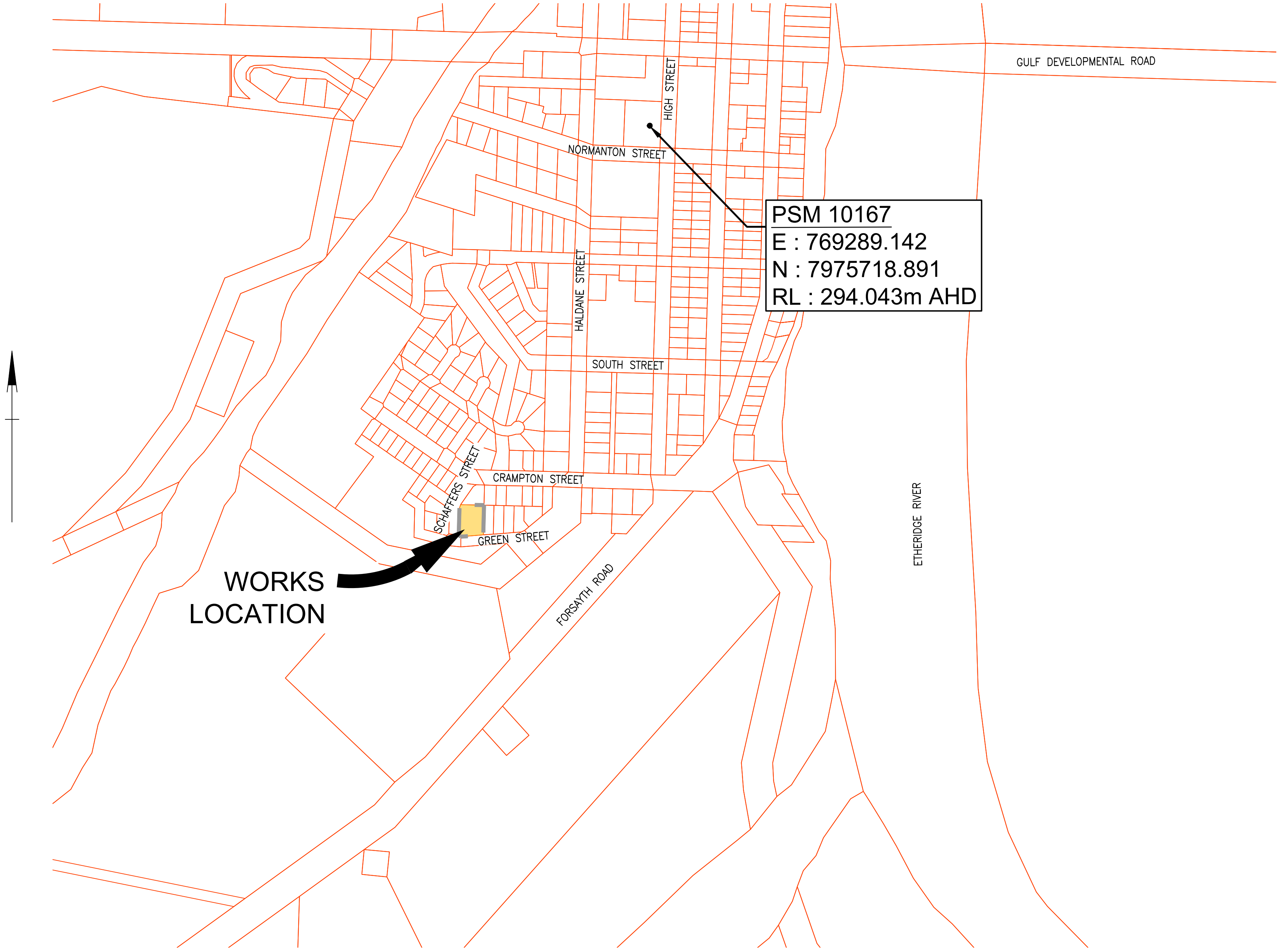
ETHERIDGE SHIRE COUNCIL

GEORGETOWN STAFF HOUSING PROJECT



PROJECT DRAWINGS LIST

109-101-C01	COVER SHEET, LOCALITY PLAN AND DRAWINGS LIST
109-101-C02	GENERAL NOTES
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109-101-C04	DRIVEWAY LONGTIDUINAL AND CROSS SECTIONS
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PLOT DATE5/07/2024 4:13:53 PM
FILE LOCATIONX:\119 Etheridge SC\101 Georgetown Staff Housing\Drawings\119-101-C01 COVER.dwg

REVISIONS

NO.	DATE	DESCRIPTION	DESIGN	APPROVED
A	13/06/24	ISSUED FOR CONSTRUCTION		
1	05/06/24	PRELIMINARY ISSUE		

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CLIENT
BEEF GOLD
THE GOLDEN SHIRE

SCALE
NTS
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

DRAWN MT
DESIGNED MT
DRAWN APPROVED JM
DESIGN APPROVED JM
CIVIL SIGNOFF APPROVAL
ORIGINALLY SIGNED
BY JOHN MARTIN
DATE: 13/06/24 RPEQ: 05085

PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT

DRAWING REF
COVER SHEET, LOCALITY AND DRAWINGS LIST

DRAWING NO 119-101-C01
SIZE A3
REVISION A

GENERAL NOTES:

1. LEVEL DATUM : AHD
2. ORIGIN OF LEVELS (MGA2020 ZONE 54):

PSM NUMBER	EASTING	NORTHING	RL	LOCATION
10167	769289.141	7975718.891	294.043	HIGH ST NEAR INT. WITH NORMANTON ST

3. EXISTING CONDITIONS HAVE BEEN BASED ON SURVEY DATA COLLECTED BY OTHERS. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INFORMATION SHOWN.
4. DETAILS OF SERVICES ARE PROVIDED FOR INFORMATION ONLY, AND NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY AND COMPLETENESS OF THE INFORMATION. POSITIONS OF SERVICE CROSSINGS SHALL BE RECORDED AND CHECKED BY THE CONTRACTOR. NOT ALL CROSSINGS HAVE NECESSARILY BEEN SHOWN ON THE DRAWINGS. THE CONTRACTOR IS TO CHECK SERVICES ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. FOR ALL SPECIFICATIONS REFER TO FNQROC STANDARD SPECIFICATIONS.
6. SERVICE TRENCH REQUIRED ADJACENT TO ALL BATTLE AXE DRIVEWAYS IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL AND AS DIRECTED ON SITE BY SUPERINTENDENT. SERVICE TRENCH TO FINISH 1m PAST END OF DRIVEWAY. STORMWATER CONDUIT NOT REQUIRED.
7. INSPECTION AND TEST PLANS ARE TO BE UNDERTAKEN BY CONTRACTOR IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL.
8. AS CONSTRUCTED DATA TO BE PREPARED AND SUBMITTED BY THE CONTRACTOR IN ACCORDANCE WITH FNQROC DEVELOPMENT MANUAL.

