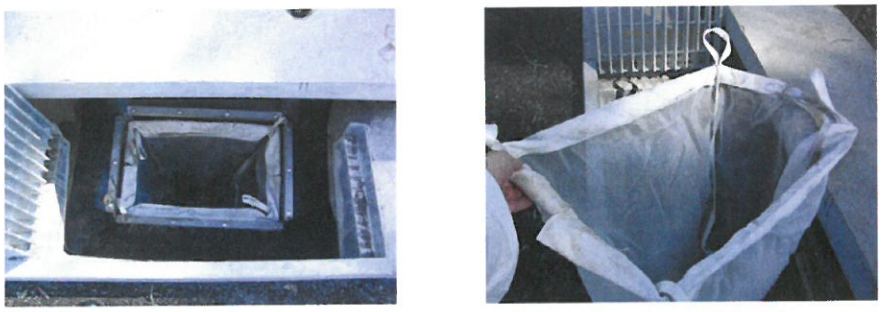

Figure 5-11 A typical Enviropod pit insert assembly (Source: Stormwater360)

Cleaning of the pit inserts is undertaken either manually or using a small vacuum truck. The cleaning frequency depends on the catchment type, size and expected pollutant loading. As a guide, a litter basket that services a 0.3 ha residential catchment and probably less for a highly urbanised catchment such as SICEEP will typically need cleaning approximately four times annually (personal communication with Stormwater 360).

Stormwater 360's Enviropod pit inserts were used in the MUSIC model all throughout the site as a primary treatment. Enviropods are usually used in tandem with the StormFilter system as part of the StormFilter and Enviropod (SFEP) treatment train. Treatment efficiencies of the Enviropod, when used in the SFEP system, in reducing gross pollutants, TSS, TN and TP are 100%, 54%, 21% and 30% respectively. These values are a result of a three-year field testing conducted in Kuranda Queensland that was funded by the Queensland Department of main Roads and peer reviewed by the Queensland University of Technology. Additional discussion about this field testing and its results are included in Appendix H.

Pit inserts may be substituted during design development by landscape features or alternative devices such as centralised GPTs. Further modelling will be undertaken during the design development stage, to investigate alternative solutions.

5.8.6 FILTER CARTRIDGE SYSTEMS

A filter cartridge system is a best management practice designed to remove a range of target pollutants including fine solids, soluble heavy metals, oils and total nutrients. Apart from meeting stringent regulatory requirements, these systems are usually installed below ground allowing savings in land space and hence increase development yield.

Filter systems can be configured to suit flat sites and sites with shallow groundwater levels. We note that the SICEEP PPP site is close to the Darling Harbour and salty groundwater could potentially inundate the system during high tide events.

An example filter cartridge system is the StormFilter product which is included in Appendix H.

5.8.7 GREEN ROOF SYSTEMS

A green roof is typically a modular a pre-vegetated engineered bioretention system that is easily installed onto the roofing membrane in a similar manner to readymade lawn products. These systems are prepared at local nurseries using localised plant stock for a few months prior to installation. This means that only strong, mature plants are installed onto the roof top. The system can also potentially be utilised for the sloping roofs of the entrance of the ICC Exhibition south building. An example green roof system is LiveRoof which is discussed in Appendix H.

5.9 POLLUTANT LOAD ESTIMATES

5.9.1 EXISTING AND BASE SCENARIOS

Table 5-15 Summary of estimated mean annual pollutant loads for the PPP, PDA & SICEEP sites

Criteria	Mean Annual Loads (kg/yr)			
	Gross Pollutants	TSS	TP	TN
Existing Conditions				
PPP Site	2690	15800	31.8	264
Proposed development Conditions (Without Treatment)				
PPP Site	2540	15900	31.6	256

Total annual pollutant load estimates were derived using MUSIC for the entire PPP site for both the Existing and Proposed development (Without Treatment) Conditions. The mean annual pollutant loads resulting from both the Existing and untreated Proposed development scenarios are similar with the latter scenario having equal or less mean annual loads in Gross Pollutants, TP and TN. The estimated annual pollutant loads for the PPP site under Existing and Proposed Development conditions are presented in Table 5-12.

5.9.2 PROPOSED DEVELOPMENT 'PRACTICAL' TREATMENT SCENARIO

Total annual pollutant load estimates were derived using MUSIC for the fivePPP subcatchments incorporating the proposed water quality treatment systems under the Practical scenario. The estimated annual pollutant loads and reductions for these subcatchments are presented in Table 5-13 to Table 5-17. Likewise, the aggregated annual pollutant loads and reductions for the entire PPP development are summarised in Table 5-18.

Table 5-16 Summary of estimated mean annual pollutant loads and reductions for the Bayside subcatchment *(Reporting Node in MUSIC model: SICEEP_Bay_2.220ha)*

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	614	3600	7.46	57.5
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	552.6	3060.0	4.8	25.9
Total Residual Load to Darling Harbour (kg/yr)	0.00	798.00	3.59	32.30
Total Reduction Achieved (kg/yr)	614.0	2802.0	3.9	25.2
Total Reduction Achieved (%)	**100%**	**78%**	**52%**	**44%**

Table 5-17 Summary of estimated mean annual pollutant loads and reductions for the North Exhibition subcatchment *(Reporting Node in MUSIC model: SICEEP_NthExh_2.780ha)*

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	781	2920	7.64	72
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	702.9	2482.0	5.0	32.4
Total Residual Load to Darling Harbour (kg/yr)	0.00	549.00	2.97	31.20
Total Reduction Achieved (kg/yr)	781.0	2371.0	4.7	40.8
Total Reduction Achieved (%)	**100%**	**81%**	**61%**	**57%**

Table 5-18 **Summary of estimated mean annual pollutant loads and reductions for the South Exhibition subcatchment** *(Reporting Node in MUSIC model: SICEEP_SthExh_1.703ha)*

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	387	3370	5.75	38.5
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	348.3	2864.5	3.7	17.3
Total Residual Load to Darling Harbour (kg/yr)	0.00	580.00	2.35	20.80
Total Reduction Achieved (kg/yr)	387.0	2790.0	3.4	17.7
Total Reduction Achieved (%)	**100%**	**83%**	**59%**	**46%**

Table 5-19 **Summary of estimated mean annual pollutant loads and reductions for The Theatre subcatchment** *(Reporting Node in MUSIC model: SICEEP_Thea_1.517ha)*

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	406	1620	4.04	37.9
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	365.4	1377.0	2.6	17.1
Total Residual Load to Darling Harbour (kg/yr)	0.00	337.00	1.61	14.20
Total Reduction Achieved (kg/yr)	406.0	1283.0	2.4	23.7
Total Reduction Achieved (%)	**100%**	**79%**	**60%**	**63%**

Table 5-20 Summary of estimated mean annual pollutant loads and reductions for the Tumbalong Park subcatchment *(Reporting Node in MUSIC model: SICEEP_Tum_2.553ha)*

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	394	3350	5.71	45.1
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	354.6	2847.5	3.7	20.3
Total Residual Load to Darling Harbour (kg/yr)	0.00	413.00	2.07	22.50
Total Reduction Achieved (kg/yr)	394.0	2937.0	3.6	22.6
Total Reduction Achieved (%)	**100%**	**88%**	**64%**	**50%**

Table 5-18 Summary of estimated mean annual pollutant loads and reductions for the PPP development

Criteria	Pollutant			
	Gross Pollutants	TSS	TP	TN
Total Development Source Loads (kg/yr)	2582	14860	30.6	251
Minimum Reduction Required (%)	**90%**	**85%**	**65%**	**45%**
Minimum Reduction Required (kg/yr)	2323.8	12631.0	19.9	113.0
Total Residual Load to Darling Harbour (kg/yr)	0.00	2677.00	12.59	121.00
Total Reduction Achieved (kg/yr)	2582.0	12183.0	18.0	130.0
Total Reduction Achieved (%)	**100%**	**82%**	**59%**	**52%**

5.9.3 PROPOSED DEVELOPMENT 'DESIRABLE' TREATMENT SCENARIO

The MUSIC models for the five subcatchments that incorporated the 'desirable' treatment approach predicted the mean annual pollutant loads that will be discharged from the respective subcatchments. The estimated annual pollutant loads and reductions for these subcatchments are presented in Appendix H.

Taken altogether, the MUSIC modelling for the Proposed Development 'Desirable' Treated Scenario has demonstrated that the 'full blown' water quality management strategy in the PPP site will result in achieving the required pollutant reduction levels for all pollutants.

5.10 CONCLUSIONS & RECOMMENDATIONS

5.10.1 EXISTING AND BASE SCENARIOS

Results of the MUSIC modelling for the Existing and Base Scenarios show that pollutant loadings in the latter scenario are slightly less than the former scenario. This is a result of the overall slight reduction in imperviousness of the proposed development due to the introduction of more landscaped areas and a landscaped roof.

5.10.2 PROPOSED DEVELOPMENT 'PRACTICAL' TREATMENT SCENARIO

PPP Development

Taken altogether, the MUSIC modelling for the Proposed Development 'Practical' Treated Scenario has demonstrated that the proposed water quality management strategy in the PPP subcatchments will result in achieving the required pollutant reduction levels for Gross Pollutants and Total Nitrogen. With such reductions, pollutant levels in this scenario are lower than the pollutant levels obtained from the Existing and Base Scenario models. There is 100% retention of Gross Pollutants and 52% retention of Total Nitrogen from the entire SICEEP PPP site; both of which are higher than the 90% and 45% reduction targets set by City of Sydney Council for Gross Pollutants and TN respectively. Taken individually, with 44% reduction achieved, only the Bayside subcatchment is marginally less than the 45% required reduction in TN.

The MUSIC modelling for the Proposed development 'Practical' Treated Scenario has also demonstrated that the proposed water quality management strategy in the PPP subcatchments will result in lower levels of TSS and TP compared to values resulting from the Existing and Base Scenarios. The reduction levels for the entire PPP catchment for TSS and TP are very close to meeting targets set by Council for TSS and TP respectively.

Collectively, the performance of the proposed water quality management strategy for the proposed PPP development obtained from the MUSIC model, as summarised in Table 5-19 shows that:

- In order to achieve the objective of a 90% reduction in Gross Pollutants from the proposed PPP development, the minimum Gross Pollutants reduction is 2,324 kg/yr. The MUSIC modelling predicts that Gross Pollutants are reduced by 2,582 kg/yr. The water quality management strategy therefore achieves the target reduction for Gross Pollutants.

- In order to achieve the objective of an 85% reduction in TSS from the proposed PPP development, the minimum TSS reduction is 12,631 kg/yr. The MUSIC modelling predicts that TSS is reduced by 12,183 kg/yr. The water quality management strategy therefore achieves a large proportion (96.4%) of the target reduction for TSS.
- In order to achieve the objective of a 65% reduction in TP from the proposed PPP development, the minimum TP reduction is 20 kg/yr. The MUSIC modelling predicts that TP is reduced by 18 kg/yr. The water quality management strategy therefore achieves a large proportion (90%) of the target reduction for TP.
- In order to achieve the objective of a 45% reduction in TN from the proposed PPP development, the minimum TN reduction is 113 kg/yr. The MUSIC modelling predicts that TN is reduced by 130 kg/yr. The water quality management strategy therefore achieves the target reduction for TN.

