

CITY OF WHITEHORSE

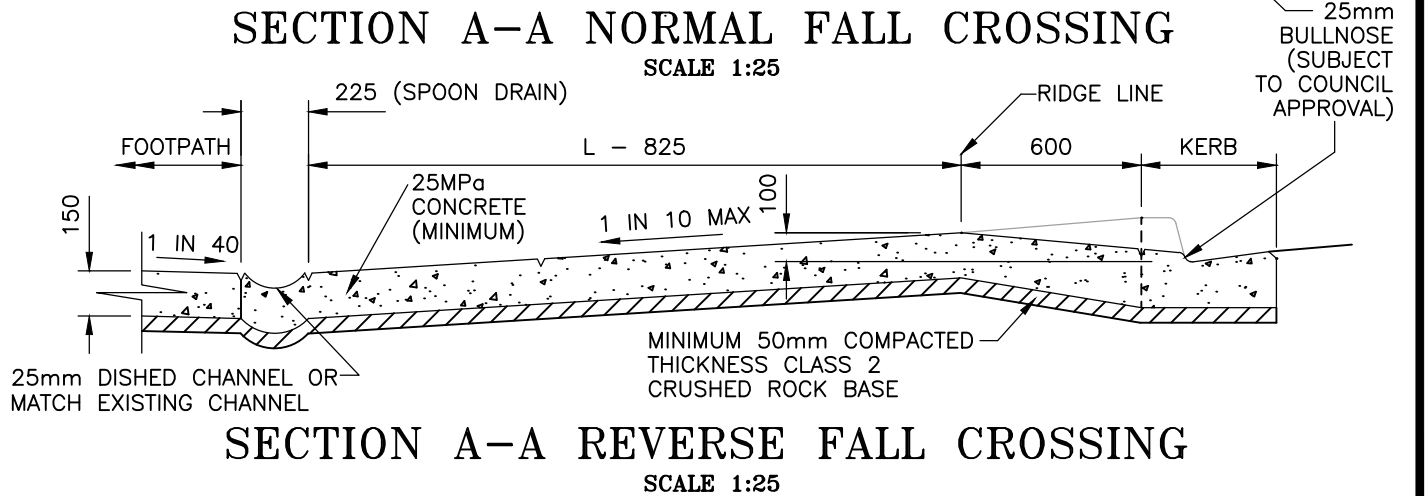