EARTHWORKS NOTES:

1. STRIP TOPSOIL AND GRUB VEGETATIVE MATTER TO A MINIMUM OF 100mm IN ACCORDANCE WITH THE FNQROC DEVELOPMENT MANUAL.
2. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" AND FNQROC STANDARD SPECIFICATIONS.
3. EARTHWORKS TO BE LEVEL '1' CONTROLLED FILL. COMPACTION TESTING IS TO COMPLY WITH SECTION 5 OF "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" UNLESS NOTED OTHERWISE.
4. ALL DISTURBED AREAS ARE TO BE GRASSED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN AND FNQROC STANDARD SPECIFICATIONS.
5. ALL FILL PLACED ON RESIDENTIAL ALLOTMENTS MUST BE PLACED IN LAYERS NOT EXCEEDING 200mm DEPTH AND COMPACTED TO MINIMUM 98% STANDARD COMPACTION. TESTING IS ALL TO BE COMPLETED IN ACCORDANCE WITH THE FNQROC DEVELOPMENT MANUAL.
6. ALL TURF, GRASS & HYDROMULCH SHALL BE MAINTAINED UNTIL FULL ESTABLISHMENT. ALL EARTHWORKS AND AREAS THAT HAVE BEEN DISTURBED ARE TO BE REVEGETATED IMMEDIATELY WITH AN APPROVED FAST GROWING GROUND COVER ON COMPLETION OF EARTHWORKS.
7. DUST SUPPRESSION MEASURES MUST BE UNDERTAKEN TO ENSURE THAT DUST DOES NOT CAUSE A NUISANCE TO SURROUNDING AREAS AND RESIDENTS. SUCH MEASURES MUST BE SUBMITTED TO THE SUPERINTENDENT IN THE EMP (CONSTRUCTION) PRIOR TO THE COMMENCEMENT OF WORK.
8. ALL MATERIAL TRANSPORTED TO AND FROM THE SITE MUST BE COVERED TO PREVENT DUST OR SPILLAGE DURING TRANSPORT. IF SOIL IS TRACKED OR SPILT ONTO THE ROAD PAVEMENT, IT MUST BE REMOVED BY NO LATER THAN THE END OF EACH WORKING DAY.
9. EARTHWORKS STOCKPILE LOCATIONS TO BE CONFIRMED WITH SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
10. CONTRACTOR TO ENGAGE GEOTECH ENGINEER TO CONFIRM STABILITY OF ALL BATTER/BANKS ON SITE.

EARTHWORKS NOTES CONTINUED:

10. ALL MATERIAL TRANSPORTED TO AND FROM THE SITE MUST BE COVERED TO PREVENT DUST OR SPILLAGE DURING TRANSPORT. IF SOIL IS TRACKED OR SPILT ONTO THE ROAD PAVEMENT, IT MUST BE REMOVED BY NO LATER THAN THE END OF EACH WORKING DAY.
11. EARTHWORKS STOCKPILE LOCATIONS TO BE CONFIRMED WITH SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
12. CONTRACTOR TO ENGAGE GEOTECH ENGINEER TO CONFIRM STABILITY OF ALL BATTER/BANKS ON SITE.

STORMWATER NOTES:

1. FOR STANDARD STORMWATER DRAINAGE DETAILS REFER FNQROC STD. DRGS. S1045 – S1100.
2. SUBSURFACE DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH FNQROC STD SPECIFICATION, FLUSHING POINTS IN ACCORDANCE WITH FNQROC STD. DRG. 1095
3. STORMWATER PIPES TO BE REINFORCED CONCRETE WITH SANDBAND TYPE JOINTS OR SIMILAR (AS APPROVED BY COUNCIL)
4. ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH FNQROC AND COUNCIL STANDARDS.
5. CCTV INSPECTION TO BE UNDERTAKEN IMMEDIATELY FOLLOWING THE CONSTRUCTION OF ALL STORMWATER PIPELINE.

CONCRETE NOTES:

1. MINIMUM COVER TO BE 50mm UNLESS NOTED OTHERWISE.
2. MINIMUM OF THREE (3) CONCRETE CYLINDER TESTS TO BE PROVIDED PER POUR/BATCH.
3. CONCRETE TESTING REQUIREMENTS SHALL GENERALLY BE IN ACCORDANCE WITH THE REQUIREMENTS OF FNQROC. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE SUPERINTENDENT FOLLOWING CONSTRUCTION. SAMPLE, TEST AND ASSESS CONCRETE FOR COMPLIANCE IN ACCORDANCE WITH PROJECT ASSESSMENT OF STRENGTH & GRADE. REFER SECTION 19, AS3600.
4. CURING OF ALL CONCRETE WORKS SHALL BE BY SPRAY ON CURING COMPOUND. THE CURING COMPOUND SHALL BE LIBERALLY APPLIED TO THE SURFACE OF THE CONCRETE IMMEDIATELY AFTER THE INITIAL SCREEDING HAS BEEN COMPLETED, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
5. CONCRETE WORKS ARE NOT TO BE LOADED OR OPENED TO TRAFFIC WITHOUT APPROVAL BY THE SUPERINTENDENT FOLLOWING SATISFACTORY CONCRETE CYLINDER TESTS.
6. LAPS SHALL BE SUCH THAT THE TWO OUTERMOST WIRES OF ONE SHEET OF FABRIC OVERLAP WITH THE OUTERMOST WIRE OF THE SHEET BEING OVERLAPPED.
7. LAPPED PORTIONS SHALL BE TIED WITH WIRE AT A MAXIMUM SPACING OF 500mm.
8. REINFORCEMENT MESH SHALL BE SUPPORTED ON CHAIRS IN A REGULAR GRID NOT EXCEEDING SPACING OF 1.0M.
9. JOINT SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
10. UNLESS NOTED OTHERWISE ALL CONCRETE SHALL BE ROUGH BROOMED FINISHED.
11. ALL CONCRETE SHALL BE THOROUGHLY COMPACTED WITH SURFACE AND/OR IMMERSION VIBRATORS PARTICULARLY AROUND REINFORCEMENT AND AT CORNERS OF FORMS.
12. THE WORKS SHALL COMPLY WITH AS 3600, CONCRETE STRUCTURES.
13. PROVIDE QUALITY OF FINISHES OF FORMED SURFACES (AS 3610) AS FOLLOWS:

FORMED ELEMENT	CLASS
EXPOSED SURFACES	2
CONCEALED SURFACES	3
IN CONTACT WITH THE GROUND	4

14. DO NOT MAKE ANY PENETRATIONS OR CHASES NOR EMBED ANY ITEMS OTHER THAN THOSE SHOWN IN THE STRUCTURAL DRAWINGS WITHOUT PRIOR APPROVAL OF THE SUPERINTENDENT.
15. DO NOT WELD OR SITE BEND REINFORCEMENT UNLESS SHOWN IN THE DRAWINGS OR OTHERWISE APPROVED BY THE SUPERINTENDENT.
16. PROVIDE PREMIX CONCRETE FOR EACH ELEMENT AS FOLLOWS:

ELEMENT	GRADE	MAX AGG. SIZE (mm)	SLUMP (mm)
ALL	N32	20	80+/-15

17. FOR CONCRETE PIT WALLS THAT ARE TO BE CONSTRUCTED IN STAGES, THE CONNECTION SURFACE SHALL BE PREPARED AS FOLLOWS:
    A. THE LEVEL OF EACH CONCRETE POUR RISE SHALL BE EVEN.
    B. THE CONCRETE IS TO BE VIBRATED TO ENSURE MAXIMUM DENSITY IS ACHIEVED AND AIR VOIDS ARE REMOVED.
    C. THE SURFACE IS TO BE SCABBLED AND CLEANED USING A HIGH PRESSURE WATER BLASTER.
    D. REBAR EXTENSIONS SHOULD BE CLEAN OF CONCRETE TO ENSURE BOND TO THE NEXT RISE.
    E. CLEAN OUT HOLES IN THE FORMWORK SHOULD BE REQUIRED TO ALLOW THE RELEASE OF WASTE WATER AND DEBRIS.
    F. TWO LAYERS OF BONDCRETE ARE TO BE APPLIED TO THE TOP CONNECTION SURFACE USING THE FOLLOWING PROCESSES:
        a. A SEALANT LAYER SHALL BE APPLIED USING A 1:4 RATIO OF 1 PART BONDCRETE TO 4 PARTS WATER AND ALLOWED TO DRY FOR A MINIMUM OF 24 HOURS.
        b. THE SEALANT LAYER IS TO BE PROTECTED FROM RAIN AND WATER.
        c. A FINAL BONDCOAT LAYER COMPRISING OF A 4:1 RATIO OF 4 PARTS BONDCRETE TO 1 PART WATER, IS TO BE APPLIED 45-30 MINUTES (STILL TACKY) PRIOR TO THE CONCRETE POUR.