The combination of rainwater tanks, bioretention systems, green roofs, and proprietary devices (i.e. Enviropods and StormFilters), as elements of the Stormwater Quality Management Strategy for the proposed SICEEP PPP development, will exceed the pollution reduction targets for Gross Pollutants and TN specified in the Director General's Requirements and the City of Sydney Council's 2012 DCP. The Strategy however did not achieve the required reduction targets for TSS and TP.

5.10.3 PROPOSED DEVELOPMENT 'DESIRABLE' TREATMENT SCENARIO

The MUSIC modelling for the Proposed Development 'Desirable' Treated Scenario has demonstrated that the 'full blown' water quality management strategy in the PPP site will result in achieving the required pollutant reduction levels for all pollutants. A number of the treatment devices however would not be practicable in consideration of the current design requirements and configurations. This treatment scenario will be subject to reassessment in the future when necessary.

5.10.4 RECOMMENDATIONS

The water quality analysis demonstrates the Practical stormwater quality management concept proposed for SICEEP PPP development achieves significant reduction in annual pollutant loads compared to the Existing Scenario. Furthermore, the Practical Scenario generally complies with the set pollutant reduction targets.

This report would recommend that a similar level of treatment is adopted for the PPP development.

6 REFERENCES

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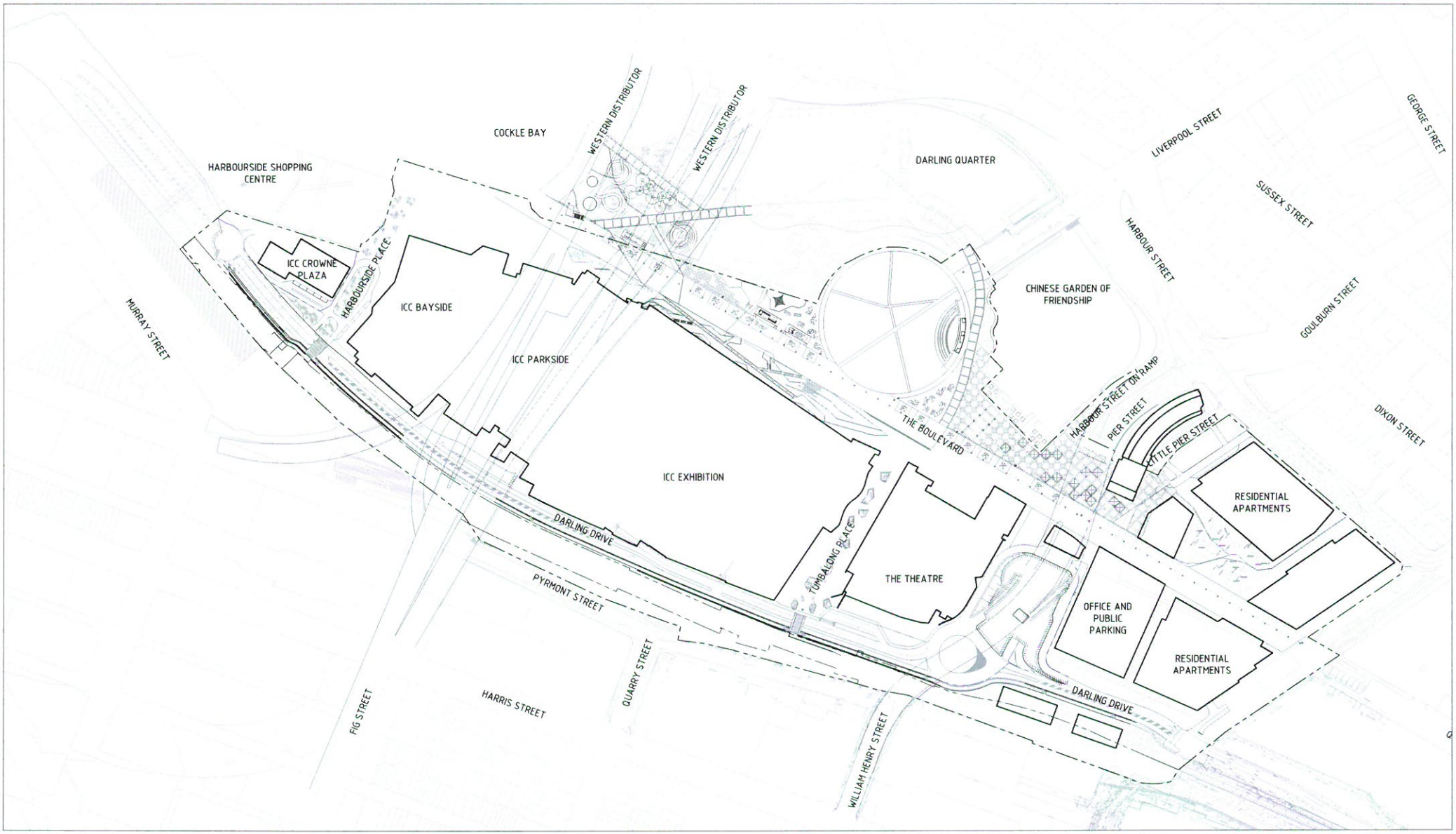
APPENDIX A

PROPOSED DEVELOPMENT CONCEPT LAYOUT



SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

DARLING HARBOUR LIVE

REFERENCE MAP

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NOTES:

1. DO NOT SCALE FROM DRAWINGS. WORK TO WRITTEN DIMENSIONS ONLY.
2. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
3. ALL COORDINATES TO MGA. ALL LEVELS TO AHD.
4. ALL DIMENSIONS, COORDINATES AND LEVELS TO BE VERIFIED ON SITE BEFORE PROCEEDING WITH WORK. HYDER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
5. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTS, SPECIFICATIONS AND DRAWINGS.
6. PRECINCT BOUNDARIES ARE INDICATIVE ONLY AND ARE SUBJECT TO CHANGE.

REV	DESCRIPTION	DATE

CLIENT
Lend Lease
PROJECT MANAGEMENT & CONSTRUCTION
LEVEL 4, THE BOND, 30 HICKSON RD
MILLERS POINT, NSW 2000

CONSULTANTS
AECOM
MECHANICAL / ELECTRICAL / FIRE SERVICES
LEVEL 21, 420 GEORGE ST, SYDNEY
NSW 2000

RobertBirdGroup
STRUCTURAL SERVICES
LEVEL 5, 9 CASTLEREAGH ST, SYDNEY
NSW 2000

HASSELL + POPULOUS
ARCHITECTS
LEVEL [illegible] SUTHERLAND STREET,
SYDNEY [illegible]

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Fax: +61 (0)2 8907 9001
www.hyderconsulting.com

Hyder

PROJECT
SICEEP
DARLING HARBOUR
PRIVATE PUBLIC PARTNERSHIP (PPP)

DRAWING TITLE
GENERAL ARRANGEMENT PLAN
WHOLE OF PRECINCT

STATUS
SKETCH

SCALE @ A1	DRAWN	DESIGNED	REVIEWED	APPROVED
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PROJECT NUMBER	DRAWING NUMBER	REV
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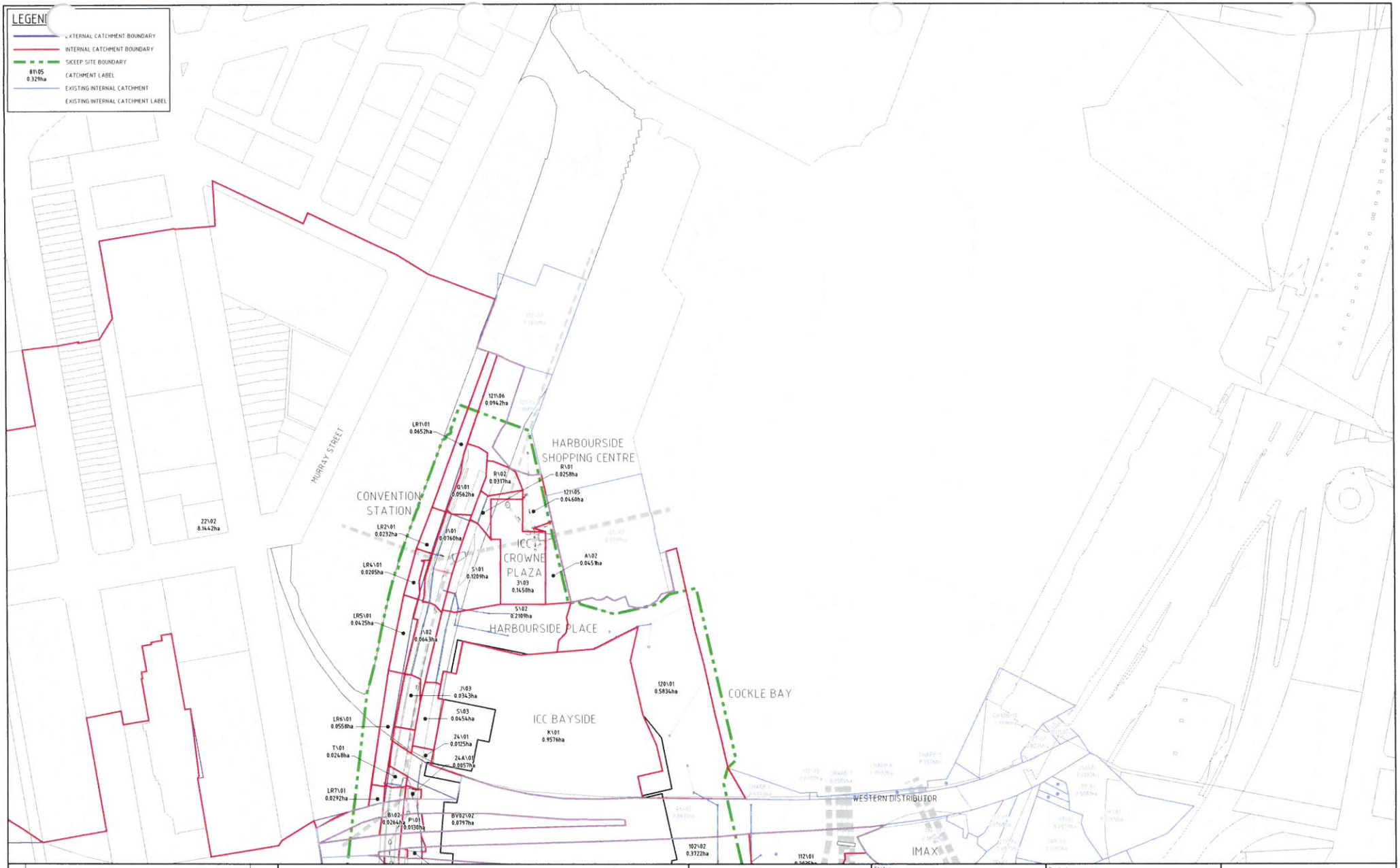
Date Plotted: 7 Mar 2013 - 05:02PM F:\AA004399\E-CADC-Civil\8-Sketches\SKC298-AA004399-NSX-00-OverallGeneralArrangementPlan.dwg

Original Sheet Size A1 - 841 x 594mm

APPENDIX B

DRAINS MODEL PROPOSED DEVELOPMENT INPUTS & OUTPUTS

Proposed Catchment Plans



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Status: **PRELIMINARY** NOT TO BE USED FOR CONSTRUCTION

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Original Size	A1	Designed	P.SLOAN
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	
Filename:			

