

- LEGEND**
- 8089 2.0 D PROPOSED GRAVITY SEWER WITH ACCESS CHAMBER/MAINTENANCE SHAFT, DEPTH, PROPERTY CONNECTIONS AND D = DROP
 - CONCRETE CAISSON FOR STORAGE
 - 2216 PROPOSED PRESSURE MAIN
 - PM EXISTING PRESSURE MAIN
 - EXISTING GRAVITY SEWERS
 - FUTURE GRAVITY SEWERS
 - 225 DIAMETER OF PIPE (IF > 150mm)
 - RETICULATION AREA BOUNDARY
 - * INDICATES WHICH LOTS HAVE NO DESIGN RESTRICTIONS TO THE LOCATION OF THE PROPERTY CONNECTION.

- NOTES**
1. DEPTH OF ACCESS CHAMBERS AND MAINTENANCE SHAFTS ARE APPROXIMATE AND ONLY APPEAR ON THIS DRAWING FOR INFORMATION OF THE WATER CORPORATION IT IS THE CONTRACTORS RESPONSIBILITY TO CONSTRUCT THE WORKS IN ACCORDANCE WITH THE DETAIL DRAWINGS
 2. ALL SEWERS 150mm UNLESS NOTED OTHERWISE
 3. MAXIMUM GROUNDWATER LEVEL VARIES REFER TO GEOTECHNICAL INVESTIGATION REPORT