WATER NOTES:

1. THE CONTRACTOR IS TO CONFIRM THE LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO CONSTRUCTION COMMENCING.
2. CONNECTIONS TO EXISTING WATER MAINS TO BE UNDERTAKEN OR SUPERVISED BY COUNCIL.
3. WATERMAINS SHALL BE ON A COUNCIL STANDARD 2.8m ALIGNMENT FROM PROPERTY BOUNDARY U.N.O REFER DETAIL.
4. ERGON ELECTRICAL PILLAR BOX SERVICES TO BE ON OPPOSING PROPERTY BOUNDARIES TO WATER CONNECTIONS.
5. WHERE FIRE HYDRANTS AND LIGHT POLES OCCUR AT THE SAME PROPERTY BOUNDARY, OFFSET THE FIRE HYDRANT 1.0m FROM BOUNDARY.
6. ALL WATER MAINS TO HAVE MINIMUM 800mm COVER UNDER ROADS AND 600mm COVER ELSEWHERE. MINIMUM CLEARANCE FROM OTHER SERVICES IN ACCORDANCE WITH THE WSAA WATER SUPPLY CODE OF AUSTRALIA AND FNQROC DEVELOPMENT MANUAL.
7. TEARDROP MARKERS AND BLUE RETRO-REFLECTIVE MARKERS MUST BE PROVIDED ON ROAD PAVEMENTS TO IDENTIFY LOCATION OF HYDRANTS IN ACCORDANCE WITH FNQROC STD. DRG. S2010 IN VERSION 4 OF THE MANUAL.
8. 80mm PVC CONDUITS ARE TO BE SUPPLIED AND INSTALLED UNDER CONCRETE FOOTPATHS FOR THE PURPOSE OF FUTURE WATER SERVICE AND RECYCLED WATER CONNECTIONS. THE LOCATION SHALL BE AT THE OPPOSITE BOUNDARY TO WHERE THE ELECTRICAL PILLAR BOX IS LOCATED.
9. WHERE HYDRANTS OR VALVES ARE LOCATED WITHIN AN AREA OF CONCRETE, THE SURROUND IS TO BE SET IN THE CONCRETE WITH A COMPRESSIBLE LAYER BETWEEN IT AND THE NEW CONCRETE TO ALLOW REMOVAL FOR MAINTENANCE.
10. REFER TO COUNCIL SPECIFIC STANDARD DRAWINGS INCLUDING FNQROC STANDARD DRAWINGS S2000-CRC TO S2020-CRC FOR WATER SUPPLY CONSTRUCTION DETAILS.

CONTROL LINE MC01 (DRIVEWAY)

CHAINAGE	EASTING	NORTHING	BRG. IN	BRG, OUT	RADII IN	RADII OUT
0.000	768931.248	7974895.295		1°45'03.39"		
50.000	768932.776	7974945.272	1°45'03.39"			

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REVISIONS

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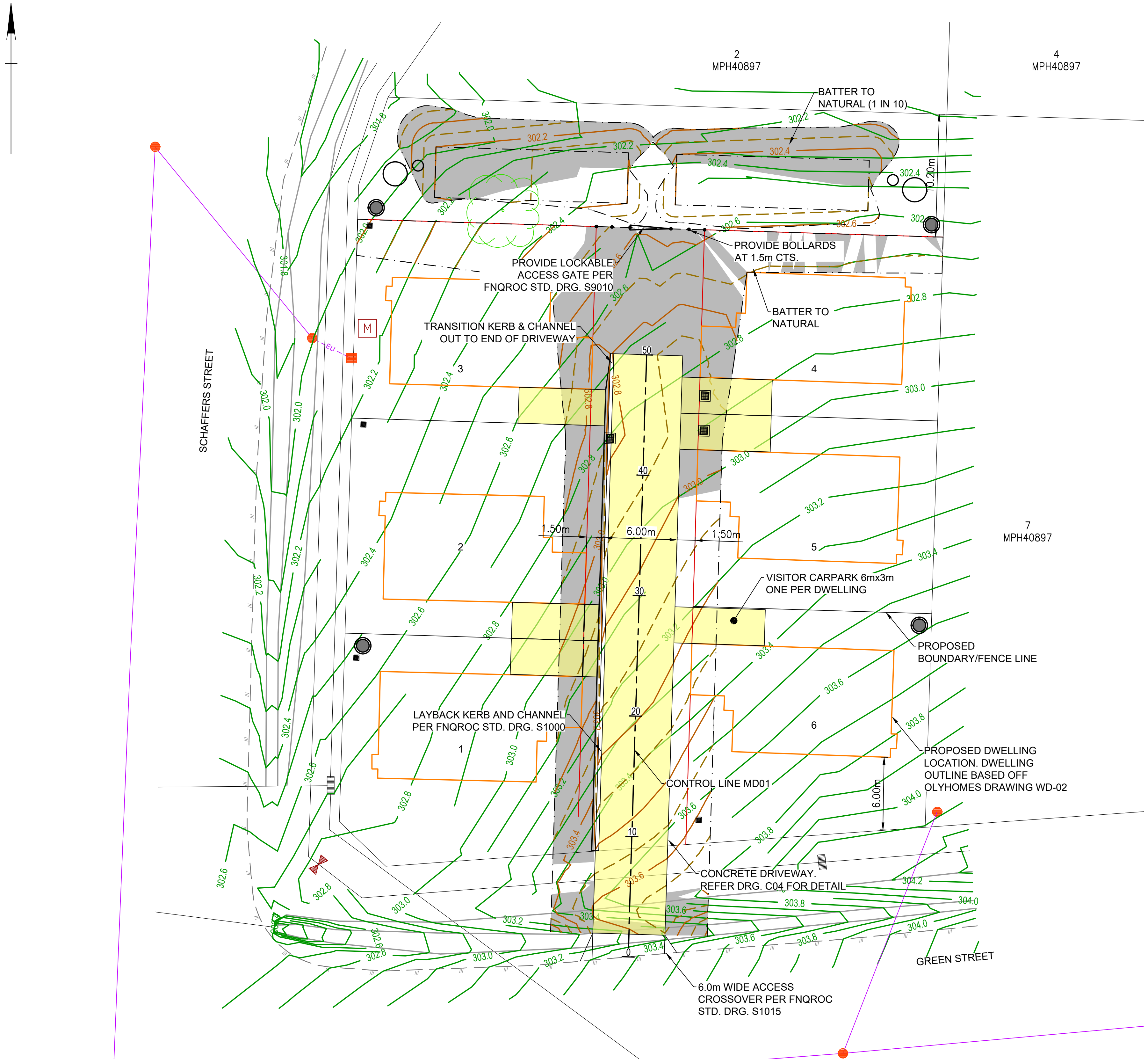
THE GOLDEN SHIRE

SCALE
NTS
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

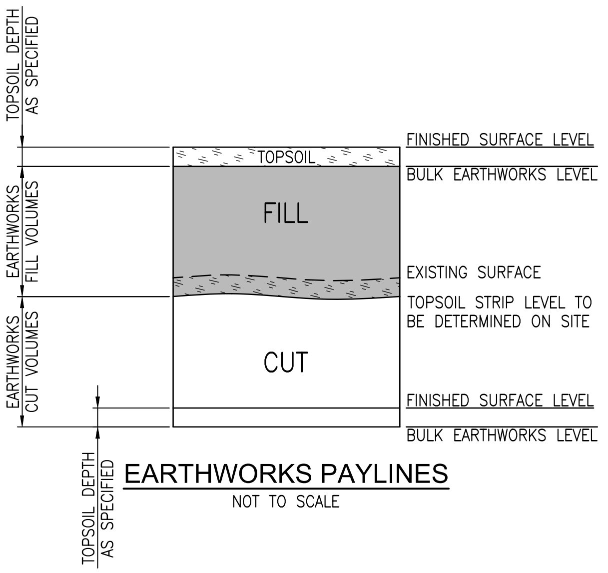
DRAWN MT
DESIGNED MT
DRAWN APPROVED MT
DESIGN APPROVED JM
CIVIL SIGNOFF APPROVAL
ORIGINALLY SIGNED BY JOHN MARTIN
DATE: 13/06/24 RPEQ: 05085

PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT
DRAWING REF
GENERAL NOTES
DRAWING NO 119-101-C02
SIZE A3
REVISION A



LEGEND

— — —	PROPOSED EASEMENT	═ ‒ ‒ ═	PROPOSED KERB & CHANNEL
———	PROPERTY BOUNDARY	🟨	NEW PAVEMENT
≡ ≡ ≡ ≡ ≡ ≡	EXISTING KERB & CHANNEL	— · — · —	NEW BATTER
—23.0—	DESIGN CONTOUR (0.2m INTERVAL)	▨	EARTHWORKS FILL AREAS
—22.0—	EXISTING CONTOUR (0.2m INTERVAL)		



EARTHWORKS PAYLINES

NOT TO SCALE

EARTHWORKS VOLUMES
CUT TO FILL 45m³
CUT TO STOCKPILE 42m³

BATTER NOTE:
ALL BATTERS TO BE MAX. 1 IN 10
UNLESS NOTED OTHERWISE

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CONSTRUCTION

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B	05/07/24	LAYOUT AND SERVICES REVISED	MT	JM
A	13/06/24	ISSUED FOR CONSTRUCTION		
1	05/06/24	PRELIMINARY ISSUE		

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SCALE
1:400 0 2 4 6 8 10 12 A3
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

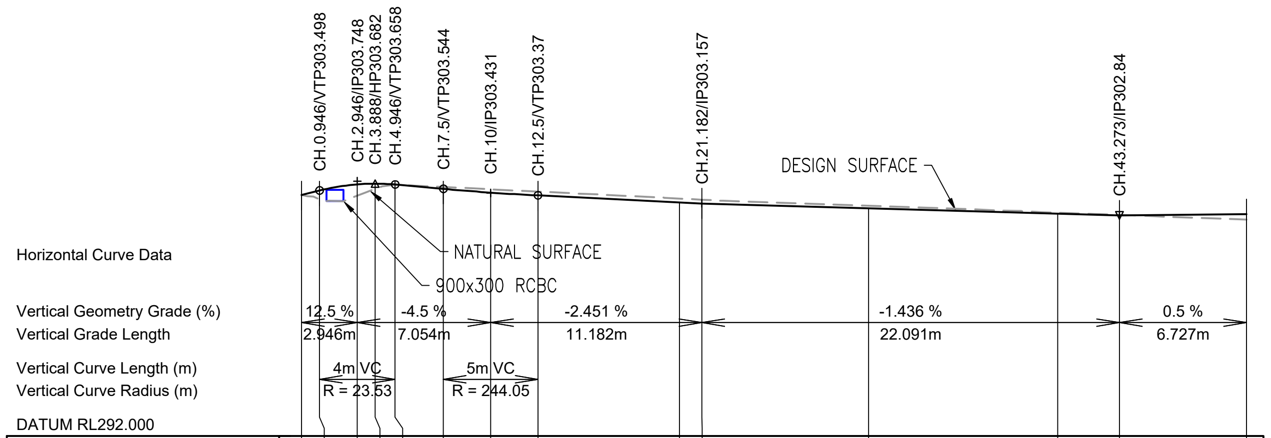
DRAWN	MT	DESIGNED	MT
DRAWN APPROVED	JM	DESIGN APPROVED	JM

CIVIL SIGNOFF APPROVAL
ORIGINALLY SIGNED
BY JOHN MARTIN
DATE: 13/06/24 RPEQ: 05085

PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT

DRAWING REF
LAYOUT AND GRADING DETAILS

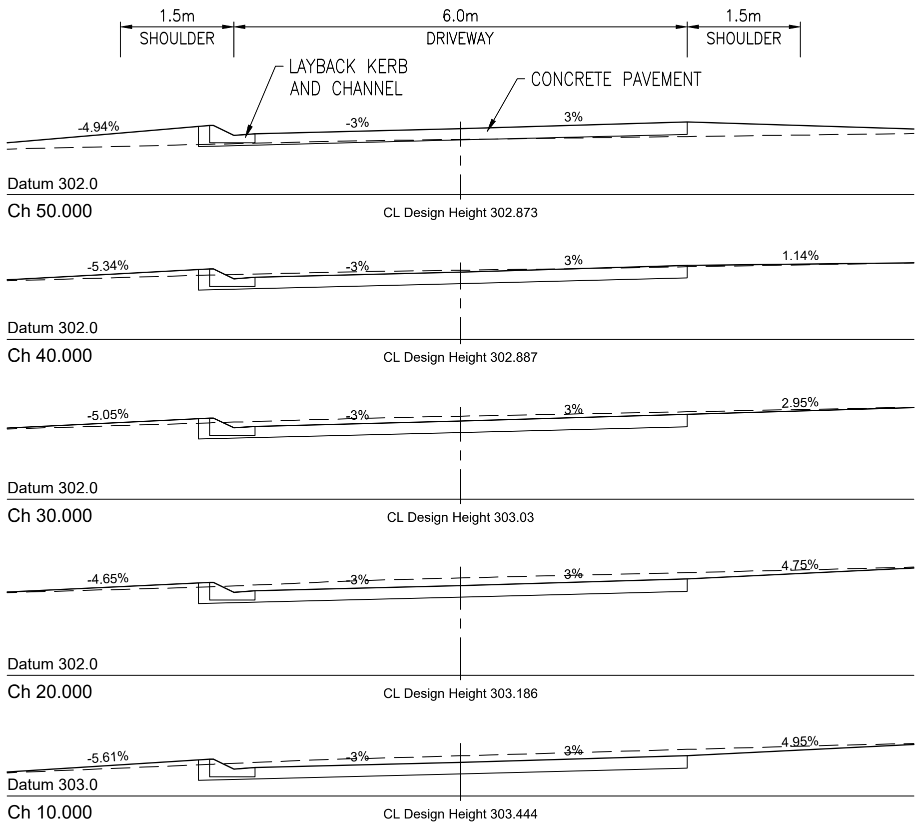
DRAWING NO
119-101-C03
SIZE A3
REVISION B



CUT/FILL DEPTH	0	0.23	0.3	0.141	0.004	-0.049	-0.088	-0.102	-0.103	-0.1	-0.065	-0.026	-0.013	0.143
DESIGN SURFACE	303.38	303.498	303.663	303.682	303.658	303.544	303.444	303.37	303.186	303.157	303.03	302.887	302.84	302.873
NATURAL SURFACE	303.38	303.268	303.364	303.541	303.654	303.593	303.532	303.472	303.288	303.257	303.095	302.912	302.853	302.73
CHAINAGE	0	0.946	2.946	3.888	4.946	7.5	10	12.5	20	21.182	30	40	43.273	50

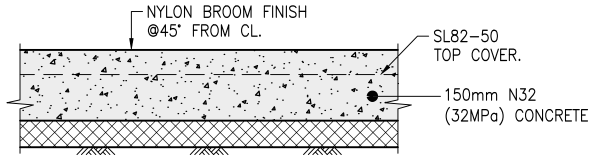
CONTROL LINE MD01 LONGITUDINAL SECTION

SCALE 1:400(H) 1:200 (V)



CONTROL LINE MD01 CROSS SECTIONS

SCALE 1:100



PAVEMENT DETAIL - DRIVEWAY

NOT TO SCALE

1. COMPACT SUBGRADE TO 98% SRDD (CBR TO BE CONFIRMDED BY TESTING IN ACCORDANCE WITH SPECIFICATIONS)
2. PROVIDE ADDITIONAL SUB–BASE LAYER OF 75mm THICK TYPE 2.3 MATERIAL SHOULD SUBGRADE CBR BE BELOW CBR10%.

