



Our Ref: Aqua Doc # 13467173
Enquiries: Carole Armstrong
Telephone: 9420 3562

4th November 2015

Dr Paul Vogel
Environmental Protection Authority
Locked Bag 33
Cloister square
PERTH W A 6850

Attn: Mike Pengelli

Dear Dr Vogel

Office of the Environmental Protection Authority	1 6 NOV 2015			For Information	<input type="checkbox"/>
	A:			For Discussion	<input type="checkbox"/>
File:				For Action	<input type="checkbox"/>
	Officer:			Response please:	
		<input type="checkbox"/>	Dir.AC	GM Signature	<input type="checkbox"/>
		<input type="checkbox"/>	Dir. Bus Ops	Dir for GM (copy to GM)	<input type="checkbox"/>
		<input type="checkbox"/>	Dir. SPPD	Dir Signature (copy to Dir)	<input type="checkbox"/>
		<input type="checkbox"/>	Dir. Strat Sup	Mgr Direct (copy to GM)	<input type="checkbox"/>

REFERRAL OF BUSSELTON WEST STREET PRESSURE MAIN UNDER SECTION 38 OF THE ENVIRONMENTAL PROTECTION ACT 1986

Please find enclosed a completed proponent referral form in relation to the above project for consideration under Section 38(1) of the *Environmental Protection Act 1986*.

The proposed Busselton West Street Pressure Main involves the construction and operation of a 840m, DN450 wastewater pressure main from West Street Wastewater Pump Station to the intersection of Fairlawn Road and Frederick Street, Busselton (Figure 1).

A desktop assessment identified that a 400m section of the proposed pressure main alignment intersects the buffer of an Environmental Protection Policy Lake. The area is also mapped as presenting a high acid sulfate soil risk (Figure 2).

Due to the close proximity of the proposed alignment to two EPP Lakes, the Water Corporation considers there is a potential environmental impact associated with the excavation and dewatering required to install the pressure main. Accordingly, the Corporation has committed to remove a portion of excavated soil to landfill and import clean backfill, with the remaining 866m³ to be treated by a mobile truck with a hopper resulting in no soil being stockpiled. All dewatering water will be either transferred to sewer or carted to the nearest Water Corporation owned WWTP. This requirement will be outlined in an Acids Sulfate Soils and Dewatering Management Plan for this project.

The proposed alignment option has been located within road verges and already cleared areas; however a small stand of trees is required to be cleared so the new pressure main can be connected to the West Street Pump Station (Figure 3). Alternative alignments were investigated, however the Shire's plans to widen West Street and the high density of existing services, lead the Water Corporation to choose the proposed alignment.

The Water Corporation sought advice from Michael Pengelli on 30th June 2015, regarding referral of this project to the Environmental Protection authority (EPA) for assessment.

The Water Corporation considers that the construction and operation of the proposed pressure main does not require formal assessment under part IV of the EP Act and can be appropriately managed in accordance with the management plans to be developed specifically for this proposal and in accordance with a clearing permit issued under part V of the EP Act.

Should you have any queries regarding this project, please contact Carole Armstrong of the Safety, Environment and Aboriginal Affairs Branch on 9420 3562 or via email at carole.armstrong@watercorporation.com.au.

Yours sincerely,



Bree Atkinson
A/Team Leader
Environmental Impact Assessment
Safety, Environment and Aboriginal Affairs
Water Corporation

Encl:

<i>Attachment 1:</i>	<i>Section 38 Referral Form</i>
<i>Attachment 2:</i>	<i>Figures 1 – Location</i>
	<i>Figure 2 – Swan Coastal Plain Environmental Protection Policy and Acid Sulfate Soils</i>
	<i>Figure 3 – West Street Pump Station</i>
<i>Spatial Data:</i>	<i>Pipeline Alignment</i>
<i>Attachment 3:</i>	<i>Design Plans</i>
<i>Attachment 4:</i>	<i>Geotech and Acid Sulfate Soils Investigations</i>
<i>Attachment 5:</i>	<i>Landowner Permission</i>



Referral of a Proposal to the Environmental Protection Authority under Section 38 of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38 of the *Environmental Protection Act 1986* (EP Act) makes provision for the referral to the Environmental Protection Authority (EPA) of a proposal (significant proposals, strategic proposals and proposals under an assessed scheme) by a proponent, a decision making authority (DMA), or any other person.

The purpose of this form is to ensure that EPA has sufficient information about a proposal to make a decision about the nature of the proposal and whether or not the proposal should be assessed under Part IV of the EP Act. Information provided in the referral form must be brief (no more than 30 pages), sharp and succinct to achieve the purposes of this form.

This form does not prevent the referrer from providing a supplementary referral report. Should a referrer choose to submit a supplementary referral report please ensure the following.

- i. Information is short, sharp and succinct.
- ii. Attachments are below eight megabytes (8 MB) as they will be published on the EPA's website (exemptions apply) for public comment. To minimise file size, "flatten" maps and optimise pdf files.
- iii. Cross-references are provided in the referral form to the appropriate section/s in the supplementary referral report.

This form is to be used for all proposals¹ which can be referred to the EPA under section 38 of the EP Act; i.e. referrals from: **proponents** of proposals (significant proposals, strategic proposals, derived proposals, proposals under an assessed scheme); **DMAs** (significant proposals); and **third parties** (significant proposals).

This form is divided into several sections, including; Referral requirements and Declaration; Part A - Information of the proposal and proponent; and Part B Environmental Factors. Guidance on successfully completing this form is provided throughout the form and is also available in the EPA's *Environmental Assessment Guideline for Referral of a Proposal under s38 of the EP Act (EAG 16)*.

Send completed forms to

Office of the Environmental Protection Authority
Locked Bag 10, East Perth WA 6892

or

Email: Registrar@epa.wa.gov.au

Enquiries

Office of the Environmental Protection Authority
Locked Bag 10, East Perth WA 6892

Telephone: 6145 0800

Fax: 6145 0895

Email: info@epa.wa.gov.au

Website: www.epa.wa.gov.au

¹ Please note that this form consolidates and replaces the following forms: *Referral of a Proposal by the Proponent to the EPA under section 38(1) of the EP Act*, *Referral of a Proposal by a third party to the EPA under section 38(1) of the EP Act*, and *Referral of a development proposal to the EPA by the decision making authority*.

Referral requirements and Declaration

The following section outlines the referral information required from a proponent, decision making authority and third party.

(a) Proponents

Proponents are expected to complete all sections of the form and provide GIS spatial data to enable the EPA to consider the referral. Spatial GIS data is necessary to inform the EPA's decision.

The EPA expects that a proponent will address Part B of the form as thoroughly as possible to demonstrate whether or not the EPA's objectives for environmental factors can be met.

If insufficient information is provided the EPA will request more information and processing of the referral will commence once the information is provided or the EPA decides to make a precautionary determination on the available information.

Proponent to complete before submitting form	
Completed all the questions in Part A (essential)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed all the questions in Part B	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed all other applicable questions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 1 – any additional document(s) the proponent wishes to provide	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 2 – confidential information (if applicable)	<input type="checkbox"/> Yes N/A
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but clearly separating any confidential information	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed the Declaration	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
What is the type of proposal being referred? <i>* a referred proposal seeking to be declared a derived proposal</i>	<input type="checkbox"/> significant <input type="checkbox"/> strategic <input type="checkbox"/> derived* <input type="checkbox"/> under an assessed scheme
Do you consider the proposal requires formal environmental impact assessment?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, what level of assessment? <i>API = Assessment of Proponent Information</i> <i>PER = Public Environmental Review</i>	<input type="checkbox"/> API Category A <input type="checkbox"/> API Category B <input type="checkbox"/> PER

NB: The EPA may apply an Assessment on Proponent Information (API) level of assessment when the proponent has provided sufficient information about:

- the proposal;
- the proposed environmental impacts;
- the proposed management of the environmental impacts; and
- when the proposal is consistent with API criteria outlined in the [Environmental Impact Assessment \(Part IV Division 1 and 2\) Administrative Procedures 2012](#).

If an API A formal level of assessment is considered appropriate, please refer to Environmental Assessment Guideline No. 14 *Preparation for an Assessment on Proponent Information (Category A) Environmental Review Document EAG 14 (EAG14)*.

Declaration

I, Bree Atkinson, declare that I am authorised on behalf of Water Corporation (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature				Name (print)			
Position	Team Leader, EIA		Organisation	Water Corporation			
Email	Bree.atkinson@watercorporation.com.au						
Address	629		Newcastle Street				
	Leederville			WA	6007		
Date	11/11/2015						

(b) Decision-making authority

The EPA expects decision-making authorities to complete applicable sections of Part A of the form and provide the proponent an opportunity to provide additional information in Part B of the form where appropriate.

Wherever possible the DMA should obtain relevant spatial information from the proponent and provide this to the EPA with the referral.

DMA to complete before submitting form	
Completed all the questions in Part A (essential)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Provided Part B to the proponent for completion	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed all other applicable questions	<input type="checkbox"/> Yes <input type="checkbox"/> No
Included Attachment 1 – any supporting information	<input type="checkbox"/> Yes <input type="checkbox"/> No
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed the below Declaration	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you consider the proposal requires formal environmental impact assessment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What is the type of proposal being referred?	<input type="checkbox"/> significant proposal <input type="checkbox"/> significant proposal under an assessed scheme

Declaration

I,, (*full name*) submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)	
Position		Organisation	
Email			
Address	Street No.	Street Name	
	Suburb	State	Postcode
Date			

(c) Third Party

Third parties are asked to have consideration for the Significance Test outlined in Part A Section 1.5 of this form before referring a significant proposal to the EPA. The EPA will only consider proposals that are likely, if implemented, to have a significant effect on the environment.

Third parties are to provide sufficient information to clearly identify the significant proposal, the proponent, and their reasons for referring the proposal. This can be done by completing as much of Part A of the form as possible, taking into consideration the information available. Third parties may wish to fill in Part B of the form to advance their own views of the significance of the environmental impacts and the need for EPA assessment.

In most cases the EPA will seek additional information from the proponent. This will be to confirm or amend the identity of the proponent, the proposal, and to allow the proponent opportunity to provide its views on the significance of the environmental impacts and the need for EPA assessment.

Third Party to complete before submitting form	
Complete all applicable questions in Part A and B	<input type="checkbox"/> Yes <input type="checkbox"/> No
Completed the Declaration	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you consider the proposal requires formal environmental impact assessment?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Declaration

I,, (*full name*) submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)		
Email				
Position		Organisation		
Address	Street No.	Street Name		
	Suburb		State	Postcode
Date				

PART A: Information on the proposal and the proponent

All fields of Part A must be completed by the proponent and/or decision-making authority for this document to be processed as a referral. Third party referrers are only expected to fill in the fields they have information for.

1 PROPONENT AND PROPOSAL DESCRIPTION

1.1 The proponent of the proposal

Proponent and/or DMA to complete	
Name of the proponent	Water Corporation
Joint Venture parties (if applicable)	
Australian Company Number(s)	ABN 28 003 434 917
Postal Address <i>(Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)</i>	PO Box 100 Leederville WA 6902
Key proponent contact for the proposal <i>Please include: name; physical address; phone; and email.</i>	Carole Armstrong 629 Newcastle Street Leederville 9420 3562 Carole.armstrong@watercorporation.com.au
Consultant for the proposal (if applicable) <i>Please include: name; physical address; phone; and email.</i>	

1.2 Proposal

Proposal is defined under the EP Act to mean a “project, plan, programme policy, operation, undertaking or development or change of land use, or amendment of any of the foregoing, but does not include scheme”. Before completing this section please refer to [Environmental Protection Bulletin 17 – Strategic and derived proposals \(EPB 17\)](#) and [Environmental Assessment Guideline for Defining the Key Characteristics of a proposal \(EAG 1\)](#).

Proponent and/or DMA to complete	
Title of the proposal	Busselton West Street Pipe Alignment
What project phase is the proposal at?	<input type="checkbox"/> Scoping <input type="checkbox"/> Feasibility <input checked="" type="checkbox"/> Detailed design <input type="checkbox"/> Other _____
Proposal type <i>More than one proposal type can be identified, however for filtering purposes it is recommended that only the primary proposal type is identified.</i>	<input type="checkbox"/> Power/Energy Generation <input type="checkbox"/> Hydrocarbon Based – coal <input type="checkbox"/> Hydrocarbon Based – gas <input type="checkbox"/> Waste to energy <input type="checkbox"/> Renewable – wind <input type="checkbox"/> Renewable – wave <input type="checkbox"/> Renewable – solar <input type="checkbox"/> Renewable – geothermal

Proponent and/or DMA to complete

- Mineral / Resource Extraction**
 - Exploration – seismic
 - Exploration – geotechnical
 - Development
- Oil and Gas Development**
 - Exploration
 - Onshore – seismic
 - Onshore – geotechnical
 - Onshore – development
 - Offshore – seismic
 - Offshore – geotechnical
 - Offshore – development
- Industrial Development**
 - Processing
 - Manufacturing
 - Beneficiation
- Land Use and Development**
 - Residential – subdivision
 - Residential – development
 - Commercial – subdivision
 - Commercial – development
 - Industrial – subdivision
 - Industrial – development
 - Agricultural – subdivision
 - Agricultural – development
 - Tourism
- Linear Infrastructure**
 - Rail
 - Road
 - Power Transmission
 - Water Distribution
 - Gas Distribution
 - Pipelines
- Water Resource Development**
 - Desalination
 - Surface or Groundwater
 - Drainage
 - Pipelines
 - Managed Aquifer Recharge
- Marine Developments**
 - Port
 - Jetties
 - Marina
 - Canal
 - Aquaculture

Proponent and/or DMA to complete

	<input type="checkbox"/> Dredging <i>If other, please state below:</i> <input type="checkbox"/> Other _____
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Proponent and/or DMA to complete

Description of the proposal – describe the key characteristics of the proposal in accordance with EAG 1 .	<table border="1"> <tr> <th colspan="2">Summary of the Proposal</th> </tr> <tr> <td>Proposal title</td> <td>Busselton West Street Pipe Alignment</td> </tr> <tr> <td>Proponent name</td> <td>Water Corporation</td> </tr> <tr> <td>Short Description</td> <td>This proposal is to relay 840m of DN450 PE100 class 12.5 pressure main from the West Street Wastewater Pump Station to the intersection of Fairlawn and Frederick streets, Busselton.</td> </tr> </table> <table border="1"> <tr> <th colspan="3">Physical Elements</th> </tr> <tr> <th>Element</th> <th>Location</th> <th>Proposed Extent</th> </tr> <tr> <td>1.Sewerage Pipe Alignment</td> <td>Figure 1</td> <td>Clearing no more than two native shrubs located within the pump station site, of a .84ha linear footprint.</td> </tr> <tr> <td>2. Dewatering</td> <td>Figure 1</td> <td>Dewatering required for project. Dewatering water will be discharged to the local Water Corporation Sewer or carted to the closed waste water treatment plant.</td> </tr> <tr> <td>Acid Sulfate soil</td> <td>Figure 2</td> <td>a portion of excavated soil will be</td> </tr> </table>	Summary of the Proposal		Proposal title	Busselton West Street Pipe Alignment	Proponent name	Water Corporation	Short Description	This proposal is to relay 840m of DN450 PE100 class 12.5 pressure main from the West Street Wastewater Pump Station to the intersection of Fairlawn and Frederick streets, Busselton.	Physical Elements			Element	Location	Proposed Extent	1.Sewerage Pipe Alignment	Figure 1	Clearing no more than two native shrubs located within the pump station site, of a .84ha linear footprint.	2. Dewatering	Figure 1	Dewatering required for project. Dewatering water will be discharged to the local Water Corporation Sewer or carted to the closed waste water treatment plant.	Acid Sulfate soil	Figure 2	a portion of excavated soil will be
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Proponent and/or DMA to complete

		disposed of to landfill and import clean backfill. The remaining 866m ³ soil will be treated with Aglime by a mobile truck with a hopper resulting in no soil being stockpiled.
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Operational Elements

Element	Location	Proposed Extent Authorised
Conveyance of Waste Water	Figure 1	The section of pipe to be replaced is approximately 840meters

Physical Elements

Element	Location	Proposed Extent
1.Sewerage Pipe Alignment	Figure 1	Clearing no more than two native shrubs located within the pump station site, of a .84ha linear footprint.
2. Dewatering	Figure 1	Dewatering required for project. Dewatering water will be discharged to the local Water Corporation Sewer or carted to the closed waste water treatment plant.

Proponent and/or DMA to complete

3. Acid Sulfate soil	Figure 2	a portion of excavated soil will be disposed of to landfill and import clean backfill. The remaining 866m ³ soil will be treated by a mobile truck with a hopper resulting in no soil being stockpiled.
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Written Summary

Relay 840m of DN450 PE100 class 12.5 pressure main from the West Street Wastewater Pump Station to the intersection of Fairlawn and Frederick Streets, Busselton. A section of the pipeline passes through the edge of the buffer of a Swan Coastal Plain Lakes EPP – listed Lake New River.

A construction Environmental Management Plan (CEMP) will be developed for this project. The CEMP will contain the management actions that are to be taken to ensure the project has minimal impact on the environment. This will include an Acid Sulfate Soil and Dewatering Management Plan. Dewatering water will be either transferred to sewer or carted to the nearest Water Corporation owned WWTP.

