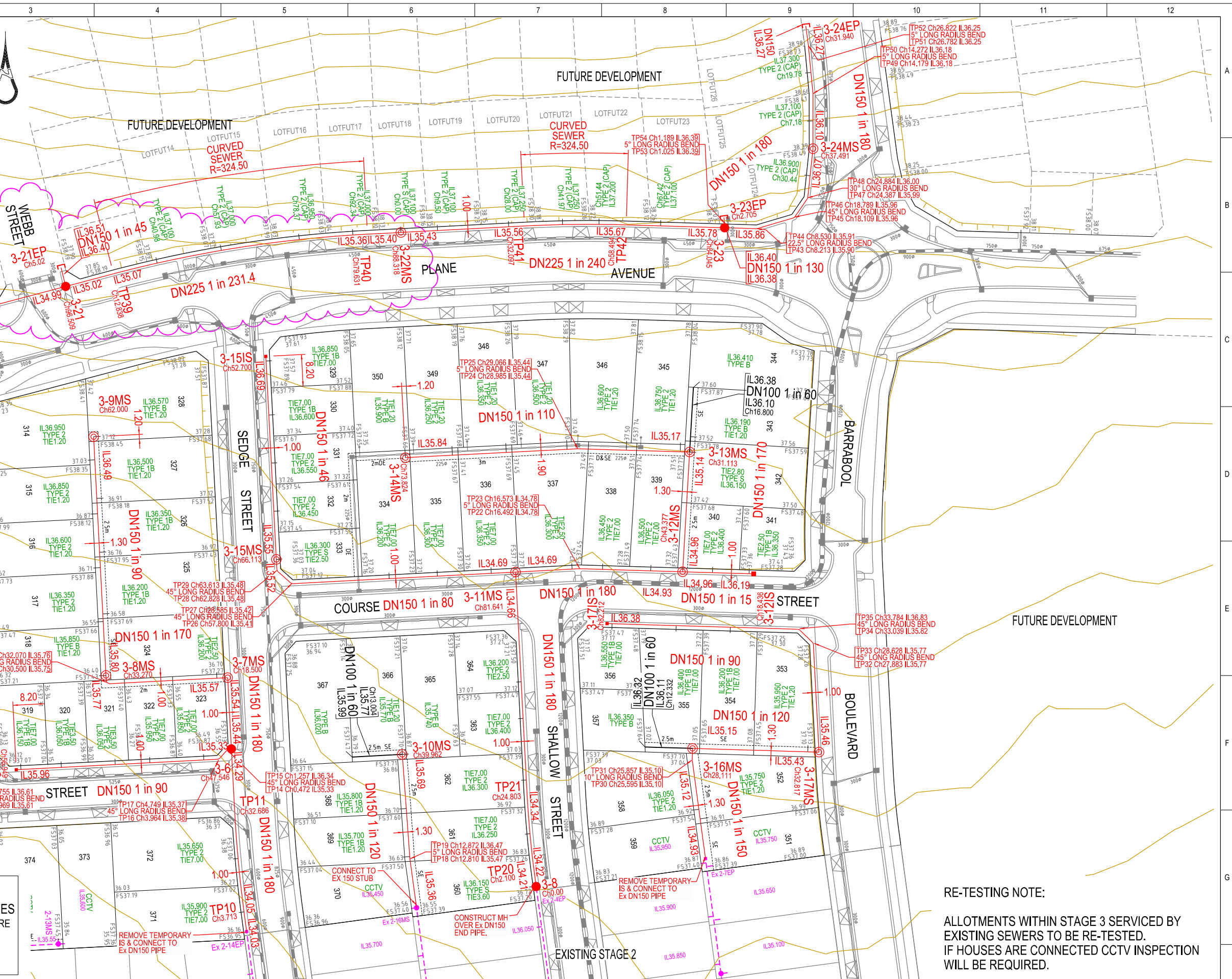
DETAIL PLAN

0 10 20 40
Scale 1:1000 @ A3
Scale 1:500 @ A1

WARNING

BWARE OF UNDERGROUND / OVERHEAD SERVICES
THE LOCATION OF UNDERGROUND / OVERHEAD SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

