

**ALL BIDDERS SHALL READ THE ENTIRE ADDENDUM AND TAKE INTO ACCOUNT ITEMS AFFECTING THEIR RESPECTIVE RESPONSIBILITIES.**

**This Addendum forms part of Bid documents issued for above project and no consideration will be entertained for extras to contract due to failure of any bidder to become thoroughly familiar with the Addendum.**

**CONTRACTOR QUESTIONS:**

Question 1) Can we use HDPE DR11 as an accepted alternate to DR18 PVC?

***Response: "Only piping listed in specification Section 33 11 16 Item 2.1.1.2 shall be used. Request to allow HDPE DR11 is not acceptable."***

Question 2) What are the requirements for a contractor to perform the work? As this is work on waterline there are typically minimum requirements a contractor must have to perform the work?

***Response: "Specification Section 33 11 56 Site Water Utility Distribution Piping Item 3.6.10 and 3.6.11 outline contractor requirements."***

Question 3) Is disinfection and bacteriological testing required? If so, who pays for this cost?

***Response: "Specification Section 22 11 16 Domestic Water Piping Item 3.7.1 calls for the flush out, disinfect and rinse system to requirements of Authority having jurisdiction approval of Departmental Representative. Specification Section 22 11 16 lists references for standards and the most stringent shall apply. All costs incurred for the flush out, disinfection, and rinse complete with all testing reports shall be by the contractor."***

Question 4) Is video inspection required?

***Specification Section 01 91 33 – Commissioning Forms:***

***Part 3 Commissioning Breakdown (CV and PVT)***

***DELETE: "CCTV survey report acquired and approved" from the General Commissioning Checks form. No video inspection of the new water main piping is required for the project.***

## **AMENDMENT TO SPECIFICATIONS**

### **Reference Section 01 14 00 – Work Restrictions**

1. Item 1.3 – Existing Services: ADD .5  
.5 All service and line locates in work areas shall be completed by the Contractor prior to any site excavating. Locating company shall follow all site access and security requirements for the project.
2. Item 1.5 – Security: ADD .5  
.5 The enclosed security forms title “Saskatchewan Penitentiary Orientation for Contractors” and “Institutional Access CPIC Clearance Request” forms shall be completed and returned to the Departmental Representative a minimum of one (1) week prior to arrival on-site for project.

### **Reference Section 22 11 16 – Domestic Water Piping**

1. Item 2.1.1: DELETE reference to “AWWA ductile iron pipe and fittings”.

## **AMENDMENTS TO DRAWINGS**

### **Reference: Drawing W-M1 Site Plan New Water Main Services and Drawing W-M2 Mechanical Details**

1. Revise Drawing W-M1 to W-M1.R1 Site Plan New Water Main Service:

Items revised are identified by a “cloud” and a 1 enclosed in a triangle and include:

- 50 Ø water main serving housing area relocated to on-site confirmed location. All associated isolation valves, through blocks relocated as noted on revised drawing. Existing curbing, grass, etc. in area where removed to be replaced as per specifications.
- Note added to provide 600 mm clean undisturbed soil from existing site located elevation of fire main (FM) and new 150 Ø water main (WM).
- New 150 Ø isolation valve added to new 150 Ø water main piping in tunnel area as shown on revised drawing.
- New 50 Ø outlet complete with ball valve isolation and cap to be installed to bottom of new 150 Ø water main in tunnel as per drawings. Ball valve to be installed in accessible location.

2. Revise Drawing W-M2 to W-M2.R1 Mechanical Details:

Items revised and identified by a “cloud” and a 1 enclosed in a triangle and include:

- New 150 Ø isolation valve installed on new 150 Ø water main (WM) in the tunnel.
- New 50 Ø ball valve and cap connection to new 150 Ø water main (WM) for drain and piping disinfection use.

**END OF ADDENDUM NUMBER ONE**

## **SASKATCHEWAN PENITENTIARY** **ORIENTATION FOR CONTRACTORS**

**Saskatchewan Penitentiary** is a **Federal Penitentiary**. In order to facilitate work with contractors, whether long term or short duration, rules and regulation have been drawn up that must be enforced.

It will be the responsibility of every contractor to follow these requirements. Failure to do so may result in expulsion from the institutional property or on a summary conviction is liable to imprisonment for six months or to a fine of \$500.00 or both.

### **1. IDENTIFICATION CARDS**

- a) All contractors must submit a clearance form at least one full week prior to coming on site. They will be informed who has cleared the security clearance process and those that are denied.
- b) Each employee who is cleared will be issued an identification card that will be carried on his/her person while on the job site. This card will be presented upon request to any institutional staff member.
- c) All outside contractors, their subcontractors and employees, coming to the Institution to carry out work, must report daily to the person who originally hired them. At least 2 days advance notice must be given prior to arrival so that passes and escorts may be arranged for.
- d) Each contractor will sign in/out on a daily basis and issued I.D. cards have to be carried in on site at all times.
- e) The I.D. card, as issued by the Institution, is to be worn on institutional property and has to be turned in to the Entrance Officer where you entered whenever the Institutional property is left.
- f) No contractor is to proceed to his/her place of work without prior security clearance.
- g) Working hours as to when the contractor may enter and leave the Institution shall be set prior to the commencement of work. Normal working hours are between 08:00 and 16:30 hours Monday to Friday. Changes in normal work hours require approval of the Institution. In most cases you will be escorted by a commissionaire escort, and twenty-four (24) hours notice is needed when overtime is required.

