

KINGS FOREST

BULK EARTHWORKS-PRECINCTS 03, 04 & 05

PRELIMINARY-PRECINCT 05

No.12301-05

SCHEDULE OF DRAWINGS		
NUMBER	REV NO	TITLE
GENERAL		
12301-05-000	B	COVER SHEET
12301-05-001	A	GENERAL NOTES
12301-05-002	A	LEGEND
12301-05-003	A	KEY PLAN-BULK EARTHWORKS
12301-05-004	A	KEY PLAN-ROADWORKS & DRAINAGE
12301-05-005	A	KEY PLAN-SEWER& WATER RETICULATION
12301-05-007	A	ROAD HIERARCHY & STAGING PLAN
12301-05-008	A	INDICATIVE STAGING PLAN
SEDIMENT AND EROSION		
12301-05-010	A	CONCEPT PLAN
BULK EARTHWORKS		
12301-05-030	A	CUTFILL PLAN-SHEET 01
12301-05-031	A	CUTFILL PLAN-SHEET 02
12301-05-040	A	BULK EARTHWORKS CUTFILL AREAS
12301-05-050	A	KEY PLAN-BULK EARTHWORKS SECTIONS
12301-05-051	A	LONGITUDINAL SECTIONS SHEET 01
12301-05-052	A	LONGITUDINAL SECTIONS SHEET 02
12301-05-053	A	LONGITUDINAL SECTIONS SHEET 03
12301-05-054	A	LONGITUDINAL SECTIONS SHEET 04
TYPICAL SECTIONS AND DETAILS		
12301-05-090	A	SHEET 01
ROADWORKS AND DRAINAGE		
12301-05-100	B	PLAN-SHEET 01
12301-05-101	A	SHEET 02
12301-05-102	A	SHEET 03
12301-05-103	A	SHEET 04
12301-05-104	A	SHEET 05
12301-05-105	A	SHEET 06
12301-05-106	A	SHEET 07
12301-05-107	A	SHEET 08
12301-05-108	A	SHEET 09
12301-05-109	A	SHEET 10
12301-05-110	A	SHEET 11
12301-05-111	A	SHEET 12
SEWER RETICULATION		
12301-05-500	A	PLAN-SHEET 01
12301-05-501	A	SHEET 02
12301-05-502	A	SHEET 03
12301-05-503	A	SHEET 04
12301-05-504	A	SHEET 05
12301-05-505	A	SHEET 06
12301-05-506	A	SHEET 07
12301-05-507	A	SHEET 08
12301-05-508	A	SHEET 09
WATER RETICULATION		
12301-05-700	A	PLAN-SHEET 01
12301-05-701	A	SHEET 02
12301-05-702	A	SHEET 03
12301-05-703	A	SHEET 04
12301-05-704	A	SHEET 05
12301-05-705	A	SHEET 06
12301-05-706	A	SHEET 07
12301-05-707	A	SHEET 08
12301-05-708	A	SHEET 09



CLIENT

PROJECT 28
PTY LTD

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1. **PRE START**
ERECT SITE SIGNAGE, CONSTRUCT ENTRY AND EXIT POINT AS INDICATED.
CONSTRUCT VEHICLE WASHDOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.
CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA.
ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED.
ERECT TEMPORARY 3 STRAND WIRE FENCE TO EXISTING TREES TO BE RETAINED.
CONSTRUCT ROCK CHECK DAMS AND SILT FENCES DOWNSTREAM OF BASIN. CONSTRUCT BASIN TO FULL DEPTH.
CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.
BASIN TO BE UTILISED AS TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
2. **CLEARING AND BULK EARTHWORKS**
SILT FENCE, SAND BAGS AND EARTH RILLS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING.
SUPERINTENDENT TO CONFIRM EXTENT OF CLEARING TO CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
SILT FENCES AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING EARTHWORKS.
3. **CONSTRUCTION OF SEWER/ROOFWATER/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 SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION.
DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. **CONSTRUCTION - SEDIMENT BASINS**
SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN.
STORMWATER OUTLET PIPES TO BE TEMPORARILY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES).
PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREA AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER.
5. **CONSTRUCTION - STOCKPILING**
TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.
STOCKPILE SITE TO BE CLEAR OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE A NUISANCE TO ADJOINING PROPERTIES.
6. **CONSTRUCTION - ROADWORKS**
SILT FENCES TO ALLOTMENTS TO BE ERECTED.
KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. **CONSTRUCTION - ALLOTMENTS**
TOPSOIL AND SEED ALLOTMENTS.
SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED.
COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATED THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
8. **POST CONSTRUCTION - ALLOTMENTS**
TOPSOIL AND GRASS SEED ALL ALLOTMENTS.
COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
9. **POST CONSTRUCTION - ROAD RESERVES**
TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
10. **MAINTENANCE (PRE TO POST CONSTRUCTION)**
THE SILT FENCES ARE TO BE INSPECTED WEEKLY.
ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY.
SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.