Project: SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

Title: PROPOSED INTERNAL CATCHMENT PLAN SHEET 1

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Drawing No.	Project No.	Issue
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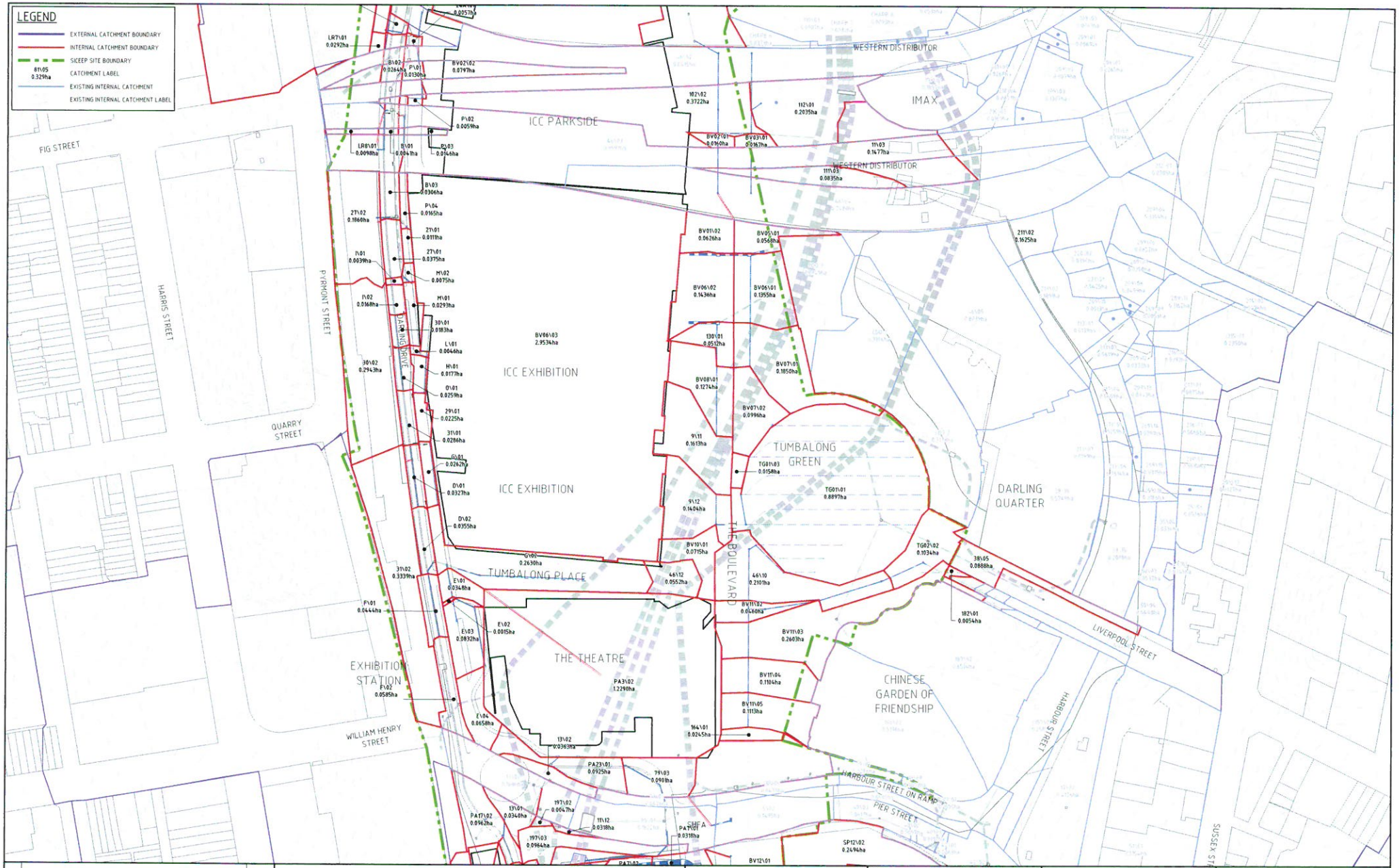

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Client: Lend Lease

Status: PRELIMINARY
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		Drawn	R.DIESTA
Original Size	A1	Designed	P.SLOAN
Height Datum	AHD	Checked	C.McCLELLAND
Grid		Approved	

Project: SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

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Drawing No. SKC294 — | Project No. 4399 — | Issue P1

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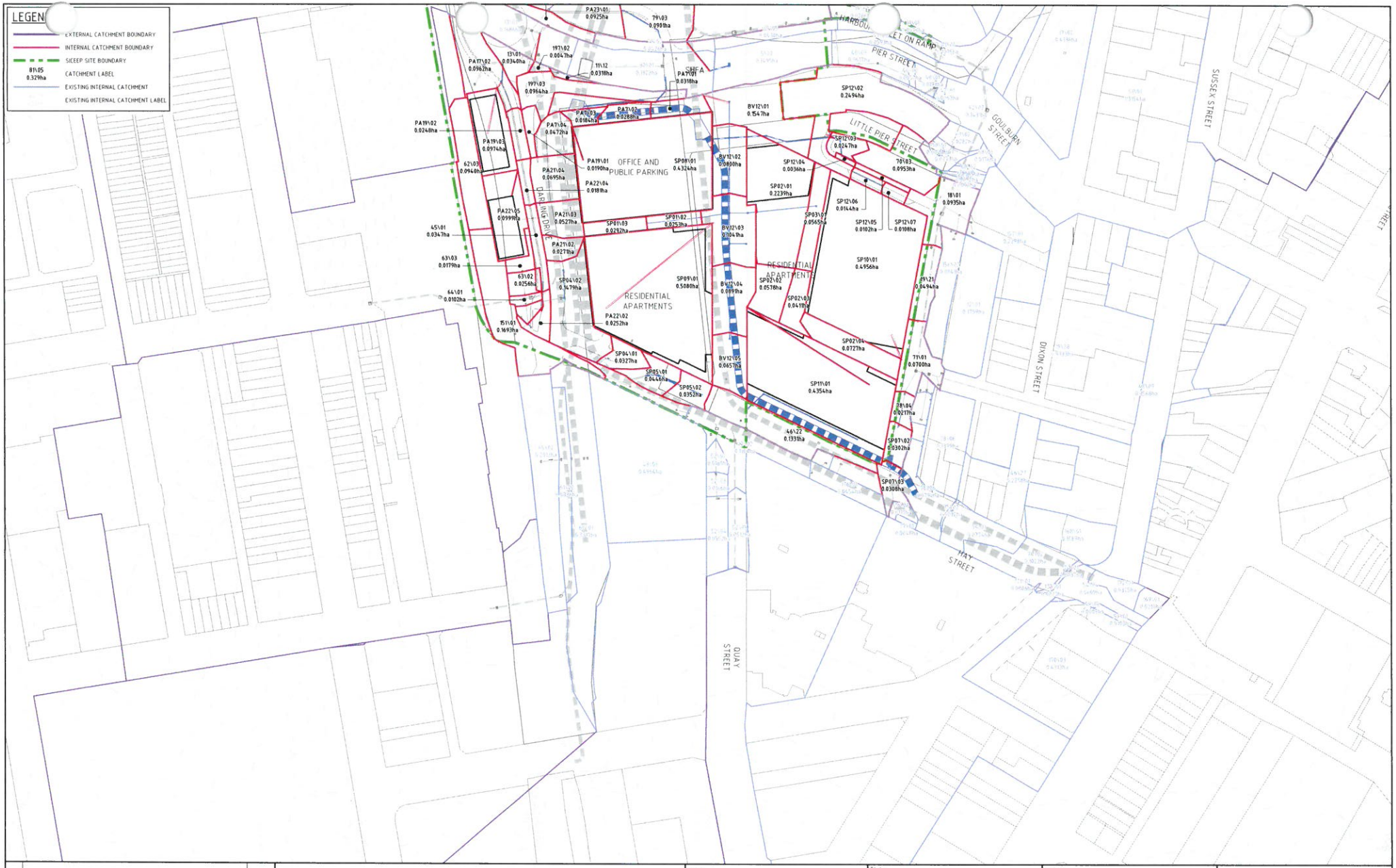

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Issue	Description	Date

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Client: Lend Lease

Status: **PRELIMINARY**
NOT TO BE USED FOR CONSTRUCTION

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Project: SYDNEY INTERNATIONAL CONVENTION, EXHIBITION AND ENTERTAINMENT PRECINCT

Title: PROPOSED INTERNAL CATCHMENT PLAN SHEET 3

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Drawing No.	Project No.	Issue
SKC295	— AA004399 —	P1

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Proposed DRAINS Model Inputs

Hyder

PROJECT: SICEEP DARLING HARBOUR
TITLE: DRAINS DATA
JOB No: AA004399
PREPARED: CM
DATE: 4/03/2013
CHECKED:
DATE:

DATA

DRAINS File Path:	F:\AA004399\D-Calcs\A-Civil\A-Stormwater\A-DRAINS
DRAINS Version:	DRAINS Version 2012.12 - 10 October 2012
Modeller's Name:	Chris McClelland
Description:	Proposed Development

