Appendix 1
Drainage Proposal

規劃署
粉嶺、上水及元朗東規劃處
新界荃灣青山公路388號
[illegible]22樓2202室

Planning Department
Fanling, Sheung Shui & Yuen Long East
District Planning Office
Unit 2202, 22/F, CDW Building,
388 Castle Peak Road Tsuen Wan, N.T.

來函檔號 Your Reference:

本署檔號 Our Reference: ( ) in TPB/A/YL-NSW/318

電話號碼 Tel. No. : 3168 4043/ 3168 4048

傳真機號碼 Fax No. : 3168 4074 / 3168 4045

By Post and Fax (3590 6233)

DeSPACE (International) Limited

[redacted]

(Attn.: Mario LI)

10 December 2025

Dear Sir/Madam,

Submission for Compliance with Approval Condition

(e) – The Submission of a Drainage Proposal

Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) with Ancillary Electric Vehicle Charging Facility and Office for a Period of 5 Years and Associated Filling of Land in "Village Type Development" Zone, Lots 3669 S.A ss.2, 3669 S.B ss.1, 3670 RP (Part), 3671 S.A, 3672 S.A, 3673 S.A and 3674 RP in D.D. 104, Pok Wai, Yuen Long

(Application No. A/YL-NSW/318)

I refer to your submission dated 27.11.2025 for compliance with the captioned approval condition. The relevant department has been consulted on your submission. Your submission is considered:

☑ Acceptable. The captioned condition **has been complied with**. Please find detailed departmental comments in ***Appendix***.

☐ Acceptable. Since the captioned condition requires both the submission and implementation of the proposal, it **has not been fully complied with**. Please proceed to implement the accepted proposal for full compliance with the approval condition.

☐ Not acceptable. The captioned condition **has not been complied with**. Please find detailed departmental comments in ***Appendix***.

Should you have any queries on the departmental comments, please contact Ms. Jessica KWAN (Tel: 2300 1444) of the Drainage Services Department directly.

Yours faithfully,

(Josephine LO)
District Planning Officer/
Fanling, Sheung Shui & Yuen Long East
Planning Department

c.c.
CE/MN of DSD (Attn.: Ms. Ching Kei Kwan, Jessica)

Internal
CTP/TPB

JL/tl

Appendix

Comments from the Chief Engineer/ Mainland North of the Drainage Services Department:

(A) Specific Comment on the Revised Drainage Proposal

1. Drawing (No.: ST-1F): According to the submitted hydraulic calculation, gradient of the proposed 450 mm (W) surface channel at the downstream of the proposed catchpit CP011 shall be 1:57 instead of 1:55 as shown in the submitted drainage plan.

(B) General Comments

1. General comments in paragraph (B)(1-3)on your submission dated 10.10.2025 remain valid.

2. The applicant should implement the drainage facilities on site in accordance with the agreed drainage proposal.

3. The applicant shall resolve any conflict/disagreement with relevant lot owner(s) and seek LandsD's permission for laying new drains/channels and/or modifying/upgrading existing ones in other private lots or on Government land (where required) outside the application site(s).

N

Lot 3663
Lot 3663
Lot 3664
Lot 3666 RP
Lot 3669 S.B RP
Lot 3670 RP
Lot 3671 RP
Lot 3672 RP
Lot 3673 RP
G.L.
Lot 3669 S.A ss.2
Lot 3669 S.B ss.1
Lot 3560 B-C
Lot 3671 SA
Lot 3560A
Lot 3672 S.A
Lot 3558
Lot 3559 RP
Lot 3559 S.A
Lot 3559 S.B
Lot 3559 S.C
Lot 3559 S.C ss.1
Lot 3540 S.C ss.2
Lot 3540 S.C ss.3
Lot 3540 S.C ss.4
Lot 3557
Lot 3673 S.A
Lot 3723 S.E RP
Lot 3540 S.B RP
Lot 3540 S.B ss.1
Lot 3540 S.B ss.2
Lot 3540 S.B ss.3
Lot 3540 S.B ss.4
Lot 3540 S.B ss.5
Lot 3540 S.B ss.6
Lot 3540 S.B ss.7
Lot 3540 S.B ss.8
Lot 3540 S.C ss.5
Lot 3540 S.C ss.6
Lot 3540 S.C ss.14
Lot 3556 S.A
Lot 3556 S.B
Lot 3556 S.C
Lot 3540 S.C ss.17
Lot 3540 S.C RP
Lot 3724 RP
Lot 3725 S.A RP
Lot 3725 S.A ss.1
Lot 3540 S.C ss.9
Lot 3540 S.C ss.10
Lot 3724 S.A
Lot 3725 S.B
Lot 3540 S.C ss.8
Lot 3539 S.A
Lot 3540 S.C ss.7
Lot 3723 S.D RP
Lot 3674 RP

CP01 (I.L 6.65)
CP02 (I.L 6.60)
CP03 (I.L 6.06)
CP04 (I.L 5.48)
CP05 (I.L 4.71)
CP06 (I.L 6.51)
CP07 (I.L 6.11)
CP08 (I.L 5.67)
CP09 (I.L 5.06)
CP10 (I.L 4.61)
CP011 (I.L 4.44) (I.L 4.39)
CP12 (I.L 6.42)
CP13 (I.L 6.37)
CP14 (I.L 5.90)
CP15 (I.L 5.00)
CP16 (I.L 6.25)
CP17 (I.L 5.67)
CP18 (I.L 4.62)
CP19 (I.L 4.02)
CP20 (with trap) (I.L 3.82) (I.L 3.57) (I.L 3.92)
EX. CP (I.L 2.97)
EX. CP (SMH1050437)
(I.L 6.70) (I.L 6.95) (I.L 6.95) (I.L 6.65)

EX.225 UC
EX.375 UC
EX.UNDERGROUND PIPE
EX. UNDERGROUND PIPE
375 UC (1:80)
375 UC (1:70)
375 UC (1:75)
450 UC (1:60)
450 UC (1:55)
SECTION-A
SECTION-B
SECTION-C

CULVERT
POOL
EX. HOUSE

STORMWATER DRAINAGE PLAN
(SCALE 1 : 500)