Maximum proposed ground disturbance for area within the Swan Coastal Plain Lakes EPP Lake is 0.29 ha. For whole of project, 0.84ha. Two sections will be directional drilled along the alignment. This is for the purpose of avoiding native vegetation along West street, which is located within the Swan coastal Environmental Protection Policy, to avoid open excavation across two road crossings, and to avoid open excavation across the New River. 230m of the 840m route will be completed by trenchless construction techniques.

Proponent and/or DMA to complete	
Timeframe in which the proposal is to occur (including start and finish dates where applicable).	This proposal will take approximately 4 weeks. Works are proposed to start approximately 10 th May and Finish approximately 10 th June 2016
Details of any staging of the proposal.	N/A
What is the current land use on the property, and the extent (area in hectares) of the property?	The pipeline will be constructed within road reserve. The extent of the footprint is approximately .84ha.
Have pre-referral discussions taken place with the OEPA? If yes, please provide the case number. If a case number was not provided, please state the date of the meeting and names of attendees.	Water Corporation has sought advice from Michael Pengelli on the 30 th June 2015
DMA (Responsible Authority) to complete	
For a proposal under an assessed scheme (as defined in section 3 of the EP Act , applicable only to the proponent and DMA) provide details (in an attachment) as to whether: <ul style="list-style-type: none"> <i>The environmental issues raised by the proposal were assessed in any assessment of the assessed scheme.</i> <i>The proposal complies with the assessed scheme and any environmental conditions in the assessed scheme.</i> 	N/A

1.3 Strategic / derived proposals

Complete this section if the proposal being referred is a strategic proposal or you are seeking the proposal to be declared a derived proposal. Note: Only a proponent may refer a strategic proposal and seek a proposal to be declared a derived proposal.

Proponent to complete	
Is this referred proposal a strategic proposal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are you seeking that this proposal be declared a derived proposal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If you are seeking that this proposal be declared a derived proposal, what is the Ministerial Statement number (MS #) of the associated strategic proposal?	MS #: _____

1.4 Location

Proponents and DMAs must provide spatial data. Please refer to [EAG 1](#) for more detail.

Proponent, DMA and Third Party to complete	
Name of the Local Government Authority in which the proposal is located.	City of Busselton
Location: a) street address; lot number; suburb; and nearest road intersection; or b) if remote the nearest town; and distance and direction from that town to the proposal site.	West street and Frederick Street Busselton. Pipeline terminates at the intersection of Frederick Street and Fairlawn Street Busselton.
Have maps and figures been included with the referral (consistent with EAG 1 where appropriate)? <i>The types of maps and figures which need to be provided (depending on the nature of the proposal) include:</i> <ul style="list-style-type: none"> maps showing the regional location and context of the proposal; and figures illustrating the proposal elements. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Proponent and DMA to complete	
Have electronic copies of spatial data been included with the referral? NB: <i>Electronic spatial (GIS or CAD) data, geo-referenced and conforming to the following parameters:</i> <ul style="list-style-type: none"> GIS: polygons representing all activities and named; CAD: simple closed polygons representing all activities and named; datum: GDA94; projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); format: ESRI geodatabase or shapefile, MapInfo Interchange Format, Microstation or AutoCAD.. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1.5 Significance test and environmental factors

Proponent, DMA and Third Party to complete	
What are the likely significant environmental factors for this proposal?	<input type="checkbox"/> Benthic Communities and Habitat <input type="checkbox"/> Coastal Processes <input type="checkbox"/> Marine Environmental Quality <input type="checkbox"/> Marine Fauna <input type="checkbox"/> Flora and Vegetation <input type="checkbox"/> Landforms <input type="checkbox"/> Subterranean Fauna <input type="checkbox"/> Terrestrial Environmental Quality <input type="checkbox"/> Terrestrial Fauna <input type="checkbox"/> Hydrological Processes <input checked="" type="checkbox"/> Inland Waters Environmental Quality

Proponent, DMA and Third Party to complete	
	<input type="checkbox"/> Air Quality & Atmospheric Gases <input type="checkbox"/> Amenity <input type="checkbox"/> Heritage <input type="checkbox"/> Human Health <input type="checkbox"/> Offsets <input type="checkbox"/> Rehabilitation and Decommissioning
<p>Having regard to the Significance Test (refer to Section 7 of the <i>EIA Administrative Procedures 2012</i>) in what ways do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?</p>	<p><i>Approximately 400m of the proposed pipe alignment runs through the edge of a swan Coastal Environmental Protection Policy (EPP)</i></p> <p><i>The proposal is adjacent but on the opposite side of a road to a nature reserve vested with the conservation commission of WA.</i></p> <p><i>Dewatering is required however, will be discharged to sewer or carted away to Wastewater Treatment Plant.</i></p> <p><i>Acid sulfate soils - A portion of excavated soil will be disposed of to landfill and import clean backfill. The remaining 866n3 soil will be treated by a mobile truck with a hopper resulting in no spoil being stockpiled</i></p>

1.6 Confidential information

All information will be made publically available unless authorised for exemption under the EP Act or subject to the Freedom of Information Act 1992.

Proponent to complete	
<p>Does the proponent request that the EPA treat any part of the referral information as confidential?</p> <p><i>Ensure all confidential information is provided in a separate attachment in hard copy.</i></p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

2 REGULATORY CONSIDERATIONS

This section applies to the Local, State and Commonwealth regulatory considerations for the referred proposal.

2.1 Government approvals

2.1.1 State or Local Government approvals

DMA to complete	
What approval(s) is (are) required from you as a	

decision-making authority?	
Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

2.1.2 Regulation of aspects of the proposal

Complete the following to the extent possible.

Proponent to complete	
Do you have legal access required for the implementation of all aspects of the proposal? <i>If yes, provide details of legal access authorisations / agreements / tenure.</i> <i>If no, what authorisations / agreements / tenure is required and from whom?</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Outline both the existing approvals and approvals that will be / are being sought as a part of this proposal.

Proponent to complete			
Aspects* of the proposal	Type of approval	Legislation regulating this activity	Which State agency /entity regulate this activity?
<i>Abstraction / Dewatering</i>	<i>Licence</i>	<i>RIWI Act 1914</i>	<i>DoW</i>

*e.g. mining, processing, dredging

2.1.3 Commonwealth Government Environment Protection and Biodiversity Conservation Act 1999 approvals

Refer to the [assessment bilateral agreement](#) between the Commonwealth of Australia and the State of Western Australia for assistance on this section.

Proponent to complete	
1. Does the proposal involve an action that may be or is a controlled action under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If no continue to Part A section 2.1.4.</i>
2. What is the status of the decision on whether or not the action is a controlled action?	<input type="checkbox"/> Proposal not yet referred <input type="checkbox"/> Proposal referred, awaiting decision <input type="checkbox"/> Assessed – controlled action <input type="checkbox"/> Assessed – not a controlled action
3. If the action has been referred, when was it referred and what is the reference number (Ref #)?	Date: _____ Ref #: _____
4. If the action has been assessed, provide the decision in an attachment. Has an attachment been provided?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Do you request this proposal to be assessed under the bilateral agreement?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Complete the following to the extent possible for the Public Comment of EPBC Act referral documentation.

Proponent to complete	
6. Have you invited the public to comment on your referral documentation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. How was the invitation published?	<input type="checkbox"/> newspaper <input type="checkbox"/> website
8. Did the invitation include all of the following?	
(a) brief description of the action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(b) the name of the action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(c) the name of the proponent	<input type="checkbox"/> Yes <input type="checkbox"/> No
(d) the location of the action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(e) the matters of national environmental significance that will be or are likely to be significantly impacted	<input type="checkbox"/> Yes <input type="checkbox"/> No
(f) how the relevant documents may be obtained	<input type="checkbox"/> Yes <input type="checkbox"/> No
(g) the deadline for public comments	<input type="checkbox"/> Yes <input type="checkbox"/> No
(h) available for public comment for 14 calendar days	<input type="checkbox"/> Yes <input type="checkbox"/> No
(i) the likely impacts on matters of national environmental significance	<input type="checkbox"/> Yes <input type="checkbox"/> No
(j) any feasible alternatives to the proposed action	<input type="checkbox"/> Yes <input type="checkbox"/> No
(k) possible mitigation measures	<input type="checkbox"/> Yes <input type="checkbox"/> No
9. Were any submissions received during the public comment period?	<input type="checkbox"/> Yes <input type="checkbox"/> No
10. Have public submissions been addressed? If yes provide attachment.	<input type="checkbox"/> Yes <input type="checkbox"/> No

2.1.4 Other Commonwealth Government Approvals

Proponent, DMA and Third Party to complete			
Is approval required from other Commonwealth Government/s for any part of the proposal?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, please complete the table below.</i>	
Agency / Authority	Approval required	Application lodged?	Agency / Local Authority contact(s) for proposal
Water Corporation	Discharge Water to Sewer	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Corporation
Water Corporation	Water Corporation CPS 185 internal clearing permit.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Corporation

3. SUPPORTING INFORMATION

Please attach copies of any relevant information on the proposal, supporting evidence and / or existing environmental surveys, studies or monitoring information undertaken and list the documents below.

Proponent, DMA and Third Party to complete			
(1)	Title	Author	Document Description
(2)	Geotechnical Investigations Preliminary Acid Sulfate Soils Assessment and Preliminary Dewatering Assessment	Golder Associates	Geotech and Acid Sulfate Soils Investigations
(3)	Design Plans	Water Corporation	Design of Pipe Alignment
(4)	Owner Permission	Water Corporation	Permission from City of Busscelton
(5)	Spatial Information	Water Corporation	Shapefiles of Pipe Alignment
(6)	Figures	Water Corporation	Site location, Acid Sulfate Soils and EPP, Pump Station Maps.

PART B: ENVIRONMENTAL FACTORS

The purpose of Part B is to assist the EPA to determine the significance of the likely environmental impacts of the proposal in accordance with the EPA's *Environmental Assessment Guideline for Environmental factors and objectives* (EAG 8) and *Environmental Assessment Guideline for Application of a significant framework in the EIA process* (EAG 9). Referrers completing Part B should refer closely to EAG 8 and EAG 9.

The EPA has prepared [Referral of a Proposal under s38 of the EP Act EAG No.16 - Appendix A](#) (Appendix A) to assist in identifying factors and completing the below table. Further guidance can be found in the guidance and policy documents cited in Appendix A under each factor.

How to complete Part B

For each environmental factor, that is likely to be significantly impacted by the implementation of the proposal, make a copy of the table below and insert a summary of the relevant information relating to the proposal. The table can be broken down into more than one table per factor, if the need arises. For example the hydrological processes factor can be presented in two separate tables, one for surface water and one for groundwater, or similarly one for construction and one for operations.

For complex proposals a supplementary referral report can be provided in addition to the referral form. If this option is chosen the table must still be completed (summaries are acceptable) to assist the Office of the EPA with statistical reporting and filtering proposals for processing.

Proponents expecting an API level of assessment must provide information in accordance with the EPA's *Environmental Assessment Guideline for Preparation of an API-A environmental review document* (EAG 14).

For each of the significant environmental factors, complete the following table (Questions 1 – 10).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in EAG 8	Inland Water Environmental Quality. Part of the proposal is located within a mapped Swan Coastal plain Environmental Protection Policy (EPP) and runs adjacent to a Swan Coastal Plain Conservation Category Wetland. The project site is located within mapped Acid sulfate soils area.
2	EPA Objective, as defined in EAG 8	To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	

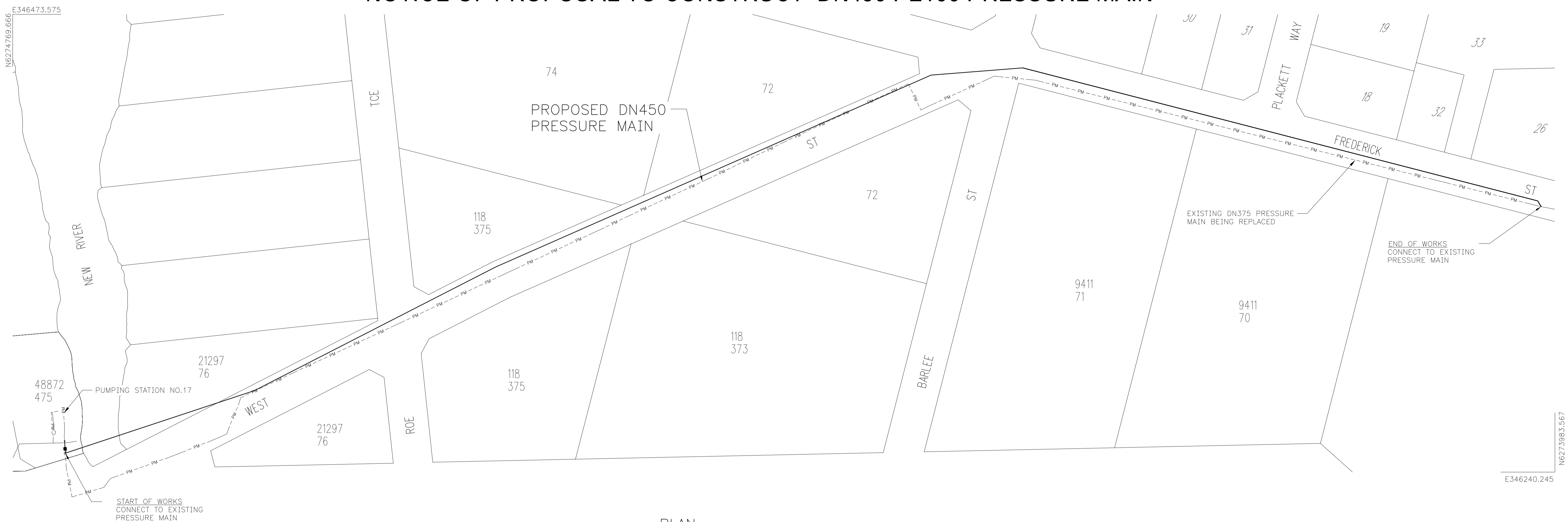
Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
4	<p>Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:</p> <ul style="list-style-type: none"> • <i>anticipated level of public interest in the impact;</i> • <i>consultation with regulatory agencies; and</i> • <i>consultation with community.</i> 	<p>Water Corporation does not anticipate any level of public interest in impact for this proposal.</p> <p>Water Corporation has consulted with the local shire and local residence that may be affected by the works. There was no local environmental groups identified for consultation for this proposal.</p>
5	<p>Baseline information - describe the relevant characteristics of the receiving environment.</p> <p><i>This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.</i></p>	<p>Part of the proposal is located within a mapped Swan Coastal plain Environmental Protection Policy (EPP) and runs adjacent to a Swan Coastal Plain Conservation Category Wetland.</p> <p>The project will be passing under the New River to connect to the Pump Station</p>
6	<p>Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.</p>	<p>The area is mapped as having Potential Acid sulfate soils. Part of the pipe alignment passes through a mapped Swan Coastal Plain EPP and is adjacent to a Swan Coastal Plain Conservation Category Wetland. if not managed correctly, the excavation of soil and dewatering could have a significant impact on these sensitive receptors.</p>
7	<p>Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:</p> <ul style="list-style-type: none"> • <i>Avoidance - avoiding the adverse environmental impact altogether;</i> • <i>Minimisation - limiting the degree or magnitude of the adverse impact;</i> • <i>Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and</i> • <i>Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.</i> 	<p>To avoid impact to the receiving environment, water corporation has avoided any clearing besides two native vegetation that is located within the Pump station site. This site is not within the Swan coastal plain EPP or the Conservation Category Wetland. Direct drilling will be undertaken to avoid clearing and impact to the New River. Any dewatering will be Directed to the local Water Corporation Sewer or trucked off site to the nearest Wastewater treatment plant. To address the issue of Potential Acid sulfate soil, a portion of excavated soil will be removed to landfill and import clean backfill, with the remaining 866m³ to be treated by a mobile truck with a hopper resulting in no soil being stockpiled</p>

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	<p>Residual impacts – review the residual impacts against the EPA objectives.</p> <p><i>It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA’s objective for this factor would be met if residual impacts remain. This will require:</i></p> <ul style="list-style-type: none"> • <i>quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;</i> • <i>putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and</i> • <i>comparison against any established environmental policies, guidelines, and standards.</i> 	<p>All care has been taken to avoid significant impact for this proposal.</p> <p>The proposed time for this project is approximately four weeks and the project is linear. Clearing has been avoided and only proposed where it has been deemed absolutely necessary. The dewatering and Acid Sulfate soil will be managed in such a way as to avoid any potential residue impact. Given these factors, it would be considered unlikely residual impacts would remain after the project has been completed.</p>
9	<p>EPA’s Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9</p>	<p><input checked="" type="checkbox"/> <i>meets the EPA’s objective</i></p> <p><input type="checkbox"/> <i>may meet the EPA’s objective</i></p> <p><input type="checkbox"/> <i>is unlikely to meet the EPA’s objective</i></p>
10	<p>Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.</p>	<p><i>measures have been undertaken to mitigate any impact of acid sulfate soils and dewatering. Direct drilling has been undertaken to avoid impacts on the New river and to avoid clearing.</i></p>

In circumstances where there was some uncertainty on the level of significance of a particular factor it is recommended that a brief summary (no longer than 1 - 2 paragraphs) is provided on the steps taken to determine why a factor was not considered to be significant.