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SCALE
1:100 0 1 2 3 A3
1:200 0 1 2 3 4 5 6 A3
1:400 0 2 4 6 8 10 12 A3
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

DRAWN MT
DESIGNED MT
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DESIGN APPROVED JM
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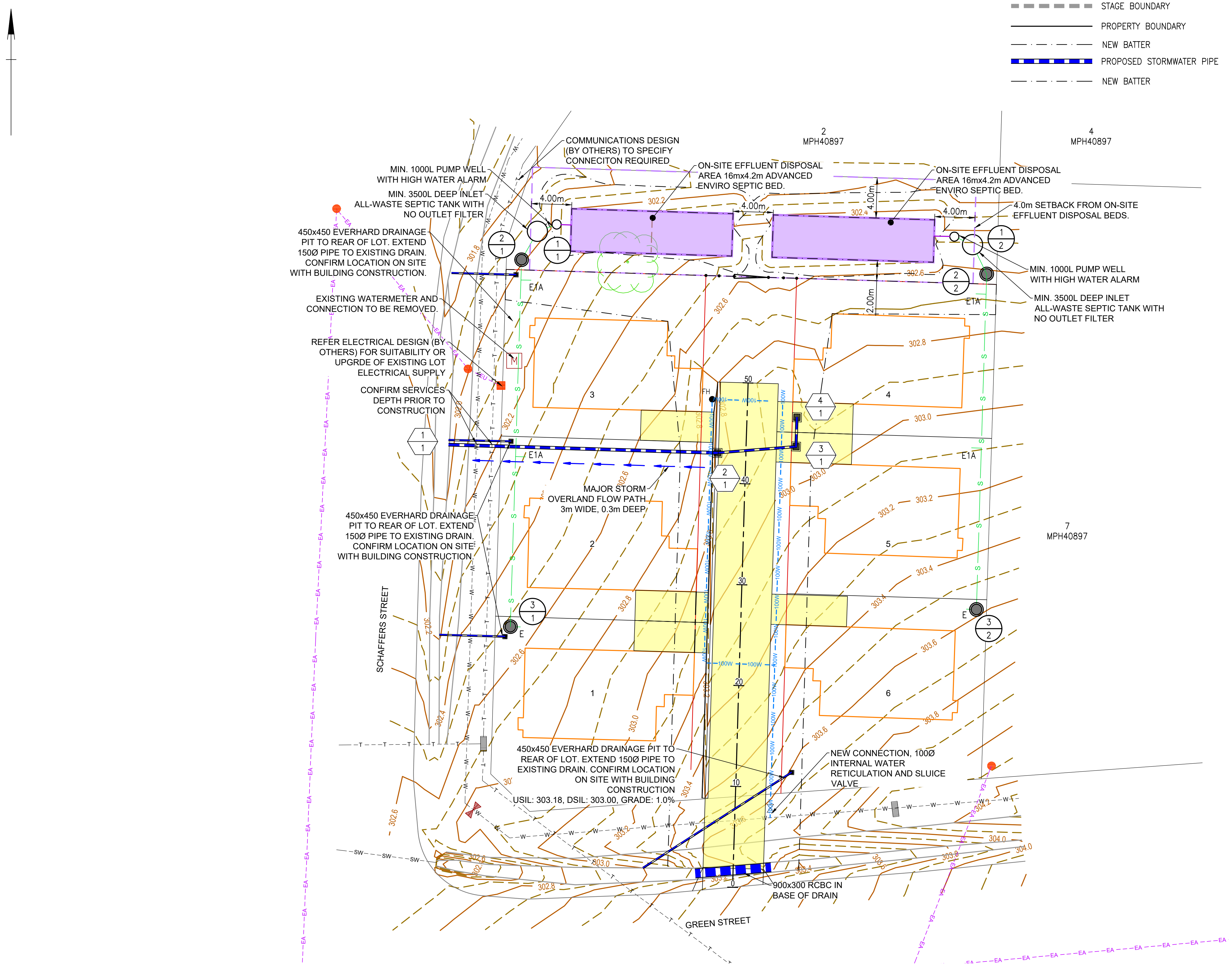
PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT
DRAWING REF
DRIVEWAY LONGITUDINAL AND CROSS SECTIONS
DRAWING NO
119-101-C04
SIZE
A3
REVISION
B



LEGEND

▬ ▬ ▬ ▬	STAGE BOUNDARY
———	PROPERTY BOUNDARY
— · — · —	NEW BATTER
▬▬▬	PROPOSED STORMWATER PIPE
— · — · —	NEW BATTER
—— 5.0 ——	FINISHED CONTOUR MAJOR (1.0m INTERVAL)
— — — —	FINISHED CONTOUR MINOR (0.2m INTERVAL)
— EA — — EA —	EXISTING OVER HEAD ELECTRICAL
— EU — — EU —	EXISTING UNGERGROUND ELECTRICAL
— T — — T — — T —	EXISTING UNGERGROUND COMMS
— W — — W — — W —	EXISTING WATERMAIN
— SW — — SW —	EXISTING STORMWATER
—— SPM ——	PROPOSED SEWER PRESSURE MAIN
—— S ——	PROPOSED GRAVITY SEWER MAIN
E1A S	PROPOSED HOUSE CONNECTION BRANCH AND TYPE
100W ● FH 100W	FIRE HYDRANT REFER FNQROC STD DWG S2005 FOR DETAILS
100W — 100W	PROPOSED 100Ø WATER MAIN

FOR SEWER COLLECTION TANK, PUMP WELL AND LAND APPLICATION AREA DETAILS, REFER EARTH TEST REPORT SI 831-22

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REVISIONS

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DRAWING REF
SERVICES DETAILS PLAN

DRAWING NO 109-101-C05
SIZE A3
REVISION B

MAINTENANCE HOLE COVERS

C = CIRCULAR COVER
R = RECTANGULAR COVER
REFER FNQROC STD. DRG. S3000 FOR DETAILS

MANHOLE DROP TYPES

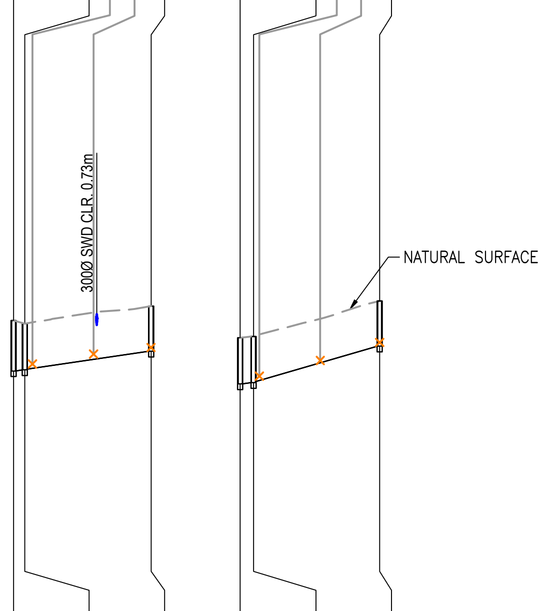
A = 40–250mm DROP
C = >600mm DROP
REFER FNQROC STD. DRG. S3000 FOR DETAILS

PIPE EMBEDMENT

* PIPE EMBEDMENT DESIGN IS TYPE 3 BUT IS TO BE CONFIRMED BY GEOTECHNICAL TESTING PRIOR TO CONSTRUCTION

STRUCTURE NAME	1/1	2/1	3/1	1/2	2/2	3/2
STRUCTURE TYPE & DROP	TANK	MH A	MH A	TANK	MH A	MH A
STRUCTURE LID TYPE		B	B		B	B
JUNCT. LINE No.						
JUNCT. DROP TYPES						