1. **CONTRACT SPECIFICATIONS**
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION.
2. **SETOUT**
SURVEY SETOUT INFORMATION HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR TO ENABLE THE CONTRACTOR TO ACCURATELY SETOUT THE WORKS TO THE CO-ORDINATES SHOWN. SETOUT INFORMATION SHALL NOT BE OBTAINED BY SCALING FROM THESE DRAWINGS.
3. **DATUM**
LEVELS SHOWN ARE TO A.H.D.
4. **EXISTING SERVICES - External Works**
THE LOCATIONS OF ALL EXISTING SERVICES WITHIN THE WORK AREA SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION COMMENCING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT AUTHORITIES AND TO ENSURE THAT THE EXISTING SERVICES ARE NOT DAMAGED OR DISTURBED IN ANY WAY.

1. PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORKS AREA, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DEWATERING.
2. FOR THE ENTIRE EMBANKMENT AREA STRIPPING OF VEGETATION AND ANY HIGHLY ORGANIC TOP SOILS AND ANY SOFT CLAYS TO DEPTHS OF APPROX. 0.3m IS REQUIRED.
3. THE STRIPPED SURFACE IS TO BE INSPECTED AND TESTED BY A GEOTECHNICAL ENGINEER.
4. SUBJECT TO GEOTECHNICAL ENGINEERS INSPECTION EXCAVATION OF A CUTOFF KEY ALONG THE EMBANKMENT CENTERLINE AT LEAST 0.5m - 1.0m INTO THE FOUNDATION MATERIALS SHALL BE REQUIRED.
5. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO A DENSITY RATIO WITHIN THE RANGE 98% - 102% STANDARD COMPACTION (AS 12895.1.1). PLACEMENT MOISTURE CONTENTS SHOULD BE WITHIN THE RANGE OMC -1% TO OMC +2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION).

1. SERVICE CORRIDOR ALLOCATIONS TO BE AS PER KINGS FOREST CONCEPT PLAN WHERE PROVIDED.

1. THE OBJECTIVE OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE TO
 - A) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.
 - B) MINIMAL SOIL EROSION FROM WATER AND WIND.
 - C) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.
 - D) MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTION SITE.
 - E) ENSURE THAT THE VALUE AND USE OF RESIDENTIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST PRACTICE FOR EROSION AND SEDIMENT CONTROL, THE SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR NEW SOUTH WALES CONSTRUCTION SITES, THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.

NOTWITHSTANDING THE DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT SEDIMENT CONTROL DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY SEDIMENT LEAVING THE SITE.
3. THE CONTRACTOR IS TO FOLLOW THE CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/ SILT MANAGEMENT PROGRAM.

ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%.

ALL PERIMETER BANK/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.

AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS.

INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS DIRECTED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALISATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETED.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT.

CLEARING OF SITE AND STOCK PILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES).
7. PLACE ROCK BUND AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. PLACE 0.8m WIDE TURF STRIP BEHIND ALL KERBS AND ON ALL BATTERS STEEPER THAN 1:4 UNLESS OTHERWISE NOTED.

THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH TWEED SHIRE COUNCIL REQUIREMENTS.