Busselton Wastewater: City of Busselton

NOTICE OF PROPOSAL TO CONSTRUCT DN450 PE100 PRESSURE MAIN



PLAN
SCALE ①

PRELIMINARY - NOT FOR CONSTRUCTION		
JACOBS-WorleyParsons JV		
NOT AN APPROVED WC REVISION		
A1	15.05.17	ISSUED FOR SQUAD CHECK
REV	DATE	DESCRIPTION

To provide for the disposal of sewage in the City of Busselton, the Water Corporation proposes to construct a new 450mm nominal diameter pressure main along West St and Frederick St between Pumping Station No.17 and the intersection of Frederick St and Fairlawn Rd, approximately 807m long, complete with all fittings. The pressure main is to replace an existing section of pipeline which has experienced a number of failures.

Construction of the proposed pressure main works will generally be by open trench excavation through the verge and road pavement which will be backfilled and restored to City of Busselton's standards. New river and the intersection of West St and Frederick St will be crossed using trenchless construction methods.

Further project information may also be obtained by contacting the Project Manager, Mr Rob Pekaar, telephone (08) 9420 2835.

Objections to the proposed works will be considered if lodged in writing, addressed to the Project Manager at Water Corporation, P.O. Box 100, Leederville 6902, before the close of business 21 calendar days from the date on the attached letter.

JACOBS CHECK PRINT			
PURPOSE	NAME	SIGNATURE	DATE
ENGINEER			
ENG CHECK			
BACK DRAFTED			
BACK CHECKED			

LEGEND

PROPOSED DN450 PRESSURE MAIN
EXISTING PRESSURE MAIN



DESIGN SURVEY NONE	VERTICAL DATUM AHD	DES CALC A. HINCHLIFFE	NORTH POINT 	RECOMMENDED		BUSSELTON WASTEWATER PUMPING STATION NO.17 - WEST ST & PM PREREQUISITES TO WORKS NOTICE OF PROPOSAL - GENERAL WORKS	ORIGINAL SHEET SIZE A1
ASCON SURVEY NONE	COORDINATE SYS MGA94-50	DES CHD T. JOHNSTON		CONSULTANT PROJECT MANAGER			
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	810

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL OTHER RELEVANT DRAWINGS. DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
- FOR REFERENCE DOCUMENTS USE THE LATEST EDITIONS, WITH AMENDMENTS EXCEPT WHERE OTHER EDITIONS OR AMENDMENTS ARE REQUIRED BY STATUTORY AUTHORITIES.
- ALL LEVELS ARE METRIC AND ARE TO AUSTRALIAN HEIGHT DATUM (AHD). ALL CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA ZONE 50 (MGA94-50).
- DIMENSIONS RELEVANT TO SETTING OUT AND OFF SITE WORKS (FABRICATION) SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
- A GEOTECHNICAL INVESTIGATION HAS BEEN CARRIED OUT BY GOLDER CONSULTANT. THE CONTRACTOR SHALL BE FAMILIAR WITH THE REPORT AND SHALL CARRY OUT WORK IN ACCORDANCE WITH ITS RECOMMENDATIONS.
- A FULL ROAD RESERVE ALONG CLYDEBANK AVE SURVEYED BY JACOBS WORLEY PARSONS JV.
- TRAFFIC MANAGEMENT SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE CITY OF BUSSELTON.
- TOPSOIL TO BE STOCKPILED AND REPLACED AFTER LAYING PIPELINE WHERE APPLICABLE.
- REMOVAL OF TREES AND VEGETATION SHALL BE KEPT TO A MINIMUM. NO TREES SHALL BE REMOVED WITHOUT THE APPROVAL OF THE SUPERINTENDENT.
- (I) UNLESS NOTED, ALIGNMENTS SHOWN FOR BURIED SERVICES ARE INDICATIVE ONLY. INVERT LEVELS AND LOCATION ON ALL EXISTING BURIED SERVICES SHOULD BE CONFIRMED BY CONTRACTOR.

(II) THE CONTRACTOR SHALL INFORM THE SUPERINTENDENT OF ANY DISCREPANCIES BETWEEN CONFIRMED LOCATIONS AND LEVELS OF SERVICES TO THOSE SHOWN ON THE DESIGN DRAWINGS.

(III) EXISTING SERVICES SHALL BE LOCATED AT LEAST 100m MINIMUM AHEAD OF TRENCH EXCAVATION. UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT.

(IV) THE CONTRACTOR SHALL LIAISE WITH THE CITY OF BUSSELTON WATER, TELSTRA, WESTERN POWER, ATCO GAS, WATER CORPORATION, BROOKFIELD RAIL AND OTHER RELEVANT AUTHORITIES PRIOR TO COMMENCING ANY EXCAVATION WITH REGARD TO LOCATION, PROTECTION AND REINSTATEMENT OF SERVICES, PLANT AND ROADWORKS.

(V) INVERT LEVELS ON PRESSURE MAIN LONGITUDINAL SECTIONS ARE TO BE ADHERED TO UNLESS ON-SITE CONDITIONS DETERMINE THAT COVER AND/OR GRADE CANNOT BE ACHIEVED. CHANGES REQUIRE THE APPROVAL OF THE SUPERINTENDENT.

- THE CONTRACTOR SHALL CONFIRM WITH THE SUPERINTENDENT WHICH ROAD CROSSINGS SHALL BE OPEN TRENCH EXCAVATION OR TRENCHLESS PRIOR TO COMMENCING WORKS.
- THE CONTRACTOR SHALL SUBMIT A PROPOSAL AT LEAST 10 DAYS BEFORE THIS WORK IS DUE TO COMMENCE WHICH DEMONSTRATES THAT THE PROPOSED TRENCHLESS TECHNIQUE(S) ARE CAPABLE OF ACHIEVING THE SPECIFIED SEWER CONSTRUCTION TOLERANCES, OR ALTERNATIVELY, AGREED MODIFIED TOLERANCES AT THE DISCRETION OF THE SUPERINTENDENT.
- (I) ALL PAVEMENT AND ROAD BASE SHALL BE REINSTATED TO PRE-CONSTRUCTION STANDARDS BY THE CONTRACTOR. PHOTOGRAPHIC EVIDENCE TO BE PROVIDED BY THE CONTRACTOR OF ORIGINAL AND FINISHED WORK.
(II) REINSTATEMENT OF VERGES AND ROAD RESERVE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.
(III) TRAFFIC MANAGEMENT, THRUST BORING UNDER ROAD AND REINSTATEMENT SHALL BE CARRIED OUT TO THE REQUIREMENTS OF CITY OF BUSSELTON.
- NO BLASTING OF ROCK IS PERMITTED UNLESS PREVIOUSLY APPROVED BY THE WATER CORPORATION.

PIPING NOTES

- THE PIPELINE AND ASSOCIATED FITTINGS HAVE BEEN DESIGNED FOR A MAXIMUM HYDROSTATIC PRESSURE OF 1200KPa.
- ALL VALVES SHALL BE PN16 SUPPLIED IN ACCORDANCE WITH THE WATER CORPORATION'S STRATEGIC PRODUCTS SPECIFICATION UNLESS OTHERWISE NOTED.
- PIPELINES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE SPECIFICATION, MANUFACTURER'S RECOMMENDATIONS AND WATER CORPORATION STANDARDS.
- DUCTILE IRON(D.I.) PIPE FITTINGS SHALL BE TO AS 2280 AND THERMALLY BONDED POLYMERIC COATED INTERNALLY AND EXTERNALLY.
- PIPEWORK "AS CONSTRUCTED" INFORMATION IS TO BE RECORDED PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE SPECIFICATION.
- ALL CONNECTIONS TO EXISTING PIPELINES TO BE PERFORMED BY THE WATER CORPORATION AT CONTRACTORS EXPENSE.
- FOR TYPICAL PIPE BEDDING AND TRENCH BACKFILL DETAILS REFER DRAWING EW83-2-14 AND THE SPECIFICATION. THE CONTRACTOR SHALL ENSURE ALL OPEN TRENCHES ARE STABLE AT ALL TIMES.
- FOR DETAILS OF AIR VALVE REFER TO DRAWING EW83-2-15, FOR DETAILS OF SCOUR VALVES REFER TO DRAWING EW83-2-16.
- MARKER POSTS SHALL BE INSTALLED TO INDICATE PIPE ALIGNMENT AT INTERVALS NOT EXCEEDING 500m AND AT CHANGES OF MAIN DIRECTION AND VALVE LOCATIONS. FOR DETAILS ON MARKER POST INSTALLATION REFER TO WATER CORPORATION STANDARD DRAWING BD64-8-1. MARKER POSTS SHALL BE POSITIONED AT A NOMINAL OFFSET OF 800mm FROM THE PIPE CENTERLINE.
- DUCTILE IRON PIPE FITTINGS SHALL BE USED WHERE NOTED.
- EXTRA CARE TO BE TAKEN TO PROTECT EXISTING WATER MAINS.

POLYETHYLENE (PE) PIPEWORK NOTES

- PE PIPE SHALL BE MANUFACTURED TO AS 4130.
- PE PIPE SHALL BE LAID IN ACCORDANCE WITH AS 2566.
- ALL PIPE FITTINGS ON PE PIPEWORK SHALL BE FUSION WELDED PE OR FLANGED DUCTILE IRON (D.I.). IN ACCORDANCE WITH AS4129
- PE PIPEWORK SHALL BE CONNECTED TO FLANGED DUCTILE IRON (D.I.) FITTINGS WITH PE STUB FLANGES TO AS 4129 COMPLETE WITH BACKING RINGS.
- CONTRACTOR TO SUBMIT FUSION WELDING SPECIFICATION TO SUPERINTENDENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- PE PIPE BENDING RADIUS NOT TO EXCEED 30xOD

MSCL PIPEWORK NOTES

- ALL WELDING SHALL COMPLY WITH WATER CORPORATION TECHNICAL SPECIFICATION WS-1 (ALWAYS REFER TO MESB WEBSITE FOR THE LATEST VERSION) AND WITH AS4041 CLASS 2P FOR PIPEWORK.
- ALL STEELWORK FABRICATION AND ERECTION SHALL COMPLY WITH AS 4100 AND AS/NZS 1554.1(SP).
- FLANGES SHALL BE TO AS 4087 CLASS 16. FLANGE BOLT HOLES SHALL BE DRILLED AND SPACED EQUALLY OFF PIPE OR PIPE FITTING CENTRELINE. FLANGES SHALL BE MACHINED FOR FULL FACE GASKET. ALL FLANGES SHALL BE GIVEN A REMOVABLE PROTECTIVE COATING AFTER MACHINING.
- FLANGE GASKETS SHALL BE FULL FACE 3mm THICK NITRILE BUTADIENE RUBBER (NBR) FOR FLANGE SIZES UP TO AND INCLUDING DN300 AND COMPRESSED FIBRE GASKETS ELSEWHERE.
- DAMAGE TO PIPE CEMENT LINING WORK SHALL BE REPAIRED IN ACCORDANCE WITH THE PIPE MANUFACTURERS PRINTED REPAIR SPECIFICATION.
- WHERE SINTAKOTE IS USED TO FABRICATE BURIED AND EXPOSED PIPE FITTINGS, THE SHOP COATING ON THE PARENT PIPE SHALL BE STRIPPED BACK 50mm (MIN.) FROM THE WELD LOCATIONS. THE STRIPPED AREAS SHALL BE COATED AFTER WELDING WITH A PLASTIC BACKED MODIFIED BUTYL MASTIC ADHESIVE TAPE SYSTEM, DENSO OR APPROVED EQUIVALENT, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE PIPE WRAPPING SHALL OVERLAP THE PARENT PIPE COATING A MINIMUM OF 150mm.
- BURIED AND EXPOSED PIPE FITTINGS THAT CANNOT BE PRACTICALLY FABRICATED (SUCH AS BENDS AND TEES) USING SINTAKOTE PIPE SHALL BE EXTERNALLY COATED WITH A TAPE WRAPPING SYSTEM THAT COMPLIES WITH WATER CORPORATION SPECIFICATION L1 (REFER DS95).
- SITE WELDED AND FLANGED JOINTS, SINTAKOTE PIPE WITH DAMAGED COATING AND UNCOATED MSCL PIPEWORK SHALL BE PROTECTED BY THE SAME WRAPPING SYSTEM SPECIFIED ABOVE.

TOLERANCE NOTES

- HORIZONTAL AND VERTICAL DEFLECTION LIMITS ON PE100 PIPE SHALL BE ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- INVERT LEVELS SHOWN ON LONGITUDINAL SECTIONS ARE TO BE ADHERED TO UNLESS ON-SITE CONDITIONS DETERMINE THAT COVER AND/OR GRADE CAN NOT BE ACHIEVED. CHANGES REQUIRE THE APPROVAL OF THE SUPERINTENDENT.
- UNLESS NOTED, ALIGNMENTS SHOW FOR BURIED SERVICES ARE INDICATIVE ONLY. ALL RELEVANT AUTHORITIES ARE TO BE CONTACTED PRIOR TO COMMENCING THE WORKS TO DETERMINE THE EXACT LOCATION AND METHOD OF PROTECTION AND REINSTATEMENT OF EXISTING SERVICES AND UTILITIES.
- SERVICE INVERT LEVELS SHOWN ON LONGITUDINAL SECTIONS ARE ASSUMED LEVELS BASED ON MINIMUM COVER AS STATED IN THE "UTILITY PROVIDERS CODE OF PRACTICE FOR WESTERN AUSTRALIA" UNLESS OTHERWISE OTHERWISE NOTED.

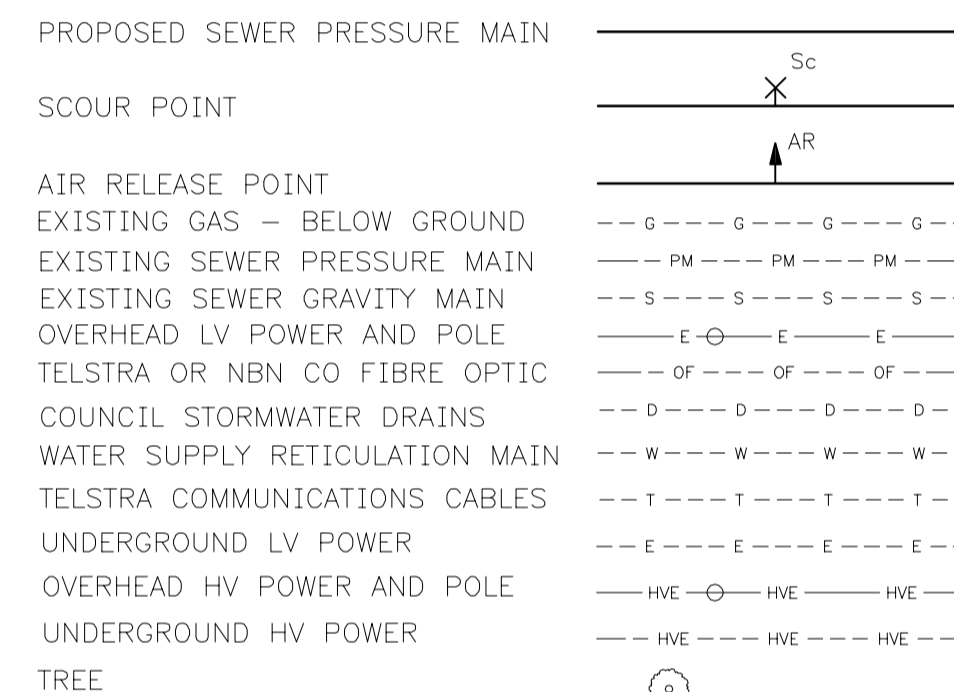
PIPE COVER NOTES

- PIPE TO BE LAID WITH MINIMUM FINISHED COVER OF 900mm.
- WHERE DISTRIBUTION MAINS ETC CROSS OTHER PIPELINES OR UTILITIES, THE VERTICAL CLEARANCE SHALL BE 150mm FOR DN300 AND SMALLER PIPELINES AND 300mm FOR DN400 AND LARGER PIPELINES.