PIT / NODE DETAILS — Version 11

Name	Type	Family	Size	Ponding Volume (cu.m)	Pressure Change Coeff. Ku	Surface Elev (m)	Max Pond Depth (m)	Base Inflow (cu.m/s)	Blocking Factor	x	y	Bolt-down lid	id	Part Full Shock Loss
1\24	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.265		0	0	333714.21	6249566.20	No	1	1 x Ku
1\23	OnGrade	Existing City of S	Junction Pit		0.0	4.421		0	0.3	333715.81	6249567.02	No	2	1 x Ku
1\22	OnGrade	Existing City of S	Junction Pit		0.0	4.424		0	0.3	333717.37	6249571.61	No	3	1 x Ku
1\21	OnGrade	Existing City of S	Junction Pit		0.0	4.09		0	0.3	333692.17	6249625.50	No	4	1 x Ku
1\20	OnGrade	Existing City of S	Junction Pit		0.0	3.991		0	0.3	333688.94	6249634.58	No	5	1 x Ku
1\19	OnGrade	Existing City of S	Junction Pit		0.3	3.697		0	0.3	333681.29	6249665.28	No	6	1 x Ku
1\18	OnGrade	Existing City of S	Junction Pit		0.0	3.456		0	0.3	333674.90	6249690.86	No	7	1 x Ku
1\17	OnGrade	Existing City of S	Junction Pit		0.0	3.383		0	0.3	333672.34	6249698.48	No	8	1 x Ku
1\16	OnGrade	Existing City of S	Junction Pit		0.1	3.161		0	0.3	333657.67	6249732.65	No	9	1 x Ku
1\15	OnGrade	Existing City of S	Junction Pit		0.0	3.24		0	0.3	333648.67	6249753.62	No	10	1 x Ku
1\14	OnGrade	Existing City of S	Junction Pit		0.0	3.221		0	0.3	333644.68	6249770.84	No	11	1 x Ku
1\13	OnGrade	Existing City of S	Junction Pit		0.9	3.223		0	0.3	333644.18	6249780.73	No	12	1 x Ku
1\12	OnGrade	Existing City of S	Junction Pit		0.0	3.095		0	0.3	333643.63	6249797.04	No	13	1 x Ku
1\11	OnGrade	Existing City of S	Junction Pit		0.1	3.321		0	0.3	333639.81	6249814.31	No	14	1 x Ku
1\10	OnGrade	Existing City of S	Junction Pit		0.0	3.976		0	0.3	333607.78	6249888.71	No	15	1 x Ku
1\09	OnGrade	Existing City of S	Junction Pit		0.0	3.644		0	0.3	333591.46	6249926.61	No	16	1 x Ku
1\08	OnGrade	Existing City of S	Junction Pit		0.0	2.759		0	0.3	333587.59	6249950.86	No	17	1 x Ku
1\07	OnGrade	Existing City of S	Junction Pit		0.0	4.051		0	0.3	333590.24	6249980.15	No	18	1 x Ku
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1\02	OnGrade	Existing City of S	Junction Pit		0.0	2.51		0	0.3	333617.60	6250393.69	No	23	1 x Ku
1\01	Node					0.78		0		333606.13	6250424.238		24	
5\03	OnGrade	Existing City of S	Junction Pit		4.0	3.269		0	0.3	333714.00	6249992.71	No	25	1 x Ku
5\02	OnGrade	Existing City of S	1.00m x 1.00m Grate		3.3	2.23		0	0.3	333696.56	6249982.90	No	26	1 x Ku
5\01	OnGrade	Existing City of S	Junction Pit		1.3	2.105		0	0.3	333672.47	6249969.27	No	27	1 x Ku
46\17	OnGrade	Existing City of S	Junction Pit		0.1	10		0	0.3	333663.10	6249965.89	No	211	1 x Ku
46\16	OnGrade	Existing City of S	Junction Pit		0.0	10		0	0.3	333658.69	6249976.39	No	212	1 x Ku
46\15	OnGrade	Existing City of S	Junction Pit		0.3	2.699		0	0.3	333651.69	6249994.28	No	213	1 x Ku
46\14	OnGrade	Existing City of S	Junction Pit		0.1	2.593		0	0.3	333647.05	6250006.17	No	214	1 x Ku
46\13	OnGrade	Existing City of S	Junction Pit		0.0	2.53		0	0.3	333640.22	6250023.65	No	215	1 x Ku
46\12	OnGrade	Existing City of S	Junction Pit		0.0	5.692		0	0.3	333616.25	6250085.05	No	216	1 x Ku
46\11	OnGrade	Existing City of S	Junction Pit		0.0	5.452		0	0.3	333617.13	6250094.45	No	217	1 x Ku
46\10	OnGrade	Existing City of S	Junction Pit		1.5	2.665		0	0.3	333633.04	6250117.35	No	218	1 x Ku
46\09	OnGrade	Existing City of S	Junction Pit		0.1	3.759		0	0.3	333646.04	6250136.93	No	219	1 x Ku
46\08	OnGrade	Existing City of S	Junction Pit		0.1	3.578		0	0.3	333650.31	6250143.36	No	220	1 x Ku
46\07	OnGrade	Existing City of S	Junction Pit		0.1	2.691		0	0.3	333681.58	6250190.48	No	221	1 x Ku
46\06	OnGrade	Existing City of S	Junction Pit		0.3	3.135		0	0.3	333690.95	6250204.59	No	222	1 x Ku
46\05	OnGrade	Existing City of S	Junction Pit		0.5	3.846		0	0.3	333695.39	6250218.46	No	223	1 x Ku
46\04A	OnGrade	Existing City of S	Junction Pit		0.1	3.846		0	0.3	333697.57	6250246.35	No	472066755	1 x Ku
46\04	OnGrade	Existing City of S	Junction Pit		0.1	2.8		0	0.3	333706.31	6250358.45	No	224	1 x Ku
46\03	OnGrade	Existing City of S	Junction Pit		0.1	2.893		0	0.3	333699.75	6250381.66	No	225	1 x Ku
46\02	OnGrade	Existing City of S	Junction Pit		0.1	2.8		0	0.3	333686.29	6250417.72	No	226	1 x Ku
46\01	Node					1.213		0		333645.66	6250440.017		227	
7\03	OnGrade	Existing City of S	Junction Pit		4.0	4.853		0	0.3	333506.62	6249988.49	No	30	1 x Ku
7\02	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		2.3	5.11		0	0.3	333507.28	6249984.58	No	31	1 x Ku
7\01	OnGrade	Existing City of S	Junction Pit		2.3	5.067		0	0.3	333506.15	6249983.07	No	32	1 x Ku
8\04	OnGrade	Existing City of S	Junction Pit		0.1	4.867		0	0.3	333508.05	6249980.07	No	35	1 x Ku
8\03	OnGrade	Existing City of S	Junction Pit		0.0	5.063		0	0.3	333509.04	6249983.56	No	36	1 x Ku
8\02	OnGrade	Existing City of S	Junction Pit		0.0	3.732		0	0.3	333513.15	6249993.27	No	37	1 x Ku
8\01	OnGrade	Existing City of S	Junction Pit		0.0	3.767		0	0.3	333530.21	6250003.62	No	38	1 x Ku
9\16	OnGrade	Existing City of S	Junction Pit		0.3	4.131		0	0.3	333534.28	6250007.91	No	48	1 x Ku
9\15	OnGrade	Existing City of S	Junction Pit		0.0	5.783		0	0.3	333536.69	6250027.40	No	49	1 x Ku
9\14	OnGrade	Existing City of S	Junction Pit		0.0	10		0	0.3	333586.02	6250128.30	No	50	1 x Ku
9\13	OnGrade	Existing City of S	Junction Pit		0.0	5.706		0	0.3	333589.84	6250141.35	No	51	1 x Ku
9\12	OnGrade	Existing City of S	Junction Pit		0.0	5.494		0	0.3	333591.87	6250146.54	No	52	1 x Ku
9\11	OnGrade	Existing City of S	Junction Pit		0.1	3.855		0	0.3	333601.60	6250200.44	No	53	1 x Ku
9\10	OnGrade	Existing City of S	Junction Pit		0.0	2.731		0	0.3	333609.85	6250246.13	No	54	1 x Ku
9\09	OnGrade	Existing City of S	Junction Pit		0.0	2.453		0	0.3	333610.97	6250256.09	No	55	1 x Ku
9\08	OnGrade	Existing City of S	Junction Pit		0.1	2.458		0	0.3	333611.03	6250260.29	No	56	1 x Ku
9\07	OnGrade	Existing City of S	Junction Pit		0.3	2.462		0	0.3	333611.15	6250268.77	No	57	1 x Ku
9\06	OnGrade	Existing City of S	Junction Pit		0.3	3.358		0	0.3	333611.58	6250298.20	No	58	1 x Ku
9\05	OnGrade	Existing City of S	Junction Pit		0.0	3.043		0	0.3	333612.37	6250352.54	No	59	1 x Ku
9\04	OnGrade	Existing City of S	Junction Pit		0.1	3.366		0	0.3	333612.54	6250364.32	No	60	1 x Ku
9\03	OnGrade	Existing City of S	Junction Pit		0.0	3.298		0	0.3	333612.62	6250369.74	No	61	1 x Ku
9\02	OnGrade	Existing City of S	Junction Pit		0.0	2.466		0	0.3	333610.81	6250394.54	No	62	1 x Ku
9\01	Node					1.211		0		333601.102	6250423.168		63	
8\06	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.958		0	0	333511.13	6249964.01	No	33	1 x Ku
8\05	OnGrade	Existing City of S	Junction Pit		0.1	4.817		0	0.3	333508.19	6249971.61	No	34	1 x Ku
11\43	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.264		0	0	333999.36	6249749.08	No	68	1 x Ku
11\42	Sag	Existing City of S	Junction Pit	5	0.1	3.875	0.1	0	0.5	333986.80	6249751.02	No	69	1 x Ku
11\41	Sag	Existing City of S	Junction Pit	5	0.1	3.762	0.2	0	0.5	333980.13	6249752.05	No	70	1 x Ku
11\40	Sag	Existing City of S	Junction Pit	5	0.1	3.713	0.3	0	0.5	333976.13	6249752.67	No	71	1 x Ku
11\39	Sag	Existing City of S	Junction Pit	5	1.2	3.553	0.5	0	0.5	333967.31	6249755.56	No	72	1 x Ku
11\38	Sag	Existing City of S	Junction Pit	5	0.1	3.539	0.5	0	0.5	333954.41	6249754.67	No	73	1 x Ku
11\37	Sag	Existing City of S	Junction Pit	5	0.1	3.575	0.4	0	0.5	333950.98	6249753.66	No	74	1 x Ku
11\36	Sag	Existing City of S	Junction Pit	5	0.3	3.613	0.3	0	0.5	333948.00	6249752.79	No	75	1 x Ku
11\35	Sag	Existing City of S	Junction Pit	5	0.3	3.641	0.4	0	0.5	333944.42	6249751.74	No	76	1 x Ku
11\34	Sag	Existing City of S	Junction Pit	5	0.0	3.67	0.3	0	0.5	333940.68	6249750.64	No	77	1 x Ku
11\33	Sag	Existing City of S	Junction Pit	5	0.1	3.743	0.3	0	0.5	333937.22	6249749.84	No	78	1 x Ku
11\32	Sag	Existing City of S	Junction Pit	5	0.0	3.765	0.3	0	0.5	333927.68	6249749.77	No	79	1 x Ku
11\31	OnGrade	Existing City of S	Junction Pit		0.1	3.604		0	0.3	333844.25	6249762.57	No	80	1 x Ku
11\30	OnGrade	Existing City of S	Junction Pit		0.0	3.522		0	0.3	333837.52	6249763.60	No	81	1 x Ku
11\29	OnGrade	Existing City of S	Junction Pit		0.0	3.294		0	0.3	333809.68	6249767.88	No	82	1 x Ku
11\28	OnGrade	Existing City of S	Junction Pit		0.1	3.208		0	0.3	333797.90	6249769.68	No	83	1 x Ku
11\27	OnGrade	Existing City of S	Junction Pit		0.1	3.177		0	0.3	333794.63	6249770.19	No	84	1 x Ku
11\26	OnGrade	Existing City of S	Junction Pit		0.0	2.844		0	0.3	333758.34	6249775.76	No	85	1 x Ku
11\25	OnGrade	Existing City of S	Junction Pit		0.1	2.757		0	0.3	333747.65	6249777.04	No	86	1 x Ku
11\24	OnGrade	Existing City of S	Junction Pit		0.1	2.727		0	0.3	333743.86	6249777.49	No	87	1 x Ku
11\23	OnGrade	Existing City of S	Junction Pit		0.1	2.656		0	0.3	333733.22	6249778.77	No	88	1 x Ku
11\22	OnGrade	Existing City of S	Junction Pit		0.1	2.624		0	0.3	333712.28	6249781.28	No	89	1 x Ku
11\21	OnGrade	Existing City of S	Junction Pit		0.3	2.789		0	0.3	333679.50	6249785.20	No	90	1 x Ku
11\20	OnGrade	Existing City of S	Junction Pit		0.0	2.833		0	0.3	333673.54	6249785.92	No	91	1 x Ku
11\19	OnGrade	Existing City of S	Junction Pit		0.1	2.908		0	0.3	333663.92	6249788.76	No	92	1 x Ku
11\18	OnGrade	Existing City of S	Junction Pit		0.1	2.937		0	0.3	333659.36	6249791.52	No	93	1 x Ku
11\17	OnGrade	Existing City of S	Junction Pit		0.0	3.292		0	0.3	333649.55	6249803.84	No	94	1 x Ku
11\16	OnGrade	Existing City of S	Junction Pit		1.2	3.717		0	0.3	333647.01	6249809.77	No	95	1 x Ku
11\15	OnGrade	Existing City of S	Junction Pit		0.0	10		0	0.3	333645.72	6249816.85	No	96	1 x Ku
11\14	OnGrade	Existing City of S	Junction Pit		0.0	10		0	0.3	333613.69	6249891.25	No	97	1 x Ku
11\13	OnGrade	Existing City of S	Junction Pit		0.0	10		0	0.3	333611.73	6249895.79	No	98	1 x Ku
11\12	OnGrade	Existing City of S	0.80m x 0.80m Grate		0.0	10		0	0.3	333610.35	6249901.12	No	99	1 x Ku
11\11	OnGrade	Existing City of S	Junction Pit		1.0	2.293		0	0.3	333605.40	6249950.47	No	100	1 x Ku
11\10	OnGrade	Existing City of S	Junction Pit		0.0	2.327		0	0.3	333605.18	6249957.19	No	101	1 x Ku
11\09	OnGrade	Existing City of S	Junction Pit		0.0	4.945		0	0.3	333605.80	6249974.82	No	102	1 x Ku
11\08	OnGrade	Existing City of S	Junction Pit		0.0	3.605		0	0.3	333611.76	6250143.45	No	103	1 x Ku
11\07	OnGrade	Existing City of S	Junction Pit		0.0	2.732		0	0.3	333612.40	6250149.62	No	104	1 x Ku
11\06	OnGrade	Existing City of S	Junction Pit		0.0	2.625		0	0.3	333617.15	6250178.63	No	105	1 x Ku
11\05	OnGrade	Existing City of S	Junction Pit		0.0	3.179		0	0.3	333632.11	6250269.28	No	106	1 x Ku
11\04	OnGrade	Existing City of S	Junction Pit		0.0	3.071		0	0.3	333632.80	6250280.98	No	107	1 x Ku
11\03A	OnGrade	Existing City of S	Junction Pit		0.1	2.716		0	0	333625.61	6250378.04	No	3567	1 x Ku
11\03	OnGrade	Existing City of S	Junction Pit		0.0	2.716		0	0.3	333624.77	6250389.32	No	108	1 x Ku
11\02	OnGrade	Existing City of S	Junction Pit		0.0	2.531		0	0.3	333624.36	6250394.94	No	109	1 x Ku
11\01	Node					0.78		0		333612.161	6250424.786		110	
12\01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.154		0	0	333850.79	6249842.83	No	111	1 x Ku
19\26	OnGrade	Existing City of S	Junction Pit		0.3	3.134		0	0.3	333849.28	6249839.96	No	129	1 x Ku
19\25	OnGrade	Existing City of S	Junction Pit		0.0	3.136		0	0.3	333846.52	6249839.90	No	130	1 x Ku
19\24	OnGrade	Existing City of S	Junction Pit		0.3	3.142		0	0.3	333843.84	6249839.80	No	131	1 x Ku
19\23	OnGrade	Existing City of S	Junction Pit		1.5	2.974		0	0.3	333836.11	6249839.52	No	132	1 x Ku
19\22	OnGrade	Existing City of S	Junction Pit		1.5	2.834		0	0.3	333831.82	6249888.26	No	133	1 x Ku
19\21	OnGrade	Existing City of S	Junction Pit		1.2	2.702		0	0.3	333825.43	6249911.08	No	134	1 x Ku
19\20	OnGrade	Existing City of S	Junction Pit		0.1	2.68		0	0.3	333823.54	6249923.79	No	135	1 x Ku
19\19	OnGrade	Existing City of S	Junction Pit		0.1	2.536		0	0.3	333823.66	6249930.49	No	136	1 x Ku
19\18	OnGrade	Existing City of S	Junction Pit		0.2	2.455		0	0.3	333824.17	6249934.92	No	137	1 x Ku
19\17	OnGrade	Existing City of S	Junction Pit		0.8	2.337		0	0.3	333826.43	6249954.39	No	138	1 x Ku
19\16	OnGrade	Existing City of S	Junction Pit		0.1	2.342		0	0.3	333827.29	6249961.78	No	139	1 x Ku
19\15	OnGrade	Existing City of S	Junction Pit		0.1	2.348		0	0.3	333827.51	6249963.72	No	140	1 x Ku
19\14	OnGrade	Existing City of S	Junction Pit		0.1	2.365		0	0.3	333827.63	6249966.46	No	141	1 x Ku
19\13	OnGrade	Existing City of S	Junction Pit		0.5	2.604		0	0.3	333831.14	6249994.97	No	142	1 x Ku
19\12	OnGrade	Existing City of S	Junction Pit		1.0	2.617		0	0.3	333821.91	6250016.03	No	143	1 x Ku
19\11	OnGrade	Existing City of S	Junction Pit		0.3	2.568		0	0.3	333818.63	6250016.65	No	144	1 x Ku
19\10	Sag	Existing City of S	Junction Pit	5	0.6	2.394	0.1	0	0.5	333796.32	6250020.87	No	145	1 x Ku
19\09	OnGrade	Existing City of S	Junction Pit		1.5	2.512		0	0.3	333788.57	6250022.55	No	146	1 x Ku