2	3-23 TO 3-24EP UPDATED, 3-13MS TO 3-14MS	29-01-19	J KOEHLER
1	UPDATED, LOT 360 CONNECTION UPDATED TO TYPE S.		
1	ISSUE TO CITY WEST WATER	30-11-18	J KOEHLER
0	CONSTRUCTION ISSUE	22-11-18	J KOEHLER
REV	DESCRIPTION	DATE	APPROVED

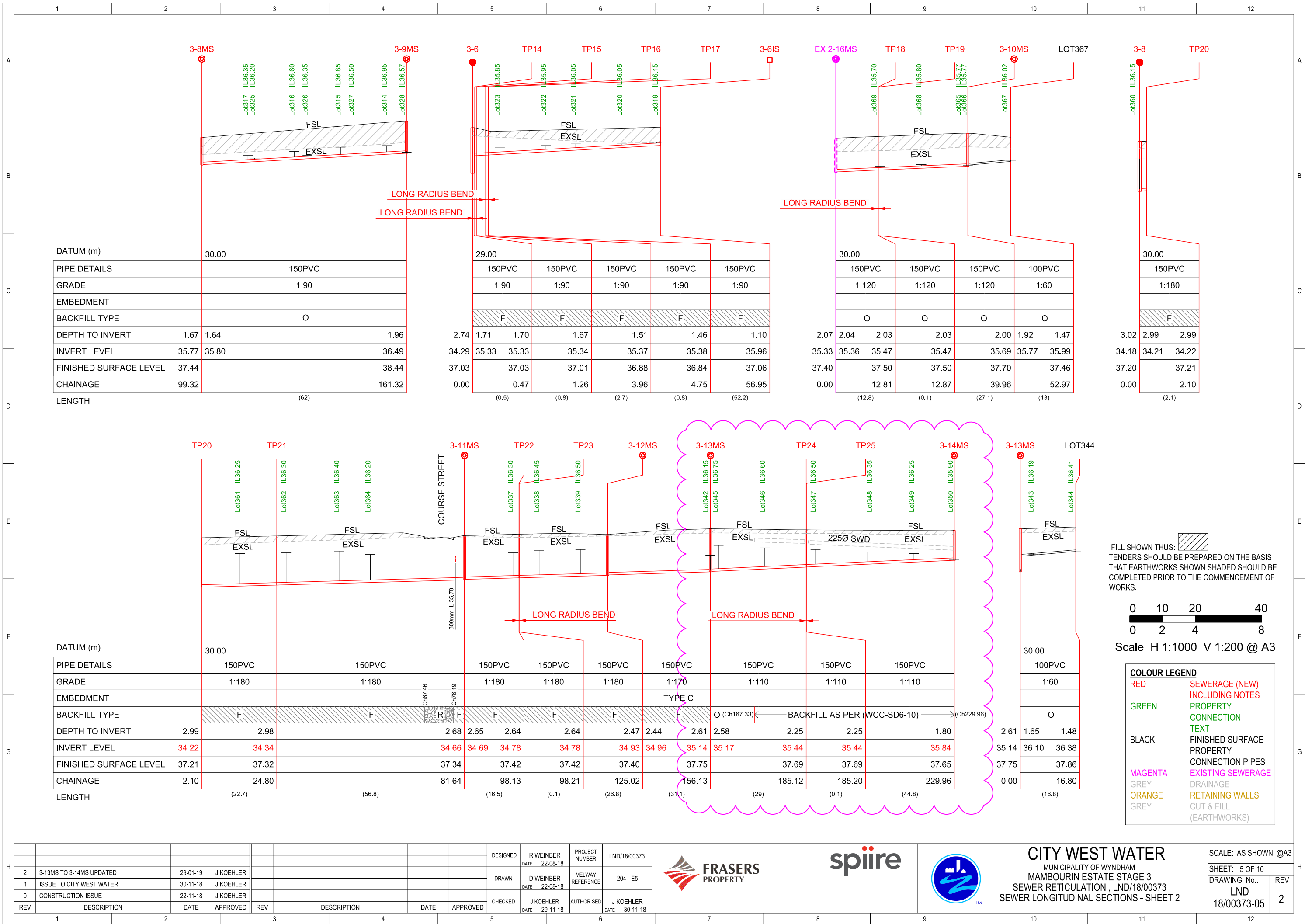


RE-TESTING NOTE:
ALLOTMENTS WITHIN STAGE 3 SERVICED BY EXISTING SEWERS TO BE RE-TESTED. IF HOUSES ARE CONNECTED CCTV INSPECTION WILL BE REQUIRED.