DRAWING LIST

NOTICE OF PROPOSAL - GENERAL WORKS	EW83-0-1
SETOUT POINTS, LEGEND & GENERAL NOTES	EW83-2-11
PLAN & LONGITUDINAL SECTION - SHEET 1 OF 2	EW83-2-12
PLAN & LONGITUDINAL SECTION - SHEET 2 OF 2	EW83-2-13
CONNECTION MAGFLOW & TRENCHING DETAILS	EW83-2-14
AIR VALVE ARRANGEMENT AND DETAILS	EW83-2-15
SCOUR ARRANGEMENT AND DETAILS	EW83-2-16

LEGEND



PIPE ALIGNMENT & BEND SETOUT DATA					
DN450 PE100 PRESSURE MAIN REFER TO DRG EW83-2-12 TO EW83-2-13 FOR PLAN AND LONGITUDINAL SECTION DRAWINGS					
CHAINAGE	COORDINATES		NOTES	DEF ANGLE	BENDS
	EASTING	NORTHING			
-					

JACOBS
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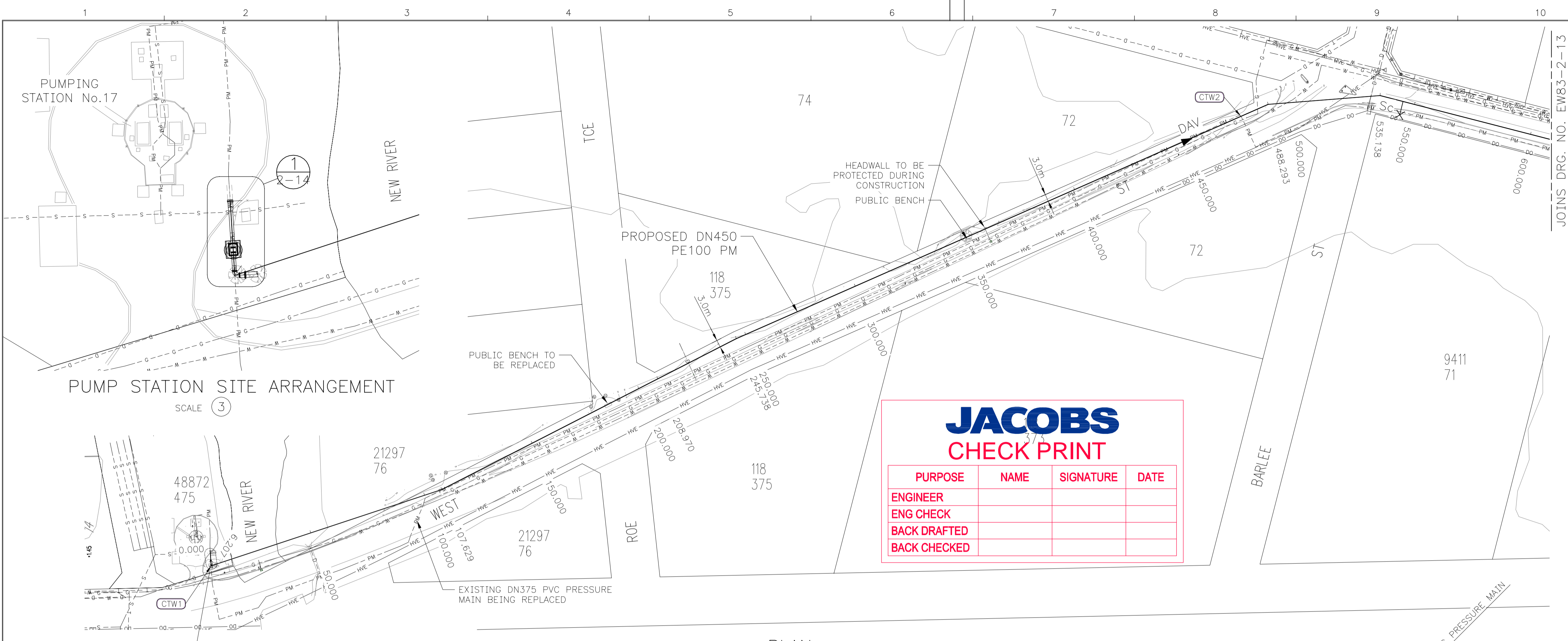
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PRELIMINARY - NOT FOR CONSTRUCTION

JACOBS-WorleyParsons JV
NOT AN APPROVED WC REVISION

REV	DATE	DESCRIPTION
A1	15.05.17	ISSUED FOR SQUAD CHECK

DESIGN SURVEY NONE	VERTICAL DATUM AHD	DES CALC A. HINCHLIFFE	NORTH POINT	RECOMMENDED		BUSSELTON WASTEWATER PUMPING STATION NO.17 - WEST ST & PM DN450 PRESSURE MAIN REPLACEMENT SETOUT POINTS, LEGEND & GENERAL NOTES	ORIGINAL SHEET SIZE
ASCON SURVEY NONE	COORDINATE SYS MGA94-50	DES CHD T. JOHNSTON		CONSULTANT PROJECT MANAGER		FILE: _____ PLAN: _____ PROJECT C-502776	EW83-2-11 A1 MF
	DES REF	DRN C. CARNEVALI Q.C. CHD A. HINCHLIFFE		APPROVED			
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	810



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PURPOSE	NAME	SIGNATURE	DATE
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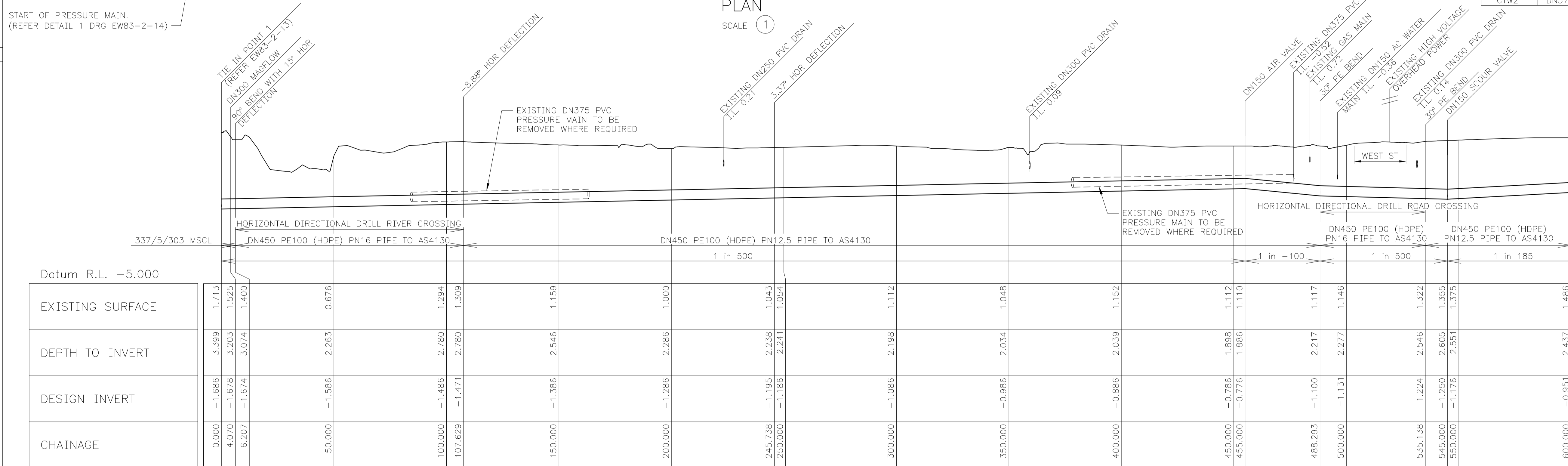
LEGEND

- PROPOSED SEWER PRESSURE MAIN
- PROPOSED SCOUR VALVE
- PROPOSED AIR VALVE
- EXISTING SEWER PRESSURE MAIN
- EXISTING SEWER GRAVITY MAIN
- OVERHEAD LV POWER AND POLE
- COUNCIL STORMWATER DRAINS
- WATER SUPPLY RETICULATION MAIN
- TELSTRA COMMUNICATIONS CABLES
- UNDERGROUND LV POWER
- UNDERGROUND HV POWER
- TREE

- NOTES**
- THE EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE INDICATIVE ONLY. THE EXACT LOCATION OF UNDERGROUND SERVICES IS TO BE CONFIRMED PRIOR TO EXCAVATION BY THE CONTRACTOR.
 - HORIZONTAL AND VERTICAL DEFLECTION LIMITS ON PIPE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECTIONS BEYOND THE MANUFACTURER'S LIMITS ARE TO BE ACHIEVED THROUGH MULTIPLE PIPE LENGTHS.
 - THE PRESSURE MAIN ASSOCIATED FITTINGS HAVE BEEN DESIGNED FOR A MAXIMUM HYDROSTATIC PRESSURE OF 1200kPa.
 - PIPEWORK 'AS CONSTRUCTED' INFORMATION IS TO BE RECORDED PRIOR TO BACKFILLING, IN ACCORDANCE WITH CLIENT'S REQUIREMENTS.
 - MARKER POSTS SHALL BE INSTALLED ALONG PIPE ALIGNMENT AT HORIZONTAL ALIGNMENT CHANGES AND VALVE LOCATIONS. MARKER POSTS SHALL BE POSITIONED AT NOMINAL OFFSET OF 800mm FROM THE PIPE CENTERLINE.
 - PE PIPE SHALL BE PN16 AND IN ACCORDANCE WITH AS2566 AND MANUFACTURED TO AS4130
- REFERENCES**
- | | |
|--|-----------|
| SETOUT POINTS, LEGEND & GENERAL NOTES | EW83-2-11 |
| PLAN & LONGITUDINAL SECTION SHEET 2 OF 2 | EW83-2-13 |
| CONNECTION MAGFLOW & TRENCHING DETAILS | EW83-2-14 |
| AIR VALVE ARRANGEMENT & DETAILS | EW83-2-15 |
| SCOUR ARRANGEMENT & DETAILS | EW83-2-16 |

CLEARANCE TO WORKS
REQUIRED FROM WATER CORPORATION

CTW No.	SERVICE - LOCATION
CTW1	DN375 PVC PRESSURE MAIN - PUMPING STATION NO. 17
CTW2	DN375 PVC PRESSURE MAIN - WEST ST

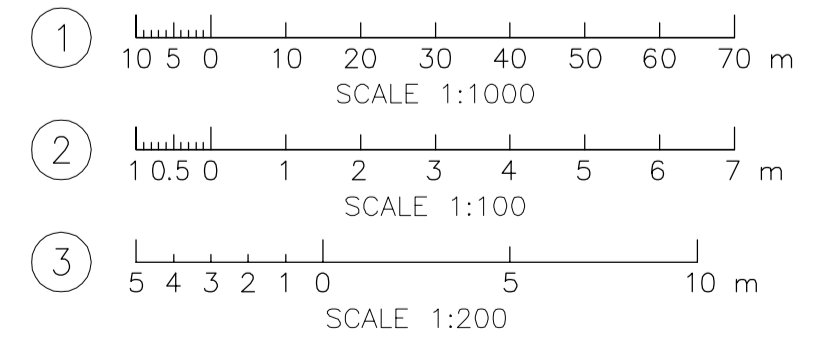


CHAINAGE	EXISTING SURFACE	DEPTH TO INVERT	DESIGN INVERT
0.000	1.713	3.399	-1.686
4.070	1.525	3.203	-1.678
6.207	1.400	3.074	-1.674
50.000	0.676	2.263	-1.586
100.000	1.294	2.780	-1.486
107.629	1.309	2.780	-1.471
150.000	1.159	2.546	-1.386
200.000	1.000	2.286	-1.286
245.738	1.043	2.238	-1.195
250.000	1.054	2.241	-1.186
300.000	1.112	2.198	-1.086
350.000	1.048	2.034	-0.986
400.000	1.152	2.039	-0.866
450.000	1.112	1.898	-0.786
455.000	1.110	1.866	-0.776
488.293	1.117	2.217	-1.100
500.000	1.146	2.277	-1.131
535.138	1.322	2.546	-1.224
545.000	1.355	2.605	-1.250
550.000	1.375	2.551	-1.176
600.000	1.486	2.437	-0.951

PLAN & LONGITUDINAL SECTION
HORIZONTAL SCALE ①
VERTICAL SCALE ②

PRELIMINARY - NOT FOR CONSTRUCTION
JACOBS-WorleyParsons JV
NOT AN APPROVED WC REVISION

REV	DATE	DESCRIPTION
A1	15.07.15	ISSUED FOR SQUAD CHECK



EXACT LOCATION OF UNDERGROUND SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF EXCAVATION

ALL SETOUT DIMENSIONS SHOWN ARE OFFSET FROM CADASTRAL BOUNDARY TO PIPE CENTRELINE

- WARNING !!!**
UNDERGROUND POWER IN THE VICINITY
- WARNING !!!**
MAJOR TELSTRA CONDUITS IN THE VICINITY
- WARNING !!!**
OPTIC FIBRE CONDUITS IN THE VICINITY



ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	SURVEY BOOKS	DATUM AHD	DES CALC	DES CHD	DRN C. CARNEVALI	Q.C. CHD	NORTH POINT	JACOBS	WorleyParsons resources & energy	RECOMMENDED	CONSULTANT PROJECT MANAGER	APPROVED	CONSULTANT PROJECT DIRECTOR	WATER CORPORATION	BUSSELTON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM DN450 PRESSURE MAIN REPLACEMENT PLAN AND LONGITUDINAL SECTION - SHEET 1 OF 2	ORIGINAL SHEET SIZE	
																					FILE PLAN	CAD	ISSUE
																						EW83-2-12	A1

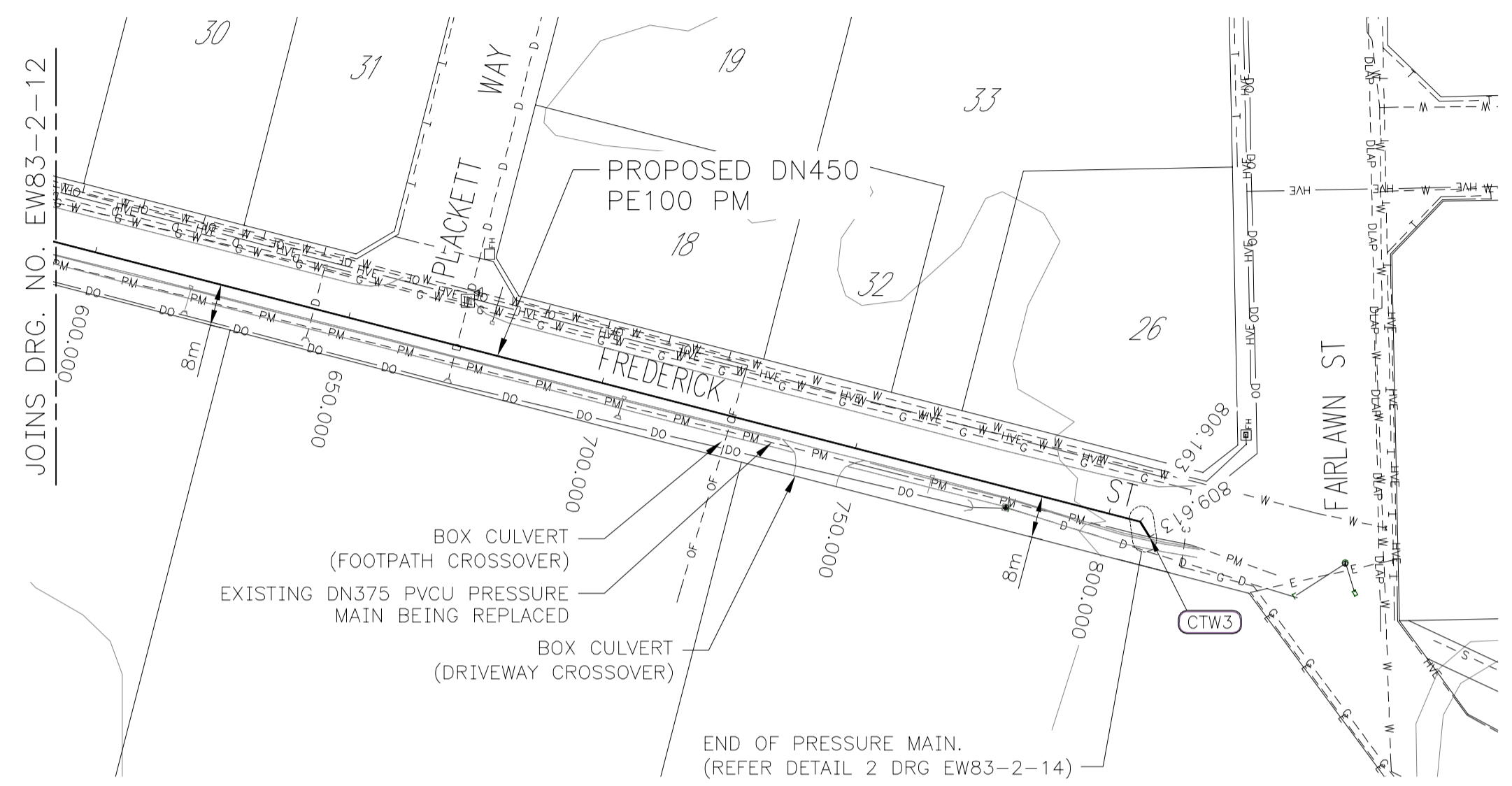
LEGEND

PROPOSED SEWER PRESSURE MAIN	
PROPOSED SCOUR VALVE	
PROPOSED AIR VALVE	
EXISTING SEWER PRESSURE MAIN	
EXISTING SEWER GRAVITY MAIN	
OVERHEAD LV POWER AND POLE	
COUNCIL STORMWATER DRAINS	
WATER SUPPLY RETICULATION MAIN	
TELSTRA COMMUNICATIONS CABLES	
UNDERGROUND LV POWER	
UNDERGROUND HV POWER	
OPTIC FIBRE	
TREE	

- NOTES**
- THE EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE INDICATIVE ONLY. THE EXACT LOCATION OF UNDERGROUND SERVICES IS TO BE CONFIRMED PRIOR TO EXCAVATION BY THE CONTRACTOR.
 - HORIZONTAL AND VERTICAL DEFLECTION LIMITS ON PIPE SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. DEFLECTIONS BEYOND THE MANUFACTURER'S LIMITS ARE TO BE ACHIEVED THROUGH MULTIPLE PIPE LENGTHS.
 - THE PRESSURE MAIN ASSOCIATED FITTINGS HAVE BEEN DESIGNED FOR A MAXIMUM HYDROSTATIC PRESSURE OF 1200kPa.
 - PIPEWORK 'AS CONSTRUCTED' INFORMATION IS TO BE RECORDED PRIOR TO BACKFILLING, IN ACCORDANCE WITH CLIENT'S REQUIREMENTS.
 - MARKER POSTS SHALL BE INSTALLED ALONG PIPE ALIGNMENT AT HORIZONTAL ALIGNMENT CHANGES AND VALVE LOCATIONS. MARKER POSTS SHALL BE POSITIONED AT NOMINAL OFFSET OF 800mm FROM THE PIPE CENTERLINE.
 - PE PIPE SHALL BE PN16 AND IN ACCORDANCE WITH AS2566 AND MANUFACTURED TO AS4130