### **2. TOOL CONTROL**

- a) Every employee, on site, is responsible for the safe control of tools. If any tools are lost they must be reported immediately, to the person escorting you.
- b) The contractor shall be required to submit a list of all tools brought into the Institution, which shall be checked and verified at the completion of each day's work. No tools are allowed to be brought in unless they have been added to the tool list. Spot checks will be made to see that unregistered tools are not being used.
- c) Power driven tools, "Ram-sets", etc, shall not be brought into the Institution until they are required. The number of cartridges brought in shall be counted and on the equipment leaving the Institution, number of lived and expended cartridges shall be counted and must coincide with the number of cartridges brought in.
- d) All tools, when not in use, shall be kept in a locked box stored in a secure location, particular attention being paid to ropes, ladders, cutting tools, (metal) etc.
- e) Contractors are not to use institutional tools or equipment. If inmates are hired by the contractor, then the contractor shall supply tools needed by the inmate.
- f) Tools are classified under two security classifications: Prohibited Class "P" and Restricted Tools. **Class "P"** consists of tools which are considered extremely dangerous or require special security measures. These tools shall only be taken on site as required. They shall never be left unattended and shall be removed from site as soon as possible after use. Under no circumstances will an inmate be allowed to handle or

operate the powder charged fastening tools or supplies for their operations. The prohibited tools are:

- Hacksaw Blades
- Hacksaw Frames (hand)
- Coping Saws and Blades
- Bolt Cutters
- Bolt Cutter Blades
- Ropes
- Straight Razors
- Three and Four Wheel Pipe Cutters
- Powder Charged Fastening Tools

**Restricted Tools** are those tools most likely to be used in an escape attempt. These tools will be stored in a previously arranged secured, locked area and only drawn as required. When taking the tools out for use, your construction escort should be informed. The tools will be returned to the storage area without delay after use. Restricted tools are:

- Files
- Metal Shears/Snips
- Extension Cords
- Hand Drills or Pump Tools
- Portable Jacks
- Safety Belts/Harnesses
- Ladders and Scaffolding
- Pipe Wrenches
- Food Service Knives (boning)
- Portable Air Tools
- Sanding Discs, stones, metal and masonry blades
- Pipe Cutters
- Welding/Cutting Torch
- Flashlights
- Scissors – all types except blunt nosed
- Side Cutters 10" and over
- Dental Saw Blades
- Portable Electric Tools

### 3. **CELL PHONES**

At no time will Cellular phones be allowed on within the confines of the penitentiary. This is for your own protection.

### 4. **ALCOHOL AND NARCOTICS**

Alcoholic beverages and narcotics are not permitted on Penitentiary property. Discovery of such items on the site and identification of the person or persons responsible for them shall be reported immediately to the Deputy Warden. Any person employed on the project that appears to be intoxicated or under the influence of any drug or narcotic or who behaves in an unusual manner shall be subject to immediate removal from Penitentiary property.

### 5. **CAMERAS**

Cameras will only be permitted in the Institution by authority of the Warden or his/her delegate. A pass must be obtained from the Coordinator of Correctional Operations and forty eight (48) hours advance notice must be given.

### 6. **VEHICLES**

- a) All vehicles entering the Institution must have a locking gas cap, in place on all fill spouts.
- b) All unattended vehicles on Institution property must have their windows closed, doors and trunks locked and keys removed.
- c) All liquor, narcotics, firearms and ammunition are prohibited on Institution Property at all times.

### 7. **CONTROL OF CONTRABAND**

The contractor is responsible for ensuring that all persons employed by him directly or indirectly on the work project are familiar with Corrections and Conditional release Act Section 45.

Every person commits a summary conviction offense whom:

- a) Is in possession of contraband beyond the visitors control point in a Penitentiary.
- b) Is in possession of contraband of anything referred to in paragraph (b) and (c) of the definition of "contraband" in Section 2 before the visitors control point at a Penitentiary;
- c) Delivers contraband to, or receives contraband from an inmate;
- d) Without prior authorization, delivers jewelry to, or receives jewelry from an inmate.

#### 8. **SEARCHING**

A Staff member may conduct routine non-intrusive or routine frisk search of visitors without individualized suspicion, in the prescribed circumstances, which circumstance must be limited to what is reasonably required for security purposes.

#### Section (60) (3)

Where a staff member believes on reasonable grounds that a visitor is carrying contraband or carrying other evidence relation to an offense under Section 45 and that a strip search is necessary to find the contraband or evidence.

- a) The staff member may detain the visitor in order to
  - i Obtain the authorization of the Institutional Head to conduct a strip search, or
  - ii Obtain the services of the police.

Contraband means:

- a) an intoxicant
- b) a weapon or component thereof, ammunition for a weapon and anything designed to kill, injure or disable a person or that is altered so as to be capable of killing, injuring or disabling a person, when possessed without prior authorization
- c) an explosive or a bomb component thereof
- d) currency over any applicable prescribed limit, when possessed with out prior authorization, and
- e) Any item not described in paragraph (a) to (d) that could jeopardize the security of a Penitentiary or the safety of persons, when that item is possessed without prior authorization.

Example

- a) Letters
- b) Knives
- c) Money
- d) Drugs
- e) Articles of clothing
- f) Cigarettes received from inmate
- g) Tobacco products and lighters

It is recommended that contractors have no dealings with inmates, unless absolutely necessary, this is for the protections of both parties concerned. The only exception will be inmates who are lawfully employed by the contractor and this exception only extends to work-related matters.