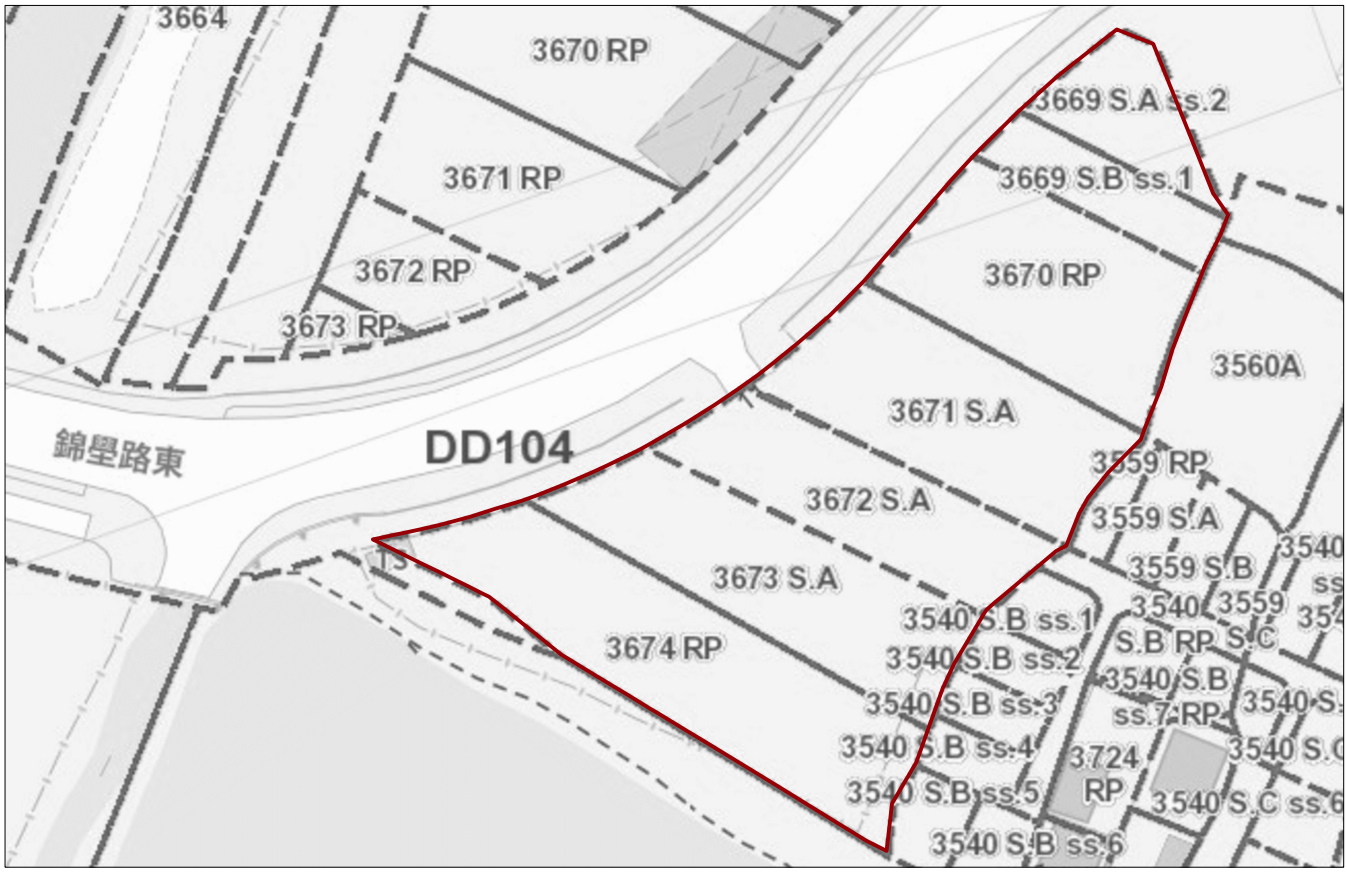
APPLICATION SITE
Lots 3669 S.A ss. 2, 3669 S.B ss. 1,
3670 RP (Part), 3671 S.A, 3672 S.A,
3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE
STORMWATER
DRAINAGE WORK

DRAWING NO.
ST-1F

DRAWING DATE
27 Nov 2025

Solar-lil Design Consulting Limited
景佑設計工程顧問有限公司



BLOCK PLAN
(SCALE 1 : 1000)

CATCHPIT	C L	A 1	A 2	A 3	X 1
CP01 (CEDD DRAWING NO. C2405/1)	7.20	6.65	------	------	6.65
CP02 (CEDD DRAWING NO. C2405/1)	7.20	6.60	------	------	6.60
CP03 (CEDD DRAWING NO. C2405/1)	7.15	6.06	------	------	5.96
CP04 (CEDD DRAWING NO. C2405/1)	7.10	5.48	------	------	5.28
CP05 (CEDD DRAWING NO. C2405/1)	5.55	4.71	------	------	4.51
CP06 (CEDD DRAWING NO. C2405/1)	7.15	6.51	------	------	6.51
CP07 (CEDD DRAWING NO. C2405/1)	7.00	6.11	------	------	6.11
CP08 (CEDD DRAWING NO. C2405/1)	6.15	5.67	------	------	5.52
CP09 (CEDD DRAWING NO. C2405/1)	6.12	5.06	------	------	4.91
CP10 (CEDD DRAWING NO. C2405/1)	5.55	4.61	------	------	4.46
CP11 (CEDD DRAWING NO. C2405/1)	5.53	4.44	4.39	------	4.04
CP12 (CEDD DRAWING NO. C2405/1)	6.98	6.42	------	------	6.42
CP13 (CEDD DRAWING NO. C2405/1)	6.60	6.37	------	------	6.37
CP14 (CEDD DRAWING NO. C2405/1)	6.20	5.90	------	------	5.40
CP15 (CEDD DRAWING NO. C2405/1)	6.38	5.00	------	------	4.50
CP16 (CEDD DRAWING NO. C2405/1)	6.35	6.25	------	------	6.05
CP17 (CEDD DRAWING NO. C2405/1)	6.15	5.67	------	------	5.12
CP18 (CEDD DRAWING NO. C2405/1)	4.89	4.62	------	------	4.47
CP19 (CEDD DRAWING NO. C2405/1)	4.80	4.02	------	------	4.02
CP20 (WITH TRAP) (CEDD DRAWING NO. C2406/1)	4.30	3.82	3.57	3.92	3.17

CATCHPIT	C L	A 1	A 2	X 1
EX.CP (CEDD DRAWING NO. C2405/1)	3.50	2.79	2.97	2.77

LEGEND

- 450UC/525UC — PROPOSED STORMWATER U-Channel
- PROPOSED STORMWATER CATCHPIT
- LOT BOUNDARY
- BUILDING LINE
- SUBJECT BUILDING
- PLATFORM LEVEL IN mPD
- APPLICATION FOR STORMWATER DRAINAGE WORK
- 01 — SITE PHOTO VIEW

NOTES FOR DRAINAGE WORKS

All proposed channel and catchpit with cover.

APPLICATION SITE

Lots 3669 S.A ss. 2, 3669 S.B ss. 1, 3670 RP (Part), 3671 S.A, 3672 S.A, 3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE

STORMWATER DRAINAGE WORK

DRAWING NO.