DEPTH TO HC	1.10	1.10	1.10	1.10	1.10	1.10
HC INVERT LEVEL	300.98	301.24	301.42	301.66	302.08	302.55
HC TYPE	E	E	E	E	E	E
HC LOT No.	3	2	1	4	5	6
CH FROM DS STRUCTURE	2.00	19.51	36.37	2.00	17.26	33.26

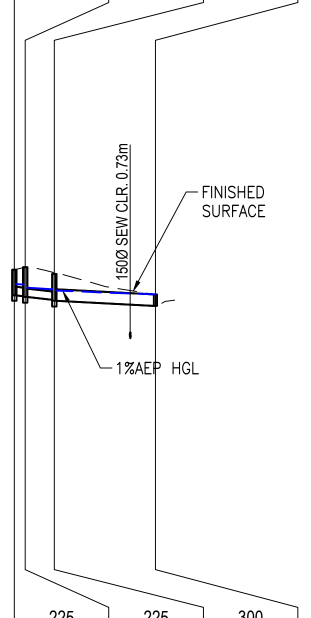


DIAMETER (CLASS)	Ø150uPVC (SN8)		Ø150uPVC (SN8)	
GRADE 1 in X	1 IN 97.65	1 IN 78.25	1 IN 97.56	1 IN 34.36
LENGTH (m)	3.221	36.373	3.221	33.264
DATUM RL(m)	291.000		292.000	

JUNCTION INVERT LEVEL						
DEPTH TO INVERT	1.155	1.220 1.200	1.200	1.157	1.220 1.200	1.200
SEWER INVERT LEVEL	300.803	300.836 300.856	301.321	301.361	301.394 301.414	302.382
DESIGN SURFACE LEVEL	301.958	302.056	302.521	302.518	302.614	303.582
EXISTING SURFACE LEVEL	301.958	302.056	302.521	302.518	302.614	303.582
SETOUT COORDINATES	E 768911.894 N 7974960.284	E 768910.321 N 7974957.473	E 768909.209 N 7974921.117	E 768955.036 N 7974958.965	E 768956.064 N 7974956.064	E 768955.418 N 7974922.816
RUNNING CHAINAGE	0.000	3.221	39.594	0.000	3.221	36.485

SEWER LINE 1 SEWER LINE 2

STRUCTURE NAME	4/1	3/1	2/1	1/1
STRUCTURE DESCRIPTION	TYPE 2A FIELD INLET PIT 600x600 IPWEA STD. DRG. DS-050	TYPE 2A FIELD INLET PIT 600x600 IPWEA STD. DRG. DS-050	TYPE 2A FIELD INLET PIT 600x600 IPWEA STD. DRG. DS-050	HEADWALL



PIPE SIZE (mm)	225	225	300
PIPE CLASS	PVC	PVC	PVC
PIPE GRADE (%)	0.97%	0.98%	0.50%
PIPE SLOPE (1 in X)	102.35	101.93	198.80
FULL PIPE VELOCITY (m/s)	0.43	0.85	0.78
PART FULL VELOCITY (m/s)	1.05	1.24	1.08
DATUM RL	289.0		
PIPE FLOW (Cumecs)	0.017	0.034	0.055

H.G.L IN PIPE & W.S.E IN STRUCTURE	302.610 302.547	302.557 302.459	302.415 302.379	302.300
DEPTH TO INVERT	0.675	0.676 0.656	0.690 0.710	0.450
INVERT LEVEL OF DRAIN	302.232	302.203 302.183	302.106 302.086	301.952
DESIGN SURFACE LEVEL	302.932	302.839	302.821	302.277
SETOUT COORDINATES	E 768937.624 N 7974941.864	E 768937.533 N 7974938.898	E 768929.703 N 7974938.338	E 768902.994 N 7974935.672
RUNNING CHAINAGE	0.000	2.967	10.817	37.442

2.967 7.850 76.624

SWD - LINE 1

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PLOT DATE5/07/2024 4:13:54 PM
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REVISIONS

NO.	DATE	DESCRIPTION	DESIGN	APPROVED
B	05/07/24	LAYOUT AND SERVICES REVISED	MT	JM
A	13/06/24	ISSUED FOR CONSTRUCTION		
1	05/06/24	PRELIMINARY ISSUE		

ERSCON
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CLIENT
BEEF GOLD
THE GOLDEN SHIRE

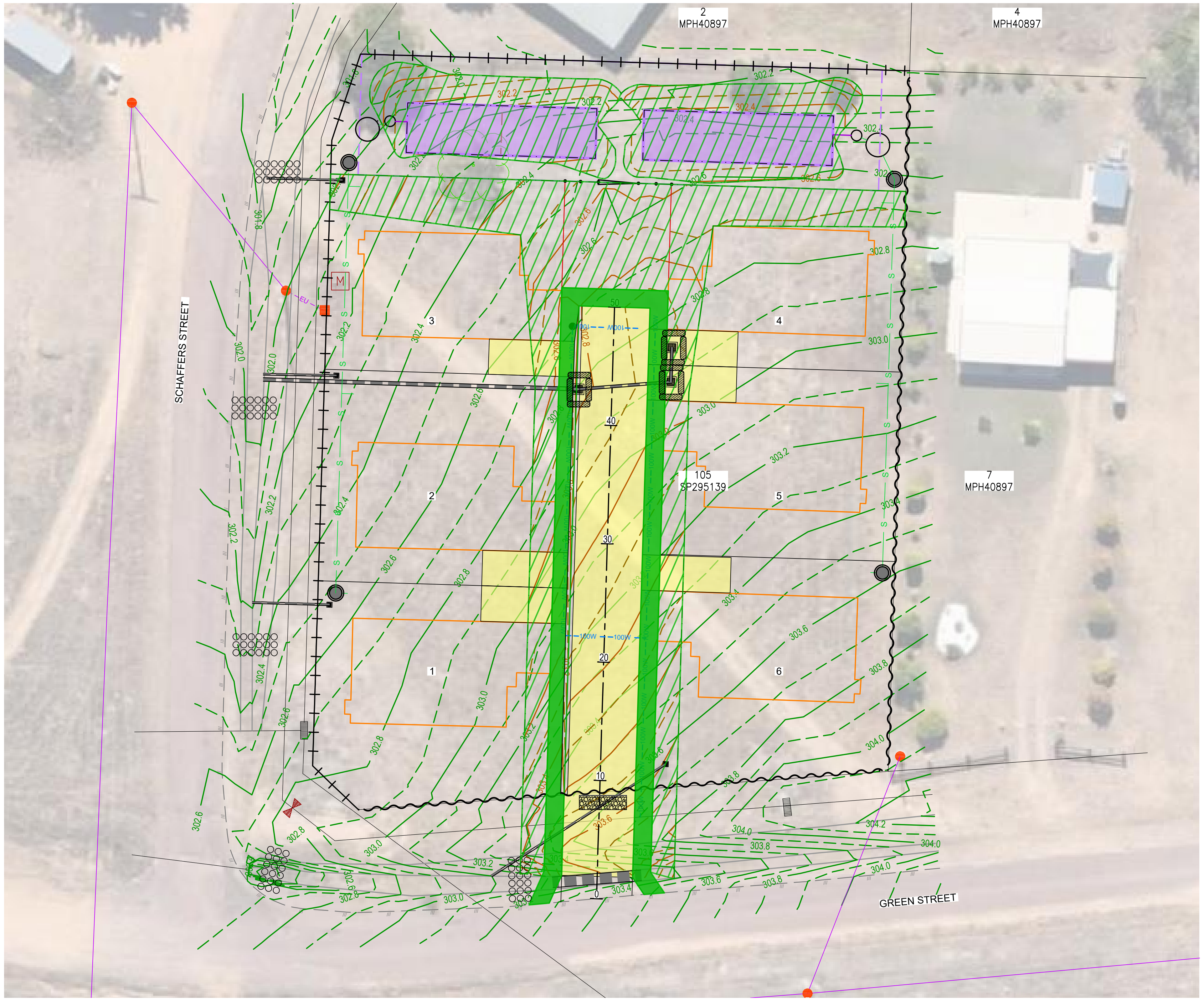
SCALE
1:2000 0 10 20 30 40 50 60 A3 HORIZONTAL
1:200 0 2 4 6 A3 VERTICAL
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