#### 9. **CONFINED SPACES**

Saskatchewan Penitentiary has several Confined Spaces and has a comprehensive Confined Space Program. If you wish to perform work on our premises you must follow the rules as outlined in our policy, as well as the Canada Labour code. Any person entering a confined space must first have training in confined space entry. You may be required at any time to present proof that you have had training. If respiratory protection is required in the confined space you are entering, please refer to the Respiratory Protection section of this contract. Our confined spaces are classed in the following 3 categories:

**Class A:** These spaces are considered to have ongoing and constant dangers. In order to enter them you will need the following;

- a) A safety watch, who is not occupied with any other duties

- b) Two members of the confined spaces rescue team
- c) A dangerous gas monitor that can measure Combustible gases, Hydrogen Sulfide gas, and Oxygen.
- d) Respiratory Protection, with emergency back up e.g.) Prem-air unit from MSA.
- e) Fall-arrest when indicated.
- f) A permit signed by the Works supervisor, the Chief Engineer, or the OH&S/Enviro Officer.
- g) Any other equipment specified by the assessment sheet.

Here is a list of all the Class A Confined Spaces

- Man Holes (sewer and storm)
- Pump House Reservoir
- C-22 Dust Collector (inside)
- C-2 Lower dust Collector (inside)
- Boilers
- Dearators
- Hot Well
- Blow Down Tank
- C-24 Access Pit (in mechanical room)

**Class B:** These spaces are considered to have possible hazards, and therefore precautions should be taken accordingly. You will also need the following.

- a) To let someone know that you are entering the dangerous space (this can be your escort)
- b) A dangerous gas monitor that can measure Combustible gases, Hydrogen Sulfide gas, and Oxygen.
- c) A two way radio
- d) A flashlight
- e) Any other equipment specified by the assessment sheet.

Here is a list of all the Class B Confined Spaces

- All utility ducts
- B-11 (Main Kitchen Basement) After cement divider
- Pit in South Tower
- Manholes (electrical)

**Class C:** Are considered "Isolated locations". Before entering the area you must let someone know where you are going. This can be you escort.

Here is a list of all Class C Confined Spaces

- All roofs
- Hospital basement
- Equipment pit in the Cultural Center
- The attic above the School.
- Dome Attic crawl space (you will need fall arrest equipment to enter this area).
- North basement
- Basement under the gym
- Any air handling units (when entering inside)

If you have any questions concerning confined spaces please contact the OHS/Enviro officer.

## 10. **RESPIRATORY PROTECTION**

Saskatchewan Penitentiary has a complete Respiratory Protection Program. As contractors you will be expected to follow our policy to the best of your ability. A copy of our policy will be provided for you upon request. If a particular type of work, or a Confined Spaces assessment

indicates that you will need respiratory protection then you must use it in order to perform that work. Any person, who will be required to wear respiratory protection, must:

- Have had a baseline physical to determine that they are physically capable of perform work while wearing a respirator.
- They must be provided with equipment that has been tested for correct fit by a qualified individual.
- Lastly they must have had recorded training on the proper use of respiratory protection.

You may be required at any time to provide proof that the above conditions have been met.

#### **11. WHMIS**

If you must bring into the institution a substance that is considered "controlled" by WHMIS you must:

- Be sufficiently trained to meet legislated requirements for WHMIS, and in the safe and proper use of the controlled product(s).
- Provide to the officer allowing you into the institution a copy of the MSDS sheets for that product.
- Have a copy of the MSDS sheets at the work site with you.

You will be responsible for instituting any safety measures recommended on the MSDS sheet.

#### **12. ACCIDENTS AND HAZARDOUS OCCURRENCES**

All accidents and hazardous occurrences that occur on Institutional Property must be reported to the OHS/Enviro officer. If the accident has resulted in an injury, work will stop immediately in the area the accident occurred in and will not resume until the incident has been investigated, and corrective actions have been taken when identified. You will receive a copy of the investigation report once it has been completed.

Saskatchewan Penitentiary reserves the right to conduct its own investigation into any accident or hazardous occurrence. This does not, and should not preclude you from following any procedures normally carried out by your company.

#### **13. EMERGENCY RESPONSE**

As you know there are several emergencies that may occur in an institution. This orientation can not possibly cover all of them. We ask you to use common sense when dealing with a situation that is covered below.

##### **Fire**

- a Intermittent alarm - means that there may possibly be a danger in your area. Begin preparing for complete evacuation.
- b Continuous alarm - means that there is a necessary reason to completely evacuate the area, whether it be fire or otherwise. You should immediately leave by the closest safe exit.
- c If you see an inmate starting a fire report it immediately.
- d If the fire is small enough that you can safely put it out with an extinguisher, please do so, then report it to your escort.

##### **Institutional Emergency**

This type of emergency refers to any situation that is considered specific to an institution e.g.) riot, hostage-taking etc. If this possibility has been indicated please stay close to your escort, and follow any direction that he/she gives you.

##### **Accident in a Confined Space**

Saskatchewan Penitentiary has its own Confined Space rescue team.

If you are unsure of what caused the accident DO NOT attempt a rescue yourself!

##### **Large Chemical Spill**

Follow the directions on the MSDS sheet for containment. Then contact the OHS/Enviro officer for further directions.

**14. EQUIPMENT**

You as a contractor will be responsible for providing all your own safety equipment. In EMERGENCY situations, and at the discretion of the Institution, equipment may be provided by the Institution.

**15. INFORMATION**

As Saskatchewan Penitentiary is ruled in Occupational Health and Safety matters by the Canada Labour code, you as contractor must allow follow all legislated requirements. It is in your best interest to become familiar with this code.

Before beginning a job, you may contact the OHS/Enviro officer at 765-8301 for copies of the assessments completed on any confined space you may need to enter, as well as copies of any policies referred to in this orientation. The OHS/Enviro officer will also be able to advise you on possible locations to rent necessary equipment from.

If there is a conflict between this document and the Canada Labour Code, the Code shall be followed. As well if there is legislation and/or code requirements that have not been covered in this orientation, the institution will enforce legislated requirements.



This is to certify that I have read, and understood the Saskatchewan Penitentiary Orientation for outside Contractors, and agree to abide by all the policies and procedures as outlined in the above document. I am also aware that should Federal Legislation conflict with this document, it will be followed in replacement.