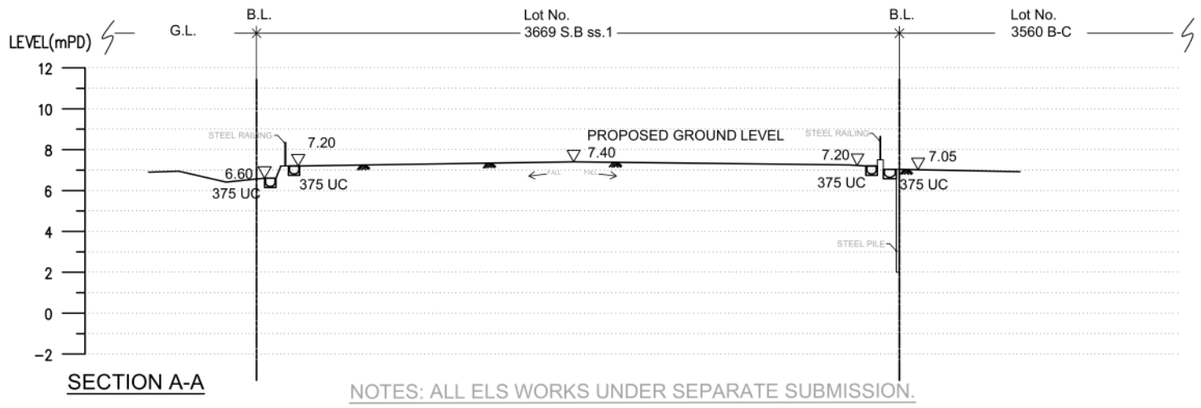
ST-2F

DRAWING DATE

27 Nov 2025

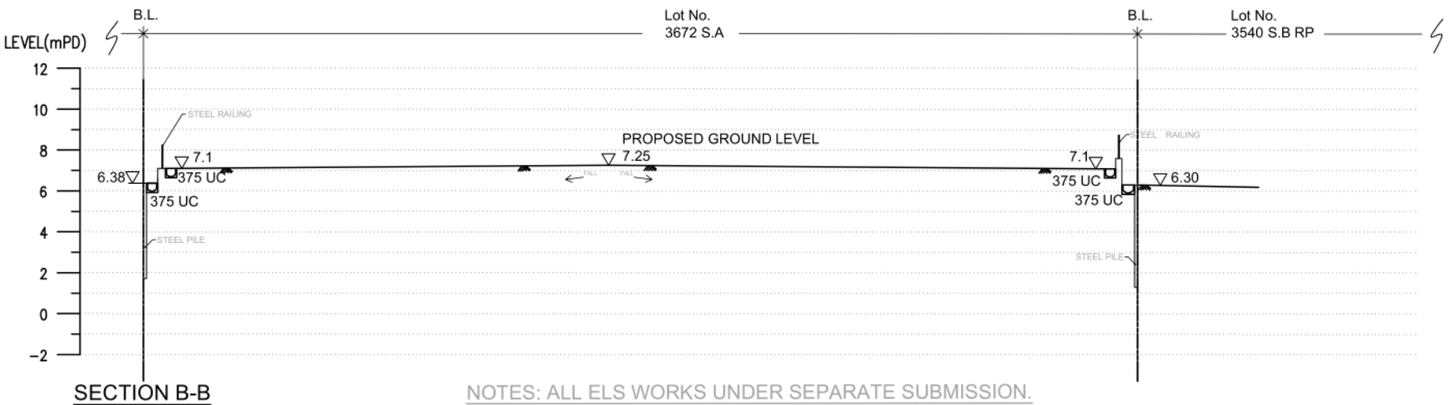
Solar-lil Design Consulting Limited

景佑設計工程顧問有限公司



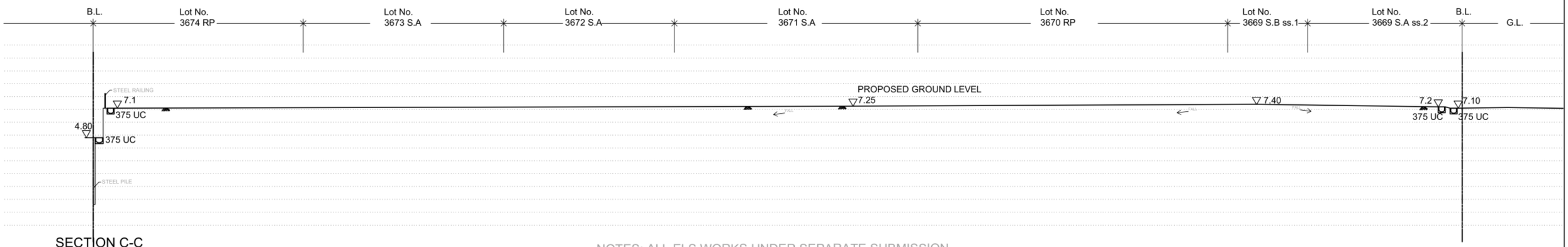
SECTION A-A

NOTES: ALL ELS WORKS UNDER SEPARATE SUBMISSION.



SECTION B-B

NOTES: ALL ELS WORKS UNDER SEPARATE SUBMISSION.



SECTION C-C

NOTES: ALL ELS WORKS UNDER SEPARATE SUBMISSION.

APPLICATION SITE

Lots 3669 S.A ss. 2, 3669 S.B ss. 1,
3670 RP (Part), 3671 S.A, 3672 S.A,
3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE

STORMWATER
DRAINAGE WORK

DRAWING NO.

ST-3E

DRAWING DATE

14 Nov 2025

Solar-lil Design Consulting Limited

景佑設計工程顧問有限公司


PHOTO - 03


PHOTO - 06

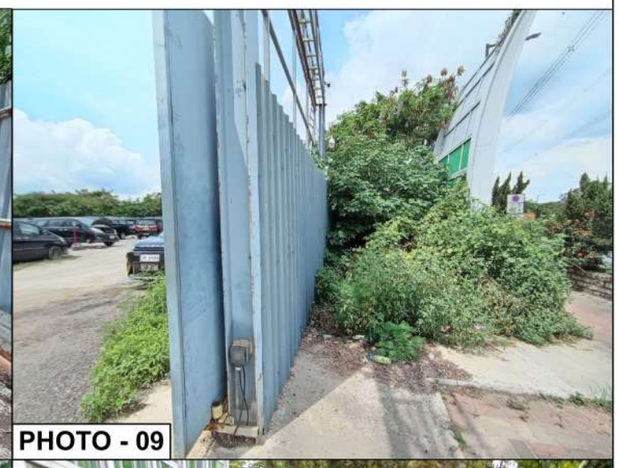


PHOTO - 09


PHOTO - 01


PHOTO - 04


PHOTO - 07


PHOTO - 10


PHOTO - 02


PHOTO - 05


PHOTO - 08


PHOTO - 11

STORMWATER DRAINAGE PLAN
(SCALE 1 : 500)

APPLICATION SITE
Lots 3669 S.A ss. 2, 3669 S.B ss. 1,
3670 RP (Part), 3671 S.A, 3672 S.A,
3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE
STORMWATER
DRAINAGE WORK

DRAWING NO.
ST-4E

DRAWING DATE
14 Nov 2025

Solar-lil Design Consulting Limited
景佑設計工程顧問有限公司

PHOTO - 14

PHOTO - 17


PHOTO - 20


PHOTO - 12

PHOTO - 15

PHOTO - 18

PHOTO - 13

PHOTO - 16

PHOTO - 19


PHOTO - 21

STORMWATER DRAINAGE PLAN
(SCALE 1 : 500)

APPLICATION SITE
Lots 3669 S.A ss. 2, 3669 S.B ss. 1,
3670 RP (Part), 3671 S.A, 3672 S.A,
3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE
STORMWATER
DRAINAGE WORK