3. **TOPSOIL STRIPPING**
TOPSOIL SHALL BE STRIPPED ACCORDING THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
4. **EARTHWORKS LEVELS**
EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL.
5. **COMPACTION STANDARD**
SITE FILLING AND TRENCH BACKFILL SHALL BE COMPACTED TO THE STANDARDS OUTLINED IN TWEED SHIRE COUNCIL STANDARD SPECIFICATION.
6. **PAVEMENT DEPTHS**
THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE DEPTHS SHOWN IN THE SCHEDULE OF PAVEMENT DEPTHS. THE PAVEMENT DEPTHS GIVEN ARE DESIGN DEPTHS ONLY AND MAY BE VARIED AFTER SUBGRADE TESTS ARE TAKEN.
7. **TESTING**
ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. TESTING AUTHORITY. ALL SITE FILLING SHALL BE TESTED AT LEVEL 1 REQUIREMENTS.
8. **TOPSOIL REPLACEMENT**
ALL FOOTPATHS, BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOPSOILED WITH TOPSOIL FROM ONSITE STOCKPILES. THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING IF DIRECTED BY SUPERINTENDENT.
9. **GRASSING**
ALL CUT/FILL AREAS, DISTURBED AREAS AND TRENCHED AREAS SHALL BE GRASSED TO THE SATISFACTION OF THE SUPERINTENDENT.
10. **SUBSOIL DRAINS**
SUBSOIL DRAINS ARE TO BE CONSTRUCTED IN ACCORDANCE TWEED SHIRE COUNCIL STANDARD SPECIFICATIONS AND SHALL BE PLACED AS DIRECTED BY THE SUPERINTENDENT.
11. **ROCK**
THE CONTRACTOR IS TO MAKE THEMSELVES KNOWN OF ANY ROCK PRIOR TO TENDER AND INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATE.

1. LINE-MARKING AND SIGNAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES-2003 EDITION".
2. EXTENT OF LINE-MARKING IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
3. EXACT LOCATION OF ALL SIGNS IS TO BE VERIFIED ON SITE WITH THE SUPERINTENDENT PRIOR TO INSTALLATION.
4. ALL SIGN POSTS & SIGN RAILS TO BE IN ACCORDANCE WITH TWEED SHIRE COUNCIL STANDARD SPECIFICATIONS.

1. ALL STORMWATER SHALL BE CONSTRUCTED IN ACCORDANCE WITH T.S.C. STANDARD SPECIFICATIONS 0220,221,222,223&224.
2. 1. ALL ROAD GULLY LINTELS TO BE STAMPED 'DUMP NO WASTE - FLOWS INTO CREEK AS PER T.S.C. STD DWG SD103.
3. STEP IRONS REQUIRED IN ALL DRAINAGE STRUCTURES >1200mm DEEP AS PER T.S.C. S.D.109.
4. INTERLOTMENT DRAINAGE PITS
 - < 900 DEPTH TO BE 600mm UNLESS NOTED OTHERWISE
 - > 900 < 1200 TO BE 600x900 UNLESS NOTED OTHERWISE
 - > 1200 TO BE 900x900 UNLESS NOTED OTHERWISEAND CONSTRUCTED IN ACCORDANCE WITH DETAIL ON DWG. 7710-10+012-090.
5. ALL INTERLOTMENT DRAINAGE PITS LINES TO BE 225mm DIA. UNLESS NOTED OTHERWISE AND HAVE MINIMUM GRADE OF 1% AND 300mm COVER. PIPES EXCEEDING 15% GRADE TO HAVE BULKHEADS INSTALLED AT JOINTS. REFER TO T.S.C. STD DWG S.D.107 FOR CONCRETE BULKHEAD DETAILS.
6. ALL INTERLOTMENT DRAINAGE PITS STUBS TO EXISTING AND FUTURE LOTS TO BE 90mm OR 100mm DIA UPVC LOCATED IN LOWEST CORNER, EXTENDING 1m INTO PROPERTY AND SEALED OFF WITH UPVC CAP. LOCATION TO BE MARKED WITH GREEN PAINTED STEEL STAR PICKET 600mm MIN. HEIGHT.
7. ALL DRAINAGE PIPE BEDDING INSTALLATION SHALL BE TYPE HS2 UNLESS NOTED OTHERWISE AND AS SPECIFIED IN AS3725.
8. ALL DRAINAGE PIPES SHALL BE DESIGNED TO WITHSTAND TRAFFIC VEHICLE LOADING OF 70kN AND 600mm COVER. (REFER CONCRETE PIPE ASSOCIATION- CONCRETE PIPE SELECTION AND INSTALLATION).THE CONTRACTOR SHALL MAKE ALLOWANCE FOR ALL CONSTRUCTION LOADS.
9. FOR STANDARD ROAD GULLY PIT DETAILS REFER T.S.C DWG SD104.
10. ALL PIPES UP TO 600mm DIA. ARE TO BE RRJ IF GROUNDWATER IS ENCOUNTERED WHERE OVER 600 RRJ SHALL ALSO BE USED.
11. PROVIDE KERB ADAPTORS TO ALL LOTS WITHOUT IAD CONNECTIONS.
12. THE CONTRACTOR IS TO INCLUDE ANY ROCK EXCAVATION AS PART OF THEIR STORMWATER RATE.