I also understand that I am not authorized to conduct any communication with any media representative regarding CSC Operations or information about staff or inmates.

I have read and understood all of the above:

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Name – Please Print

---

Signature

---

Date

---

Company Name

---

Briefing Officials Signature



INSTITUTIONAL ACCESS  
CPIC CLEARANCE REQUEST

ACCÈS À UN ÉTABLISSEMENT  
DEMANDE DE VÉRIFICATION  
DU DOSSIER AU CIPC

PUT AWAY ON FILE – CLASSER AU DOSSIER  
ADMINISTRATIVE OR OPERATIONAL FILE  
DOSSIER ADMINISTRATIF OU OPÉRATIONNEL  
► Original = 3170-12

► PLEASE PRINT INFORMATION CLEARLY - VEUILLEZ ÉCRIRE EN LETTRES MOULÉES

Institution – Établissement  
Sask Pen/Riverbend

Request received  
Demande reçue le

Date (YYAA-MM-DJ)

PUT AWAY ON FILE  
CLASSER AU DOSSIER

► 3170-12

A. PERSONAL INFORMATION – RENSEIGNEMENTS PERSONNELS

Surname Nom de famille	Full name (no nicknames or initials) Nom au complet (pas de surnoms ou d'initiales)	Maiden name (if applicable) Nom de jeune fille (s'il y a lieu)
Date of birth Date de naissance (YYAA-MM-DJ)	Place of birth – Lieu de naissance City/Town – Ville ou municipalité	Province/State – Province ou état
		Country – Pays

B. PHYSICAL DESCRIPTION – DESCRIPTION PHYSIQUE

<input type="checkbox"/> Male Homme	<input type="checkbox"/> Female Femme	Height – Grandeur	Weight – Poids	Eye color – Couleur des yeux	Hair color Couleur des cheveux
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C. ADDRESS – ADRESSE

Street – Rue	City/Town – Ville ou municipalité	Province	Postal Code – Code postal	Telephone number – Numéro de téléphone Home – Domicile	Work – Bureau
Representing (name of company/organization) – Représente (nom de la compagnie ou de l'organisation)					

D. GENERAL INFORMATION – RENSEIGNEMENTS GÉNÉRAUX

Have you ever been convicted of a criminal offence for which you have not been granted a pardon, or an offence for which you have been granted a pardon and such a pardon has been revoked?  
Avez-vous déjà été reconnu coupable d'une infraction criminelle pour laquelle on ne vous a pas octroyé un pardon ou d'une infraction pour laquelle on vous a octroyé un pardon qui a été révoqué?

1. ☐ Yes  
Oui ☐ No  
Non

Do you personally know of any person incarcerated in a correctional facility?  
Connaissez-vous personnellement une personne qui est incarcérée dans un établissement correctionnel?

2. ☐ Yes  
Oui ☐ No  
Non

If so, provide names - Si oui, fournir son nom :

Do you have any reason to believe coming into contact with this person could pose a risk to your or their personal safety?  
Avez-vous des raisons de croire que le fait d'entrer en contact avec cette personne pourrait présenter un risque pour votre sécurité personnelle ou la sienne ?

3. ☐ Yes  
Oui ☐ No  
Non

Are you related/associated to an inmate or on an inmate's visiting list?  
Êtes-vous apparenté ou associé à un détenu ou inscrit sur la liste des visiteurs d'un détenu?

4. ☐ Yes  
Oui ☐ No  
Non

If you have answered YES to any of the above, please explain below. – Si vous avez répondu OUI à une des questions ci-dessus, veuillez fournir une explication ci-après.

E. SIGNATURE (When sections A to E are filled out completely, please return the completed form to the institution for approval.)

(Une fois que les sections A à E ont été remplies, veuillez retourner le formulaire dûment rempli à l'établissement aux fins d'approbation.)

In making this application, I hereby give the Correctional Service of Canada my consent to use the information provided on this form to conduct such inquiries with police authorities as may be necessary to ascertain my suitability. Finally, I acknowledge that the Correctional Service of Canada has no responsibility for any harm that may come to me in the course of my activities, except where such harm is a direct result of negligence on the part of an employee(s) of the Service.

NOTE: Access may be denied for submitting false information. Passes may be issued for those receiving clearance and approval.

En soumettant la présente demande, j'autorise le Service correctionnel du Canada à se servir des renseignements fournis dans le formulaire afin de mener, auprès des services de police, toute enquête jugée nécessaire pour vérifier mon admissibilité. Par ailleurs, je conviens que le Service correctionnel du Canada ne peut être tenu responsable d'un préjudice subi dans le cadre de mes activités sauf si ce préjudice est directement attribuable à la négligence d'un ou de plusieurs employés du Service.

NOTA : Tout demandeur qui fournit de faux renseignements peut se voir refuser l'accès à l'établissement. Un laissez-passez peut être émis aux demandeurs dont la demande d'accès est approuvée.