DESIGNED	R WEINBER	DATE: 22-08-18	PROJECT NUMBER	LND/18/00373
DRAWN	D WEINBER	DATE: 22-08-18	MELWAY REFERENCE	204 - E5
CHECKED	J KOEHLER	DATE: 29-11-18	AUTHORISED	J KOEHLER
			DATE: 30-11-18	

CITY WEST WATER
MUNICIPALITY OF WYNDHAM
MAMBOURIN ESTATE STAGE 3
SEWER RETICULATION, LND/18/00373
DETAIL PLAN - SHEET 2

SCALE: AS SHOWN @A3
SHEET: 3 OF 10
DRAWING No.: LND 18/00373-03
REV 3



- EMBEDMENT & BACKFILL DETAILS:**
- Embedment shall be Type A unless stated otherwise.
 - Backfill Type O is ordinary fill, to be selected and installed as per MRWA Backfill Specification 04-03.2.
 - Type F is to be installed in accordance with Wyndham City Council requirements as per Figure 1.
 - Type R is to be installed as per Figure 2.
 - Type R backfill is to be used under all Road pavements.

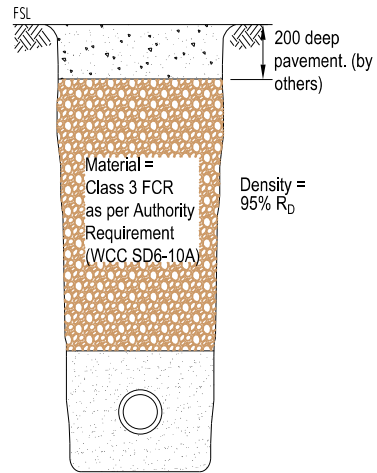


Figure 1: Type F Backfill

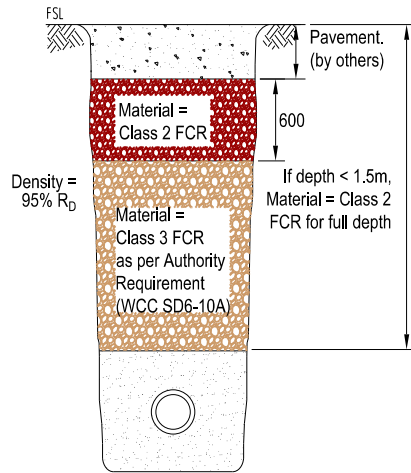
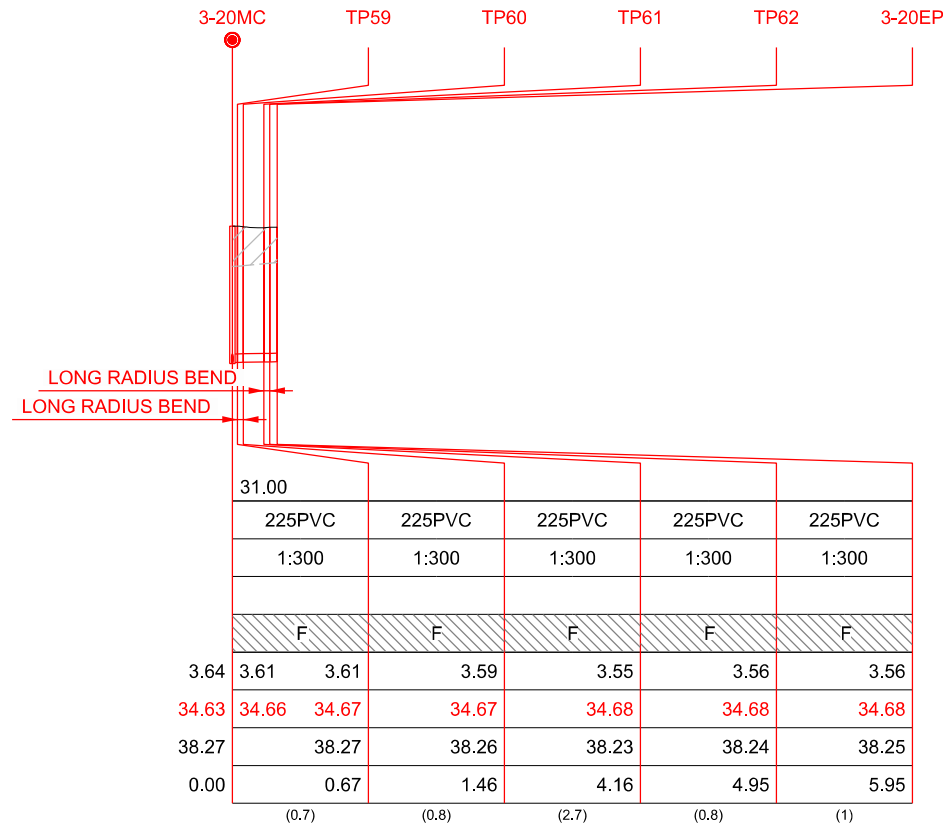