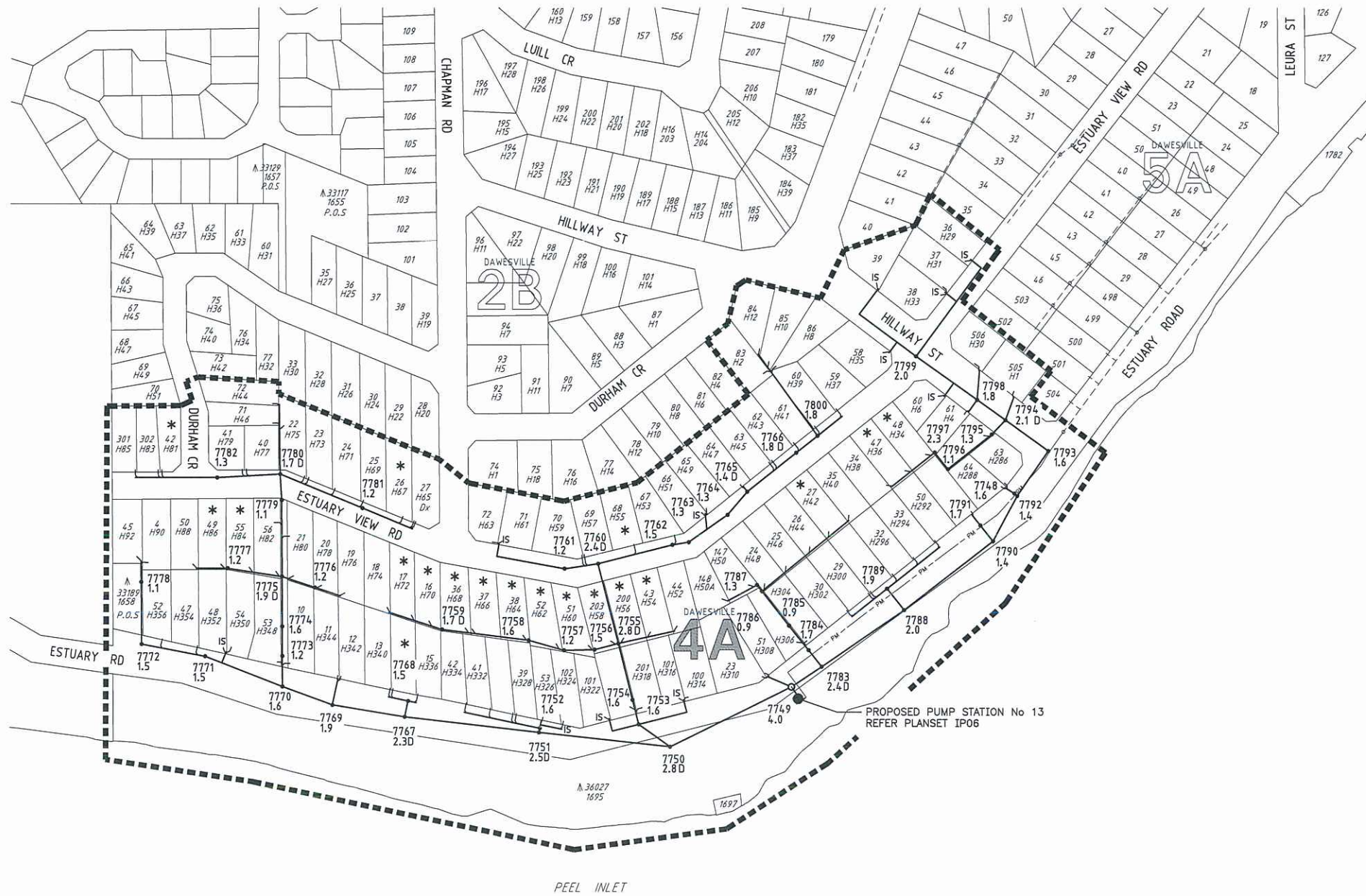
LOCAL AUTHORITY: CITY OF MANDURAH

LENGTH OF SEWERS:
 150 DIAMETER - 8337m
 225 DIAMETER - 1150m
 TOTAL LENGTH - 9487m

No. OF ACCESS CHAMBERS - 42
 No. OF MAINTENANCE SHAFTS - 95
 No. OF STORAGE CAISSONS - 5
 No. OF LOTS BEING SERVED - 309

Scale: 1:2000
 50 40 30 20 10 0 50 100 m

566	ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	EMW	DESIGN SURVEY	VERTICAL DATUM	DES CALC	NORTH POINT	 GHD House, 239 Adelaide Terrace, Perth WA 6004 Australia T 61 8 6222 8222 F 61 8 6222 8555 E permall@ghd.com.au W www.ghd.com.au	RECOMMENDED	 WATER CORPORATION	MANDURAH WASTEWATER RETICULATION AREA DAWESVILLE 1B AND 5A SITE PLAN	ORIGINAL SHEET SIZE A1
	11/2012			UPDATED TO WATER CORPORATION DESIGN STANDARDS AND PRELIMINARIES TO WORKS CHANGES				NONE	AHD	E WEBB		CONSULTANT JOB MANAGER APPROVED CONSULTANT PROJECT DIRECTOR		FILE JT1 2004 06752 PROJECT C-S00755			



LEGEND

- 7794 2.1 D PROPOSED GRAVITY SEWER WITH ACCESS CHAMBER/MAINTENANCE SHAFT, DEPTH, PROPERTY CONNECTIONS AND D = DROP
- CONCRETE CAISSON FOR STORAGE
- PROPOSED PRESSURE MAIN
- EXISTING PRESSURE MAIN
- EXISTING GRAVITY SEWERS
- FUTURE GRAVITY SEWERS
- DIAMETER OF PIPE (IF > 150 Ø)
- RETICULATION AREA BOUNDARY
- * INDICATES WHICH LOTS HAVE NO DESIGN RESTRICTIONS TO THE LOCATION OF THE PROPERTY CONNECTION.

NOTES

1. DEPTH OF ACCESS CHAMBERS AND MAINTENANCE SHAFTS ARE APPROXIMATE AND ONLY APPEAR ON THIS DRAWING FOR INFORMATION OF THE WATER CORPORATION IT IS THE CONTRACTORS RESPONSIBILITY TO CONSTRUCT THE WORKS IN ACCORDANCE WITH THE DETAIL DRAWINGS
2. ALL SEWERS 150Ø UNLESS NOTED OTHERWISE
3. MAXIMUM GROUNDWATER LEVEL VARIES REFER TO GEOTECHNICAL INVESTIGATION REPORT