Applicant's signature – Signature du demandeur

Date (YYAA-MM-DJ)

F. FOR OFFICE USE ONLY – RÉSERVÉ AU SCC

Reason for clearance – Motif justifiant la demande d'accès

Contractor

Department making the request (please print) Unité qui soumet la demande (en lettres moulées s.v.p.)	Signature of Division Head Signature du chef de la division	Date (YYAA-MM-DJ)
Works & Engineering		
<input type="checkbox"/> No criminal record Aucun casier judiciaire	<input type="checkbox"/> A possible criminal record #: Numéro du casier judiciaire possible :	Last entry: Dernière entrée :
<input type="checkbox"/> An outstanding warrant/charge held by: Auteur du mandat non exécuté/accusation en instance :		

SIGNATURES

<input type="checkbox"/> Approved Approuvée	<input type="checkbox"/> Not approved Non approuvée	<input type="checkbox"/> Yes Oui	<input type="checkbox"/> No Non	By: Par :
Security Intelligence Officer Agent de renseignements de sécurité	Date (YYAA-MM-DJ)	Institutional Head Directeur de l'établissement	Date (YYAA-MM-DJ)	Visit Review Board Comité des visites
				Date (YYAA-MM-DJ)



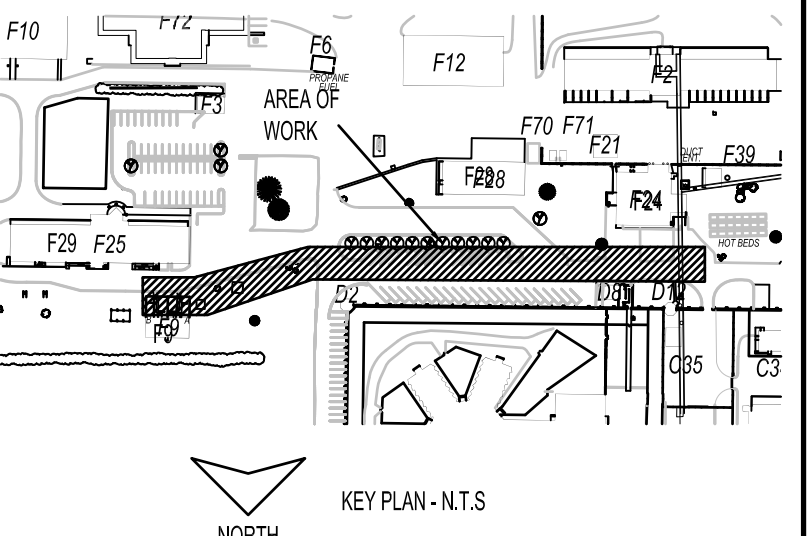
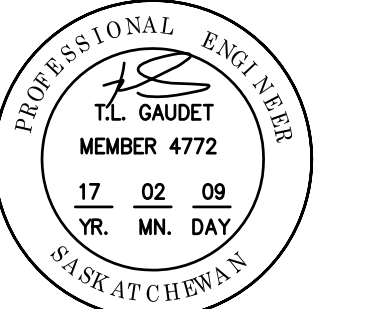






STANTEC Consulting Ltd.  
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Tel. 306.667.2500  
www.stantec.com

STANTEC JOB NO. 113300840



KEY PLAN - N.T.S.

DO NOT SCALE DRAWINGS

1	ADDENDUM ISSUE	2017.02.09
	ISSUED FOR TENDER	2016.12.07

Revision/	Description/Description	Date/Date
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Client/client

**Saskatchewan Public Works  
and  
Government Services Canada**

100 - 3601 5th Avenue East  
Prince Albert, SK. S6W 0A2

Project title/Titre du projet  
**Saskatchewan Penitentiary  
Correctional Service Canada (CSC)  
Prince Albert SK.**

**Water Main F-25 to  
Tunnels Replacement**

Approved by/Approuvé par  
TLG

Designed by/Concept par  
STANTEC Consulting Ltd.

Drawn by/Dessiné par  
JBA, STANTEC Consulting Ltd.

PWGSC Project Manager/Administrateur de Projets TPSSC  
LK

PWGSC Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'Ingénierie, TPSSC  
AECOE