1. ALL WATER RETICULATION SHALL BE IN ACCORDANCE WITH T.S.C. DEVELOPMENT DESIGN SPECIFICATION D11.
2. GENERAL ALIGNMENT OF WATERMAINS SHALL BE as per T.S.C. SD301.
3. ALL CONNECTIONS TO EXISTING WATERMAINS SHALL BE BY TWEED SHIRE COUNCIL AT DEVELOPERS COST.
4. ALL WATERMAINS SHALL BE D1CL CLASS K9 (UNLESS SHOWN OTHERWISE), POLYETHYLENE SLEEVED.
5. WATER SERVICES SHALL BE IN ACCORDANCE WITH T.S.C. SD302.
6. SLUICE VALVES ARE TO HAVE A RESILIENT SEAT, WITH ABILITY TO REPLACE RING STEM SEAL WHILE UNDER FULL WORKING PRESSURE, NYLON COATED, HAVE A WORKING PRESSURE OF 1600KPa OR GREATER, MANUFACTURED IN ACCORDANCE WITH AS2638-1991 AND ARE TO BE CLOCKWISE CLOSE.
7. SPRING HYDRANTS ARE TO BE MANUFACTURED IN ACCORDANCE WITH AS3925-1991 WITH DUCTILE IRON.
8. 00KPa OR GREATER, AND NUTS AND BOLTS TO BE GRADE 316 STAINLESS STEEL.
9. TAPING BANDS ARE TO BE WATERMAIN FITTINGS SURESEAL TAPPING SADDLES FOR DUCTILE IRON PIPE, MANUFACTURED FROM GUNMETAL AND DR BRASS, WITH A WORKING PRESSURE OF 1.8MPa. ALTERNATIVELY DUCTILE IRON TAPPING BANDS 150-TAP WITH A WORKING PRESSURE OF 1.8MPa, ARE SUITABLE.(PROVISIONAL)
10. MAIN COCKS ARE TO BE TPENR CAPPED FERRULES MANUFACTURED FROM GUNMETAL WITH A WORKING PRESSURE OF 1.8MPa. A TITA END CONNECTOR FERRULE TO POLY IS TO BE JOIN MAIN COCK TO MDPE PIPE. NOTE MAIN COCKS INCORPORATING A POLY FERRULE WILL NOT BE ACCEPTED.
11. PATH COCKS AT THE END OF THE SERVICE PIPE ARE TO BE GUNMETAL INLINE BALL VALVE WITH A WORKING PRESSURE OF 1.8MPa OR GREATER. BALL VALVES ARE TO BE FEMALE TO FEMALE AND A TITA MALE POLY END CONNECTOR IS TO BE USED TO JOIN THE BALL VALVE TO THE MDPE PIPE.
12. MINIMUM COVER TO PIPE WORK SHALL BE 450mm (FOOTPATH), 600mm (ROAD PAVEMENT).
13. PRIOR TO PURCHASE OF ANY BRASS WARE CONTRACTOR SHALL CONTACT T.S.C REGARDING APPROVED MATERIALS.
14. PROVIDE THRUST BLOCKS AT ALL FLUSHING BENDS AND HYDRANT, TEES AND BENDS.
15. WATER RETICULATION AND WATER SERVICE TO BE INSTALLED AFTER ELECTRICITY AND TELSTRA WORKS COMPLETED.
16. PRIOR TO RETICULATION WORK COMMENCING, ALL MATERIALS ARE TO BE INSPECTED BY T.S.C.'S INSPECTING OFFICER.
17. WATER SERVICE CONNECTION TO BE ON OPPOSITE BOUNDARY TO POWER SERVICE.
18. PROVIDE SERVICE CONDUIT MARKERS AS DETAILED ON T.S.C. STD DWG SD302.
19. ROAD PAVEMENT AND KERB MARKINGS FOR HYDRANTS AND VALVES SHALL BE AS PER T.S.C. STD DWG SD306.
20. THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR WATER RATE.

1. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH DEVELOPMENT DESIGN SPECIFICATION D12.
2. REFER TO WATER SERVICES ASSOCIATION OF AUSTRALIA STD DWG SEW-1300 FOR STANDARD MANHOLE DETAILS AND SEW-1206 AND SEW-1207 FOR CONCRETE BULKHEADS AND BEDDING DETAILS.
3. ALL HOUSE CONNECTIONS TO BE IN ACCORDANCE WITH T.S.C. STD DWG SD250 FOR TYPES 'A' & 'B' AND SD251 FOR TYPE 'C'
4. ALL WORKS ON 'LIVE' SEWER LINES TO BE CARRIED OUT UNDER COUNCIL SUPERVISION AT DEVELOPERS EXPENSE.
5. ALL SEWER HOUSE SERVICE JUNCTIONS SHALL BE 1m CLEAR OF BOUNDARY. (TYPICAL).
6. ALL SEWER HOUSE CONNECTIONS TO LOTS TO BE 150mm DIA UPVC UNLESS NOTED OTHERWISE.
EXTENDING 1m INTO PROPERTY AND SEALED OFF WITH PVC CAP.
LOCATION TO BE MARKED WITH RED PAINTED STEEL STAR PICKET 0.6m MIN. HEIGHT.
7. FOR SETOUT DETAILS REFER SEWERAGE LONGITUDINAL SECTIONS.
8. ALL SEWER TO BE UPVC (RR) CLASS SN8 UNLESS NOTED OTHERWISE.
9. ALL GRAVITY PIPELINES FOR ROAD CROSSINGS TO BE UPVC CLASS 12 TO AS 1447 SERIES 1.
10. ALL SEWER LINES ON PRIVATE PROPERTY TO BE CONTAINED IN A MINIMUM 3.0m WIDE EASEMENT.
11. ALL SEWER MANHOLES AND ENDS SHALL BE LOCATED 1.50m FROM FRONT AND SIDE BOUNDARIES UNLESS NOTED OTHERWISE.
12. SEWER RISING MAIN ROAD CROSSING TO BE CLASS 16 UPVC SERIES 2 OR DICL.
13. LOCATION OF SERVICES TO BE IN ACCORDANCE WITH T.S.C. SD006 & ALL PUMP STATIONS SHALL BE IN ACCORDANCE WITH SD220/01.02.03 & 04.
14. AUTOMATIC AIR VALVE TO BE INSTALLED IN ACCORDANCE WITH T.S.C. SD242
15. THE CONTRACTOR IS TO INCLUDE ANY ROCK EXCAVATION AS PART OF THEIR SEWER RATE.

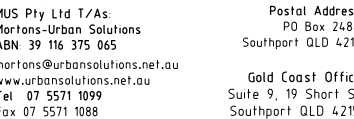
REAL PROPERTY DESCRIPTION
Part of Lot 6 on DP875446, Part of Lot 1 on DP781633,
Part of Lot 40 on DP7482 & Part of Lot 2 on DP819015
PARISH OF CUDGEN.
COUNTY OF ROUS.

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ASSOCIATED CONSULTANTS
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agricultural and environmental scientists

GENERAL NOTES



DRAWING NUMBER	AMEND.
12301-05-001	A

STRUCTURE TYPE	HORIZONTAL CONTROL (Reference Point Location)	VERTICAL CONTROL (Reference Level)
MANHOLE	CENTRE OF MANHOLE	FINISHED SURFACE LEVEL
GULLY PIT	LIP AT CENTRE OF PIT	FINISHED SURFACE LEVEL (LIP OF CHANNEL)
HEADWALL	INTERSECTION OF HEADWALL FACE & PIPE CENTRELINE	INVERT LEVEL