REFERENCES

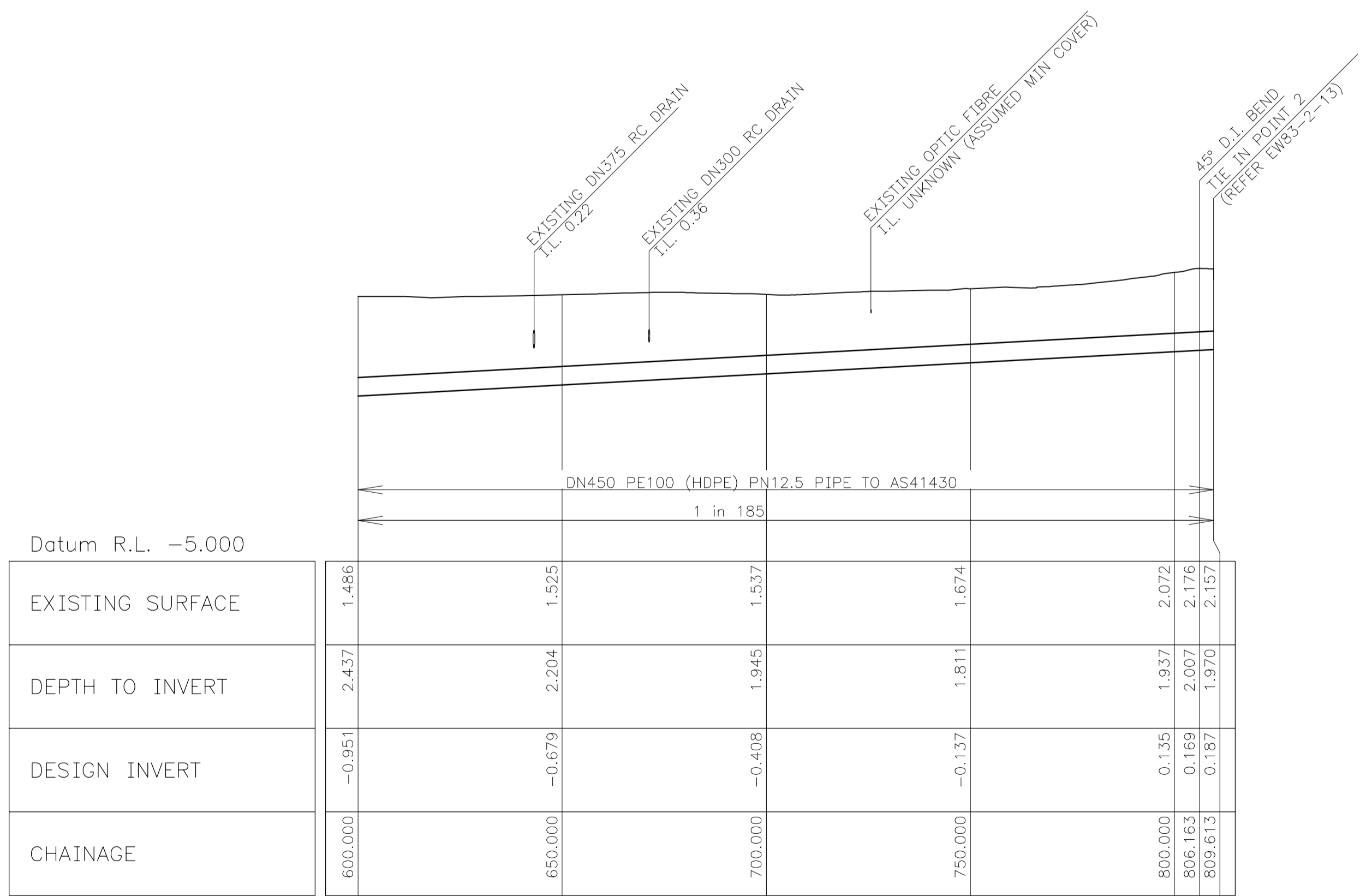
SETOUT POINTS, LEGEND & GENERAL NOTES	EW83-2-11
PLAN & LONGITUDINAL SECTION - SHEET 1 OF 2	EW83-2-12
CONNECTION MAGFLOW & TRENCHING DETAILS	EW83-2-14



PLAN
SCALE ①

CLEARANCE TO WORKS REQUIRED FROM WATER CORPORATION

CTW No.	SERVICE - LOCATION
CTW3	DN375 PVC PRESSURE MAIN - FREDERICK ST



PLAN & LONGITUDINAL SECTION
HORIZONTAL SCALE ①
VERTICAL SCALE ②

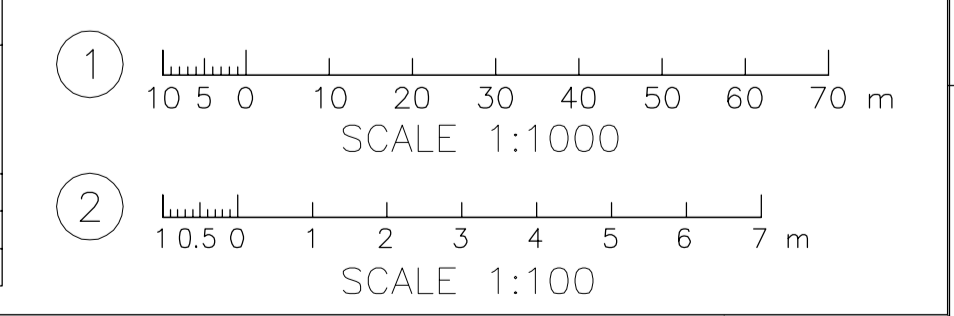
JACOBS CHECK PRINT

PURPOSE	NAME	SIGNATURE	DATE
ENGINEER			
ENG CHECK			
BACK DRAFTED			
BACK CHECKED			

PRELIMINARY - NOT FOR CONSTRUCTION

JACOBS-WorleyParsons JV
NOT AN APPROVED WC REVISION

REV	DATE	DESCRIPTION
A1	15.07.15	ISSUED FOR SQUAD CHECK



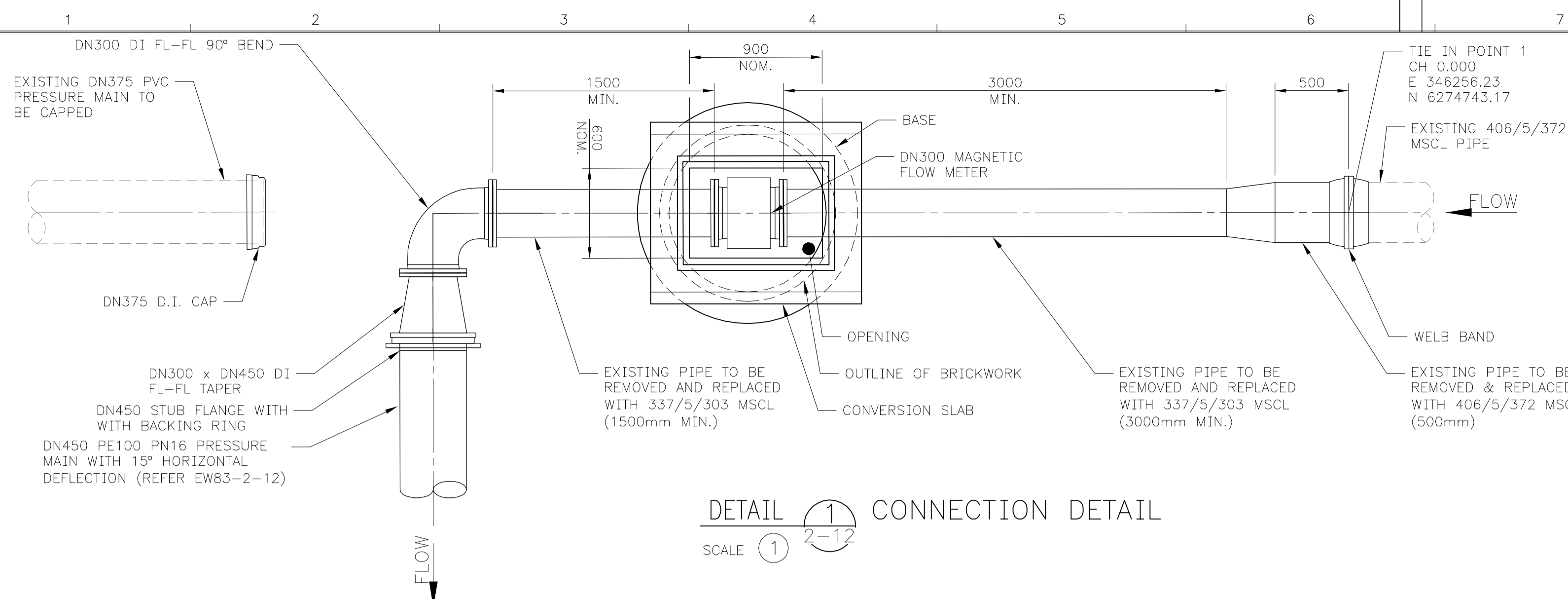
EXACT LOCATION OF UNDERGROUND SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF EXCAVATION

ALL SETOUT DIMENSIONS SHOWN ARE OFFSET FROM CADASTRAL BOUNDARY TO PIPE CENTRELINE

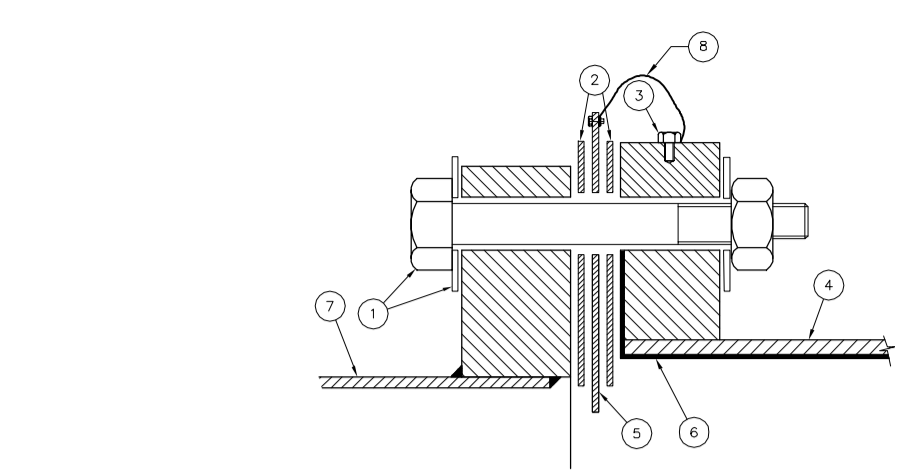
- WARNING !!!**
UNDERGROUND POWER IN THE VICINITY
- WARNING !!!**
MAJOR TELSTRA CONDUITS IN THE VICINITY
- WARNING !!!**
OPTIC FIBRE CONDUITS IN THE VICINITY



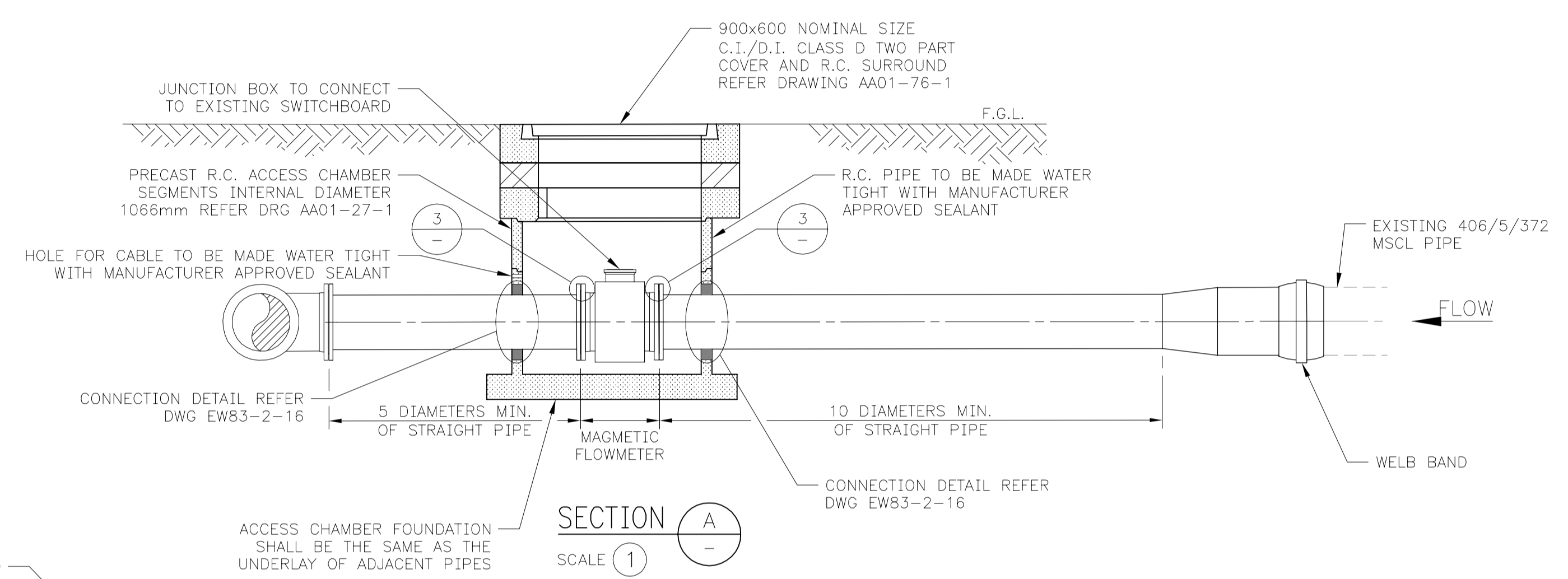
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	SURVEY BOOKS	DATUM AHD	DES CALC	DES CHD	DRN C. CARNEVALI	Q.C. CHD	NORTH POINT	JACOBS	WorleyParsons resources & energy	RECOMMENDED	CONSULTANT PROJECT MANAGER	APPROVED	CONSULTANT PROJECT DIRECTOR	WATER CORPORATION	BUSSELTON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM DN450 PRESSURE MAIN REPLACEMENT PLAN AND LONGITUDINAL SECTION - SHEET 2 OF 2	FILE PROJECT C-502776	PLAN EW83-2-13	CAD	ISSUE A1	ORIGINAL SHEET SIZE A1