Client/client  
Correctional Service Canada

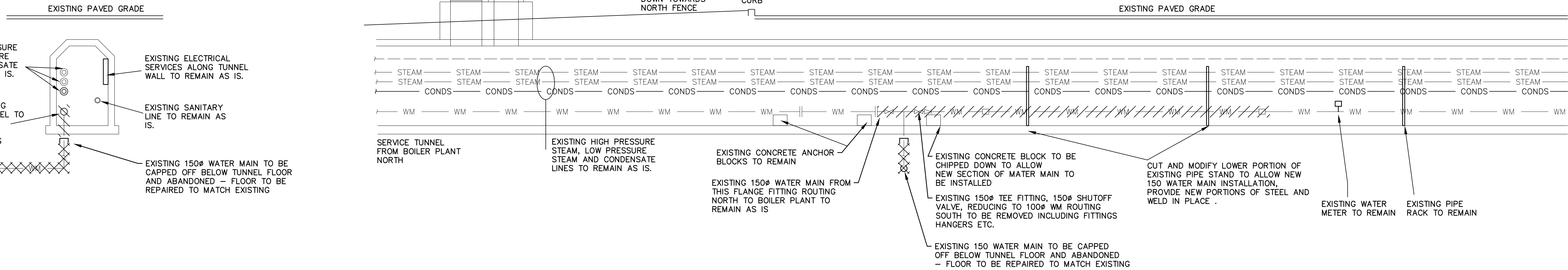
Drawing title/Titre du dessin

**MECHANICAL DETAILS**

Project No./No. du projet  
**R.084591.001**

Sheet/Feuille  
**W-M2**  
OF 3/3

Revision no./  
No. de révision  
**1**



**2 TUNNEL SECTION - LOOKING SOUTH - DEMOLITION**

W-M1

W-M2

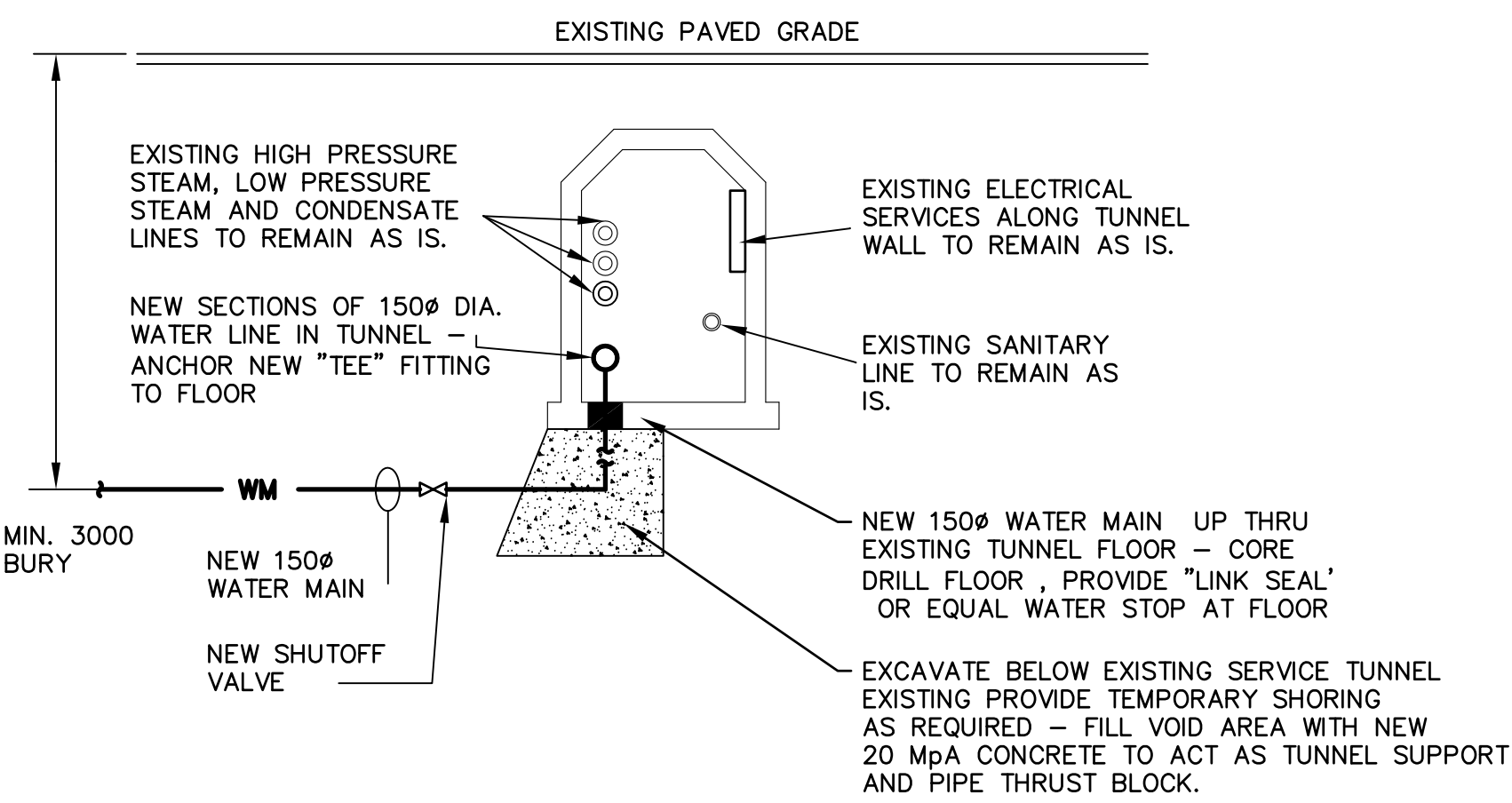
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**1 PARTIAL TUNNEL ELEVATION - LOOKING EAST - DEMOLITION**