DRAWN MT
DESIGNED MT
DRAWN APPROVED JM
DESIGN APPROVED JM
CIVIL SIGNOFF APPROVAL
ORIGINALLY SIGNED BY JOHN MARTIN
DATE: 13/06/24 RPEQ: 05085

PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT
DRAWING REF
SERVICES LONGITUDINAL SECTIONS
DRAWING NO 109-101-C06
SIZE A3
REVISION B

LEGEND

〰	DIVERSION MULCH BUND
▨	TEMPORARY CONSTRUCTION ENTRY/EXIT (REFER IPWEAQ STD DRG D-0040)
┼┼┼	SEDIMENT FENCE WITH RETURNS AT 20m INTERVALS (REFER IPWEAQ STD DRG D-0040).
▬	SAND BAG CHECK DAM.
23.0	DESIGN CONTOUR (0.2m INTERVAL)
22.0	EXISTING CONTOUR (0.2m INTERVAL)
○○○	TEMPORARY ROCK CHECK DAM
🟩	PROPOSED TURF
▨	PROPOSED DRILL SEED GRASS



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REVISIONS

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CLIENT

SCALE
1:400 0 2 4 6 8 10 12 A3
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

DRAWN MT	DESIGNED MT
DRAWN APPROVED JM	DESIGN APPROVED JM

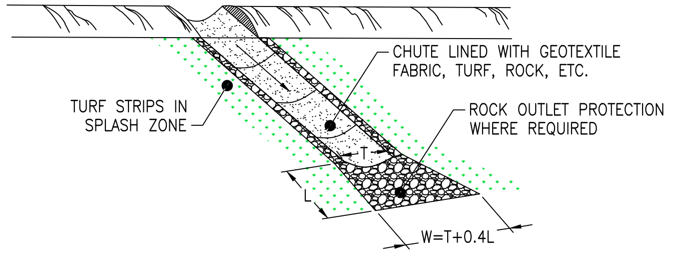
CIVIL SIGNOFF APPROVAL
ORIGINALLY SIGNED
BY JOHN MARTIN
DATE: 13/06/24 RPEQ: 05085

PROJECT REF
GEORGETOWN STAFF HOUSING PROJECT

DRAWING REF
CONCEPT EROSION AND SEDIMENT CONTROL

DRAWING NO 119-101-C07
SIZE A3
REVISION B

BATTER CHUTE



APPLICATION/FUNCTION

- TRANSPORTATION OF CONCENTRATED FLOW DOWN AND ENBANKMENT

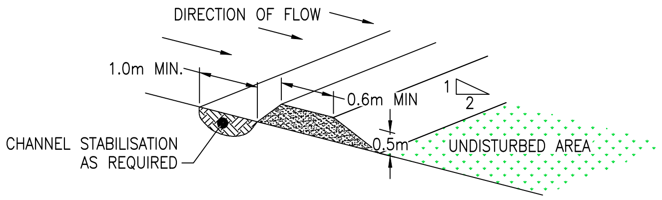
LIMITATIONS

- TOPOGRAPHY MUST ALLOW COLLECTION OF FLOW AT THE INLET
- USUALLY ONLY ECONOMICAL FOR LOW FLOWS

MAINTENANCE

- THE INLET AND OUTLET SHOULD BE CHECKED REGULARLY TO ENSURE THEY ARE CLEAR OF OBSTRUCTIONS

CATCH & DIVERSION DRAINS



APPLICATION/FUNCTION

- TO CONTROL FLOW VELOCITY IN DRAINAGE CHANNELS

LIMITATIONS

- DIVERSION BUNDS SHOULD BE LIMITED IN HEIGHT TO AROUND 0.5m, OR 1.0m IF FORMALLY DESIGNED.
- NOT USED IN 'DEFINED' WATERCOURSES

MAINTENANCE

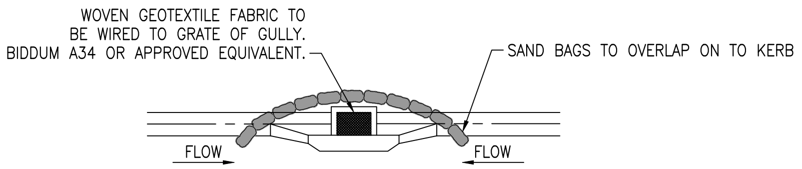
- CATCH & DIVERSION DRAINS SHOULD BE CHECKED WEEKLY
- EXCESSIVE SEDIMENT SHOULD BE REMOVED TO AVOID PONDING
- REPAIR ANY SLUMPS OR DAMAGE

SPACING

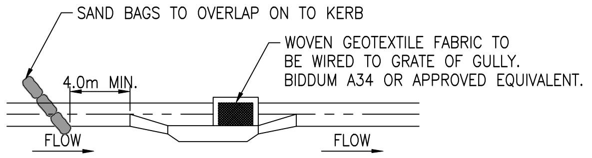
- THE SPACING OF CATCH & DIVERSION DRAINS DOWN EXPOSED SLOPES SHOULD NOT EXCEED THE DISTANCE DEFINED BY:

MAXIMUM SPACING ≈ 48 [LOG(H)] – 25 METRES
≡ 71 – 48 [LOG(% SLOPE)]
METRES
WHERE: H IS THE HORIZONTAL SLOPE COMPONENT AS DEFINED BY H(H):1(V)
AND $(\%\ \text{SLOPE}) = \frac{100}{H}$

SAG GULLIES



GULLIES ON GRADE



APPLICATION/FUNCTION

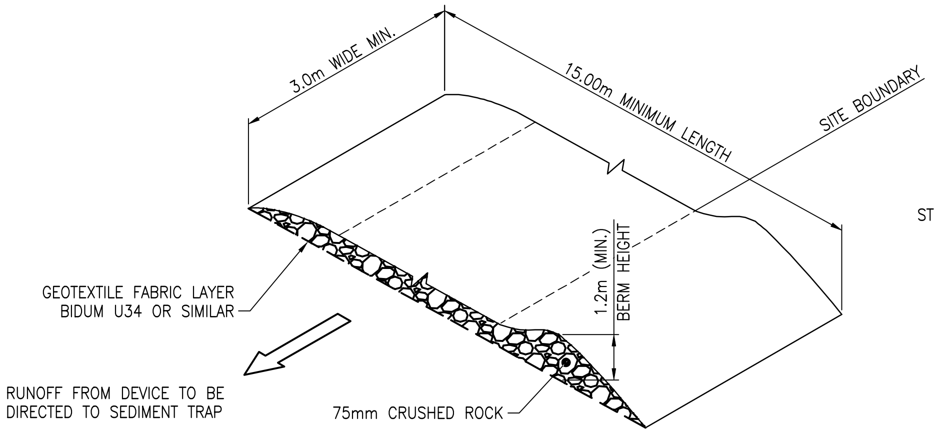
- TO PREVENT SEDIMENT LADEN WATER FROM ENTERING INTO STORMWATER DRAINAGE SYSTEM THROUGH KERB INLETS

LIMITATIONS

- SAND BAGS TO BE PROVIDED AT ALL SAG AND ON GRADE PITS

MAINTENANCE

- INSPECT PRIOR TO EXPECTED RAIN AND DAILY DURING RAIN
- REPAIR OR REPLACED DAMAGED SAND BAGS
- REMOVE AND SEDIMENT WITH SHOVEL AND DISPOSE OF CORRECTLY



TYPICAL TEMPORARY CONSTRUCTION ENTRY / EXIT DETAIL

SCALE 1:100

PRE-CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL REVIEW THE CONTRACT DRAWINGS AND PROVIDE CALCULATIONS BASED ON THE INFORMATION PROVIDED ON THIS DRAWING FOR EACH STAGE OF DEVELOPMENT.
2. PRIOR TO COMMENCEMENT OF CONSTRUCTION THE FOLLOWING SHALL BE INSTALLED AND INSPECTED BY THE SUPERINTENDENT:
   - 2.1. DIVERSION DRAINS; SWALES AND SEDIMENT FENCES
   - 2.2. ENTRY/EXIT SHAKE DOWN
   - 2.3. STOCKPILE SITES
3. FOLLOWING APPROVAL TO PROCEED FROM THE SUPERINTENDENT SEDIMENT PONDS SHALL BE CONSTRUCTED INCLUDING OVERFLOW WEIR AND TURFING.