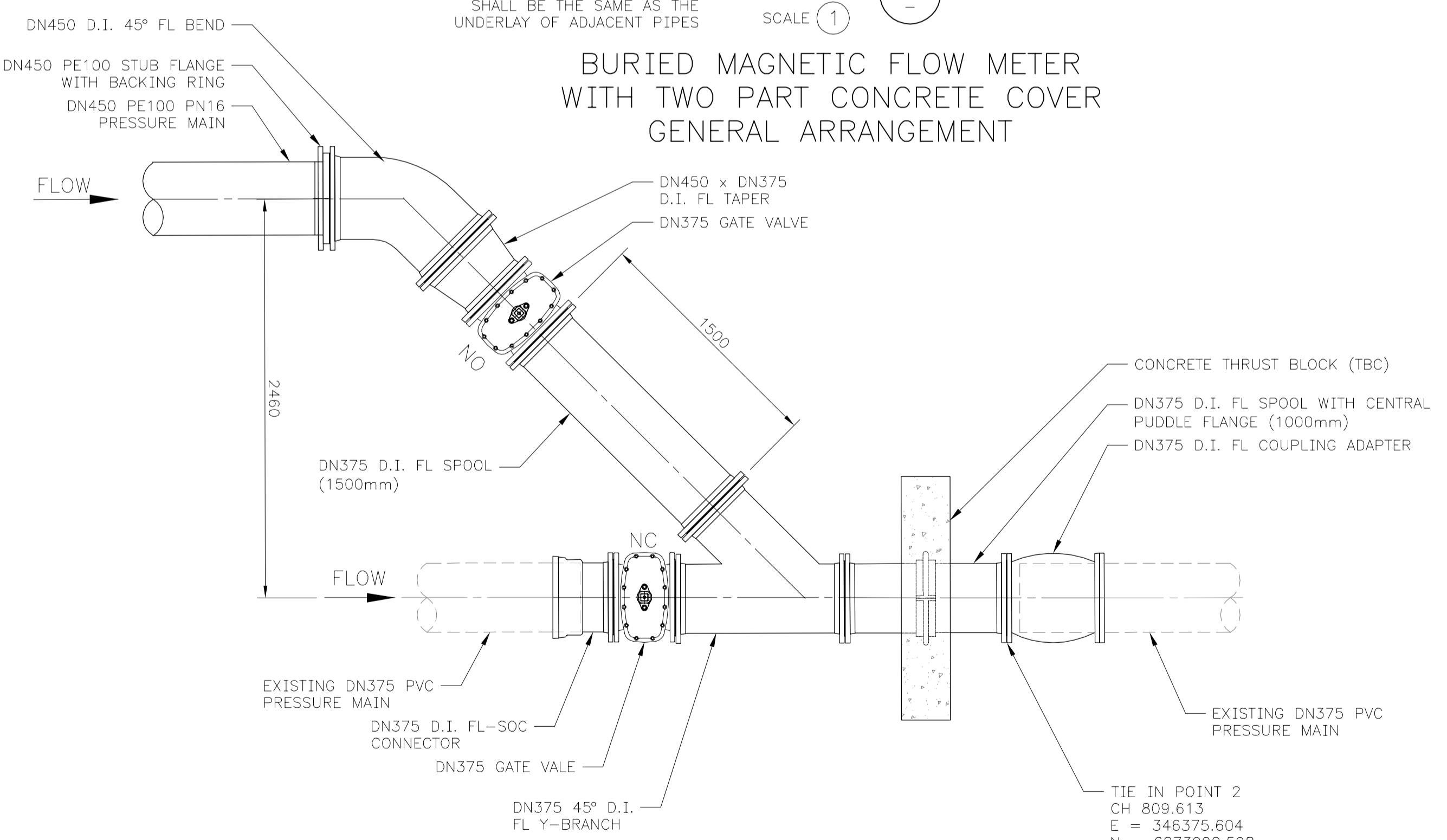
DETAIL 1 CONNECTION DETAIL
SCALE 1:2-12



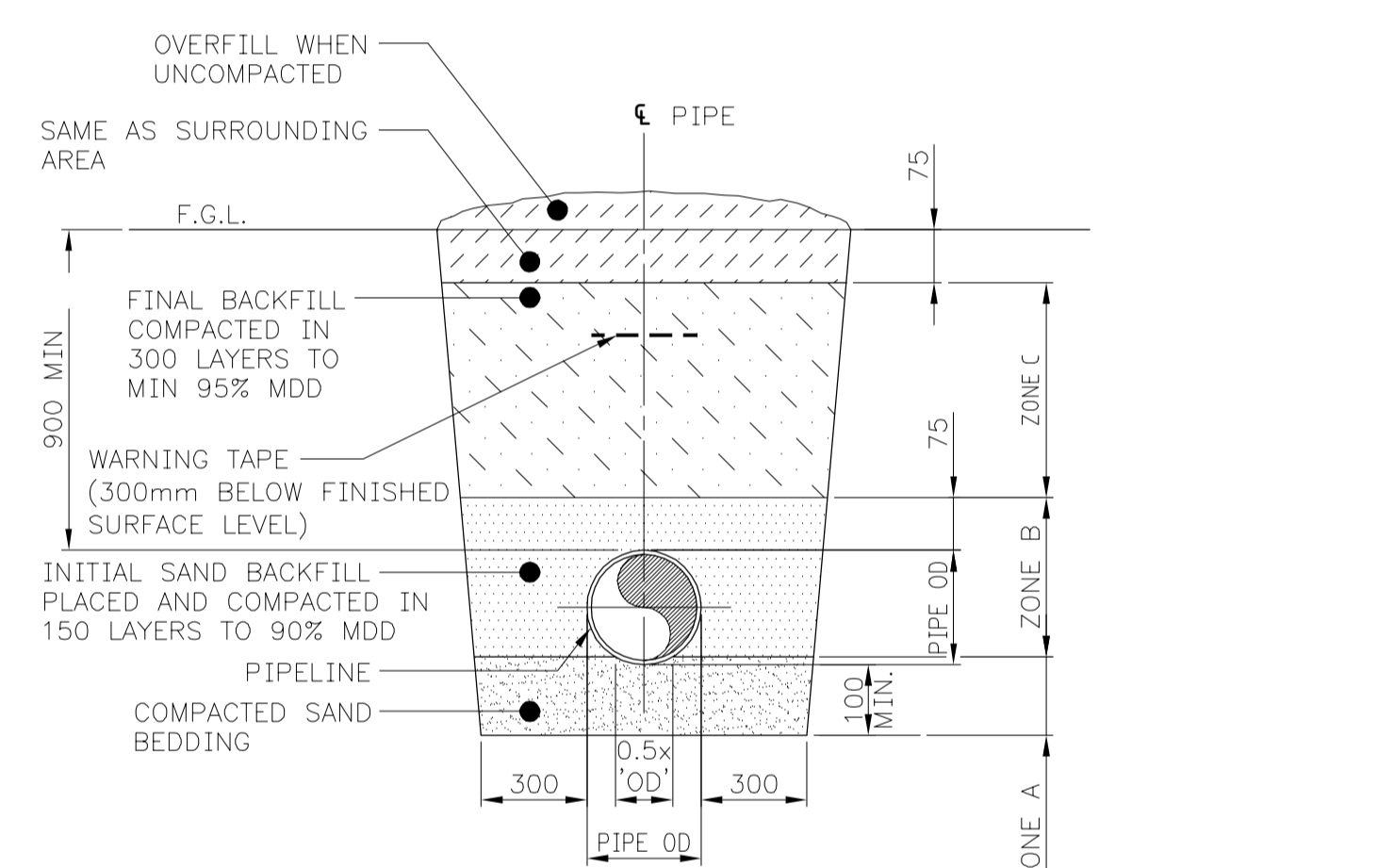
DETAIL 3 FLOWMETER FLANGE CONNECTION DETAIL
SCALE: NTS



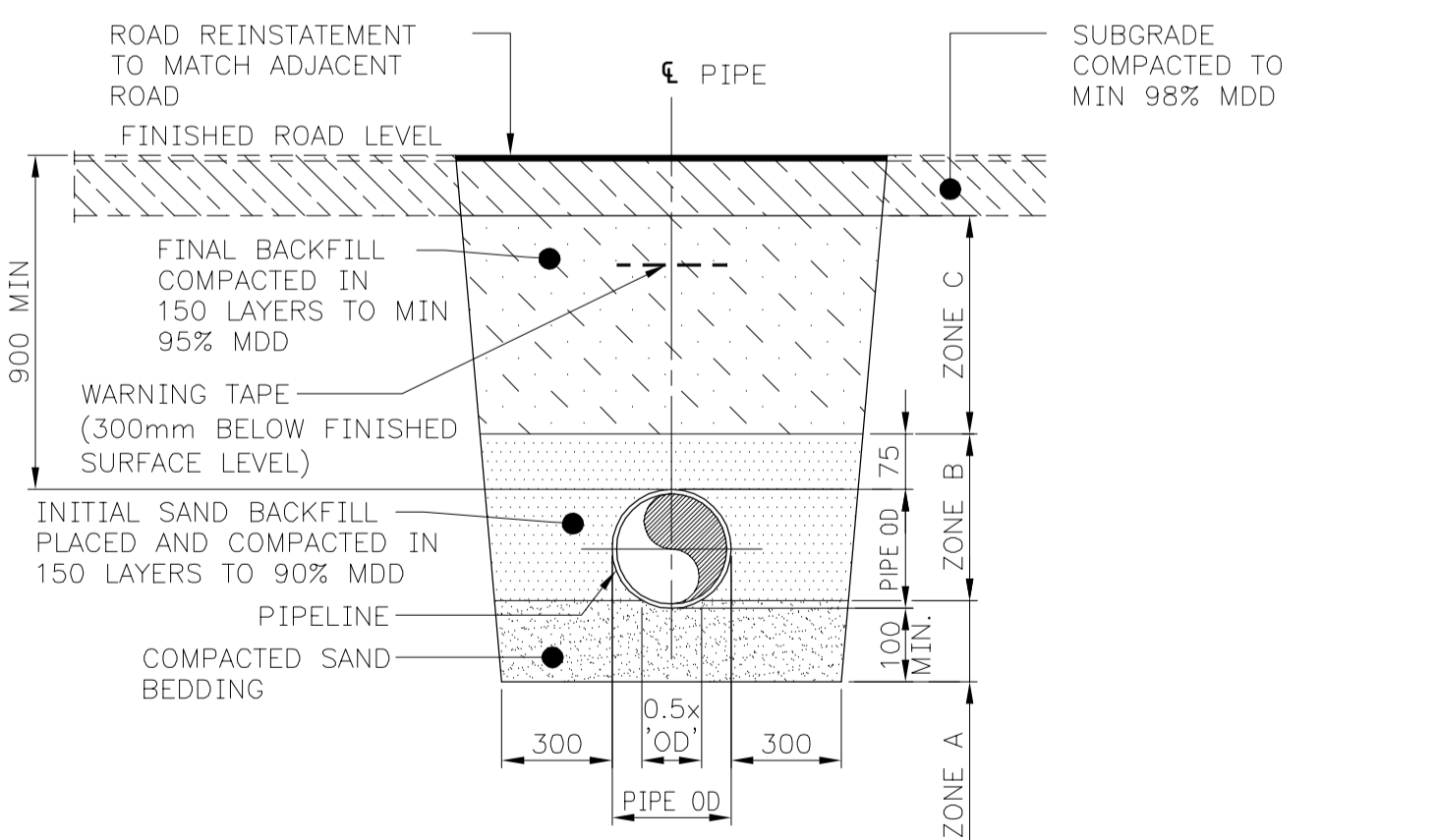
SECTION A
SCALE 1:1



DETAIL 2 CONNECTION DETAIL
SCALE 1:2-13



TYPICAL TRENCHING DETAIL - NON TRAFFICABLE
SCALE: NTS

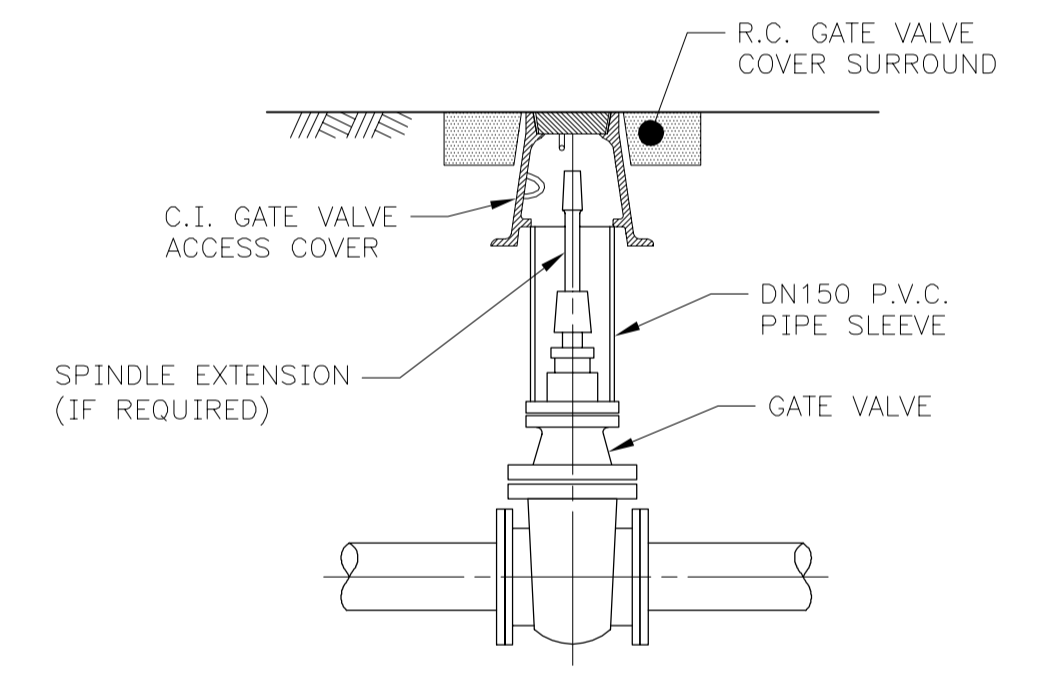


TYPICAL TRENCHING DETAIL - TRAFFICABLE
SCALE: NTS

- NOTE:
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
 - INVERT LEVELS ARE AS PER PLAN AND LONGITUDINAL SECTION DRAWINGS EW83-2-12 TO EW83-2-13.
 - CONCRETE SHALL BE GRADE N25 TO AS 1379 PLACED IN ACCORDANCE WITH AS 3600.
 - BEDDING AND BACKFILL WORK:
 - DRY TRENCH CONDITIONS: UNDERLAY SHALL BE UNDISTURBED NATURAL SAND OR COMPACTED NATURAL SAND FREE FROM ROCK OR OTHER HARD OR SHARP OBJECTS THAT WOULD BE RETAINED ON A 13.2mm TEST SIEVE AND SHALL APPLY WHEN TRENCH BOTTOM IS FREE FROM STANDING OR RUNNING WATER.
 - WET TRENCH CONDITIONS: UNDERLAY SHALL BE 14mm NOMINAL SIZE COARSE AGGREGATE UNIFORMLY GRADED TO AS 2758.1 AND SHALL APPLY WHEN TRENCH BOTTOM IS STABLE BUT NOT FREE FROM STANDING OR RUNNING WATER.
 - UNDERLAY SHALL BE COMPACTED BY MEANS OF AT LEAST 4 PASSES OF A 50kg MINIMUM STATIC WEIGHT VIBRATORY PLATE COMPACTOR OR AS DIRECTED.
 - OVERLAY AND BACKFILL SHALL BE UNIFORMLY COMPACTED IN LAYERS OF 300mm TO A MINIMUM COMPACTION STANDARD OF 7 BLOWS PER 300mm AS MEASURED WITH A STANDARD PERTH PENETROMETER UNLESS OTHERWISE DIRECTED.
 - VALVE ANNOTATIONS:
 - NO - NORMALLY OPEN
 - NC - NORMALLY CLOSED

- CORROSION PROTECTION:
- MAGNETIC FLOW METER AND FLANGES TO BE COMPLETELY WRAPPED WITH 1. BUTYL MASTIC TAPE AND PVC OVERWRAP
- FLOW METER INSTALLATION:
- ONLY PRECAST REINFORCED CONCRETE SYSTEMS LISTED ON THE WATER CORPORATION STRATEGIC PRODUCT REGISTER AND SELECTED BY THE DESIGNER TO MATCH ASSESSED SITE CONDITIONS SHALL BE PERMISSIBLE.
 - ALL BOLTS TO BE HOT DIP GALVANISED TO AS1214-1983.
 - BOLT TORQUE SETTINGS AND TIGHTENING SEQUENCE TO MANUFACTURERS SPECIFICATIONS
 - CHECK FLANGE BOLT HOLES AND FACES FOR BURRS PRIOR TO INSTALLATION OF INSULATION SLEEVES
 - BACKFILL AROUND FLOW METER DETECTION HEAD WITH WELL ROUNDED GRAVEL TO A DEPTH OF 300mm
 - THE INSTALLER MUST PROTECT THE FLOWMETER JUNCTION BOX FROM BEING IMMERSED IN WATER UNTIL IT IS COMPLETELY WATERPROOF. THE FLOWMETER MAY BE PERMANENTLY DAMAGED IF IT IS IMMERSED PRIOR TO IT BEING WATERPROOFED. THE MAGNETIC FLOWMETER IS NOT CONSIDERED WATERPROOF UNTIL:
 - THE CABLES HAVE BEEN INSTALLED,
 - THE JUNCTION BOX HAS BEEN POTTED AND,
 - THE INSTALLATION HAS BEEN INSPECTED AND SIGNED OFF BY A WATER CORPORATION INSPECTOR.