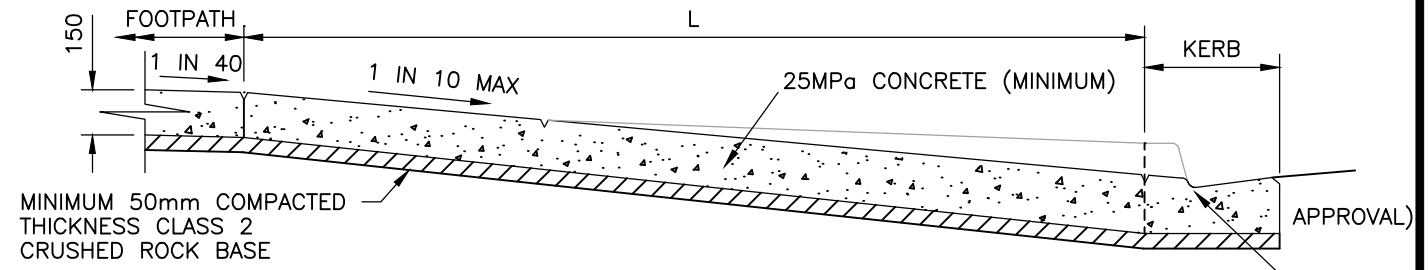
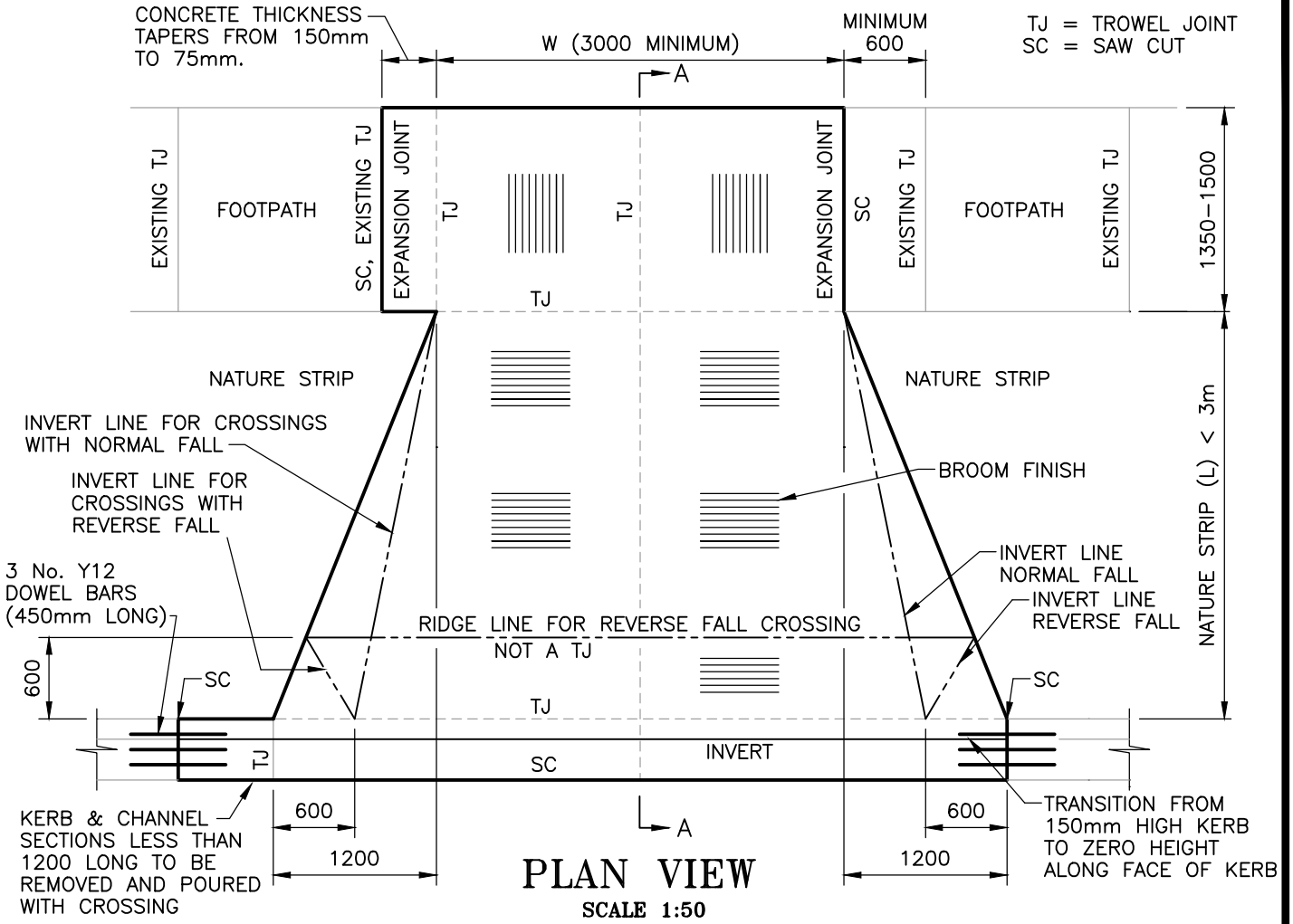
VEHICLE CROSSING