LOCAL AUTHORITY: CITY OF MANDURAH

LENGTH OF SEWERS:
150 DIAMETER - 3147m

No. OF ACCESS CHAMBERS - 16
No. OF MAINTENANCE SHAFTS - 35
No. OF STORAGE CAISSONS - 1
No. OF LOTS BEING SERVED - 107



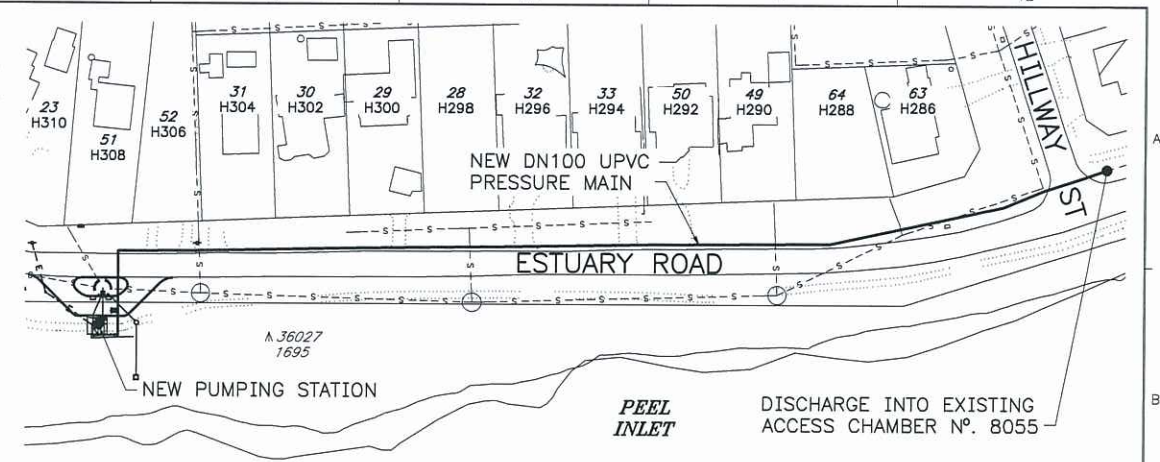
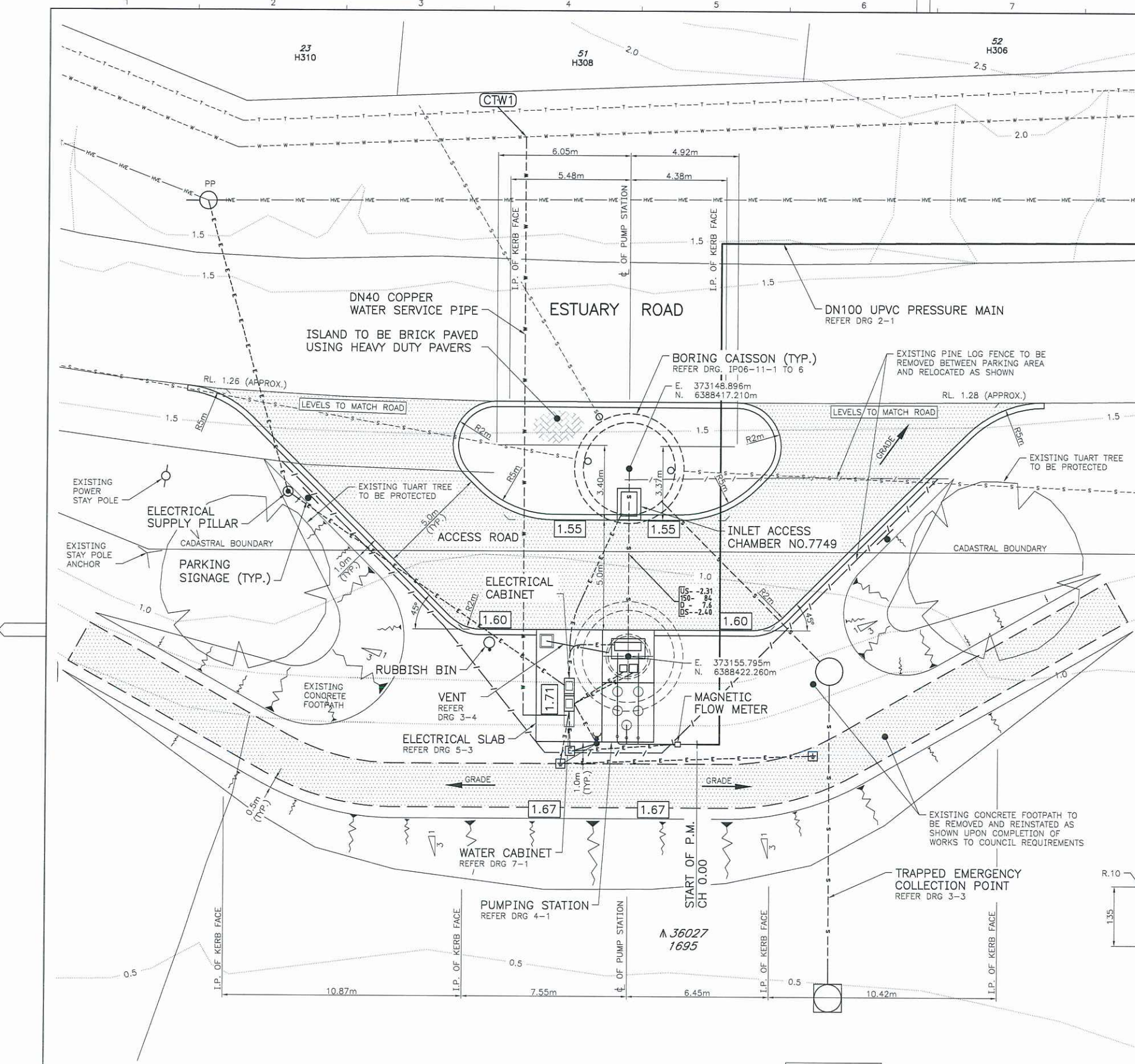
NOTE:
THE LOCATION OF UTILITIES HAS NOT NECESSARILY BEEN ESTABLISHED BY SURVEY BUT IS BASED ON INFORMATION AVAILABLE.

50 40 30 20 10 0 50 100 m (1:2000)

566

B	11/2012	PRELIMINARIES TO WORKS CHANGES, ESTUARY RD SEWER REDESIGN, CHAMBER NUMBERS CHANGED AS REQUIRED	EMW	DESIGN SURVEY NONE	VERTICAL DATUM AHD	DES CALC W SCHNEIDER	NORTH POINT	RECOMMENDED	 GHD House, 239 Adelaide Terrace, Perth WA 6004 Australia T 61 8 6222 8222 F 61 8 6222 8555 E permail@ghd.com.au W www.ghd.com.au		MANDURAH WASTEWATER RETICULATION AREA DAWESVILLE 4A SITE PLAN	ORIGINAL SHEET SIZE A1		
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	DES REF GHD 61-15503	DES CHD E WEBB					CONSULTANT JOB MANAGER	FILE JT1 2004 06752
											PROJECT C-S00755		B	MF

APPROVED	CONSULTANT PROJECT DIRECTOR	61\27593\CADD\HK35\HK35-001-001-01B	09/11/2012
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LOCALITY PLAN
SCALE 1:1000
10 5 0 10 20 30 40 50 60 70 m (1:1000)

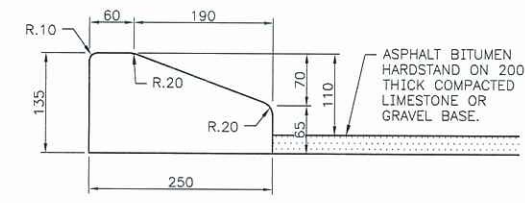
- LEGEND**
- NEW PRESSURE MAIN
 - NEW P.S. SEWER WORKS
 - - - NEW FENCE LINE
 - - - NEW WATER SERVICE
 - - - NEW SEWER MAIN
 - - - NEW U/GROUND POWER
 - - - EXISTING WATER MAIN
 - - - EXISTING DRAINAGE
 - - - EXISTING TELSTRA CABLE
 - - - EXISTING H/V POWER
 - PP EXISTING POWER POLE
 - - - EXISTING FENCE LINE
 - - - EDGE OF ROAD
 - - - EXISTING CONTOURS
 - 52 H306 LOT NO. HNP.
 - EXISTING TREES