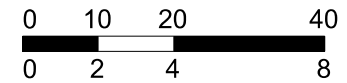


Figure 2: Type R Backfill

DATUM (m)	31.00		
PIPE DETAILS	150PVC		
GRADE	1:45		
EMBEDMENT			
BACKFILL TYPE	F		
DEPTH TO INVERT	3.11	1.70	1.74
INVERT LEVEL	34.99	36.40	36.51
FINISHED SURFACE LEVEL	38.10		38.25
CHAINAGE	0.00		5.02
LENGTH	(5)		



FILL SHOWN THUS: 
TENDERS SHOULD BE PREPARED ON THE BASIS THAT EARTHWORKS SHOWN SHADED SHOULD BE COMPLETED PRIOR TO THE COMMENCEMENT OF WORKS.



Scale H 1:1000 V 1:200 @ A3

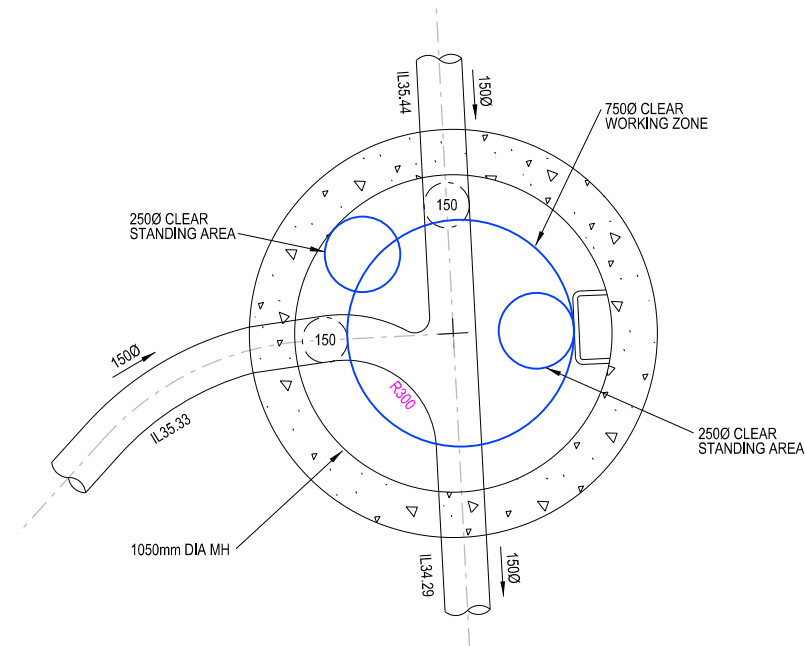
COLOUR LEGEND	
RED	SEWERAGE (NEW) INCLUDING NOTES
GREEN	PROPERTY CONNECTION TEXT
BLACK	FINISHED SURFACE PROPERTY CONNECTION PIPES
MAGENTA	EXISTING SEWERAGE
GREY	DRAINAGE
ORANGE	RETAINING WALLS
GREY	CUT & FILL (EARTHWORKS)