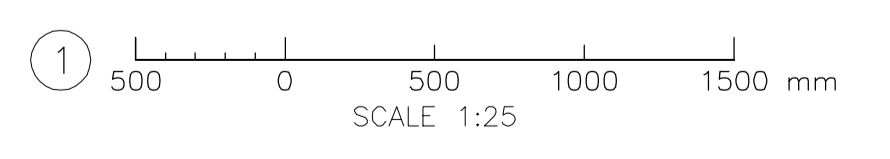
REFERENCE DRAWINGS:
PLAN AND LONGITUDINAL SECTIONS - SHEETS 1 & 2 EW83-2-12 TO 2-13



DETAIL 4 BURIED GATE VALVE INSTALLATION DETAIL
SCALE 1:1

JACOBS			
CHECK PRINT			
PURPOSE	NAME	SIGNATURE	DATE
ENGINEER			
ENG CHECK			
BACK DRAFTED			
BACK CHECKED			

PRELIMINARY - NOT FOR CONSTRUCTION			
JACOBS-WorleyParsons JV			
NOT AN APPROVED WC REVISION			
A1	15.05.17	ISSUED FOR SQUAD CHECK	
REV	DATE	DESCRIPTION	

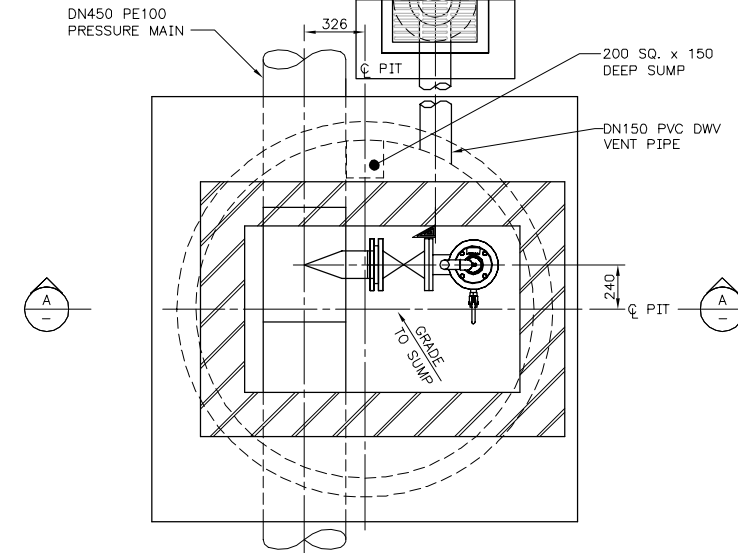


ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	SURVEY BOOKS	DATUM AHD	DES CALC	NORTH POINT	RECOMMENDED		BUSSETON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM CONNECTION, MAGFLOW AND TRENCHING DETAILS	ORIGINAL SHEET SIZE	
								DES REF	DES CHD		CONSULTANT PROJECT MANAGER		FILE	PLAN	A1
									DRN C. CARNEVALI Q.C. CHD		APPROVED		PROJECT C-502776	EW83-2-14	MF

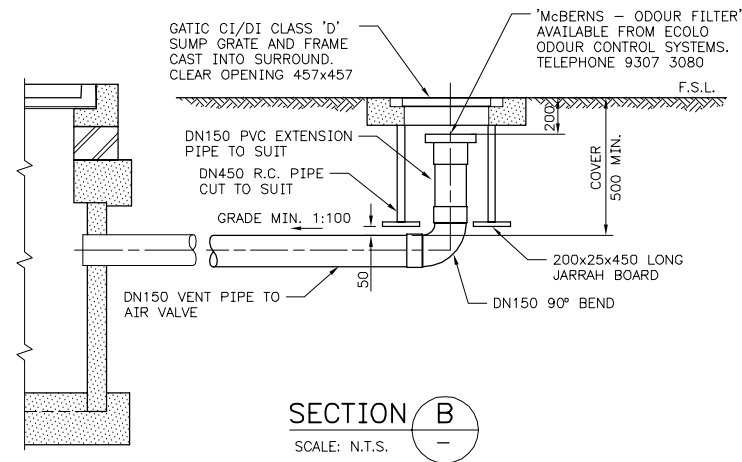
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USERS\CCARNEVALI\APPDATA\LOCAL\PROJECTWISE\WATERCORP_WIP_JV_PROJECTS\DMS02703\EW83-002-012 13/05/2015

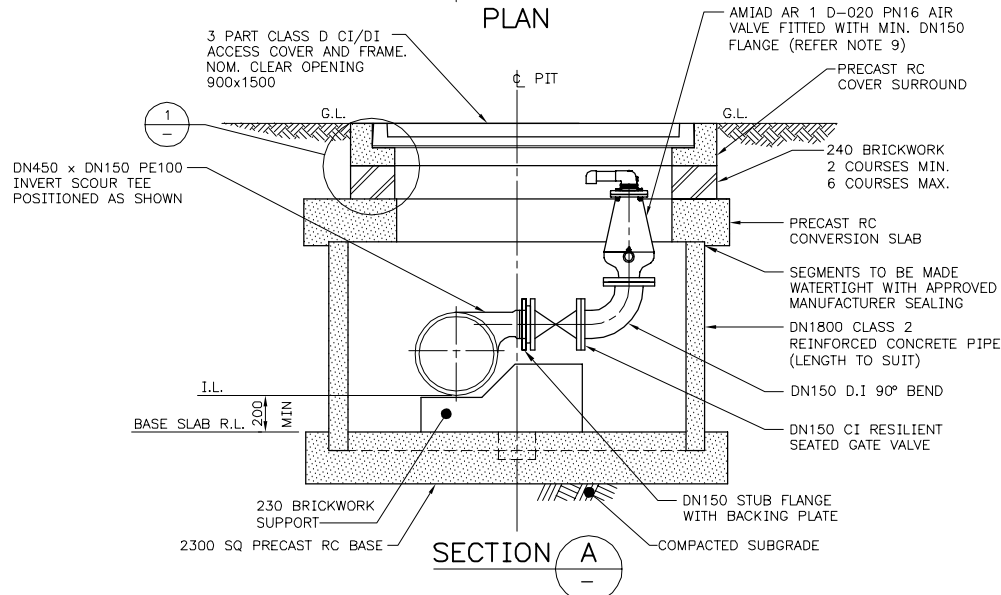
REFER WATER CORPORATION STANDARD DRAWING CA01-5-6 FOR R.C. SURROUND AND COVER DETAILS



PLAN



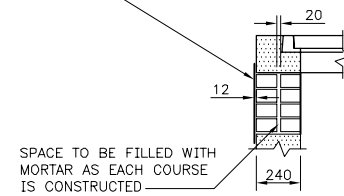
SECTION B
SCALE: N.T.S.



SECTION A

CLASS D C.I./D.I COVER

BRICKWORK IN WET GROUND SHALL BE RENDERED ON THE OUTSIDE WITH CEMENT MORTAR. IN WET GROUND CEMENT MORTAR USED FOR RENDERING AND BRICKLAYING SHALL CONTAIN DAMP COURSE ADDITIVE CROMMELIN CHEMICALS DAMPCO OR APPROVED EQUIVALENT. DAMPCO SHALL BE APPLIED AT THE RATE OF ONE LITRE PER BAG OF CEMENT.



DETAIL 1
SCALE 1

BRICKWORK DETAIL

DIST.	I.L.	G.L.	BASE SLAB R.L.	COVER TYPE
'Input'	'Input'	'Input'	'Input'	'Input'
'Input'	'Input'	'Input'	'Input'	'Input'
'Input'	'Input'	'Input'	'Input'	'Input'

GENERAL NOTES

- ALL DIMENSIONS IN MILLIMETERS UNLESS SHOWN OTHERWISE.
- PVC VENT PIPE SHALL BE S88 PLAIN UPVC TO AS/NZS 1260.
- ONLY PRECAST REINFORCED CONCRETE COMPONENTS LISTED ON THE WATER CORPORATION STRATEGIC PRODUCT REGISTER AND SELECTED BY THE DESIGNER TO MATCH ASSESSED SITE CONDITIONS SHALL BE PERMISSIBLE.
- CONCRETE SHALL BE GRADE N32 TO AS 1379 PLACED IN ACCORDANCE WITH AS 3600.
- REINFORCING STEEL TO BE NORMAL DUCTILE GRADE 500N TO AS/NZS 4671.
- GATE VALVES SHALL BE TO SPS 272 AND RESILIENT SEATED.
- ALL FLANGES AND FLANGE DRILLING SHALL COMPLY WITH AS 4087 PN16. DUCTILE IRON PIPE FITTINGS SHALL BE TO AS 2280 AND SHALL BE FUSION BONDED NYLON COATED INTERNALLY AND EXTERNALLY. SOCKETED (RRJ) D.I. PRESSURE MAIN FITTINGS SHALL MATCH THE AS/NZS 1477 SERIES 2 PVC PIPE DIAMETER, EXCEPT WHERE OTHERWISE SHOWN.
- IF SOIL AT VALVE PIT FOUNDATION LEVEL IS NOT SAND IT SHALL BE EXCAVATED TO A MIN. DEPTH OF 300mm BELOW PIT AND THIS EXCAVATION REFILLED WITH SAND. FOUNDATION OR SAND REFILL MATERIAL SHALL BE COMPACTED AS PIPE UNDERLAY.
- ONLY AIR VALVES AUTHORISED BY THE WATER CORPORATION SHALL BE USED.
- BRICKS SHALL BE STANDARD SIZE 230x110x76 AND HAVE A CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH NOT LESS THAN 10MPa IN ACCORDANCE WITH AS 4456.4.
- CEMENT MORTAR USED IN STRUCTURAL BRICKWORK SHALL BE CLASS M3 OR M4 IN ACCORDANCE WITH AS 3700.

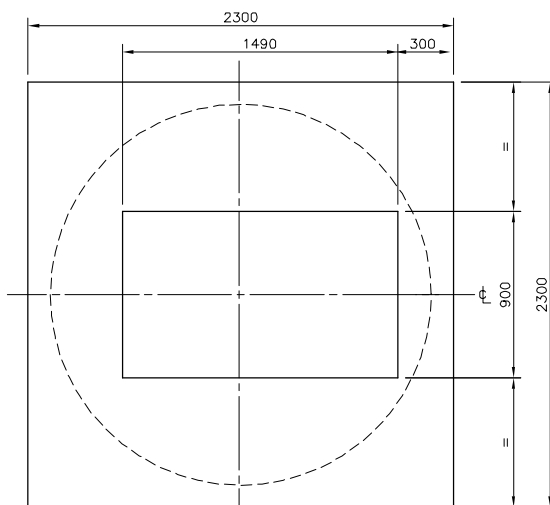
REFERENCE DRAWINGS

SETOUT POINTS, LEGEND & GENERAL NOTES EW83-2-11
PLAN AND LONGITUDINAL SECTIONS - SHEET 1 OF 2 EW83-2-12

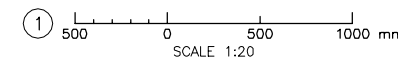
PRELIMINARY - NOT FOR CONSTRUCTION

JACOBS-WorleyParsons JV
NOT AN APPROVED WC REVISION

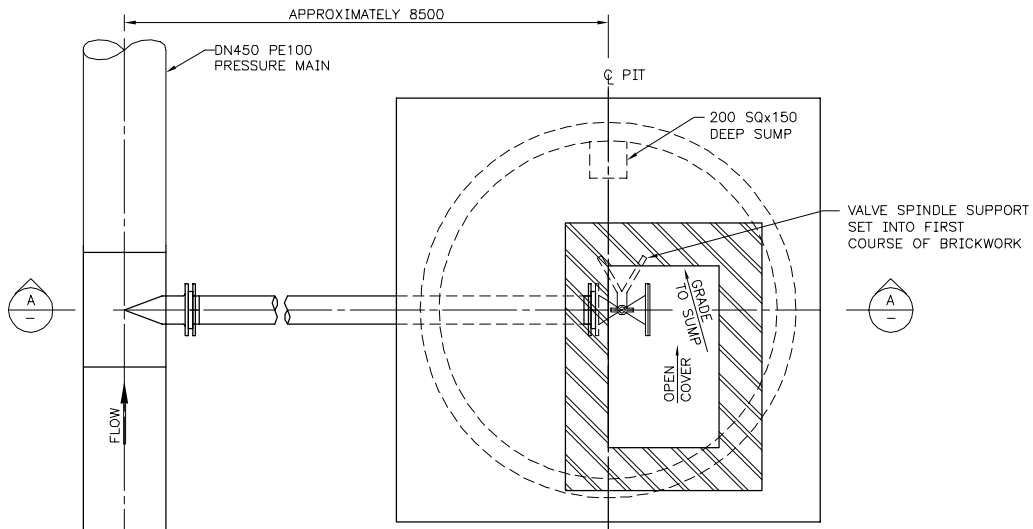
REV	DATE	DESCRIPTION
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A1	20.07.15	ISSUED FOR SQUAD CHECK



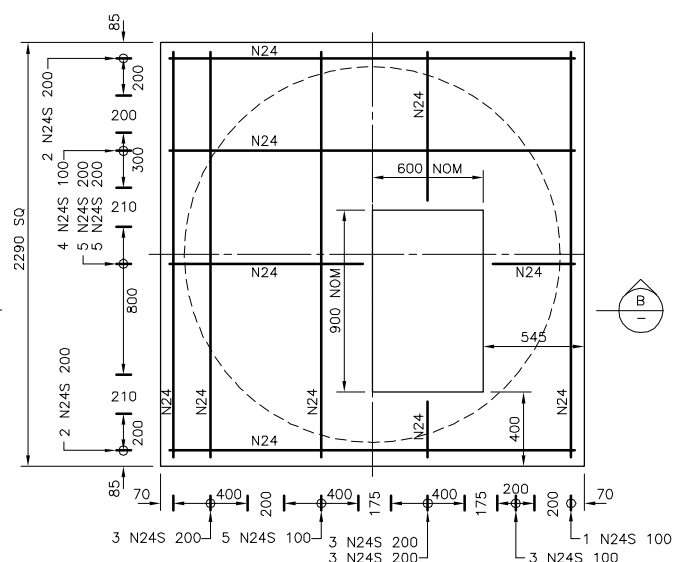
CLASS D C.I./D.I COVER CONVERSION SLAB DIMENSIONS



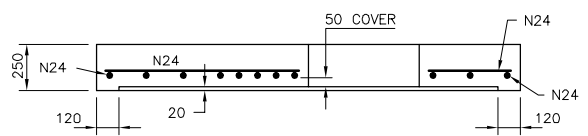
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	SURVEY BOOKS	DATUM AHD	DES CALC	DES CHD	DES REF	NORTH POINT	RECOMMENDED	CONSULTANT PROJECT MANAGER	APPROVED	CONSULTANT PROJECT DIRECTOR	WATER CORPORATION	BUSSELTON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM DN450 PRESSURE MAIN REPLACEMENT AIR VALVE ARRANGEMENT AND DETAILS	ORIGINAL SHEET SIZE A1		
810																		FILE PROJECT C-S02776	PLAN EW83-2-15	CAD A2	ISSUE MF



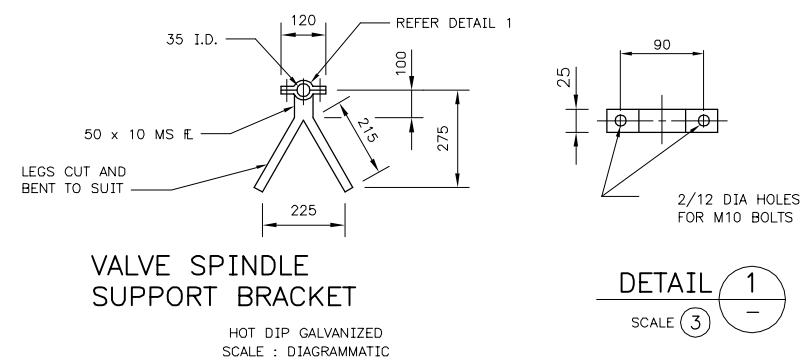
PLAN
SCALE 1



CONVERSION SLAB

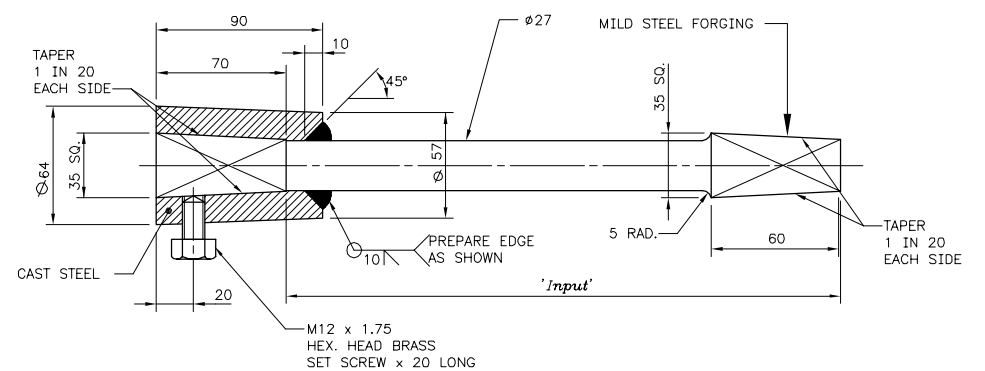


SECTION B
SCALE 1



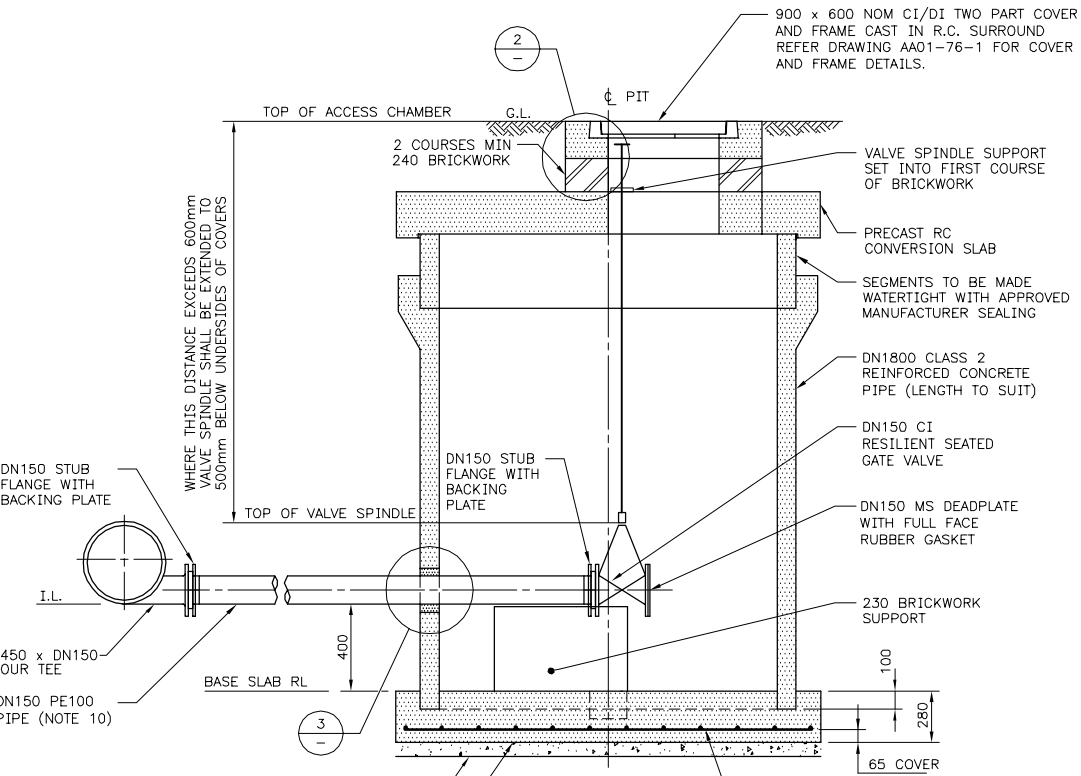
VALVE SPINDLE
SUPPORT BRACKET

DETAIL 1
SCALE 3



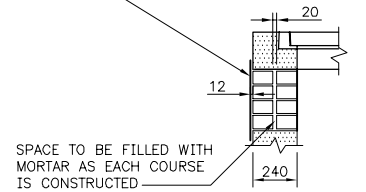
VALVE SPINDLE EXTENSION

(REFER NOTE 6)
SCALE : DIAGRAMMATIC

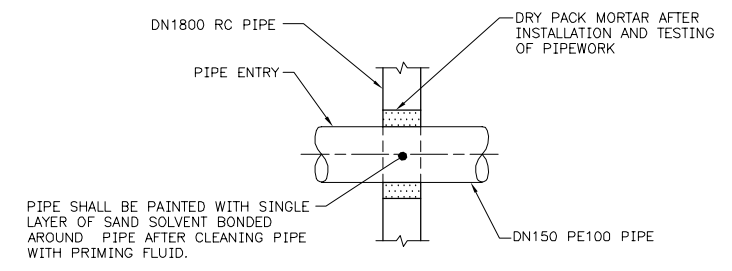


SECTION A
SCALE 1

BRICKWORK IN WET GROUND SHALL BE RENDERED ON THE OUTSIDE WITH CEMENT MORTAR. IN WET GROUND CEMENT MORTAR USED FOR RENDERING AND BRICKLAYING SHALL CONTAIN DAMP COURSE ADDITIVE CHROMMELIN CHEMICALS DAMPCO OR APPROVED EQUIVALENT. DAMPCO SHALL BE APPLIED AT THE RATE OF ONE LITRE PER BAG OF CEMENT.