W-M1

W-M2

1:50

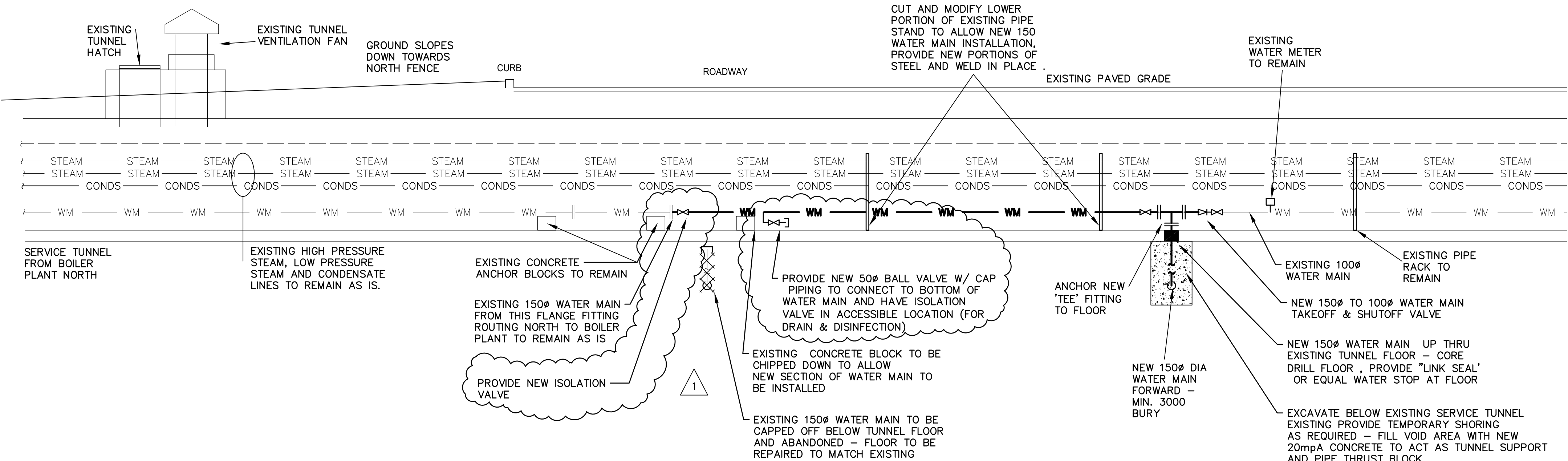


**4 TUNNEL SECTION - LOOKING SOUTH - NEW**

W-M1

W-M2

1:50

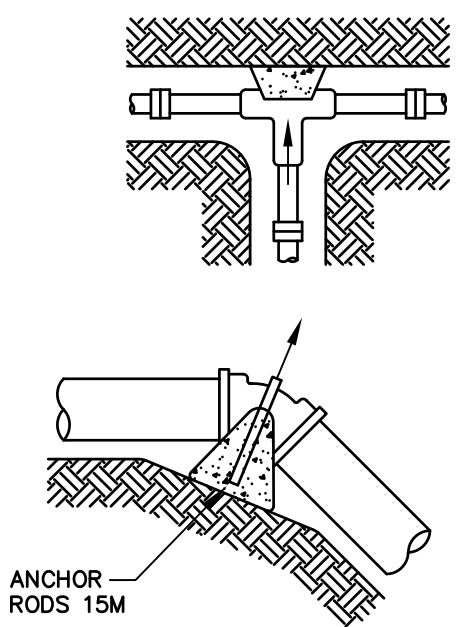


**3 PARTIAL TUNNEL ELEVATION - LOOKING EAST - NEW**

W-M1

W-M2

1:50



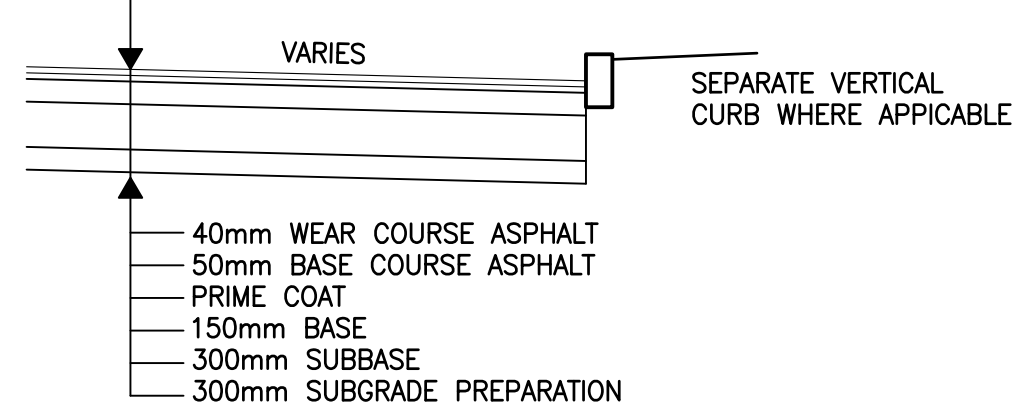
SIZE OF PIPE	90° BEND	45° BEND	22 1/2° BEND	TEE	PLUG	CROSS
100Ø	0.2	0.1	0.1	0.2	0.2	0.2
150Ø	0.4	0.2	0.1	0.4	0.4	0.4
200Ø	0.7	0.4	0.1	0.7	0.7	0.7
250Ø	1.0	0.6	0.3	1.0	1.0	1.0
300Ø	1.4	0.7	0.4	1.2	1.2	1.2

NOTE: FITTING TYPE AND PRESSURE IN KPa/SQ. DECIMETRE ARE BASED ON SOIL HAVING A SAFE BEARING CAPACITY OF 70 KPa. THRUST BLOCK IN SOIL NOT MEETING THIS CAPACITY SHALL BE MODIFIED TO SUIT SOIL CONDITION. THIS SHALL BE THE CONTRACTORS RESPONSIBILITY.

**5 THRUST BLOCK AND ANCHOR DETAILS**

W-M2

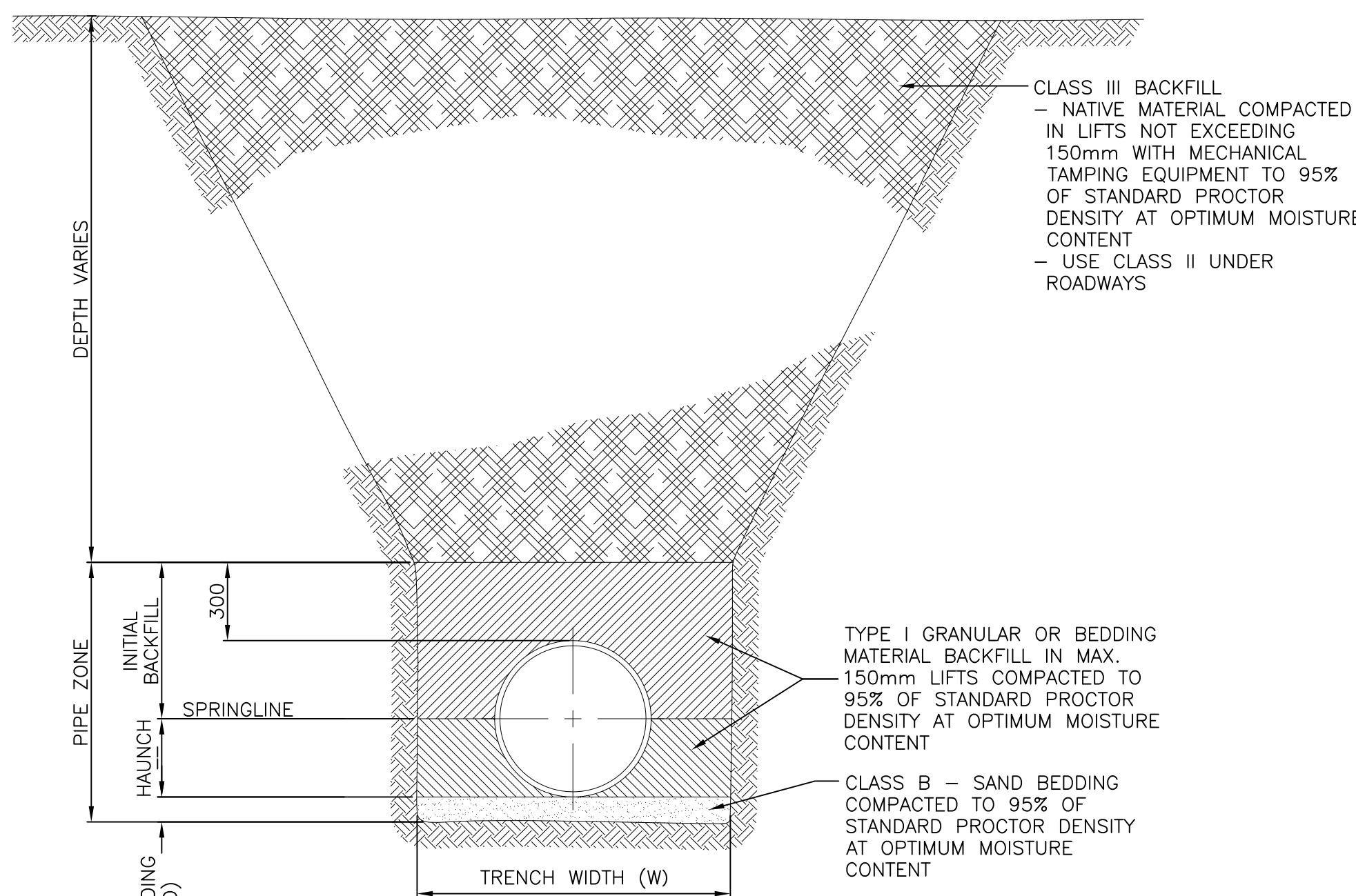
N.T.S.