- GENERAL NOTES**
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - SIGNAGE TO BE PROVIDED ACCORDING TO SECTION 4, CLAUSE 4.4.9 OF THE WASTEWATER STANDARD DS 51. SIGNAGE TO BE ATTACHED TO R.P.Z BACK FLOW PREVENTION CABINET UNLESS IT CANNOT BE VIEWED FROM THE ROAD, IN THIS CASE IT SHOULD BE ATTACHED TO THE MOST APPROPRIATE CABINET.
 - CONTRACTOR TO CONFIRM LOCATION OF ALL SERVICES PRIOR TO COMMENCING CONSTRUCTION.
 - DISTURBED GROUND TO BE EVENLY GRADED AND SEEDED WITH COUCH LAWN SEED.
- CONSTRUCTION NOTES**
- REFER TO CONSTRUCTION NOTES ON DRG. IP06-5-1.

- REFERENCE DRAWINGS**
- IP06-1-1 CATCHMENT PLAN
 - PRESSURE MAIN**
 - IP06-1-2 CHARACTERISTIC CURVE
 - IP06-2-1 PLAN AND LONGITUDINAL SECTION
 - IP06-2-2 DN100 SCOUR & AIR RELEASE POINT
 - IP06-2-3 THRUST BLOCK AND TRENCH REFILL DETAILS
 - PUMPING STATION**
 - IP06-3-1 SITE AND LOCALITY PLAN
 - IP06-3-2 - NOT REQUIRED IN SET -
 - IP06-3-3 TRAPPED EMERGENCY COLLECTION POINT & BUBBLE UP DETAILS
 - IP06-3-4 AIR VENT ARRANGEMENT
 - IP06-4-1 GENERAL ARRANGEMENT
 - IP06-5-1 STRUCTURAL DETAILS - PRECAST COMPONENTS
 - IP06-5-2 PRECAST SLAB & COVER
 - IP06-5-3 ELECTRICAL SLAB DETAILS
 - IP06-5-4 CONTROL AND ALARM HOLE COVERS
 - IP06-6-1 LADDER AND PUMP RAIL SUPPORT DETAILS - WET WELL
 - IP06-6-2 MISCELLANEOUS STEEL FABRICATION DETAILS
 - IP06-6-3 INLET PIPE, ULTRASONIC SUPPORT & LANYARD DETAILS
 - IP06-7-1 RPZ BACKFLOW PREVENTION DEVICE
 - IP06-12-1 FALL PREVENTION - GRATING ARRANGEMENT AND NOTES
 - IP06-12-2 FALL PREVENTION - GRATING DETAILS
 - IP06-12-3 TEMPORARY GUARDRAIL SYSTEM - GUARDRAIL DETAILS
 - ELECTRICAL**
 - IP06-40-1 SINGLE LINE POWER DIAGRAM
 - IP06-40-2 EARTHING AND PROTECTION GRADING DIAGRAM
 - IP06-40-3 CONTROL AND INSTRUMENTATION DIAGRAM
 - IP06-41-1 GENERAL ARRANGEMENT DRAWING - ELECTRICAL
 - IP06-59-1 LOOP DIAGRAM - FLOW TRANSMITTER
 - IP06-59-2 LOOP DIAGRAM - LEVEL TRANSMITTER
 - IP06-59-3 LOOP DIAGRAM - MOTOR CURRENT TRANSDUCERS
 - IP06-61-1.1 LOGIC MODULE CONNECTIONS - PART 1
 - IP06-61-1.2 LOGIC MODULE CONNECTIONS - PART 2
 - IP06-61-1.3 LOGIC MODULE CONNECTIONS - PART 3
 - HK35-3-1 SEWER RETICULATION PLAN
 - IP06-11-1 TO 6 BORING CAISSON DRAWINGS

PARKING SIGNAGE
FOR PARKING RESTRICTION SIGNAGE CONTACT LOCAL AUTHORITY FOR SIGNAGE GUIDELINES, INSTALLATION RULES AND APPROVALS.
PREFERRED WORDING OF SIGN
NO PARKING ANYTIME EXCEPT AUTHORIZED VEHICLES

RUBBISH BIN
CONTACT LOCAL AUTHORITY FOR APPROVAL OF STYLE OF BIN AND INSTALLATION REQUIREMENTS.



KERB DETAIL
DIAGRAMMATIC

100 YEAR FLOOD LEVEL
1.6m ABOVE AHD

CLEARANCE TO WORKS REQUIRED FROM WATER CORPORATION

CTW No.	SERVICE - LOCATION
CTW1	100AC WATER - CONNECTION



NOTE: THE LOCATION OF UTILITIES HAS NOT NECESSARILY BEEN ESTABLISHED BY SURVEY BUT IS BASED ON INFORMATION AVAILABLE.

ATTENTION
THE WATER CORPORATION HAS AGREED THAT DUE TO EXISTING TOPOGRAPHICAL CONSTRAINTS, NO FURTHER ACTION IS CURRENTLY REQUIRED TO PROTECT PROPOSED SEWER INFRASTRUCTURE FROM THE EFFECTS OF A FUTURE RISE IN SEA LEVEL.