DETAIL 2
SCALE 1
BRICKWORK DETAIL



DETAIL 3
SCALE 2
CONNECTION DETAIL

GENERAL NOTES

- ALL DIMENSIONS ARE SHOWN IN MILLIMETRES UNLESS SHOWN OTHERWISE.
- CONCRETE SHALL BE GRADE N32 TO AS 1379 PLACED IN ACCORDANCE WITH AS 3600.
- REINFORCING STEEL TO BE NORMAL DUCTILE IRON GRADE 500N TO AS/NZS 4671.
- GATE VALVES SHALL BE RESILIENT SEATED AND TO SPS 272.
- IF SOIL AT VALVE PIT FOUNDATION LEVEL IS NOT SAND IT SHALL BE EXCAVATED TO A MIN. DEPTH OF 300mm BELOW PIT BLINDING LAYER AND THIS EXCAVATION FILLED WITH SAND. FOUNDATION OR SAND REFILL MATERIAL SHALL BE COMPACTED AS PIPE UNDERLAY.
- EXTENSION SPINDLES TO CONFORM TO WATER CORPORATION STANDARD DRG AQ71-3-1 (LENGTH TO SUIT) AND FIXED WITH M12 SET SCREW TO VALVE SPINDLE. SPINDLES GREATER THAN 2m IN LENGTH SHALL REQUIRE AN ADDITIONAL MID-HEIGHT SUPPORT ATTACHED TO THE MANHOLE LINER.
- ONLY PRECAST REINFORCED CONCRETE COMPONENTS LISTED ON THE WATER CORPORATION STRATEGIC PRODUCT REGISTER AND SELECTED BY THE DESIGNER TO MATCH ASSESSED SITE CONDITIONS SHALL BE PERMISSIBLE.
- BRICKS SHALL BE STANDARD SIZE 230x110x76 AND HAVE A CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH NOT LESS THAN 10 MPa IN ACCORDANCE WITH AS 4456.4.
- CEMENT MORTAR USED IN STRUCTURAL BRICKWORK SHALL BE CLASS M3 OR M4 IN ACCORDANCE WITH AS 3700.
- ALL SCOUR ARE TO BE LOCATED IN THE VERGE. WHERE THE PRESSURE MAIN RUNS BENEATH THE PAVEMENT, VALVES SHALL BE SET BACK ONTO THE VERGE WITH A DN150 PE100 PIPE BETWEEN THE SCOUR TEE AND THE GATE VALVE (LENGTH TO SUIT).

REFERENCE DRAWINGS

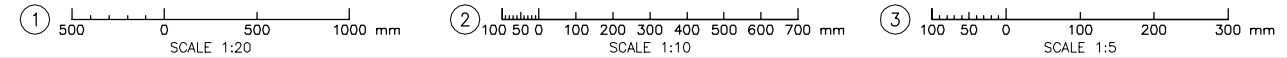
SETOUT POINTS, LEGEND & GENERAL NOTES
PLAN AND LONGITUDINAL SECTIONS - SHEET 1 OF 2
EW83-2-11
EW83-2-12

PRELIMINARY - NOT FOR CONSTRUCTION

JACOBS-WorleyParsons JV
NOT AN APPROVED WC REVISION

REV	DATE	DESCRIPTION
A2	21.07.15	ISSUED FOR CLIENT REVIEW
A1	20.07.15	ISSUED FOR SQUAD CHECK

DIST.	I.L.	G.L.	BASE SLAB R.L.	COVER TYPE
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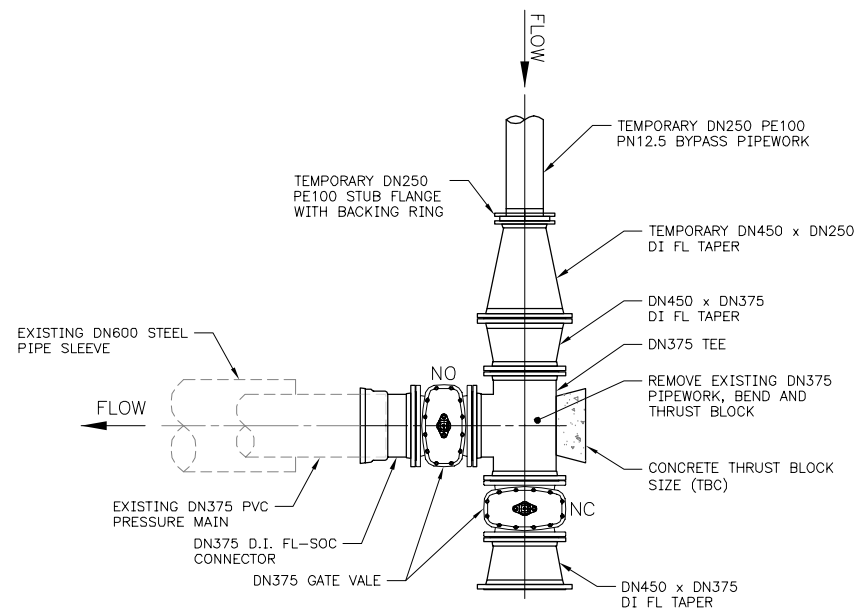


THIS DRAWING IS DERIVED FROM CA01-54-5B

SURVEY BOOKS			DATUM AHD	DES CALC	NORTH POINT	RECOMMENDED	BUSSELTON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM		ORIGINAL SHEET SIZE
			DES REF	DES CHD		CONSULTANT PROJECT MANAGER	DN450 PRESSURE MAIN REPLACEMENT SCOUR ARRANGEMENT AND DETAILS		A1
				DRN C. CARNEVALI		APPROVED	FILE PLAN		
				Q.C. CHD		CONSULTANT PROJECT DIRECTOR	PROJECT C-S02776		
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	EW83-2-16		A2

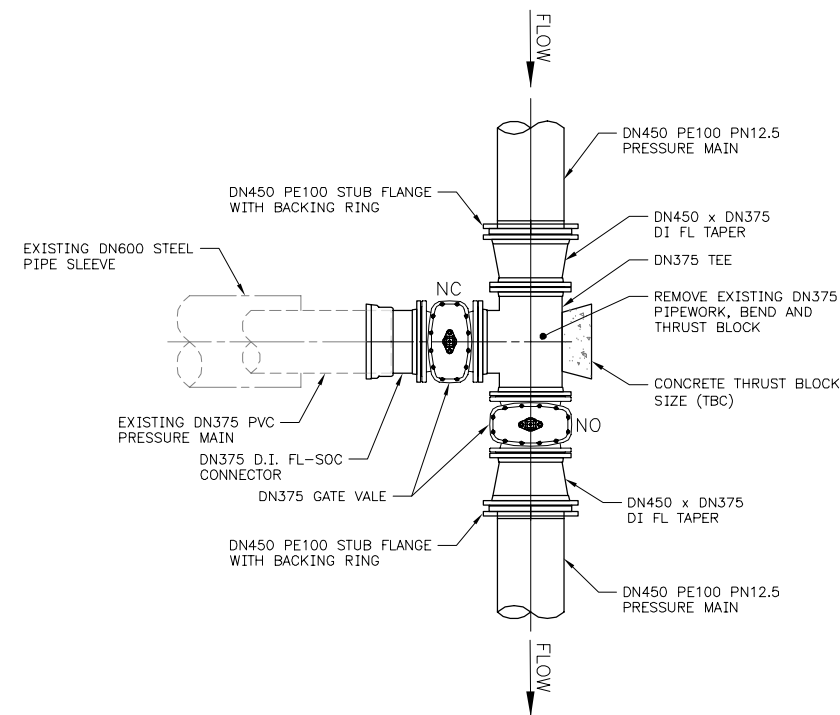
- NOTE:
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
 - INVERT LEVELS ARE AS PER PLAN AND LONGITUDINAL SECTION DRAWINGS EW83-2-12 TO EW83-2-13.
 - CONCRETE SHALL BE GRADE N25 TO AS 1379 PLACED IN ACCORDANCE WITH AS 3600.
 - VALVE ANNOTATIONS:
NO - NORMALLY OPEN
NC - NORMALLY CLOSED

REFERENCE DRAWINGS:
SETOUT POINTS, LEGEND & GENERAL NOTES EW83-2-11
PLAN AND LONGITUDINAL SECTIONS - SHEETS 1 OF 2 EW83-2-12



DETAIL ①
SCALE ①

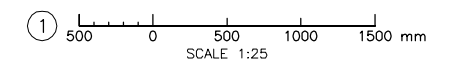
CONNECTION STAGE 1 - CONSTRUCTION PHASE



DETAIL ②
SCALE ①

CONNECTION STAGE 2 - OPERATION PHASE

PRELIMINARY - NOT FOR CONSTRUCTION		
JACOBS-WorleyParsons JV		
NOT AN APPROVED WC REVISION		
A2	21.07.15	ISSUED FOR CLIENT REVIEW
A1	20.07.15	ISSUED FOR SQUAD CHECK
REV	DATE	DESCRIPTION



				SURVEY BOOKS	DATUM AHD	DES CALC	NORTH POINT	RECOMMENDED		BUSSELTON WASTEWATER PUMPING STATION No. 17 - WEST ST AND PM DN450 PRESSURE MAIN REPLACEMENT BYPASS PUMPING CONNECTION DETAILS	ORIGINAL SHEET SIZE A1	
				DES REF	DES CHD		CONSULTANT PROJECT MANAGER	FILE				PLAN
ISSUE	DATE	GRID	REVISION	DRN	REC	APPD	DRN C. CARNEVALI Q.C. CHD	APPROVED	PROJECT C-S02776	EW83-2-17	A2	MF

Elle Stewart

From: Carole Armstrong
Sent: Thursday, 5 November 2015 3:19 PM
To: 'Graeme.Jones@busselton.wa.gov.au'
Subject: Request Land Owner Permission Busselton West street Project

Hi Graeme,

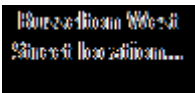
As previously discussed, the Water Corporation is required to construct 840m of DN 450 PE100 class 12.5 pressure main pipe, form the West street Pump Station, to just before the intersection of Frederick street and Fairlawn St in Busselton. The location is depicted in the attached figure. The Shire of Busselton has been identified as the landowner and in accordance with Water Corporation's environmental approvals process it is a requirement to seek landowner consent to undertake works.

The construction is required to address a series of leaks/bursts incidents that have occurred along this section of the pressure main. The Corporation respectfully requests the Shire respond to this email with consent to undertake the aforementioned works as soon as possible, to enable further application for approvals to be submitted.

Please don't hesitate to contact me if you have any questions.

Kind Regards

Carole

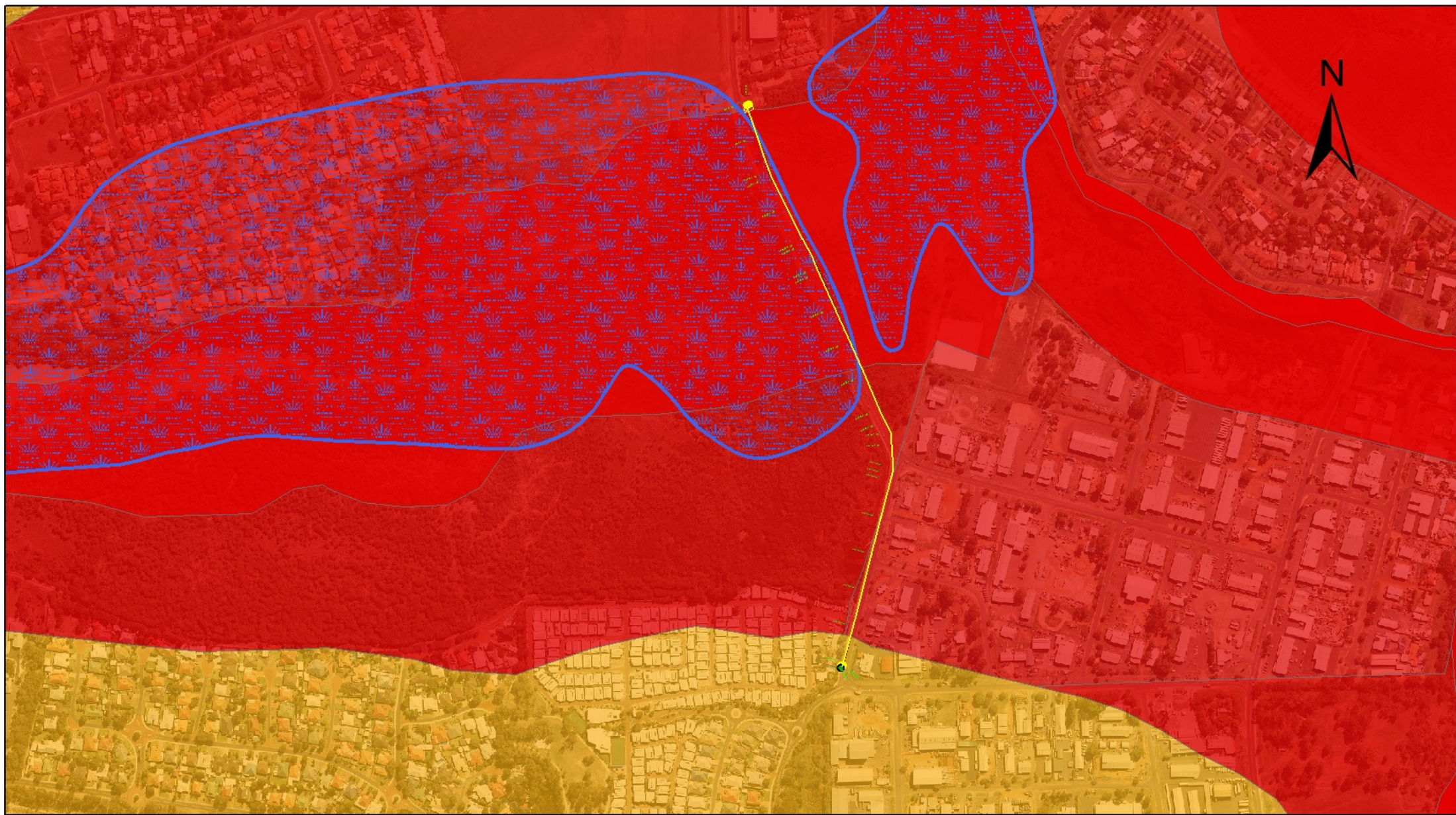


Carole Armstrong
Environmental Scientist
Environmental Impact Assessment
Safety Environment and Aboriginal Affairs Branch






Need assistance? – [request form](#)

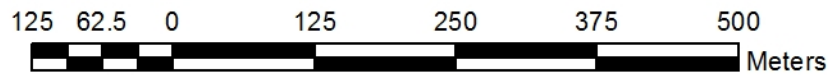
Water Corporation
T: (08) 9420 3562 | F: (08) 9420 3158
629 Newcastle Street, Leederville, WA 6007
PO Box 100, Leederville, WA 6902
www.watercorporation.com.au

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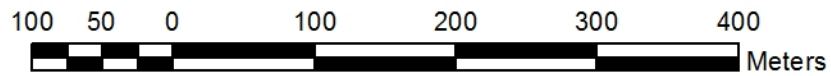


Legend

-  West Street Clearing
-  Pipe alignment C.A. 02.06.2015
-  Swan Coastal Plain EPP
-  High to moderate ASS disturbance risk (<3m from surface)
-  Moderate to low ASS disturbance risk (<3m from surface)



**Busselton West St
Swan Coastal EPP and
Acid Sulfate Soils**



Busselton West St
Project Location



Busselton West St
Pump Station Location