DRAWING NO.
ST-5E

DRAWING DATE
14 Nov 2025

Solar-lil Design Consulting Limited
景佑設計工程顧問有限公司

Dye Test on 2 Oct 2025


PHOTO - A

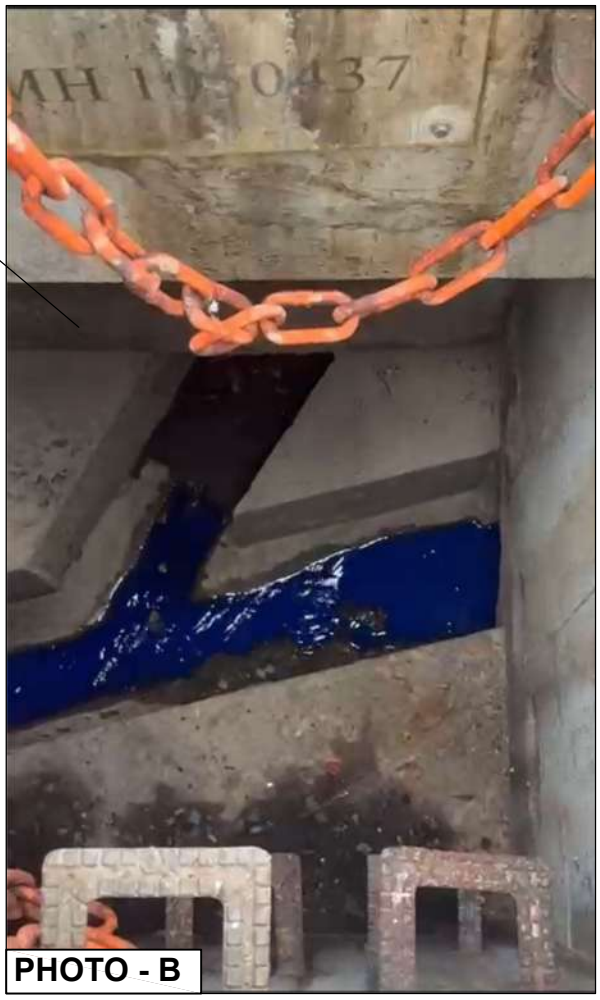
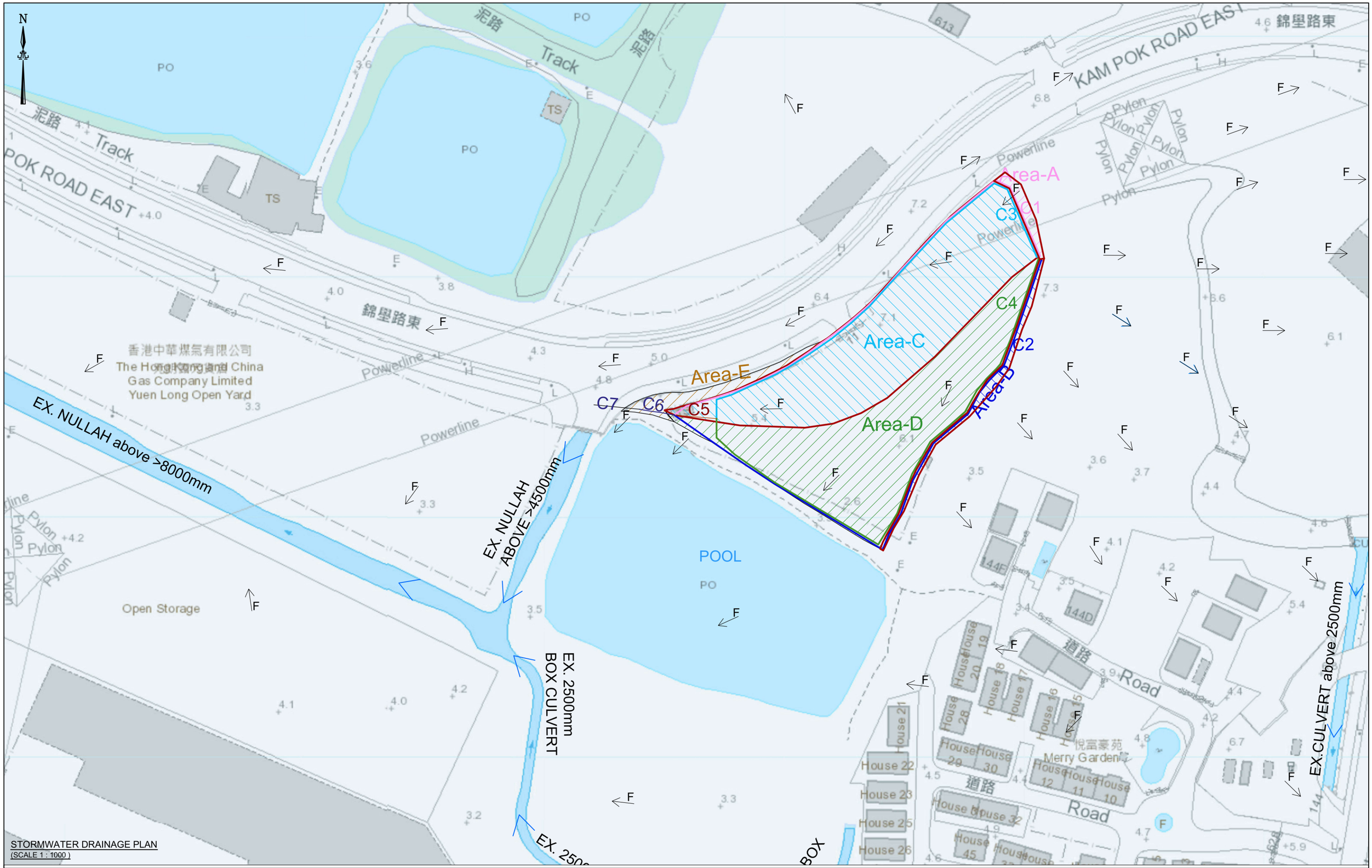


PHOTO - B

A dye test was conducted on the Ex. CP (illustrated in PHOTO-A) to verify the drainage connection to downstream facilities. The test procedure involved introducing a tracer dye into the Ex. CP, which subsequently emerged from Manhole No. SMH1050437 approximately three minutes later, as illustrated in PHOTO-B.

The test results conclusively demonstrate that surface runoff from the site discharges through the Ex.CP and successfully connects to the existing manhole(SMH1050437), which has adequate capacity to prevent flooding during heavy rains.

APPLICATION SITE	DRAWING TITLE	DRAWING NO.		
Lots 3669 S.A ss. 2, 3669 S.B ss. 1, 3670 RP (Part), 3671 S.A, 3672 S.A, 3673 S.A and 3674 RP in D.D.104 Pok Wai, Yuen Long, N.T.	STORMWATER DRAINAGE WORK	ST-6E	This drawings and all related information are property of Solar-lil Design Consulting Limited, any use must be approved by the company.	**Solar-lil Design Consulting Limited** 景佑設計工程顧問有限公司
		DRAWING DATE 14 Nov 2025		



STORMWATER DRAINAGE PLAN
(SCALE 1 : 1000)

APPLICATION SITE
Lots 3669 S.A ss. 2, 3669 S.B ss. 1,
3670 RP (Part), 3671 S.A, 3672 S.A,
3673 S.A and 3674 RP
in D.D.104
Pok Wai,
Yuen Long, N.T.

DRAWING TITLE
Design Statement Plan

DRAWING NO.
ST-5F

DRAWING DATE
27 Nov 2025

Solar-lil Design Consulting Limited
景佑設計工程顧問有限公司

APPLICATION SITE Date: 27 Nov 2025

Lots 3669 S.A ss. 2, 3669 S.B ss. 1, 3670 RP (Part), 3671 S.A, 3672 S.A, 3673 S.A and 3674 RP in D.D. 104, Pok Wai, Yuen Long, N.T.

Design of Surface Drainage System

Design Statement

1 Design Based on a 200 year return period storm

2 Maximum run-off estimation is based on the "Rational Method", i.e.

$$Q = K.I.A / 60$$

where,

Q = Max runoff (l / min)

K = Run-off mean intesity rainfall (mm/min) which depends on the time concentration t

$t = 0.14465 * (L / H^{0.2} * A^{0.1})$

H = Average fall (m per 100m) from summit of catchment to the point of des (δh/δL) per 100m, %

L = Distance in metres measured on the line of natural flow between the design section and that point of the catchment from which water would take the longest time to reach the design section.

3 Design channels referred to Chapter 8 of the Geotechnical Manual for Slopes, GEO.

4 Design of underground pipes referred to the Municipal Group Design Handbook, 1990.

Discharge from Catchment

Area Ref no.	Area (m^2)	L (m)	δh (m)	δL (m)	H ((δh / δL) x 100) (m/100m),(%)	Time Conc t (min)	i. (mm/hr)	For Permanent drainag i x1.281	Q (l /min)
Area-A	123	63	0.05	35	0.14	8	340	436	893
Area-B	181	91	3.8	89	4.27	6	365	468	1411
Area-C	2422	156	0.15	139	0.11	16	270	346	13962
Area-D	2322	183	0.15	133	0.11	19	260	333	12890
Area-E	182	78	2.15	53	4.06	5	380	487	1477

Channel Ref.	Area	Total Q (l/min)	Channel Siz (mm)	Gradient	Capacity of Channel (l/min)	Velocity >1.3 & < 4 (m/s)	Check
C1	A	893	375UC	1 in 80	18000	2.20	OK
C2	B	1411	375UC	1 in 80	18000	2.20	OK
C3	A+C	14855	375UC	1 in 70	19000	2.40	OK
C4	D	12890	375UC	1 in 75	18500	2.35	OK
C5	A+C+D	27745	450UC	1 in 57	37500	3.00	OK
C6	A+B+C+D	29156	450UC	1 in 60	37500	2.80	OK
C7	A+B+C+D+E	30633	ø500	1 in 77	605.06x 60 = 36303	3.08	OK