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD
B	11/2012		GENERAL REVISION			P.J.S.

DESIGN SURVEY	VERTICAL DATUM	DES CALC	NORTH POINT
NONE	AHD	P.J. SIMPSON	
ASCON SURVEY	COORDINATE SYS	DES CHD	
NONE	MGA94-50	G.E.ADE	
	DES REF	DRN	
	GHD 61-15503	P.J. SIMPSON	
	GHD 61-27593	G.C. CHD	
		G.E.ADE	

GHD
GHD House, 230 Adelaide Terrace, Perth WA 6004 Australia
T 61 8 6222 8222 F 61 8 6222 8555
E permail@ghd.com.au W www.ghd.com.au

RECOMMENDED
CONSULTANT JOB MANAGER
APPROVED
CONSULTANT PROJECT DIRECTOR



THIS DRAWING IS DERIVED FROM CA01-3-3B

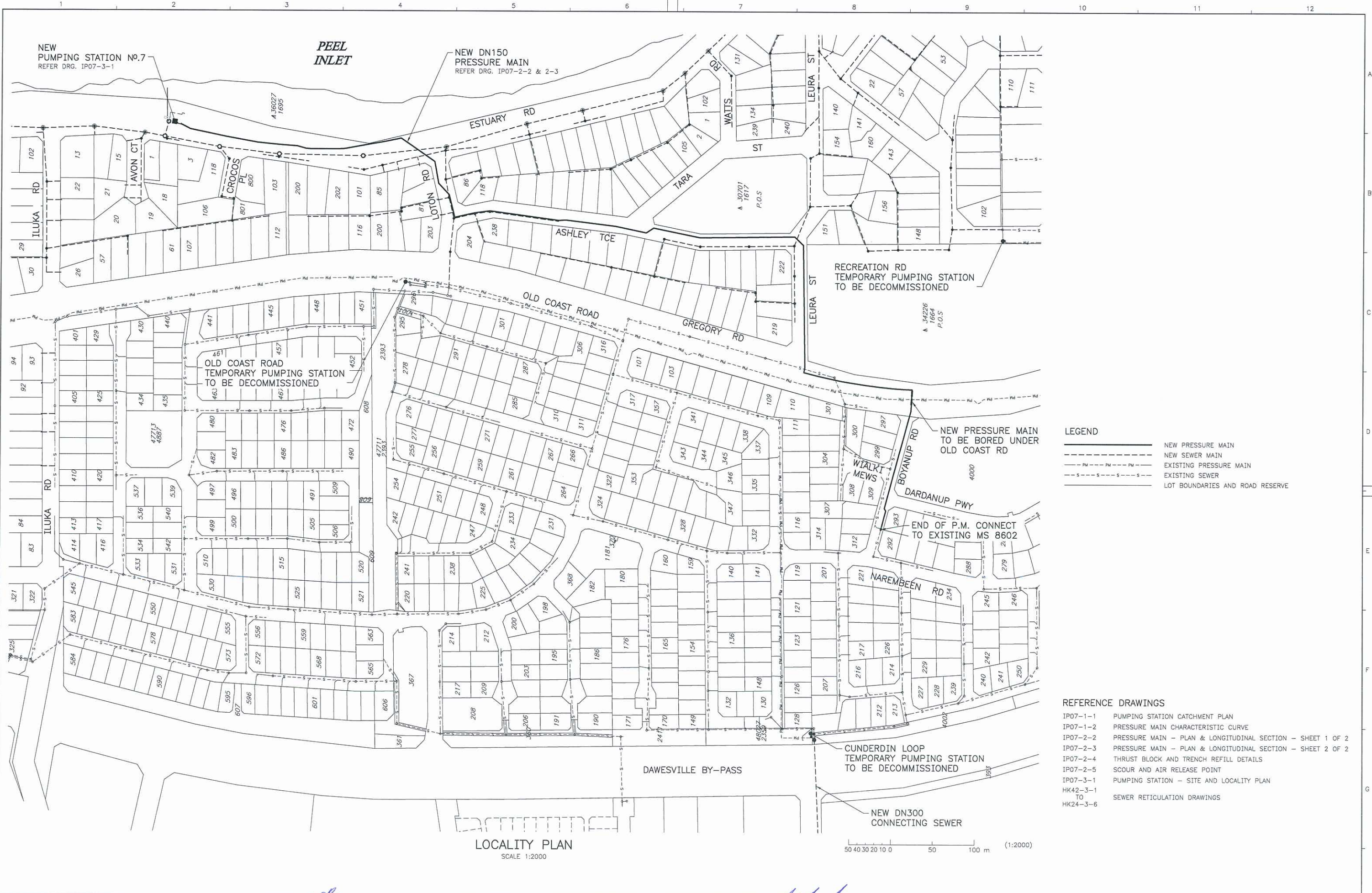
MANDURAH WASTEWATER DAWESVILLE PUMPING STATION NO.13 - ESTUARY RD (HILLWAY ST) & PM PUMPING STATION SITE AND LOCALITY PLAN