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND SEDIMENTATION TRANSPORT DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
2. ALL DIVERSION DRAINS/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
3. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS.
4. GULLY INLETS TO HAVE SILT PROTECTION DETAIL AT LOCATIONS SHOWN.
5. EXTRA EROSION CONTROL MEASURES ARE TO BE ERECTED AS ORDERED BY THE SUPERINTENDENT.
6. CONSTRUCT WASH DOWN BAY OR SHAKE DOWN AT SITE ENTRY/EXIT TO COUNCIL STANDARDS.
7. CLEARING OF SITE AND STOCKPILE SITE TO BE APPROVED BY SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
8. ALL EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE INSPECTED AT LEAST WEEKLY, PRIOR TO EXPECTED RAINFALL AND AFTER RAINFALL. ANY DAMAGE OR EXCESS EROSION/SEDIMENT IS TO BE REPAIRED/MANAGED AS REQUIRED TO MAINTAIN CONTROL DEVICES.
9. WHERE POSSIBLE PROVIDE DIVERSION DRAINS TO DIVERT CLEAR WATER FROM UNDISTURBED CATCHMENT.
10. ALL OPEN ENDED PIPEWORK LOCATED IN OPEN TRENCHES AND INCOMPLETE PITS ARE TO BE CAPPED WITH SUITABLE FILTER CLOTH AT THE END OF EACH DAYS WORK AND IMMEDIATELY PRIOR TO STORMS.
11. ALL MATERIALS TRACKED OR SEDIMENT WASHED ONTO COUNCIL ROADS FROM CONSTRUCTION ARE TO BE BROOMED UP AND COLLECTED.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL (ESC) MEASURES ARE TO BE MAINTAINED AND FULLY OPERATIONAL DURING THE MAINTENANCE PERIOD, AND ARE TO BE REMOVED AFTER THE SATISFACTORY COMPLETION OF AN 'OFF–MAINTENANCE' INSPECTION AND PRIOR TO FORMAL ACCEPTANCE BY COUNCIL.
13. FINAL SITE STABILISATION AND C–FACTOR (0.05) IS TO BE ACHIEVED PRIOR TO RELEASE OF SURVEY PLAN AND SEDIMENT BASINS ARE TO REMAIN ON–SITE BEYOND SURVEY PLAN RELEASE IN READINESS FOR THE HOUSE CONSTRUCTION PHASE. THE REMOVAL OF BASINS IS NOT TO OCCUR UNTIL 80% HOUSE CONSTRUCTION HAS BEEN ACHIEVED.

SEDIMENT MANAGEMENT PROGRAM

1. CLEARING: EARTH BANK AND DIVERSION DRAINS TO BE CONSTRUCTED. SEDIMENT FENCES, SAND BAGS AND EARTH RILLS TO BE ERECTED AS REQUIRED. EXISTING GRASSED AREAS TO BE KEPT WHERE POSSIBLE.

2: EARTHWORKS: SEDIMENT FENCES AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS REQUIRED.

3. STORMWATER/SERVICES: EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS. TOPSOIL AND GRASS SEEDED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.

4. STOCKPILE: SEDIMENT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILE.

5. ROADWORKS: SEDIMENT FENCES TO BE ERECTED. KERB INLET PROTECTION TO BE PROVIDED. SAND BAGS SURROUND ALL INLET GULLY PITS AS INDICATED.

6. LANDSCAPING: GRASSING/TURFING/PLANTING TO FINISHED SURFACE TO BE INSTALLED AS SOON AS POSSIBLE AFTER FINAL TRIMMING IS COMPLETED.

7. MAINTENANCE: ALL MEASURES SHALL BE INSPECTED AT LEAST DAILY (WHEN WORK IS OCCURRING ON SITE) OR WEEKLY (WHEN WORK IS NOT OCCURRING ON SITE) WITHIN 24 HOURS OF EXPECTED RAIN, WITHIN 18 HOURS OF A RAINFALL EVENT. ALL MEASURES SHALL BE MAINTAINED THE SAME DAY WHEN THE CAPACITY OF THE ESC MEASURE FALLS BELOW 75%.

8. TOTAL SUSPENDED SOLIDS (TSS) DISCHARGE LIMIT IS 50mg/L.

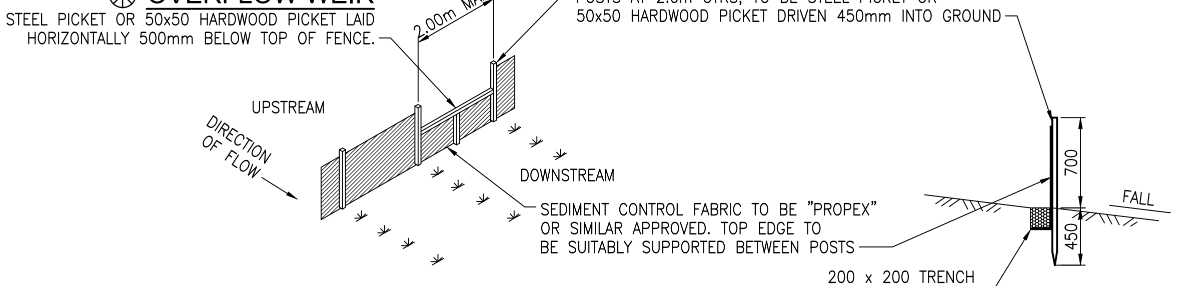
9. THE CONTRACTOR IS TO ENSURE THAT THE SEDIMENT BASINS ARE FLOCCULATED USING MANUAL DOSING OF GYPSUM AS DIRECTED BY SUPERINTENDENT OR IF SETTLEMENT DOES NOT OCCUR WITHIN 4 DAYS OF A STORM EVENT. THE INITIAL DOSING RATE IS 30KG/100m³ STORED WATER.

10. FOLLOWING THE FIRST TWO STORM EVENTS THE CONTRACTOR IS TO TEST THE WATER TO ENSURE THE TREATMENT IS EFFECTIVE. THE DOSING RATE SHALL BE ADJUSTED AS REQUIRED TO ACHIEVE A MAXIMUM DISCHARGE CONCENTRATION OF 50mg/L.

11. THE SEDIMENT BASIN IS TO BE EMPTIED WITHIN 5 DAYS OF A STORM EVENT AND BE READY TO RECEIVE MORE SEDIMENT–LADEN WATER. ENSURE THE SEDIMENT COLLECTED IS NOT DISTURBED AND DISCHARGED WHEN THE SEDIMENT BASIN IS EMPTIED AND ENSURE DISCHARGING WATERS CONTAIN LESS THAN 50mg/L TSS.

SEDIMENT FENCES

⊛ OVERFLOW WEIR



THIS TEMPORARY BARRIER OF A PERVIOUS MATERIAL (GEOTEXTILE) IS USED TO INTERCEPT SEDIMENT LADEN RUNOFF. THESE ARE TO BE LOCATED ON THE CONTOUR AND SHALL NOT BE USED TO INTERCEPT CONCENTRATED FLOWS.

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GEORGETOWN STAFF HOUSING PROJECT
DRAWING REF
EROSION AND SEDIMENT CONTROL DETAILS
DRAWING NO
119-101-C08
SIZE
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REVISION
A