19/08	OnGrade	Existing City of S	Junction Pit		0.1	2.438			0	0.3	333768.82	6250024.43	No	147	1 x Ku
19/07	OnGrade	Existing City of S	Junction Pit		0.3	2.766			0	0.3	333750.73	6250023.60	No	148	1 x Ku
19/06	OnGrade	Existing City of S	Junction Pit		0.1	2.4			0	0.3	333733.33	6250019.29	No	149	1 x Ku
19/05	OnGrade	Existing City of S	Junction Pit		0.1	2.403			0	0.3	333717.88	6250012.13	No	150	1 x Ku
19/04	OnGrade	Existing City of S	Junction Pit		0.1	2.309			0	0.3	333706.38	6250006.81	No	151	1 x Ku
19/03	OnGrade	Existing City of S	Junction Pit		0.1	2.532			0	0.3	333687.03	6249997.84	No	152	1 x Ku
19/02	OnGrade	Existing City of S	Junction Pit		0.0	2.505			0	0.3	333679.86	6249994.53	No	153	1 x Ku
19/01	OnGrade	Existing City of S	Junction Pit		0.1	2.424			0	0.3	333669.60	6249989.63	No	154	1 x Ku
13/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.032			0	0.3	333576.77	6249966.48	No	112	1 x Ku
13/01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	2.893			0	0	333573.03	6249960.93	No	113	1 x Ku
10/01	OnGrade	Existing City of S	Junction Pit		2.6	3.129			0	0.3	333568.12	6249960.87	No	67	1 x Ku
9/18	OnGrade	Existing City of S	0.80m x 0.80m Grate		0.1	3.524			0	0.3	333561.08	6249961.90	No	46	1 x Ku
9/17	OnGrade	Existing City of S	Junction Pit		0.0	3.862			0	0.3	333538.28	6249998.08	No	47	1 x Ku
15/04	OnGrade	Existing City of S	Junction Pit		0.0	4.917			0	0.3	333536.68	6249929.58	No	116	1 x Ku
15/03	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		0.1	3.358			0	0.3	333547.78	6249933.98	No	117	1 x Ku
15/02	OnGrade	Existing City of S	Junction Pit		0.0	3.642			0	0.3	333557.36	6249938.90	No	118	1 x Ku
15/01	OnGrade	Existing City of S	Junction Pit		0.0	3.526			0	0.3	333566.08	6249942.16	No	119	1 x Ku
9/19	OnGrade	Existing City of S	Junction Pit		0.1	3.245			0	0.3	333568.85	6249949.59	No	45	1 x Ku
16/03	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.401			0	0	333910.05	6249681.89	No	120	1 x Ku
16/02	Sag	Existing City of S	Junction Pit	5	0.1	3.727	0.3		0	0.5	333945.51	6249736.22	No	121	1 x Ku
16/01	Sag	Existing City of S	Junction Pit	5	0.0	3.621	0.4		0	0.5	333945.70	6249745.55	No	122	1 x Ku
17/02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	2.982			0	0	333846.05	6249996.22	No	123	1 x Ku
17/01	OnGrade	Existing City of S	Junction Pit		1.9	2.678			0	0.3	333835.26	6249993.11	No	124	1 x Ku
18/02	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.298			0	0.3	333819.41	6249949.33	No	125	1 x Ku
18/01	OnGrade	Existing City of S	0.90m x 0.50m Grate		1.6	2.279			0	0.3	333819.33	6249950.67	No	126	1 x Ku
70/01	OnGrade	Existing City of S	Junction Pit		2.3	2.283			0	0.3	333819.35	6249953.87	No	298	1 x Ku
19/28	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	5.246			0	0	333971.56	6249851.80	No	127	1 x Ku
19/27	OnGrade	Existing City of S	Junction Pit		0.5	4.804			0	0.3	333960.78	6249842.37	No	128	1 x Ku
35/04	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	5.027			0	0.3	333873.66	6250213.55	No	155	1 x Ku
35/03	OnGrade	Existing City of S	Junction Pit		2.3	5.255			0	0.3	333870.15	6250204.40	No	156	1 x Ku
35/02	OnGrade	Existing City of S	Junction Pit		2.0	4.844			0	0.3	333861.15	6250205.64	No	157	1 x Ku
35/01	OnGrade	Existing City of S	Junction Pit		0.5	4.365			0	0.3	333844.83	6250204.37	No	158	1 x Ku
38/14	OnGrade	Existing City of S	Junction Pit		0.1	4.273			0	0.3	333840.20	6250202.07	No	165	1 x Ku
38/13	OnGrade	Existing City of S	Junction Pit		0.0	4.092			0	0.3	333836.17	6250202.73	No	166	1 x Ku
38/12	OnGrade	Existing City of S	Junction Pit		0.1	3.968			0	0.3	333833.75	6250203.08	No	167	1 x Ku
38/11	OnGrade	Existing City of S	Junction Pit		0.1	10			0	0.3	333829.76	6250199.36	No	168	1 x Ku
38/10	OnGrade	Existing City of S	1.0m Lintel 1.00m x 0.50m Grate		0.1	3.859			0	0.3	333828.07	6250165.72	No	169	1 x Ku
38/09	OnGrade	Existing City of S	Junction Pit		0.1	4.085			0	0.3	333823.68	6250160.53	No	170	1 x Ku
38/08	OnGrade	Existing City of S	Junction Pit		0.0	4.189			0	0.3	333813.69	6250154.39	No	171	1 x Ku
38/07	OnGrade	Existing City of S	Junction Pit		0.0	4.309			0	0.3	333807.51	6250153.18	No	172	1 x Ku
38/06	OnGrade	Existing City of S	Junction Pit		0.0	4.891			0	0.3	333798.54	6250154.67	No	173	1 x Ku
38/05	OnGrade	Existing City of S	Junction Pit		0.0	4.816			0	0.3	333772.83	6250160.69	No	174	1 x Ku
38/04	OnGrade	Existing City of S	Junction Pit		0.0	4.345			0	0.3	333760.74	6250174.18	No	175	1 x Ku
38/03	OnGrade	Existing City of S	Junction Pit		0.0	4.13			0	0.3	333755.55	6250201.64	No	176	1 x Ku
38/02	OnGrade	Existing City of S	Junction Pit		0.0	3.751			0	0.3	333742.54	6250213.75	No	177	1 x Ku
38/01	OnGrade	Existing City of S	Junction Pit		0.1	3.871			0	0.3	333705.84	6250218.02	No	178	1 x Ku
36/03	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.872			0	0.3	333816.05	6250149.74	No	159	1 x Ku
36/02	OnGrade	Existing City of S	Junction Pit		1.0	4.679			0	0.3	333742.54	6250161.97	No	160	1 x Ku
36/01	OnGrade	Existing City of S	Junction Pit		2.0	4.664			0	0.3	333713.34	6250165.71	No	161	1 x Ku
38/17	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	6.524			0	0	333897.92	6250196.24	No	162	1 x Ku
38/16	OnGrade	Existing City of S	Junction Pit		0.1	5.459			0	0.3	333880.36	6250197.31	No	163	1 x Ku
38/15	OnGrade	Existing City of S	Junction Pit		0.1	4.442			0	0.3	333844.78	6250201.52	No	164	1 x Ku
39/05	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	5.56			0	0.3	333734.92	6250012.97	No	179	1 x Ku
39/04	OnGrade	Existing City of S	0.90m x 0.50m Grate		2.3	5.539			0	0.3	333742.36	6249994.35	No	180	1 x Ku
39/03	OnGrade	Existing City of S	Junction Pit		0.1	3.776			0	0.3	333763.68	6250001.80	No	181	1 x Ku
39/02	Sag	Existing City of S	Junction Pit	5	1.2	2.369	0.1		0	0.5	333799.31	6249998.64	No	182	1 x Ku
39/01	Sag	Existing City of S	Junction Pit	5	0.1	2.39	0.1		0	0.5	333794.98	6250014.31	No	183	1 x Ku
40/03	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	2.364	0.1		0	0.5	333784.33	6249995.24	No	184	1 x Ku
40/02	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	0.0	2.285	0.2		0	0.5	333788.04	6249994.64	No	185	1 x Ku
40/01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	2.3	2.234	0.3		0	0.5	333794.58	6249993.61	No	186	1 x Ku
41/02	Sag	Existing City of S	0.90m x 0.50m Grate	5	4.0	2.408	0.1		0	0.5	333796.89	6250013.12	No	187	1 x Ku
41/01	Sag	Existing City of S	1.8m Lintel 1.80m x 0.50m Grate	5	0.2	2.312	0.1		0	0.5	333797.28	6250018.62	No	188	1 x Ku
42/02	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	2.281	0.2		0	0.5	333806.26	6249991.62	No	189	1 x Ku
42/01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	2.3	2.246	0.3		0	0.5	333799.87	6249992.68	No	190	1 x Ku
43/03	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	2.656			0	0.3	333717.71	6249775.52	No	191	1 x Ku
43/02	OnGrade	Existing City of S	0.50m x 0.50m Grate		2.3	2.615			0	0.3	333717.98	6249777.59	No	192	1 x Ku
43/01	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		2.3	2.639			0	0.3	333712.06	6249776.98	No	193	1 x Ku
44/02	OnGrade	Existing City of S	Junction Pit		4.0	3.827			0	0.3	333769.93	6249700.66	No	194	1 x Ku
44/01	OnGrade	Existing City of S	Junction Pit		2.5	2.813			0	0.3	333748.47	6249770.40	No	195	1 x Ku
45/05	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	6.581			0	0	333524.66	6249783.89	No	196	1 x Ku
45/04	OnGrade	Existing City of S	Junction Pit		0.0	6.234			0	0.3	333563.15	6249798.28	No	197	1 x Ku
45/03	OnGrade	Existing City of S	Junction Pit		0.0	6.248			0	0.3	333563.16	6249797.57	No	198	1 x Ku
45/02	OnGrade	Existing City of S	Junction Pit		0.1	3.468			0	0.3	333613.06	6249816.31	No	199	1 x Ku
45/01	OnGrade	Existing City of S	Junction Pit		0.0	3.667			0	0.3	333617.68	6249819.20	No	200	1 x Ku