FILE JT1 2004 06752 PLAN
PROJECT C-S00755

CAD ISSUE
B MF

IP06-3-1

ORIGINAL SHEET SIZE
A1



LEGEND

	NEW PRESSURE MAIN
	NEW SEWER MAIN
	EXISTING PRESSURE MAIN
	EXISTING SEWER
	LOT BOUNDARIES AND ROAD RESERVE

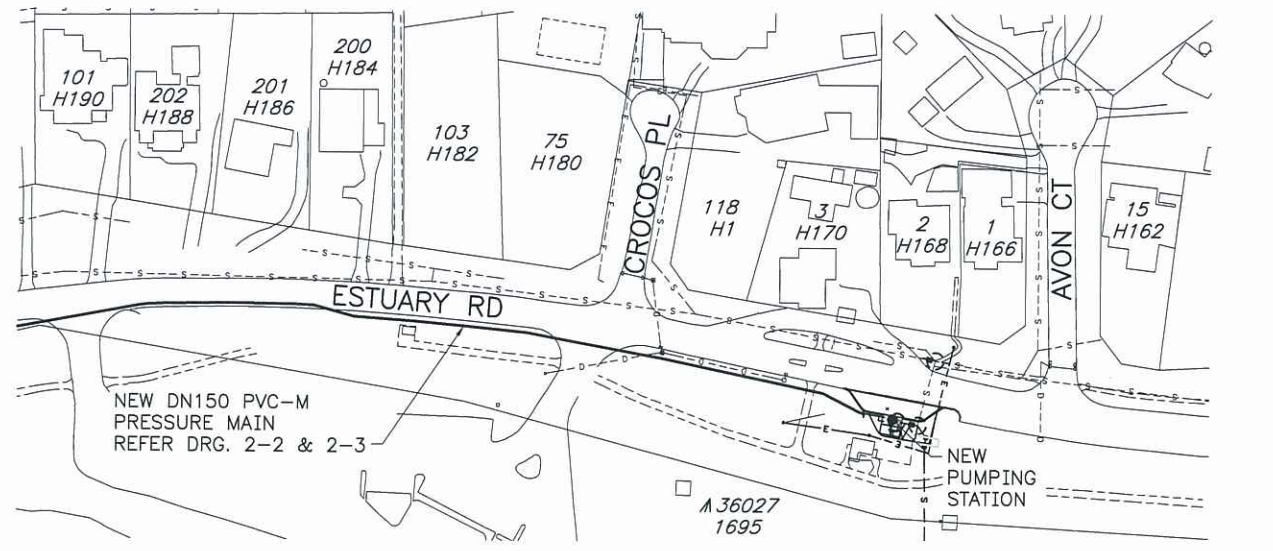
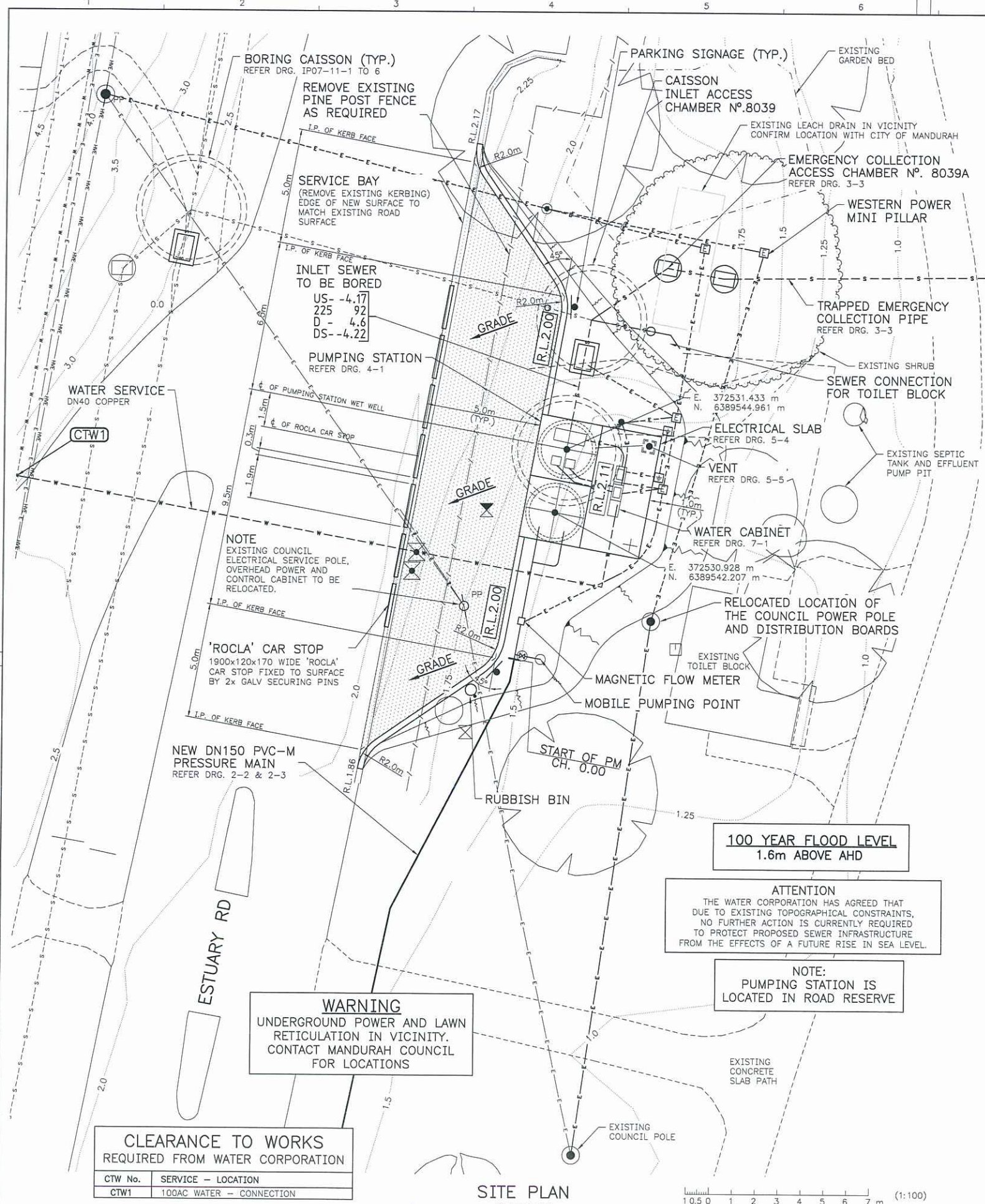
REFERENCE DRAWINGS