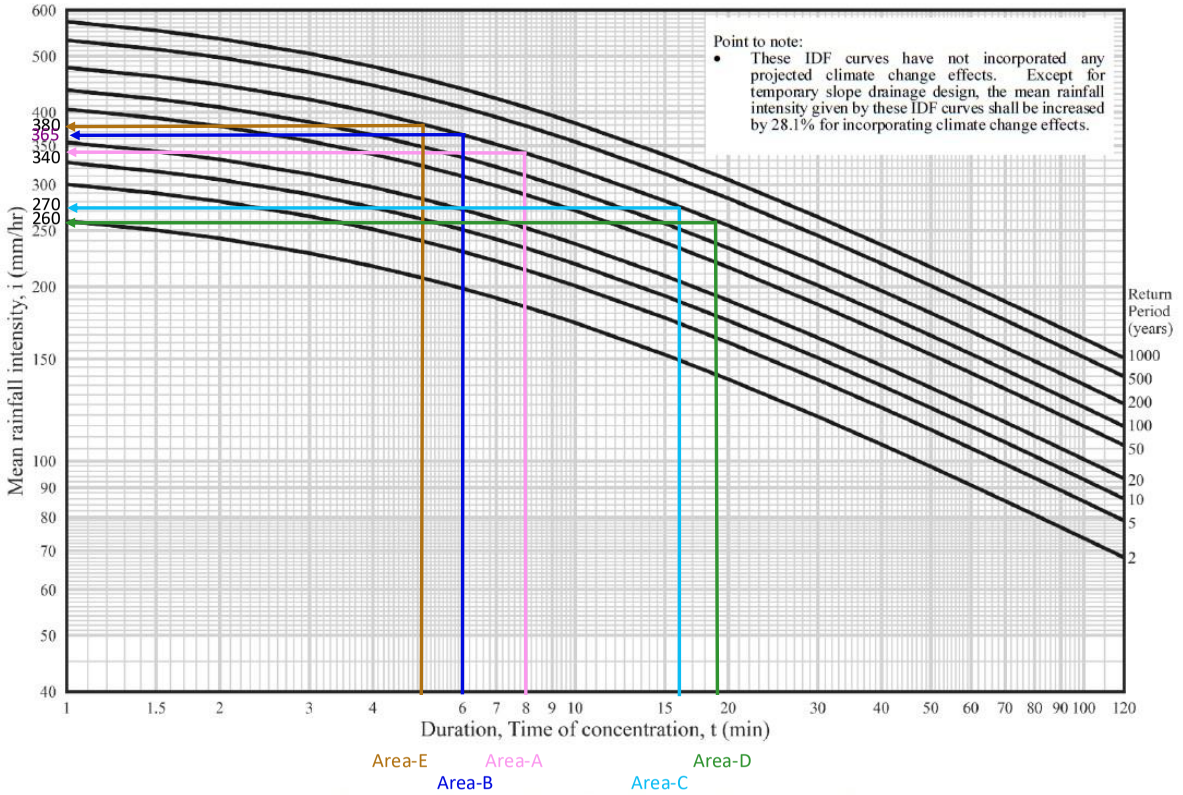
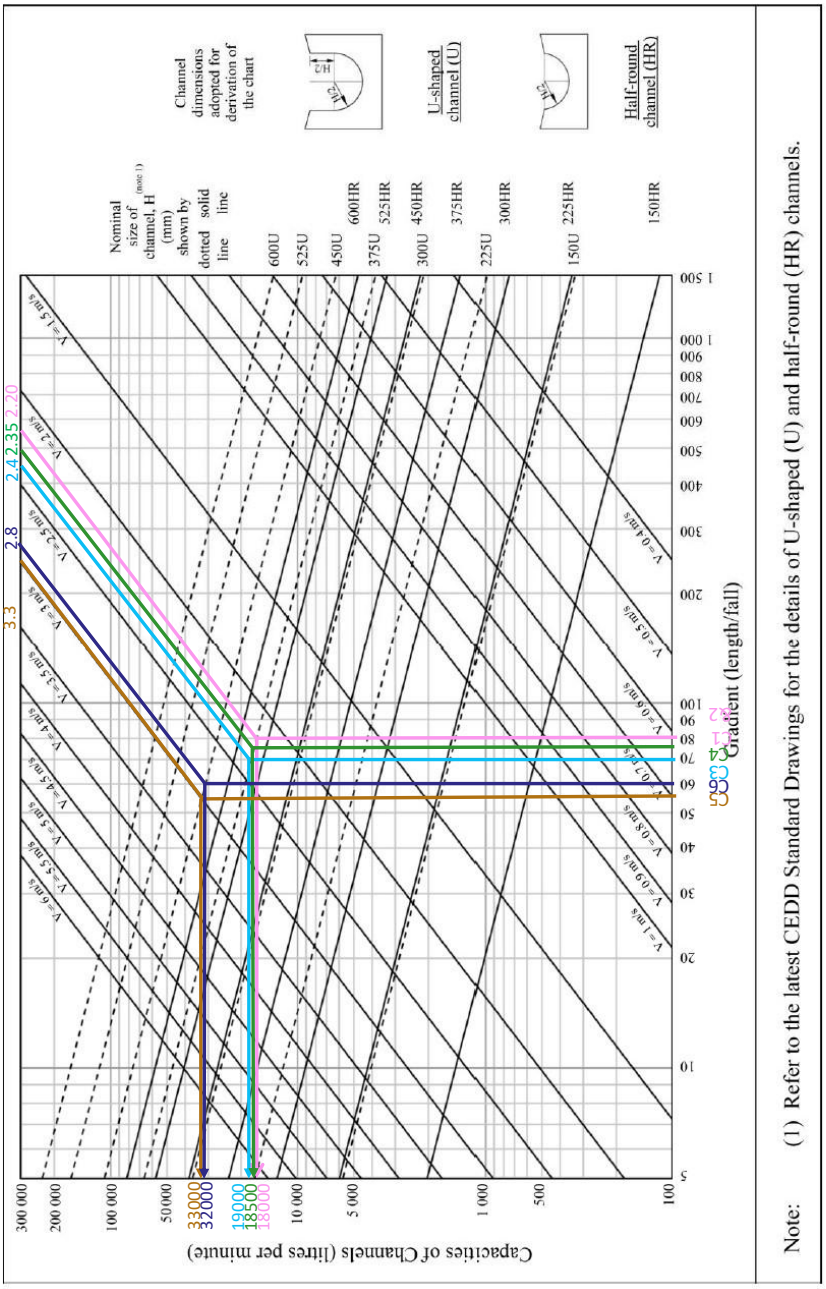


Figure 1 – Updated Intensity-Duration-Frequency Curves

Notes: 1. These IDF curves are to supersede those given in Figure 8.2 of the Geotechnical Manual for Slopes (GCO, 1984).
2. The mathematical formulae of these IDF curves are shown in Table 1 of Annex TGN 30 A1.

Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm



A15

(p.3 of 4)