9/23	OnGrade	Existing City of S	Junction Pit		0.3	3.345			0	0.3	333623.16	6249831.76	No	41	1 x Ku
9/22	OnGrade	Existing City of S	Junction Pit		0.1	3.492			0	0.3	333610.03	6249862.88	No	42	1 x Ku
9/21	OnGrade	Existing City of S	Junction Pit		0.0	3.619			0	0.3	333584.06	6249924.45	No	43	1 x Ku
9/20	OnGrade	Existing City of S	Junction Pit		0.0	3.504			0	0.3	333581.02	6249930.28	No	44	1 x Ku
46/27	OnGrade	Dummy Pits	Unlimited Entry Pit		1.2	3.509			0	0	333948.04	6249758.08	No	201	1 x Ku
46/26	OnGrade	Existing City of S	Junction Pit		0.0	3.723			0	0.3	333894.78	6249765.26	No	202	1 x Ku
46/25	OnGrade	Existing City of S	Junction Pit		0.1	3.623			0	0.3	333882.90	6249767.15	No	203	1 x Ku
46/24	OnGrade	Existing City of S	Junction Pit		0.1	3.251			0	0.3	333790.59	6249781.70	No	204	1 x Ku
46/23	OnGrade	Existing City of S	Junction Pit		0.0	3.21			0	0.3	333764.75	6249782.63	No	205	1 x Ku
46/22	OnGrade	Existing City of S	Junction Pit		0.1	2.824			0	0.3	333747.31	6249788.14	No	206	1 x Ku
46/21	OnGrade	Existing City of S	Junction Pit		0.0	2.771			0	0.3	333736.58	6249795.76	No	207	1 x Ku
46/20	OnGrade	Existing City of S	Junction Pit		0.0	2.677			0	0.3	333733.26	6249802.70	No	208	1 x Ku
46/19	OnGrade	Existing City of S	Junction Pit		0.0	2.735			0	0.3	333724.94	6249819.07	No	209	1 x Ku
46/18	Sag	Existing City of S	Junction Pit	5	0.1	3.068	0.2		0	0.5	333678.36	6249929.66	No	210	1 x Ku
47/02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.648			0	0	333693.69	6249657.25	No	228	1 x Ku
47/01	OnGrade	Existing City of S	Junction Pit		0.1	3.005			0	0.3	333663.08	6249736.77	No	229	1 x Ku
48/09	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	9.685			0	0	333963.22	6249943.79	No	230	1 x Ku
48/08	OnGrade	Existing City of S	Junction Pit		0.5	6.814			0	0.3	333965.21	6249926.36	No	231	1 x Ku
48/07	OnGrade	Existing City of S	Junction Pit		0.5	5.343			0	0.3	333974.95	6249855.05	No	232	1 x Ku
48/06	OnGrade	Existing City of S	Junction Pit		0.5	5.166			0	0.3	333976.15	6249852.17	No	233	1 x Ku
48/05	OnGrade	Existing City of S	Junction Pit		0.5	5.141			0	0.3	333978.28	6249847.09	No	234	1 x Ku
48/04	OnGrade	Existing City of S	Junction Pit		0.5	4.613			0	0.3	333980.36	6249829.36	No	235	1 x Ku
48/03	Sag	Existing City of S	Junction Pit	5	2.3	3.828	0.2		0	0.5	333987.49	6249771.03	No	236	1 x Ku
48/02	Sag	Existing City of S	Junction Pit	5	2.3	3.685	0.3		0	0.5	333983.29	6249770.01	No	237	1 x Ku
48/01	Sag	Existing City of S	Junction Pit	5	0.5	3.649	0.3		0	0.5	333982.57	6249765.92	No	238	1 x Ku
49/01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	5.643			0	0.3	333878.15	6250190.72	No	239	1 x Ku
50/04	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	5.125			0	0.3	333865.30	6250175.42	No	240	1 x Ku
50/03	OnGrade	Existing City of S	1.8m Lintel 1.00m x 0.40m Grate + Gatic		2.3	5.203			0	0.3	333866.81	6250194.98	No	241	1 x Ku
50/02	OnGrade	Existing City of S	Junction Pit		2.0	4.415			0	0.3	333852.87	6250189.10	No	242	1 x Ku
50/01	OnGrade	Existing City of S	Junction Pit		2.3	4.356			0	0.3	333849.55	6250188.80	No	243	1 x Ku
51/01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	2.914			0	0	333844.61	6249989.25	No	244	1 x Ku
52/05	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		4.0	3.27			0	0.3	333760.76	6249739.50	No	245	1 x Ku
52/04	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		2.3	3.203			0	0.3	333749.12	6249735.96	No	246	1 x Ku
52/03	OnGrade	Existing City of S	0.50m x 0.50m Grate		1.5	3.047			0	0.3	333743.67	6249748.79	No	247	1 x Ku
52/02	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		1.2	2.629			0	0.3	333737.89	6249767.41	No	248	1 x Ku
52/01	OnGrade	Existing City of S	Junction Pit		1.2	2.62			0	0.3	333736.47	6249773.84	No	249	1 x Ku
53/01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic	5	4.0	3.641	0.3		0	0.5	333954.22	6249734.40	No	250	1 x Ku
170/02	Sag	Existing City of S	Junction Pit	5	1.0	3.74	0.3		0	0.5	333949.55	6249736.57	No	508	1 x Ku
170/01	Sag	Existing City of S	Junction Pit	5	1.3	3.707	0.3		0	0.5	333949.92	6249739.89	No	509	1 x Ku
54/04	Sag	Existing City of S	0.50m x 0.50m Grate	5	4.0	3.578	0.3		0	0.5	333964.59	6249750.46	No	251	1 x Ku
54/03	Sag	Existing City of S	0.50m x 0.50m Grate	5	1.8	3.551	0.4		0	0.5	333959.62	6249743.07	No	252	1 x Ku
54/02	Sag	Existing City of S	Junction Pit	5	1.5	3.565	0.4		0	0.5	333955.61	6249737.29	No	253	1 x Ku
54/01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic	5	2.3	3.66	0.3		0	0.5	333954.98	6249735.66	No	254	1 x Ku
55/03	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	3.631	0.4		0	0.5	333939.82	6249733.67	No	255	1 x Ku
55/02	Sag	Existing City of S	Junction Pit	5	1.9	3.892	0.1		0	0.5	333941.37	6249735.88	No	256	1 x Ku
55/01	Sag	Existing City of S	Junction Pit	5	2.8	3.87	0.1		0	0.5	333943.96	6249736.73	No	257	1 x Ku
59/02	Sag	Existing City of S	0.90m x 0.50m Grate	5	0.5	3.621	0.4		0	0.5	333972.62	6249742.34	No	272	1 x Ku
59/01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic	5	3.2	3.615	0.4		0	0.5	333973.77	6249742.20	No	273	1 x Ku
60/01	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.906			0	0.3	333670.26	6249735.48	No	274	1 x Ku
61/01	OnGrade	Existing City of S	Junction Pit		2.3	2.938			0	0.3	333668.40	6249734.75	No	276	1 x Ku
61/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.075			0	0.3	333661.77	6249732.37	No	275	1 x Ku
62/03	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	4.416			0	0.3	333580.11	6249848.73	No	277	1 x Ku
62/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.5	3.665			0	0.3	333591.10	6249854.51	No	278	1 x Ku
62/01	OnGrade	Existing City of S	Junction Pit		1.1	3.613			0	0.3	333605.88	6249860.78	No	279	1 x Ku
63/03	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.468			0	0.3	333602.88	6249826.95	No	280	1 x Ku
63/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		1.9	3.3			0	0.3	333608.17	6249814.66	No	281	1 x Ku
63/01	OnGrade	Existing City of S	Junction Pit		2.3	3.413			0	0.3	333612.13	6249814.49	No	282	1 x Ku
64/03	OnGrade	Existing City of S	Junction Pit		0.5	3.245			0	0.3	333611.10	6249792.69	No	283	1 x Ku
64/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.5	3.354			0	0.3	333614.77	6249799.38	No	284	1 x Ku
64/01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.5	3.346			0	0.3	333610.40	6249809.62	No	285	1 x Ku
9/24	OnGrade	Existing City of S	0.90m x 0.50m Grate		0.1	3.355			0	0.3	333628.60	6249818.87	No	40	1 x Ku
65/02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.007			0	0.3	333645.15	6249725.62	No	286	1 x Ku
65/01	OnGrade	Existing City of S	Junction Pit		2.3	3.211			0	0.3	333656.06	6249730.23	No	287	1 x Ku
67/02	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	5.169			0	0.3	333978.79	6249854.86	No	290	1 x Ku
67/01	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		2.3	5.191			0	0.3	333978.28	6249854.84	No	291	1 x Ku
68/02	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.385			0	0.3	333831.05	6249960.53	No	292	1 x Ku
68/01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		3.2	2.386			0	0.3	333831.06	6249961.43	No	293	1 x Ku
69/02	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		4.0	2.235			0	0.3	333818.94	6249968.85	No	294	1 x Ku
69/01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		3.2	2.226			0	0.3	333818.94	6249967.72	No	295	1 x Ku
70/03	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.329			0	0.3	333813.68	6249954.12	No	296	1 x Ku
70/02	OnGrade	Existing City of S	0.90m x 0.50m Grate		1.6	2.299			0	0.3	333816.48	6249953.66	No	297	1 x Ku
71/03	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.327			0	0	333814.23	6249865.53	No	299	1 x Ku
71/02	OnGrade	Existing City of S	Junction Pit		1.0	3.06			0	0.3	333825.95	6249867.21	No	300	1 x Ku