3	3-21 TO 3-21EP UPDATED	13-03-19	J KOEHLER			DESIGNED	R WEINBER	PROJECT NUMBER	LND/18/00373
2	3-21 TO 3-21EP UPDATED	29-01-19	J KOEHLER			DRAWN	D WEINBER	MELWAY REFERENCE	204 - E5
1	ISSUE TO CITY WEST WATER	30-11-18	J KOEHLER			CHECKED	J KOEHLER	AUTHORISED	J KOEHLER
0	CONSTRUCTION ISSUE	22-11-18	J KOEHLER						
REV	DESCRIPTION	DATE	APPROVED	REV	DESCRIPTION	DATE	APPROVED		



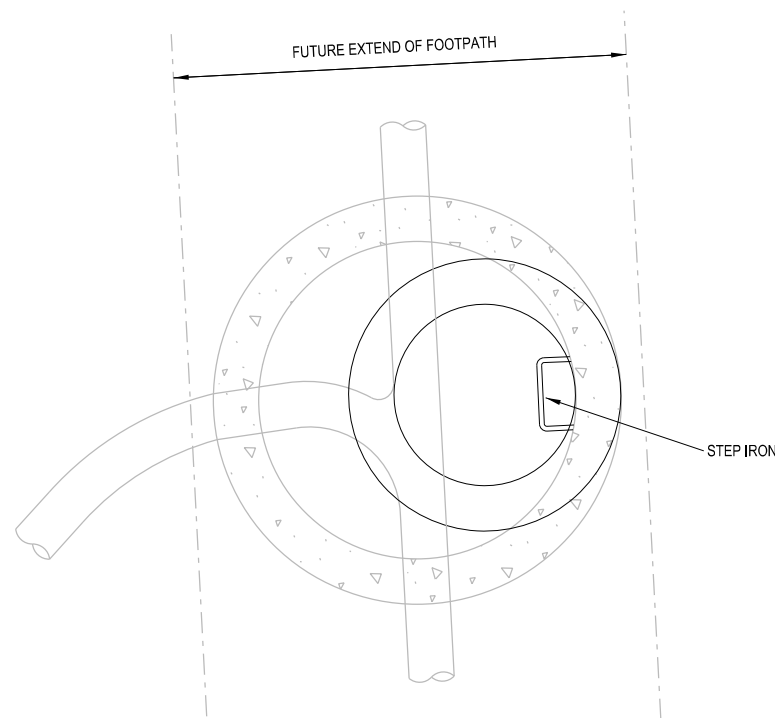
CITY WEST WATER
MUNICIPALITY OF WYNDHAM
MAMBOURIN ESTATE STAGE 3
SEWER RETICULATION, LND/18/00373
SEWER LONGITUDINAL SECTIONS - SHEET 5

SCALE: AS SHOWN @A3
SHEET: 8 OF 10
DRAWING No.: LND 18/00373-08
REV 3



MAINTENANCE HOLE 3-6 BASE ARRANGEMENT

Scale 1:25 @ A3



MAINTENANCE HOLE 3-6 COVER & FITTINGS ARRANGEMENT

Scale 1:25 @ A3

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B	Residential Subdivision 974 Black Forest Road Wyndham Vale Geotechnical Investigation including Pavement Design, Fill Specification and Recommendations for Sewers, Retaining Walls and Wetlands Our Reference: R6626											B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Imported granular materials	Optimum Backfill Material Description	Site or locally derived top sands/silts (this layer should match the adjacent soil profile)	Site or locally derived high to medium plastic clays (CH/CI) (this layer should match the adjacent soil profile)	Consideration could be given to granular materials (e.g. capping layer) in consultation with the superintendent. Imported granular materials should comply with CBR ≥ 15.0%, Swell<1.5%, Permeabilitys 1E-9 m/s	Backfill Material Requirements	1- Sands/silts are only to be used to replicate the surrounding soil profile. 2- Material free from organic or other deleterious material. 3- Particle size for rock not greater than 20 mm or for other than rock not greater than 75 mm. (Refer AS 2566.2-2002.)	1- Clayey soils are to be used to replicate the surrounding soil profile. 2- Material free from organic or other deleterious material. 3- Particle size for rock not greater than 20 mm or for other than rock not greater than 75 mm. 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