k_s = 0·060 mm
S = 0·00400 to 0·02000

ie hydraulic gradient =
1 in 250 to 1 in 50

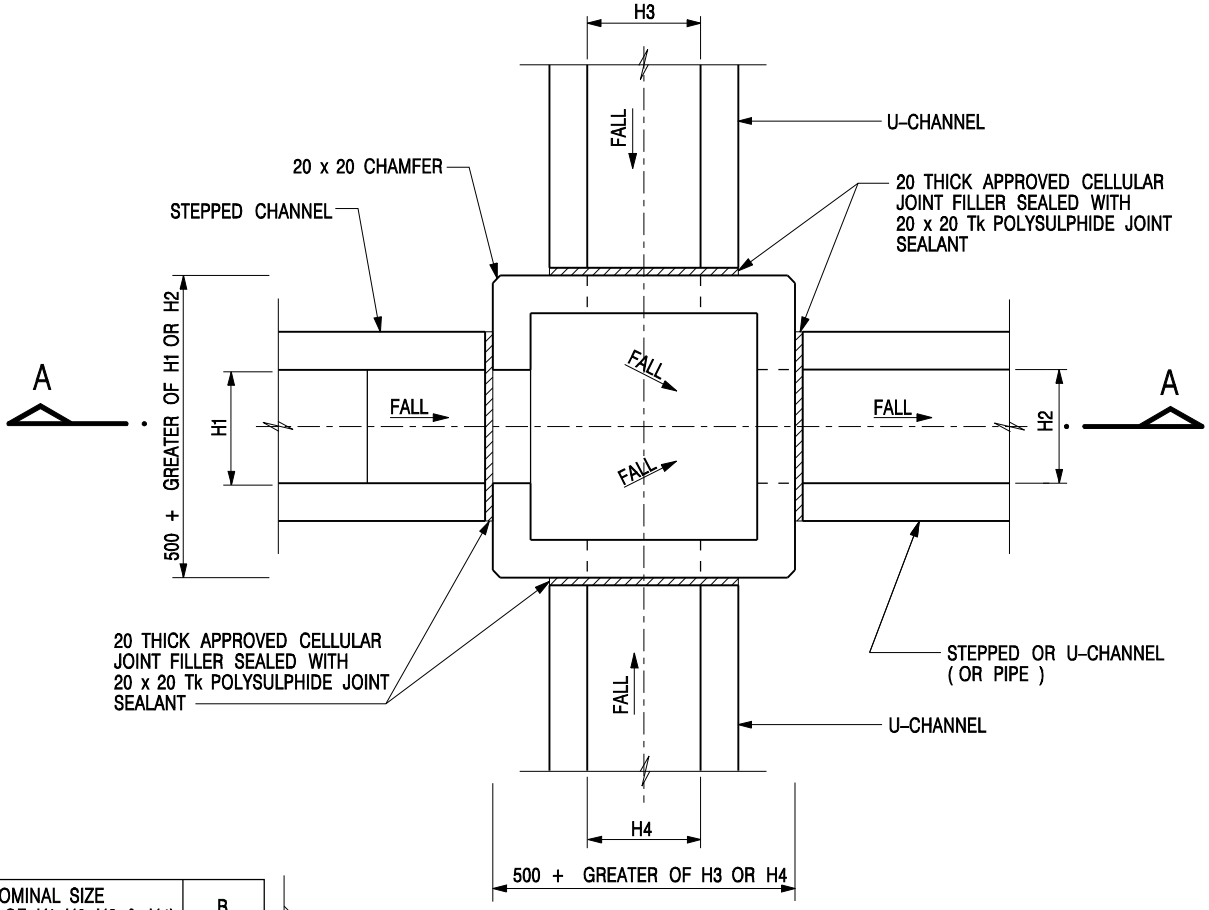
Water (or sewage) at 15°C;
full bore conditions.

velocities in ms^{-1}
discharges in litres/sec

Gradient	(Equivalent) Pipe diameters in mm													
	150	200	225	250	275	300	350	375	400	450	500	525	600	630
0·00400	0·770	0·929	1·003	1·074	1·142	1·207	1·332	1·392	1·450	1·562	1·669	1·721	1·870	1·928
1/ 250	13·599	29·196	39·889	52·717	67·823	85·345	128·17	153·72	182·20	248·39	327·66	372·46	528·81	601·01
0·00420	0·790	0·954	1·030	1·102	1·172	1·239	1·367	1·428	1·488	1·602	1·712	1·765	1·919	1·978
1/ 238	13·961	29·967	40·940	54·102	69·600	87·578	131·51	157·73	186·94	254·84	336·14	382·10	542·47	616·51
0·00440	0·810	0·978	1·055	1·130	1·201	1·270	1·401	1·463	1·524	1·642	1·754	1·809	1·966	2·026
1/ 227	14·314	30·720	41·966	55·455	71·338	89·760	134·78	161·64	191·57	261·14	344·44	391·52	555·80	631·66
0·00460	0·830	1·001	1·081	1·157	1·230	1·300	1·434	1·498	1·561	1·681	1·796	1·851	2·012	2·074
1/ 217	14·660	31·457	42·970	56·779	73·037	91·894	137·97	165·46	196·10	267·30	352·55	400·73	568·85	646·47
0·00480	0·849	1·024	1·105	1·183	1·258	1·330	1·467	1·532	1·596	1·719	1·836	1·893	2·057	2·120
1/ 208	14·998	32·179	43·953	58·075	74·701	93·984	141·10	169·21	200·53	273·33	360·48	409·74	581·62	660·97
0·00500	0·868	1·047	1·130	1·209	1·285	1·359	1·498	1·565	1·630	1·756	1·876	1·934	2·101	2·166
1/ 200	15·330	32·886	44·917	59·345	76·332	96·032	144·16	172·88	204·88	279·24	368·26	418·58	594·13	675·17
0·00550	0·913	1·101	1·188	1·272	1·352	1·429	1·575	1·646	1·714	1·846	1·971	2·032	2·208	2·276
1/ 182	16·133	34·597	47·247	62·417	80·274	100·98	151·57	181·75	215·38	293·52	387·06	439·93	624·36	709·51
0·00600	0·956	1·153	1·244	1·331	1·415	1·496	1·649	1·722	1·794	1·931	2·063	2·127	2·310	2·381
1/ 167	16·902	36·234	49·477	65·355	84·046	105·72	158·66	190·24	225·43	307·18	405·04	460·35	653·28	742·33
0·00650	0·998	1·203	1·298	1·389	1·476	1·560	1·720	1·796	1·871	2·014	2·151	2·217	2·409	2·482
1/ 154	17·640	37·806	51·618	68·177	87·668	110·27	165·47	198·39	235·07	320·30	422·30	479·95	681·03	773·84
0·00700	1·038	1·252	1·350	1·444	1·535	1·622	1·788	1·867	1·945	2·093	2·235	2·304	2·503	2·580
1/ 143	18·351	39·320	53·680	70·895	91·156	114·65	172·02	206·24	244·35	332·92	438·92	498·81	707·74	804·18
0·00750	1·077	1·298	1·400	1·498	1·591	1·682	1·854	1·936	2·016	2·170	2·317	2·388	2·594	2·674
1/ 133	19·039	40·783	55·672	73·520	94·525	118·88	178·35	213·81	253·32	345·11	454·96	517·03	733·53	833·46
0·00800	1·115	1·343	1·449	1·550	1·646	1·740	1·917	2·002	2·085	2·244	2·396	2·470	2·683	2·765
1/ 125	19·704	42·199	57·601	76·061	97·785	122·97	184·47	221·14	262·00	356·91	470·49	534·66	758·49	861·79
0·00850	1·152	1·387	1·496	1·600	1·700	1·796	1·979	2·067	2·152	2·316	2·473	2·549	2·768	2·853
1/ 118	20·350	43·573	59·471	78·525	100·95	126·94	190·41	228·25	270·41	368·35	485·54	551·75	782·69	889·26
0·00900	1·187	1·429	1·541	1·648	1·751	1·850	2·039	2·129	2·217	2·386	2·547	2·625	2·851	2·938
1/ 111	20·977	44·908	61·288	80·920	104·02	130·80	196·18	235·16	278·59	379·46	500·16	568·35	806·19	915·95
0·00950	1·222	1·471	1·586	1·696	1·802	1·904	2·097	2·190	2·280	2·454	2·620	2·700	2·932	3·022
1/ 105	21·588	46·207	63·057	83·250	107·01	134·55	201·79	241·88	286·54	390·27	514·39	584·51	829·06	941·91
0·01000	1·255	1·511	1·629	1·742	1·851	1·955	2·154	2·249	2·342	2·520	2·690	2·773	3·011	3·103
1/ 100	22·183	47·473	64·781	85·521	109·92	138·21	207·26	248·43	294·29	400·81	528·25	600·25	851·34	967·20
0·01100	1·320	1·589	1·713	1·831	1·945	2·055	2·264	2·364	2·461	2·648	2·826	2·913	3·163	3·259
1/ 91	23·332	49·916	68·106	89·903	115·54	145·26	217·81	261·06	309·24	421·12	554·98	630·60	894·30	1016·0
0·01200	1·383	1·663	1·793	1·917	2·036	2·151	2·369	2·473	2·575	2·770	2·957	3·047	3·308	3·409
1/ 83	24·431	52·253	71·287	94·092	120·92	152·01	227·90	273·14	323·53	440·55	580·54	659·62	935·37	1062·6
0·01300	1·442	1·735	1·870	1·999	2·123	2·242	2·469	2·578	2·684	2·887	3·082	3·176	3·448	3·552
1/ 77	25·486	54·496	74·340	98·114	126·08	158·49	237·58	284·73	337·24	459·19	605·06	687·46	974·78	1107·3
0·01400	1·500	1·803	1·944	2·078	2·206	2·330	2·566	2·679	2·789	3·000	3·202	3·300	3·582	3·690
1/ 71	26·503	56·656	77·280	101·99	131·05	164·72	246·91	295·89	350·44	477·13	628·67	714·27	1012·7	1150·4
0·01500	1·555	1·870	2·015	2·154	2·287	2·415	2·660	2·777	2·890	3·109	3·318	3·419	3·711	3·824
1/ 67	27·484	58·742	80·119	105·73	135·84	170·74	255·90	306·66	363·19	494·45	651·46	740·14	1049·3	1192·0
0·01600	1·609	1·934	2·084	2·228	2·365	2·498	2·750	2·871	2·988	3·214	3·430	3·535	3·837	3·953
1/ 63	28·434	60·761	82·866	109·34	140·48	176·56	264·61	317·09	375·52	511·21	673·50	765·17	1084·7	1232·2
0·01700	1·661	1·996	2·151	2·299	2·441	2·578	2·838	2·962	3·083	3·316	3·539	3·647	3·958	4·078
1/ 59	29·356	62·719	85·530	112·85	144·98	182·21	273·05	327·19	387·48	527·46	694·88	789·43	1119·1	1271·2
0·01800	1·712	2·057	2·216	2·368	2·515	2·655	2·923	3·051	3·176	3·416	3·645	3·756	4·076	4·199
1/ 56	30·251	64·620	88·118	116·26	149·35	187·70	281·25	337·01	399·09	543·24	715·63	813·00	1152·4	1309·0
0·01900	1·761	2·116	2·280	2·436	2·586	2·731	3·006	3·138	3·266	3·512	3·748	3·862	4·191	4·317
1/ 53	31·122	66·471	90·636	119·58	153·61	193·03	289·23	346·56	410·39	558·59	735·83	835·93	1184·9	1345·9
0·02000	1·809	2·173	2·341	2·502	2·656	2·804	3·087	3·222	3·353	3·606	3·848	3·965	4·302	4·433
1/ 50	31·971	68·274	93·090	122·81	157·75	198·23	297·00	355·86	421·39	573·55	755·50	858·26	1216·5	1381·7
	110	140	160	180	190	210	250	260	280	320	350	370	420	440