RM	RM	RM	PROPOSED RISING MAIN
S	S	S	PROPOSED SEWER
SW	SW	SW	PROPOSED STORMWATER
RW	RW	RW	PROPOSED ROOFWATER
SS	SS	SS	PROPOSED SUBSOIL
W	W	W	PROPOSED WATER
OIL	OIL	OIL	PROPOSED OIL
F	F	F	PROPOSED FUEL
G	G	G	PROPOSED GAS
P	P	P	PROPOSED PIPELINE
HV	HV	HV	PROPOSED HIGH VOLTAGE ELECTRICITY
E	E	E	PROPOSED UNDERGROUND ELECTRICITY
E V	E V	E V	PROPOSED OVERHEAD ELECTRICITY
L	L	L	PROPOSED LIGHTING
T	T	T	PROPOSED TELSTRA
C	C	C	PROPOSED COMMUNICATIONS
GE	GE	GE	PROPOSED GAS, ELECT
GT	GT	GT	PROPOSED GAS, TELSTRA
ET	ET	ET	PROPOSED ELECT, TELSTRA
GET	GET	GET	PROPOSED GAS, ELECTRICITY, TELSTRA
RM	RM	RM	EXISTING RISING MAIN
S	S	S	EXISTING SEWER
SW	SW	SW	EXISTING STORMWATER
RW	RW	RW	EXISTING ROOFWATER
SS	SS	SS	EXISTING SUBSOIL
W	W	W	EXISTING WATER
OIL	OIL	OIL	EXISTING OIL
F	F	F	EXISTING FUEL
G	G	G	EXISTING GAS
P	P	P	EXISTING PIPELINE
HV	HV	HV	EXISTING HIGH VOLTAGE ELECTRICITY
E	E	E	EXISTING UNDERGROUND ELECTRICITY
E V	E V	E V	EXISTING OVERHEAD ELECTRICITY
L	L	L	EXISTING LIGHTING
T	T	T	EXISTING TELSTRA
C	C	C	EXISTING COMMUNICATIONS
RM	RM	RM	DEMOLISH RISING MAIN
S	S	S	DEMOLISH SEWER
SW	SW	SW	DEMOLISH STORMWATER
SS	SS	SS	DEMOLISH SUBSOIL
W	W	W	DEMOLISH WATER
OIL	OIL	OIL	DEMOLISH OIL
F	F	F	DEMOLISH FUEL
HV	HV	HV	DEMOLISH HIGH VOLTAGE ELECTRICITY
E	E	E	DEMOLISH UNDERGROUND ELECTRICITY
E V	E V	E V	DEMOLISH OVERHEAD ELECTRICITY
L	L	L	DEMOLISH LIGHTING
G	G	G	DEMOLISH GAS
P	P	P	DEMOLISH PIPELINE
T	T	T	DEMOLISH TELSTRA
C	C	C	DEMOLISH COMMUNICATIONS

	OVERLAND FLOW PATH/SWALE
	CATCH DRAIN (NOT LINED)
	DIVISION CHANNEL
	TABLE DRAIN
	STREAM INVERT
	CATCH DRAIN (CONCRETE LINED)
	SILT FENCE
	CHAINWIRE FENCE
	TIMBER FENCE
	BRIFEN WIRE SAFETY BARRIER
	GUARDRAIL (STANDARD)
	RETAINING WALL (PILED)
	RETAINING WALL (WITH FOOTINGS)
	TOP OF BATTER / BERM
	NOISE WALL AT 5 PEN
	EDGE OF VEGETATION
	PROPERTY LINE
	PROPERTY LINE WITH FENCE
	FACE OF KERB, FOOTPATHS
	LIP AND BACK OF KERB
	CONTROL LINE / CENTER OF ROAD
	RAILWAY (MAJOR)
	RAILWAY (MINOR)
	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE WITH FENCE
	EXISTING SURVEY BOUNDARIES
	EXISTING COUNTY BOUNDARY
	EXISTING KERB
	EXISTING EDGE OF BITUMEN
	EXISTING RAILWAY (MAJOR)
	EXISTING RAILWAY (MINOR)
	EXISTING FEATURES
	FUTURE PROPERTY LINE
	SITE BOUNDARY
	PRECINCT BOUNDARY
	STAGE BOUNDARY
	CATCHMENT BOUNDARY
	EXISTING CONTOURS
	DESIGN CONTOURS
	BULK EARTHWORKS CONTOURS
	AREA OF WORKS NOT RELEVANT TO THIS APPLICATION