71\01	OnGrade	Existing City of S	1.00m x 1.00m Grate		1.0	2.919		0	0.3	333828.83	6249867.45	No	301	1 x Ku	
73\04	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic	5	4.0	3.634	0.3	0	0.5	333984.60	6249768.69	No	304	1 x Ku	
73\03	Sag	Existing City of S	0.50m x 0.50m Grate	5	2.0	3.762	0.2	0	0.5	333987.56	6249762.43	No	305	1 x Ku	
73\02	Sag	Existing City of S	Junction Pit	5	2.3	3.774	0.2	0	0.5	333989.39	6249761.42	No	306	1 x Ku	
73\01	Sag	Existing City of S	Junction Pit	5	2.0	3.874	0.1	0	0.5	333988.25	6249756.86	No	307	1 x Ku	
74\02	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	3.265	0.7	0	0.5	333953.04	6249757.91	No	308	1 x Ku	
74\01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	2.3	3.328	0.6	0	0.5	333954.13	6249757.75	No	309	1 x Ku	
75\02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.596		0	0.3	333880.68	6249774.54	No	310	1 x Ku	
75\01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		2.3	3.662		0	0.3	333883.52	6249774.26	No	311	1 x Ku	
76\02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.396		0	0.3	333839.09	6249777.58	No	312	1 x Ku	
76\01	OnGrade	Existing City of S	0.50m x 0.50m Grate		5.2	3.564		0	0.3	333845.56	6249762.97	No	313	1 x Ku	
77\01	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	3.669		0	0.3	333849.66	6249757.52	No	314	1 x Ku	
78\08	OnGrade	Existing City of S	0.35m x 0.35m Grate		4.0	3.426		0	0.3	333854.02	6249781.35	No	315	1 x Ku	
78\07	OnGrade	Existing City of S	0.35m x 0.35m Grate		1.5	3.377		0	0.3	333853.48	6249786.75	No	316	1 x Ku	
78\06	OnGrade	Existing City of S	0.35m x 0.35m Grate		1.4	3.267		0	0.3	333851.96	6249799.16	No	317	1 x Ku	
78\05	OnGrade	Existing City of S	0.35m x 0.35m Grate		1.4	3.219		0	0.3	333851.38	6249804.86	No	318	1 x Ku	
78\04	OnGrade	Existing City of S	0.35m x 0.35m Grate		1.0	3.207		0	0.3	333850.29	6249814.47	No	319	1 x Ku	
78\03	OnGrade	Existing City of S	0.35m x 0.35m Grate		1.0	3.191		0	0.3	333848.94	6249826.19	No	320	1 x Ku	
78\02	OnGrade	Existing City of S	0.35m x 0.35m Grate		2.3	3.184		0	0.3	333848.52	6249829.80	No	321	1 x Ku	
78\01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		2.3	3.15		0	0.3	333845.57	6249829.80	No	322	1 x Ku	
80\01	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.296		0	0.3	333652.00	6249970.20	No	326	1 x Ku	
79\01	Sag	Existing City of S	Junction Pit	5	1.9	2.21	0.3	0	0.5	333645.59	6249963.62	No	325	1 x Ku	
89\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	6.576		0	0.3	333795.33	6250140.95	No	347	1 x Ku	
182\07	OnGrade	Existing City of S	0.30m x 0.30m Grate		2.0	5.765		0	0.3	333783.72	6250142.84	No	525	1 x Ku	
182\06	OnGrade	Existing City of S	0.30m x 0.30m Grate		1.6	5.244		0	0.3	333776.75	6250143.93	No	526	1 x Ku	
182\05	OnGrade	Existing City of S	0.30m x 0.30m Grate		1.6	4.862		0	0.3	333761.22	6250146.51	No	527	1 x Ku	
N1804	Node					4		0		333745.53	6250149.086			-262240896	
90\02	OnGrade	Existing City of S	Junction Pit		0.5	4.681		0	0.3	333800.83	6250155.64	No	348	1 x Ku	
90\01	Node					4.088		0		333810.686	6250154.010		349		
111\03	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	2.892		0	0.3	333632.92	6250352.76	No	412	1 x Ku	
111\02	OnGrade	Existing City of S	Junction Pit		2.0	2.839		0	0.3	333630.97	6250366.04	No	413	1 x Ku	
111\01	OnGrade	Existing City of S	Junction Pit		2.0	2.787		0	0.3	333629.68	6250378.35	No	414	1 x Ku	
112\01	OnGrade	Existing City of S	Trench Grate		4.0	2.84		0	0.3	333630.16	6250365.22	No	415	1 x Ku	
113\02	OnGrade	Existing City of S	Junction Pit		0.5	2.704		0	0.3	333667.23	6250380.94	No	416	1 x Ku	
113\01	OnGrade	Existing City of S	Junction Pit		1.8	2.752		0	0.3	333650.34	6250376.85	No	417	1 x Ku	
129\01	OnGrade	Existing City of S	0.80m x 0.80m Grate		4.0	2.242		0	0.3	333701.00	6249971.82	No	429	1 x Ku	
151\02	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	2.763		0	0.3	333681.85	6249782.42	No	480	1 x Ku	
151\01	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		2.0	2.88		0	0.3	333665.86	6249784.09	No	481	1 x Ku	
152\01	OnGrade	Existing City of S	1.8m Lintel 0.90m x 0.50m Grate + Gatic		4.0	2.829		0	0.3	333663.42	6249794.61	No	482	1 x Ku	
179\01	OnGrade	Existing City of S	1.8m Lintel 1.00m x 0.40m Grate + Gatic		3.1	2.785		0	0.3	333666.18	6249794.37	No	519	1 x Ku	
153\03	OnGrade	Dummy Pits	Unlimited Entry Pit		0.5	2.803		0	0.3	333698.81	6249792.60	No	483	1 x Ku	
153\02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		4.0	2.767		0	0.3	333696.27	6249790.40	No	484	1 x Ku	
153\01	Sag	Existing City of S	1.8m Lintel 2.00m x 0.40m Grate - HaySt Sag	5	1.4	2.635	0.2	0	0.3	333689.31	6249791.51	No	485	1 x Ku	
154\01	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		0.6	2.876		0	0.3	333750.09	6249790.29	No	488	1 x Ku	
155\02	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	3.123		0	0.3	333817.67	6249909.71	No	489	1 x Ku	
155\01	OnGrade	Existing City of S	1.00m x 0.90m Grate + Gatic		1.0	2.824		0	0.3	333823.91	6249910.04	No	490	1 x Ku	
156\02	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate + Gatic		4.0	2.461		0	0.3	333835.16	6249921.82	No	491	1 x Ku	
156\01	OnGrade	Existing City of S	Junction Pit		2.0	2.564		0	0.3	333833.77	6249932.62	No	492	1 x Ku	
157\01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	2.786		0	0	333841.26	6249930.82	No	493	1 x Ku	
158\01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	2.298		0	0.3	333813.58	6249962.60	No	494	1 x Ku	
159\01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	2.769		0	0	333823.22	6250038.14	No	495	1 x Ku	
160\02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	10		0	0	333745.49	6250033.07	No	496	1 x Ku	
160\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	2.499		0	0.3	333750.75	6250025.58	No	497	1 x Ku	
161\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	2.498		0	0.3	333732.59	6250022.12	No	498	1 x Ku	
162\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	2.461		0	0.3	333717.92	6250014.55	No	499	1 x Ku	
163\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	2.348		0	0.3	333706.49	6250008.45	No	500	1 x Ku	
164\01	OnGrade	Existing City of S	0.80m x 0.80m Grate		4.0	2.548		0	0.3	333687.87	6249999.44	No	501	1 x Ku	
165\01	OnGrade	Existing City of S	Junction Pit		0.1	2.714		0	0.3	333825.90	6250017.71	No	502	1 x Ku	
166\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	2.465		0	0.3	333769.20	6250026.34	No	503	1 x Ku	
167\01	OnGrade	Existing City of S	Junction Pit		4.0	9.267		0	0.3	333952.37	6249931.97	No	504	1 x Ku	
168\01	Sag	Dummy Pits	Unlimited Entry Pit	5	0.0	3.64	0.4	0	0	333977.05	6249775.17	No	505	1 x Ku	
169\01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	3.822	0.1	0	0.5	333995.90	6249755.62	No	506	1 x Ku	
170\03	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.209		0	0	333914.65	6249685.86	No	507	1 x Ku	
171\01	Sag	Existing City of S	0.50m x 0.50m Grate	5	4.0	3.822	0.3	0	0.5	333939.32	6249742.99	No	510	1 x Ku	
172\01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	4.0	3.523	0.5	0	0.5	333967.93	6249759.23	No	511	1 x Ku	
173\01	Sag	Existing City of S	0.8m Lintel Only	5	0.5	3.743	0.3	0	0.5	333950.09	6249744.70	No	512	1 x Ku	
174\01	OnGrade	Existing City of S	1.00m x 1.00m Grate		4.0	3.269		0	0.3	333810.90	6249775.61	No	513	1 x Ku	
175\01	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	3.192		0	0.3	333802.23	6249773.48	No	514	1 x Ku	
176\01	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	3.221		0	0.3	333796.13	6249765.74	No	515	1 x Ku	
177\01	OnGrade	Existing City of S	0.90m x 0.50m Grate + Gatic		4.0	3.242		0	0.3	333794.96	6249783.44	No	516	1 x Ku	
178\01	OnGrade	Existing City of S	Junction Pit		0.5	2.78		0	0.3	333748.30	6249782.31	No	517	1 x Ku	
179\02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.275		0	0	333677.16	6249796.84	No	518	1 x Ku	
180\02	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	2.467		0	0.3	333748.21	6249956.88	No	520	1 x Ku	