IP07-1-1	PUMPING STATION CATCHMENT PLAN
IP07-1-2	PRESSURE MAIN CHARACTERISTIC CURVE
IP07-2-2	PRESSURE MAIN - PLAN & LONGITUDINAL SECTION - SHEET 1 OF 2
IP07-2-3	PRESSURE MAIN - PLAN & LONGITUDINAL SECTION - SHEET 2 OF 2
IP07-2-4	THRUST BLOCK AND TRENCH REFILL DETAILS
IP07-2-5	SCOUR AND AIR RELEASE POINT
IP07-3-1	PUMPING STATION - SITE AND LOCALITY PLAN
HK42-3-1	TO
HK24-3-6	SEWER RETICULATION DRAWINGS

LOCALITY PLAN
SCALE 1:2000

50 40 30 20 10 0 50 100 m (1:2000)

B	11/2012	GENERAL REVISION	PJS	DESIGN SURVEY NONE	VERTICAL DATUM AHD	DES CALC P.J. SIMPSON	NORTH POINT	 GHD House, 230 Adelaide Terrace, Perth WA 6004 Australia T 61 8 6222 8222 F 61 8 6222 8555 E permat@ghd.com.au W www.ghd.com.au	RECOMMENDED	 WATER CORPORATION	MANDURAH WASTEWATER DAWESVILLE PUMPING STN NO.7 - ESTUARY RD (CROCOS PL) & PM PRESSURE MAIN LOCALITY PLAN FILE JT1 2004 06752 PLAN IP07-2-1 CAD ISSUE B MF PROJECT C-500755	ORIGINAL SHEET SIZE A1
	ISSUE	DATE	GRID	REVISION	DRN	REC	APPD		ASCON SURVEY NONE			



LOCALITY PLAN
SCALE 1:1000

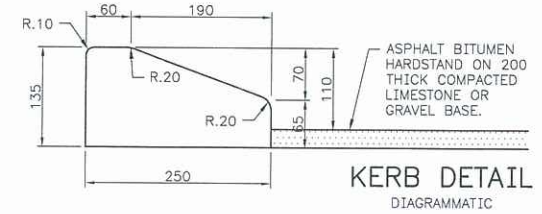
- LEGEND**
- NEW PRESSURE MAIN
 - NEW P.S. SEWER WORKS
 - NEW FENCE LINE
 - NEW WATER SERVICE
 - NEW SEWER MAIN
 - NEW UNDERGROUND POWER
 - NEW OVERHEAD POWER
 - EXISTING WATER MAIN
 - EXISTING DRAINAGE
 - EXISTING TELSTRA CABLE
 - EXISTING HIGH VOLTAGE POWER
 - EXISTING OVERHEAD POWER
 - EXISTING UNDERGROUND POWER
 - EXISTING POWER POLE
 - EXISTING FENCE LINE
 - EDGE OF ROAD
 - EXISTING LAWN RETICULATION VALVES
 - EXISTING CONTOURS
 - EXISTING TREES
 - 18 H156 LOT NUMBER HOUSE NUMBER