	GATE
	STORMWATER PIT
	SETOUT POINT
	TELSTRA PIT
	STREET LIGHT
	ELECTRICAL TURRET
	IN LINE PIT WITH GRATE
	OFFSET PIT WITH GRATE
	JUNCTION PIT
	LETTERBOX PIT
	GRATED INLET PIT
	MANHOLE
	KERB INLET PIT WITH LINTEL
	KERB INLET (SAG) PIT
	INFILTRATION TRENCH
	HEADWALL
	GROSS POLLUTANT TRAP
	BUND
	STORMWATER PIT & LINE NO.
	STORMWATER INLET FILTER

BK(A) BARRIER KERB (A)
 BK(B) BARRIER KERB (B)
 BK(G) BARRIER KERB (G)
 MK(D) MOUNTABLE KERB (D)
 SMK(C) SEMI MOUNTABLE KERB (C)
 ERIE EDGE RESTRAINT (E)
 KER(F) KERB EDGE RESTRAINT (F)
 RK&C(H) ROLL TOP KERB & CHANNEL (H)
 BK&C(J) BARRIER KERB & CHANNEL (J)
 ERL KERB EDGE RESTRAINT (HIGH)
 ERH KERB EDGE RESTRAINT (LOW)
 CS(K/L) CHANNEL SECTION (K/L)
 PMB PRECAST MOTOR BED
 DD DISH DRAIN
 K&G KERB AND GUTTER
 K&T KERB AND TOE
 KO KERB ONLY
 MK MOUNTABLE KERB
 RK ROLL KERB
 ——— TANGENT POINT
 KERB RETURN NO.
 PRAM RAMP
 GRAVEL ROCK CHECK DAM
 MESH & GRAVEL INLET FILTER

- SEWER MANHOLE
- SEWER RODDING END
- SEWER BEND
- SEWER MAINTENANCE SHAFT
- SEWER 'T' END
- SEWER PIT
- SEWER PUMP STATION
- SEWER PIT NO/LINE
- WATER PIT
- WATER METER
- WATER HYDRANT
- WATER TEE
- WATER REDUCER
- WATER SLUICE VALVE
- WATER ENDCAP
- WATER CONNECTION
- WATER CROSSING
- WATER DICK

 VEHICLE SHAKEDOWN. 300mm
 THICK LAYER OF 75mm
 GRAVEL LAID ON
 GEOTEXTILE, GRADED TO
 DRAIN AWAY FROM
 SHAKEDOWN. BARRIER TO
 BE PLACED AROUND
 SHAKEDOWN TO ENSURE
 VEHICLES USE SHAKEDOWN.
 TREES
 EXISTING EDGE OF BUILDING

REAL PROPERTY DESCRIPTION
Part of Lot 6 on DP875446, Part of Lot 1 on DP781633,
Part of Lot 40 on DP7482 & Part of Lot 2 on DP819015
PARISH OF CUDGEN .
COUNTY OF ROUS .