180\01	OnGrade	Existing City of S	0.90m x 0.50m Grate		4.0	2.431		0	0.3	333740.70	6249952.74	No	521	1 x Ku	
181\01	OnGrade	Existing City of S	0.80m x 0.80m Grate		4.0	2.51		0	0.3	333635.26	6250022.10	No	522	1 x Ku	
182\09	OnGrade	Existing City of S	1.00m x 0.94m Grate		4.0	6.815		0	0.3	333794.88	6250137.42	No	523	1 x Ku	
182\08	OnGrade	Existing City of S	1.00m x 0.94m Grate		2.3	5.911		0	0.3	333783.21	6250139.31	No	524	1 x Ku	
186\02	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	4.591		0	0.3	333738.76	6250147.47	No	536	1 x Ku	
186\01	OnGrade	Existing City of S	Junction Pit		0.5	4.709		0	0.3	333742.25	6250160.25	No	537	1 x Ku	
187\02	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	3.371		0	0.3	333714.68	6250096.45	No	538	1 x Ku	
187\01	OnGrade	Existing City of S	Junction Pit		2.3	3.402		0	0.3	333706.05	6250103.69	No	539	1 x Ku	
189\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.0	4.522		0	0.3	333545.55	6249920.48	No	541	1 x Ku	
190\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		0.5	4.393		0	0.3	333604.92	6249806.06	No	542	1 x Ku	
191\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	4.536		0	0.3	333602.27	6249813.63	No	543	1 x Ku	
192\01	OnGrade	Existing City of S	1.0m Lintel 1.00m x 0.50m Grate		4.0	4.039		0	0.3	333589.47	6249942.47	No	544	1 x Ku	
197\02	OnGrade	Existing City of S	Junction Pit		1.0	3.298		0	0.3	333578.35	6249944.17	No	553	1 x Ku	
197\01	OnGrade	Existing City of S	Junction Pit		4.0	3.223		0	0.3	333575.60	6249946.62	No	554	1 x Ku	
193\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	5.366		0	0.3	333498.17	6249967.72	No	545	1 x Ku	
197\04	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		1.5	4.295		0	0.3	333586.91	6249929.40	No	551	1 x Ku	
197\03	OnGrade	Existing City of S	1.0m Lintel 1.00m x 0.50m Grate		1.4	3.713		0	0.3	333580.77	6249940.27	No	552	1 x Ku	
198\02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.827		0	0	333645.55	6249637.91	No	555	1 x Ku	
198\01	OnGrade	Existing City of S	Junction Pit		0.1	3.791		0	0.3	333678.48	6249655.41	No	556	1 x Ku	
199\01	OnGrade	Existing City of S	0.30m x 0.30m Grate		4.0	2.679		0	0.3	333637.72	6250390.98	No	557	1 x Ku	
O 1\02	Node					2.51		0		333622.60	6250398.690		558		
O 9\02	Node					2.466		0		333615.81	6250399.540		559		
O 11\02	Node					2.531		0		333629.36	6250399.940		561		
O 46\02	Node					5		0		333671.29	6250422.728		562		
O 90\02	Node					4.681		0		333805.83	6250160.640		563		
22-02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.000		0	0	333290.01	6250484.33	No	3017751	1 x Ku	
22-02 A	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	4.000		0	0	333348.13	6250481.70	No	-216450450	1 x Ku	
22-01	OnGrade	Existing City of S	Junction Pit		0.0	2.552		0	0.3	333352.73	6250483.78	No	3017752	1 x Ku	
3-05	OnGrade	Existing City of S	Junction Pit		0.5	2.638		0	0.3	333359.34	6250487.18	No	3017741	1 x Ku	
3-04	OnGrade	Existing City of S	Pipe Connection to Culvert		0.1	2.669		0	0.3	333366.91	6250491.34	No	3017742	1 x Ku	
3-03	OnGrade	Existing City of S	Pipe Connection to Culvert		0.1	2.720		0	0.3	333373.58	6250495.01	No	3017743	1 x Ku	
3-02	OnGrade	Existing City of S	Pipe Connection to Culvert		0.1	2.904		0	0.3	333390.75	6250504.47	No	3017744	1 x Ku	
3-01	OnGrade	Existing City of S	Junction Pit		0.1	3.192		0	0.3	333403.70	6250511.60	No	3017745	1 x Ku	
A-02	OnGrade	Existing City of S	Junction Pit		0.0	3.349		0	0.3	333408.62	6250514.31	No	3017794	1 x Ku	
A-01	Node					0.800		0		333468.54	6250548.523		3017795		
23-02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.679		0	0	333344.35	6250308.01	No	3017753	1 x Ku	
3-06	OnGrade	Existing City of S	Junction Pit		0.5	3.023		0	0.3	333371.61	6250351.56	No	3017740	1 x Ku	
3-06A	OnGrade	Junction Pits	Junction Pit 600x600		2.5	4.5		0	0	333361.36	6250465.98	No	-216450693	1 x Ku	
27-02	Sag	Existing City of S	0.90m x 0.50m Grate	4	4.0	3.442	0.2	0	0.5	333385.18	6250243.09	No	3017757	1 x Ku	
27-01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		0.4	2.906		0	0.3	333391.04	6250247.68	No	3017758	1 x Ku	
21-01	OnGrade	Existing City of S	Junction Pit		0.1	3.006		0	0.3	333395.30	6250249.29	No	3017750	1 x Ku	
3-09	OnGrade	Existing City of S	Junction Pit		0.3	2.710		0	0.3	333374.54	6250306.73	No	3017737	1 x Ku	
3-08	OnGrade	Existing City of S	Junction Pit		0.1	2.731		0	0.3	333370.43	6250317.84	No	3017736	1 x Ku	
3-07	OnGrade	Existing City of S	Junction Pit		0.1	2.934		0	0.3	333375.50	6250337.11	No	3017739	1 x Ku	
30-02	Sag	Existing City of S	0.90m x 0.50m Grate	4	4.0	3.114	0.2	0	0.5	333415.54	6250176.55	No	3017762	1 x Ku	
30-02 A	Sag	Existing City of S	0.90m x 0.50m Grate	4	2.5	3.114	0.2	0	0.5	333418.63	6250177.69	No	-216450505	1 x Ku	
30-01	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		0.1	2.776		0	0.3	333420.21	6250178.26	No	3017763	1 x Ku	
21-03	OnGrade	Existing City of S	Junction Pit		0.5	2.872		0	0.3	333424.25	6250179.67	No	3017748	1 x Ku	
21-02	OnGrade	Existing City of S	Junction Pit		0.5	3.083		0	0.3	333408.84	6250216.90	No	3017749	1 x Ku	
31-02	Sag	Existing City of S	0.90m x 0.50m Grate	5	4.0	3.430	0.2	0	0.5	333438.56	6250125.33	No	3017764	1 x Ku	
31-02 A	Sag	Existing City of S	0.90m x 0.50m Grate	5	2.5	3.430	0.2	0	0.5	333441.52	6250126.52	No	-216450529	1 x Ku	
31-01	Sag	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate	5	0.1	2.569	0.2	0	0.5	333442.37	6250126.90	No	3017765	1 x Ku	
29-01	OnGrade	Existing City of S	Junction Pit		1.0	2.5		0	0.3	333446.59	6250128.43	No	3017761	1 x Ku	
119-02	OnGrade	Existing City of S	Junction Pit		0.5	2.840		0	0.3	333391.49	6250475.50	No	3017770	1 x Ku	
119-01	OnGrade	Existing City of S	Junction Pit		0.5	2.977		0	0.3	333403.91	6250482.67	No	3017771	1 x Ku	
120-01	OnGrade	Existing City of S	1.00m x 1.00m Grate		1.6	3.083		0	0.3	333409.06	6250489.67	No	3017773	1 x Ku	
121-01	OnGrade	Existing City of S	Junction Pit		3.8	2.982		0	0.3	333401.03	6250503.43	No	3017780	1 x Ku	
120A-01	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.060		0	0	333408.96	6250480.58	No	3017774	1 x Ku	
119A-01	OnGrade	Existing City of S	0.90m x 0.40m Grate		4.0	2.802		0	0.3	333397.06	6250493.29	No	3017772	1 x Ku	
121-06	OnGrade	Existing City of S	0.9m Lintel 0.90m x 0.50m Grate		4.0	3.094		0	0.3	333380.98	6250555.38	No	3017775	1 x Ku	
121-05	Sag	Existing City of S	0.80m x 0.80m Grate	4	3.8	3.036	0.2	0	0.5	333387.28	6250532.42	No	3017776	1 x Ku	
121-04	OnGrade	Existing City of S	Junction Pit		2.5	3.057		0	0.3	333386.15	6250531.87	No	3017777	1 x Ku	
121-03	OnGrade	Existing City of S	Junction Pit		0.8	3.144		0	0.3	333395.83	6250514.96	No	3017778	1 x Ku	
121-02	OnGrade	Existing City of S	Junction Pit		2.5	3.099		0	0.3	333398.45	6250510.40	No	3017779	1 x Ku	
122-02	OnGrade	Existing City of S	0.80m x 0.80m Grate		4.0	2.935		0	0.3	333387.46	6250509.72	No	3017781	1 x Ku	
122-01	OnGrade	Existing City of S	Junction Pit		0.5	2.905		0	0.3	333390.26	6250505.26	No	3017782	1 x Ku	
122A-01	OnGrade	Existing City of S	0.50m x 0.50m Grate		4.0	3.166		0	0.3	333396.79	6250515.85	No	3017783	1 x Ku	
123-02	Sag	Existing City of S	0.80m x 0.80m Grate	4	4.0	2.679	0.2	0	0.5	333371.84	6250492.11	No	3017784	1 x Ku	
123-01	OnGrade	Existing City of S	Junction Pit		2.5	2.664		0	0.3	333372.35	6250490.32	No	3017785	1 x Ku	
124A-02	Sag	Existing City of S	1.00m x 1.00m Grate	5	4.0	2.582	0.4	0	0.5	333372.03	6250480.21	No	3017787	1 x Ku	
124A-01	OnGrade	Existing City of S	0.90m x 0.50m Grate		2.0	2.606		0	0.3	333366.80	6250483.71	No	3017788	1 x Ku	
125-02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.453		0	0	333406.60	6250521.89	No	3017789	1 x Ku	
125-01	OnGrade	Existing City of S	Junction Pit		4.5	3.189		0	0.3	333398.57	6250515.46	No	3017790	1 x Ku	
132-02	OnGrade	Dummy Pits	Unlimited Entry Pit		0.0	3.1		0	0	333378.01	6250523.39	No	3017792	1 x Ku	