- REFERENCE DRAWINGS**
- PRESSURE MAIN**
- IP07-1-1 PUMPING STATION CATCHMENT PLAN
 - IP07-1-2 PRESSURE MAIN CHARACTERISTIC CURVE
 - IP07-2-1 PRESSURE MAIN - LOCALITY PLAN
 - IP07-2-2 PRESSURE MAIN - PLAN & LONGITUDINAL SECTION - SHEET 1 OF 2
 - IP07-2-3 PRESSURE MAIN - PLAN & LONGITUDINAL SECTION - SHEET 2 OF 2
 - IP07-2-4 THRUST BLOCK AND TRENCH REFILL DETAILS
 - IP07-2-5 SCOUR POINT AND AIR RELEASE DETAILS
- PUMPING STATION**
- IP07-3-1 SITE AND LOCALITY PLAN
 - IP07-3-2 - NOT USED -
 - IP07-3-3 TRAPPED EMERGENCY COLLECTION POINT DETAILS
 - IP07-4-1 PUMPING STATION - GENERAL ARRANGEMENT
 - IP07-5-1 STRUCTURAL DETAILS - PRECAST COMPONENTS
 - IP07-5-2 PRECAST SLABS AND COVERS - TEMPORARY GUARDRAIL SYSTEM
 - IP07-5-3 PRECAST SLABS AND COVERS - TEMPORARY GUARDRAIL SYSTEM - REINFORCEMENT
 - IP07-5-4 ELECTRICAL SLAB DETAILS
 - IP07-5-5 AIR VENT ARRANGEMENT
 - IP07-6-1 VALVE, CONTROL AND ALARM HOLE COVERS
 - IP07-6-2 MISCELLANEOUS STEEL FABRICATION DETAILS
 - IP07-6-3 LADDER AND PUMP RAIL SUPPORT DETAIL - WET WELL
 - IP07-6-4 LIFTING CHAIN HOOK, INLET PIPE & LANYARD DETAILS
 - IP07-7-1 RPZ BACKFLOW PREVENTION DEVICE
 - IP07-12-1 PREVENTION OF FALLS - GRATING ARRANGEMENT & NOTES
 - IP07-12-2 PREVENTION OF FALLS - GRATING DETAILS
 - IP07-12-3 PREVENTION OF FALLS - TEMPORARY GUARDRAIL DETAILS
- ELECTRICAL - PRIMARY DESIGN**
- IP07-40-1 SINGLE LINE POWER DIAGRAM
 - IP07-40-2 EARTHING AND PROTECTION GRADING DIAGRAM
 - IP07-40-3 CONTROL AND INSTRUMENTATION DIAGRAM
 - IP07-40-4-1 LOGIC MODULE CONNECTIONS - PART 1
 - IP07-40-4-2 LOGIC MODULE CONNECTIONS - PART 2
 - IP07-40-4-3 LOGIC MODULE CONNECTIONS - PART 3
 - IP07-41-1 GENERAL ARRANGEMENT DRAWING - ELECTRICAL
 - IP07-59-1 LOOP DIAGRAM - FLOW TRANSMITTER (FT 001)
 - IP07-59-2 LOOP DIAGRAM - LEVEL TRANSMITTER (LT 101)
 - IP07-59-3 LOOP DIAGRAM - NO.1 AND NO.2 MOTOR CURRENT TRANSDUCER
 - IP07-62-1 POWER, EARTHING AND INSTRUMENTATION CABLE SCHEDULE
 - HK42-3-1 TO 4 SEWER RETICULATION PLANS
 - IP07-11-1 TO 6 BORING CAISSON DRAWINGS

- GENERAL NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. SIGNAGE TO BE PROVIDED ACCORDING TO SECTION 4, CLAUSE 4.4.9 OF THE WASTEWATER STANDARD DS 51. SIGNAGE TO BE ATTACHED TO R.P.Z BACK FLOW PREVENTION CABINET UNLESS IT CANNOT BE VIEWED FROM THE ROAD, IN THIS CASE IT SHOULD BE ATTACHED TO THE MOST APPROPRIATE CABINET.
 3. CONTRACTOR TO CONFIRM LOCATION OF ALL SERVICES PRIOR TO COMMENCING CONSTRUCTION.
 4. DISTURBED GROUND TO BE RE-TURFED TO CITY OF MANDURAH REQUIREMENTS.
 5. TOILET BLOCK LEACH DRAIN TO BE DECOMMISSIONED BEFORE COMMENCEMENT OF PUMPING STATION AND TEMPORARY EFFLUENT STORAGE AND DISPOSAL ARRANGEMENTS ARE TO BE MADE BY CONTRACTOR FOR DURATION OF WORKS. TOILET BLOCK TO BE CONNECTED TO SEWERAGE SYSTEM BY CONTRACTOR.

PARKING SIGNAGE
FOR PARKING RESTRICTION SIGNAGE CONTACT LOCAL AUTHORITY FOR SIGNAGE GUIDELINES, INSTALLATION RULES AND APPROVALS.
PREFERRED WORDING OF SIGN
NO PARKING ANYTIME EXCEPT AUTHORIZED VEHICLES

RUBBISH BIN
CONTACT LOCAL AUTHORITY FOR APPROVAL OF STYLE OF BIN AND INSTALLATION REQUIREMENTS.



CLEARANCE TO WORKS REQUIRED FROM WATER CORPORATION

CTW No.	SERVICE - LOCATION
CTW1	100AC WATER - CONNECTION

SITE PLAN
SCALE 1:100

11/2012	DRAWING REVISED TO WATER CORPORATION DESIGN STANDARDS	P.J.S.	DESIGN SURVEY NONE	VERTICAL DATUM AHD	DES CALC P.J. SIMPSON	NORTH POINT	<p>GHD House, 230 Adelaide Terrace, Perth WA 6004 Australia T 61 8 6222 8222 F 61 8 6222 8555 E pemail@ghd.com.au W www.ghd.com.au</p>		THIS DRAWING IS DERIVED FROM CA01-3-1C		MANDURAH WASTEWATER DAWESVILLE PUMPING STN NO.7 - ESTUARY RD (CROCOS PL) & PM PUMPING STATION SITE & LOCALITY PLAN	ORIGINAL SHEET SIZE A1
ASCON SURVEY NONE	DES REF GHD 61-15503 GHD 61-27593	DRN P.J. SIMPSON Q.C. CHD G.W. EADE	DESIGN SURVEY NONE	COORDINATE SYS MGA94-50	DES CHD G.W. EADE	RECOMMENDED			CONSULTANT JOB MANAGER	APPROVED		