**8 TYPICAL ROADWAY SECTION**

W-M2

N.T.S.

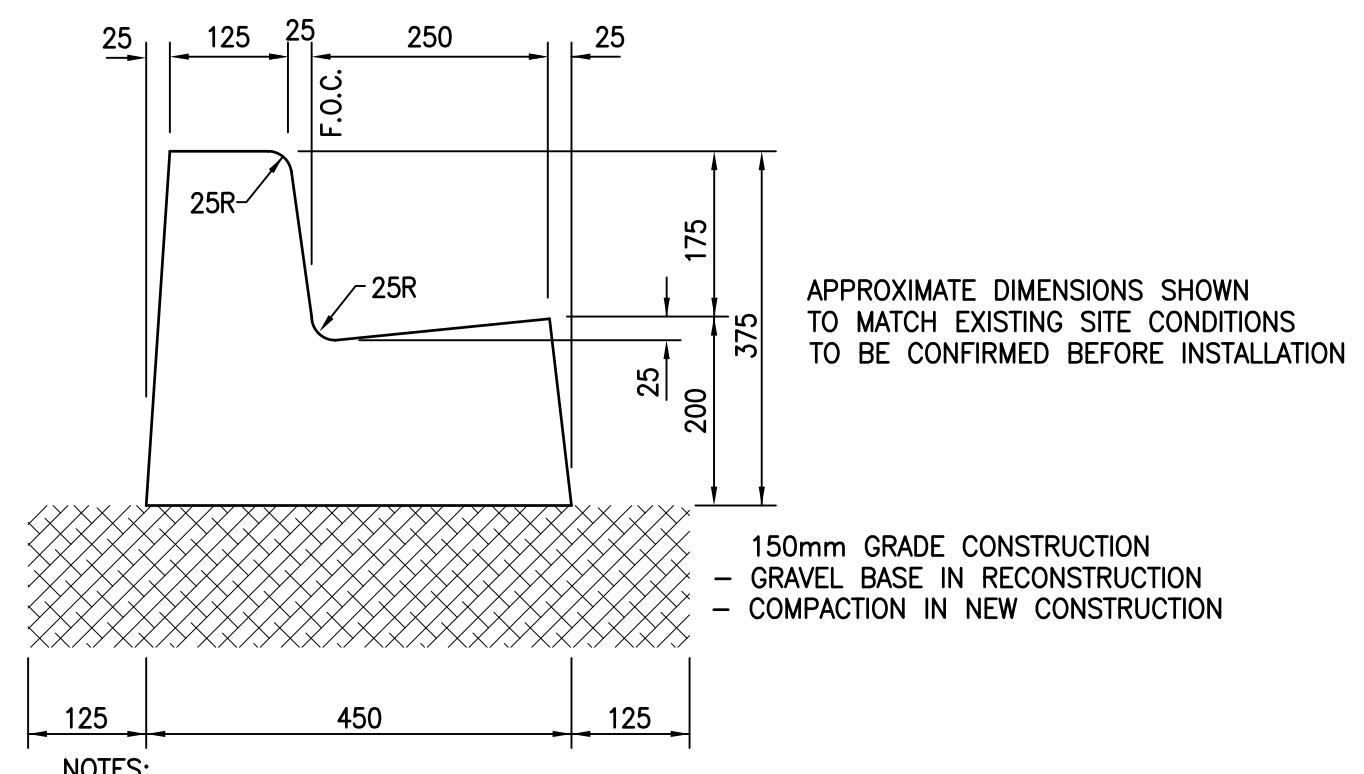


PIPE SIZE	D (mm)	W (mm)
900Ø OR LESS	100	O.D. + 600 MAX.
1000Ø OR GREATER	150	3 x O.D. MAX.

**6 TRENCH DETAIL**

W-M2

N.T.S.



**7 CURB DETAIL**

W-M2

N.T.S.