ISSUES	DATE	
TENDER		
STATE AUTHORITY	08-03-11	
SURVEY		
ELECTRICAL		
CONSTRUCTION		

A	08-03-11	STATE AUTHORITY ISSUE
PRE	DATE	AMENDMENT

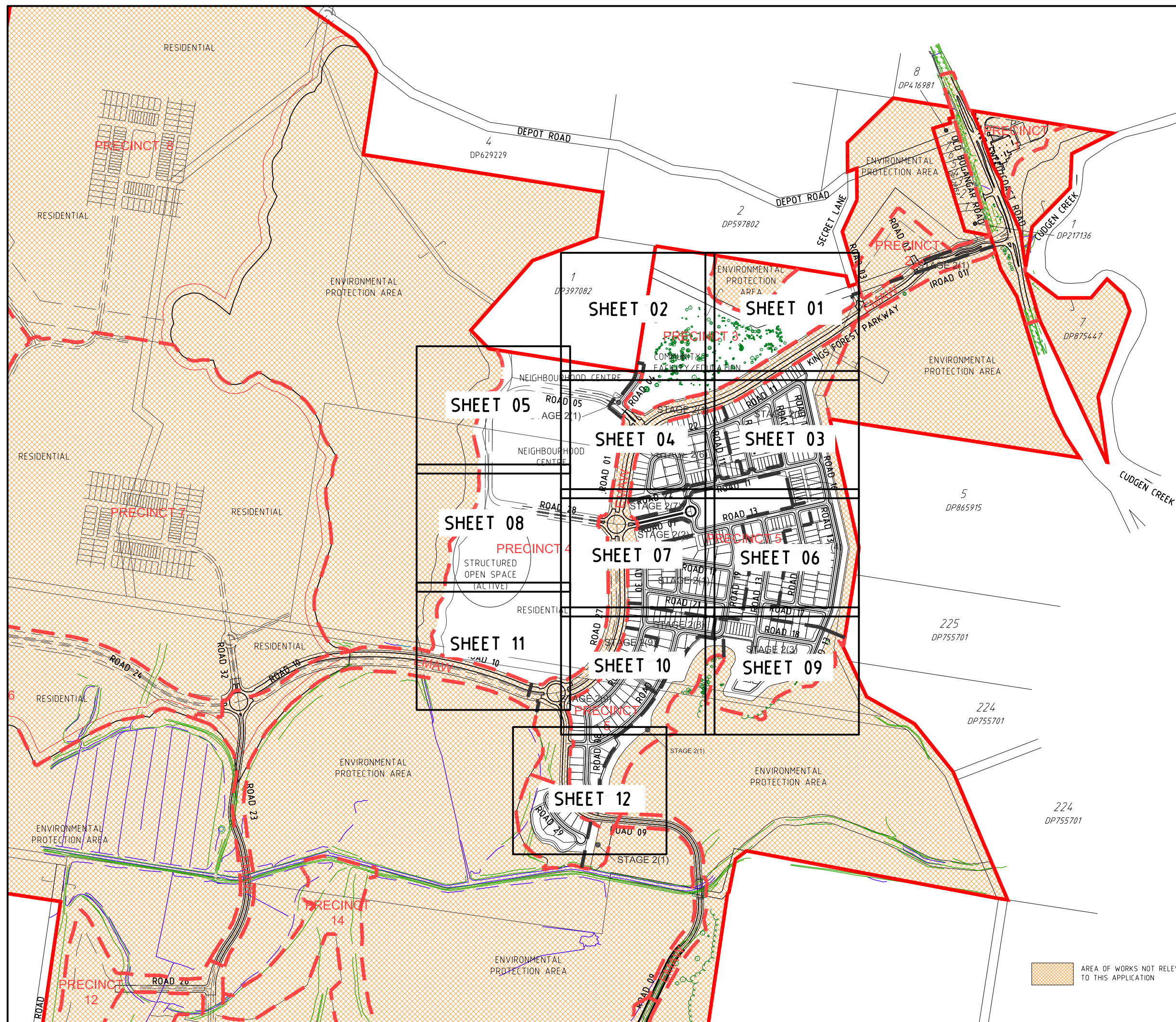
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GILBERT+SUTHERLAND
agricultural and environmental scientists

LEGEND

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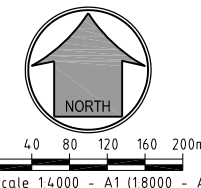
DESIGNED RB	DRAWN BG	
APPROVED		DATE 30-07-09
DRAWING NUMBER		AMEND.
12301-05-002		A



PROJECT NAME
**KINGS
FOREST**
BULK EARTHWORKS-PRECINCTS
03, 04 & 05
PRELIMINARY-PRECINCT 05

REAL PROPERTY DESCRIPTION
Part of Lot 6 on DP875446, Part of Lot 1 on DP781633;
Part of Lot 40 on DP7482 & Part of Lot 2 on DP819015
PARISH OF CUDGEN .
COUNTY OF ROUS .

CLIENT
PROJECT 28
PTY LTD



ISSUES	DATE	
TENDER		
STATE AUTHORITY	08-03-11	
SURVEY		
ELECTRICAL		
CONSTRUCTION		

A	08-03-11	STATE AUTHORITY ISSUE
PRE	DATE	AMENDMENT

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D R A W I N G T I T L E

KEY PLAN

ROADWORKS & DRAINAGE



MORTONS
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Project Coordination

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DESIGNED RB	DRAWN BL	
APPROVED		DATE 06-01-11

DRAWING NUMBER	AMEND.
12301-05-004	A