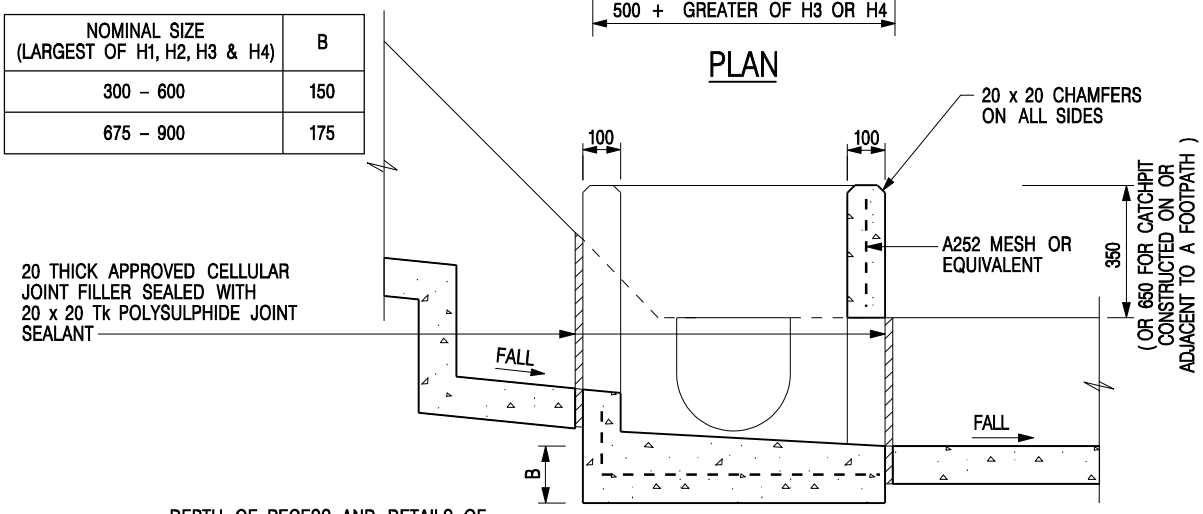
θ_{medial} for part-full circular pipes.

k_s = 0·060 mm S = 0·00400 to 0·02000

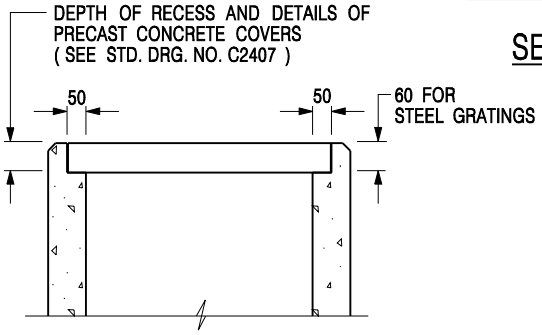


PLAN

NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175



SECTION A – A



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

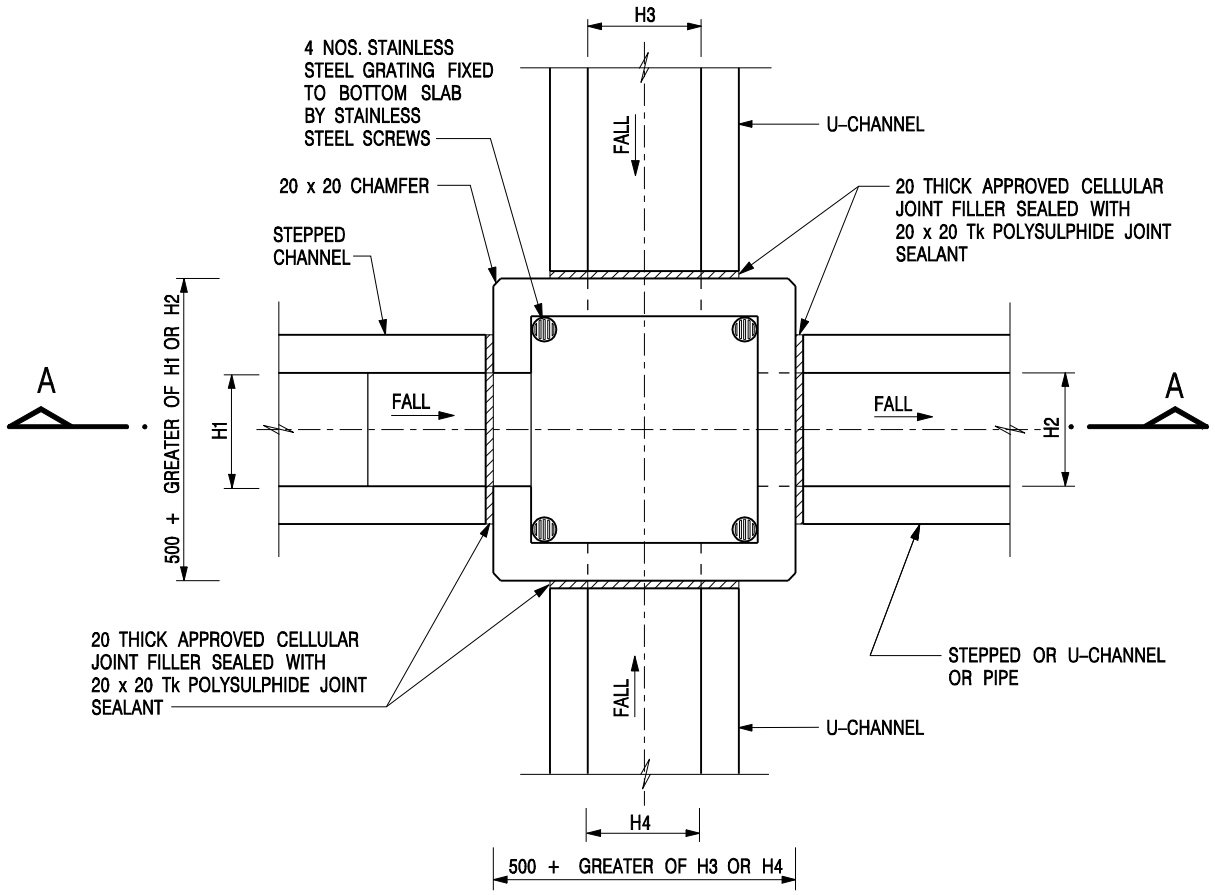
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

(SHEET 1 OF 5)

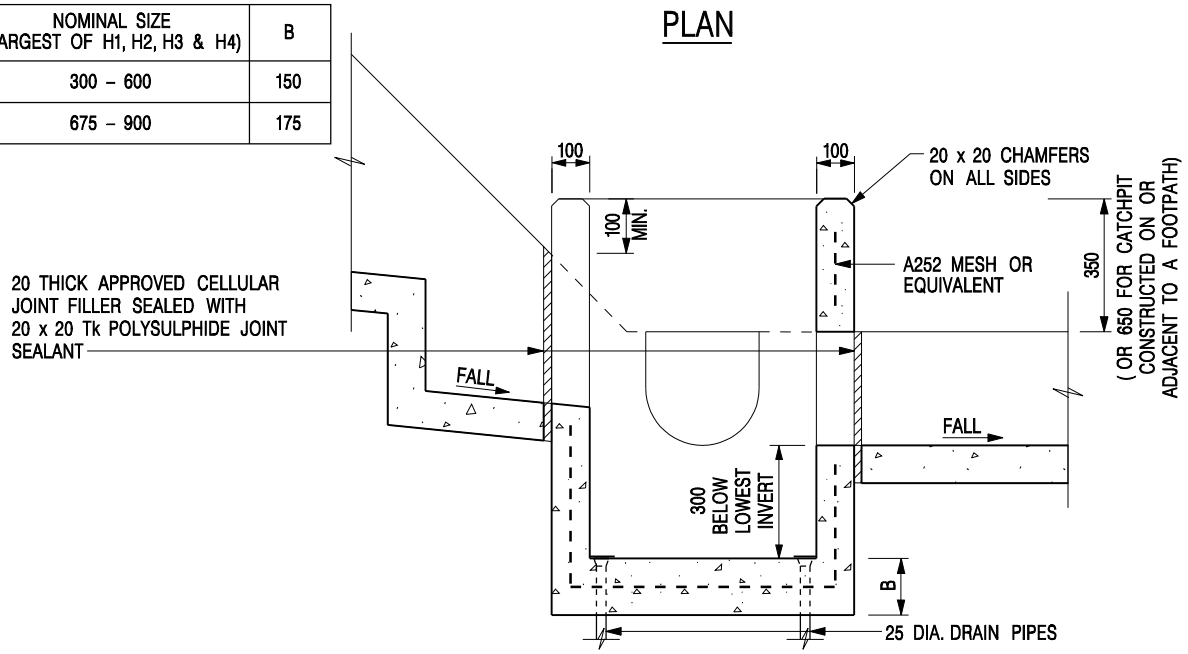
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE	1 : 20	DRAWING NO.
DATE	JAN 1991	C2405 /1



PLAN

NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175



SECTION A – A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP

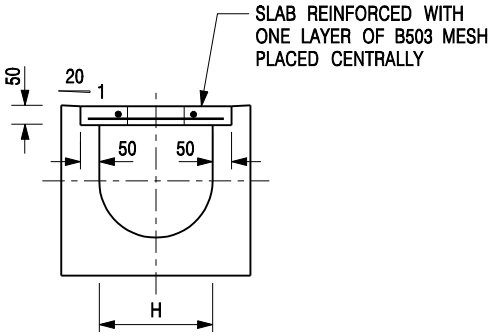
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

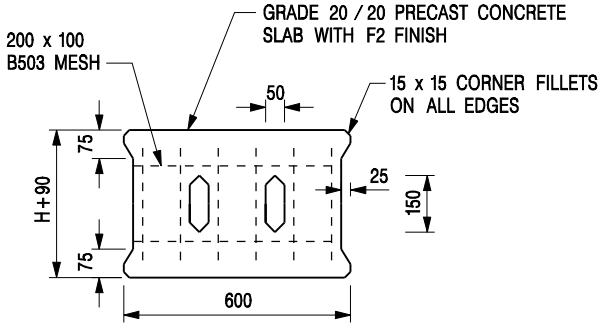
SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1



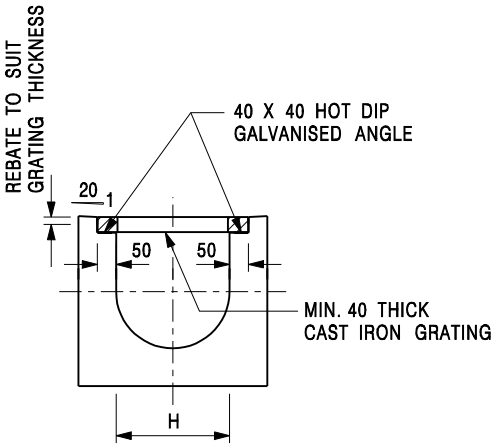
TYPICAL SECTION



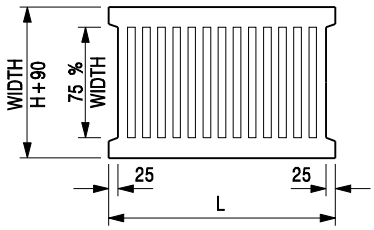
PLAN OF SLAB

U-CHANNELS WITH PRECAST CONCRETE SLABS

(UP TO H OF 525)



TYPICAL SECTION



L = 600mm FOR H ≤ 375mm
L = 400mm FOR H > 375mm

CAST IRON GRATING

(DIMENSIONS ARE FOR GUIDANCE ONLY, CONTRACTOR MAY SUBMIT EQUIVALENT TYPE)

U-CHANNEL WITH CAST IRON GRATING

(UP TO H OF 525)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. H=NOMINAL CHANNEL SIZE.
3. ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
4. FOR COVERED CHANNELS TO BE HANDED OVER TO HIGHWAYS DEPARTMENT FOR MAINTENANCE, THE GRATING DETAILS SHALL FOLLOW THOSE AS SHOWN ON HyD STD. DRG. NO. H3156.

REF.	REVISION	SIGNATURE	DATE
E	NOTES 3 & 4 AMENDED.	Original Signed	12.2014
D	NOTE 4 ADDED.	Original Signed	06.2008
C	MINOR AMENDMENT. NOTE 3 ADDED.	Original Signed	12.2005
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	CAST IRON GRATING AMENDED.	Original Signed	12.2002

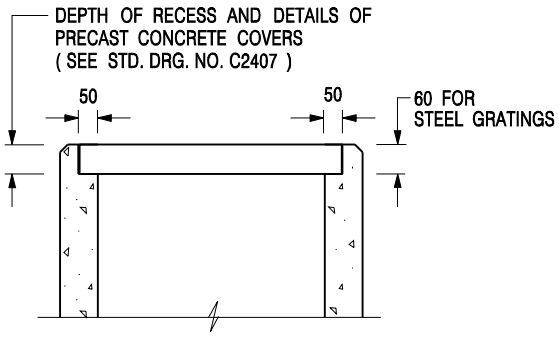
COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 /2) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON STD. DRG. NO. C2405 /5; EXCEPT ON THE UPSLOPE SIDE) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

REF.	REVISION	SIGNATURE	DATE
A	MINOR AMENDMENT.	Original Signed	04.2016
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /2A