TYPE 1 - RESIDENTIAL STREETS

(BARRIER KERB AND CHANNEL AND NATURE STRIP > OR = 3m)

REVISED 8/2016

S100A



CITY OF WHITEHORSE

VEHICLE CROSSING
TYPE 1 - RESIDENTIAL STREETS
(BARRIER KORB AND CHANNEL AND NATURE STRIP < 3m)

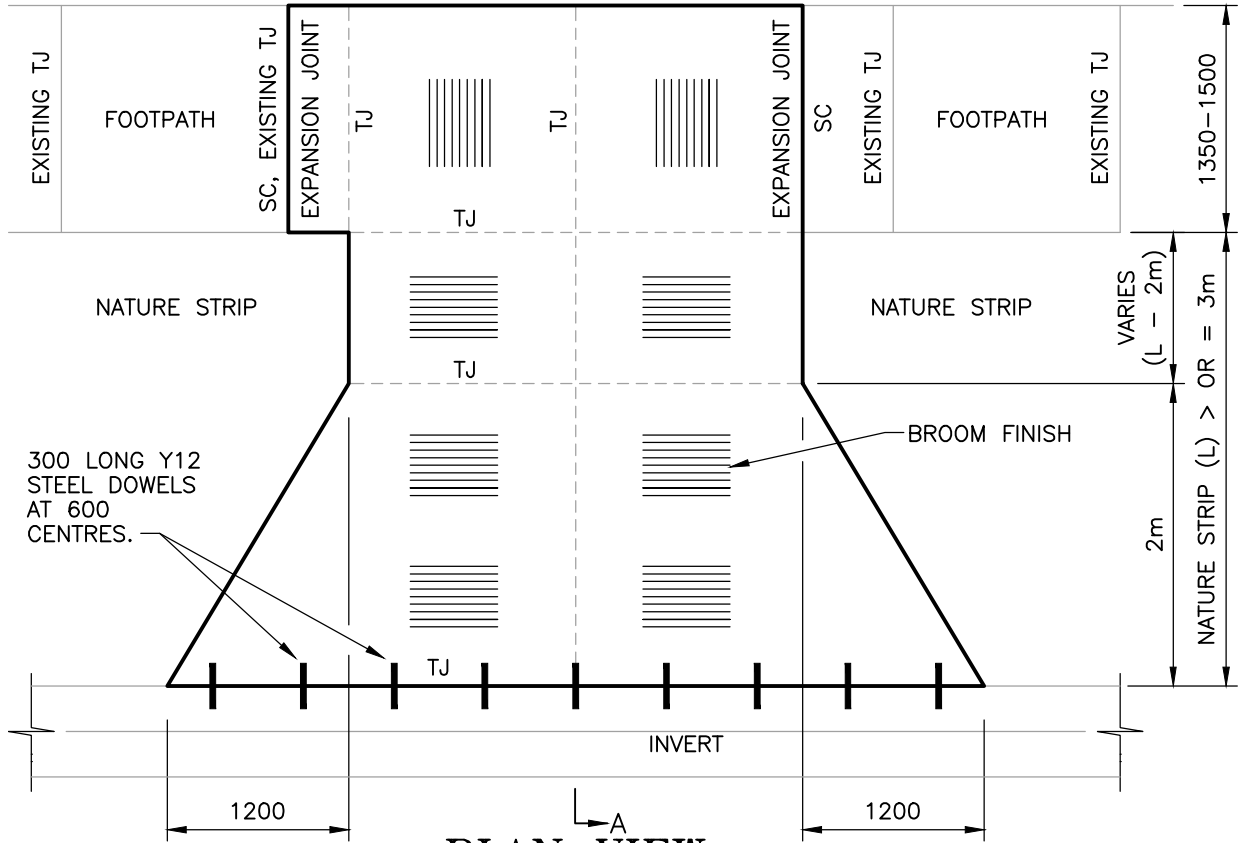
REVISED 8/2016
S100B

CONCRETE THICKNESS
TAPERS FROM 150mm
TO 75mm.

W (3000 MINIMUM)

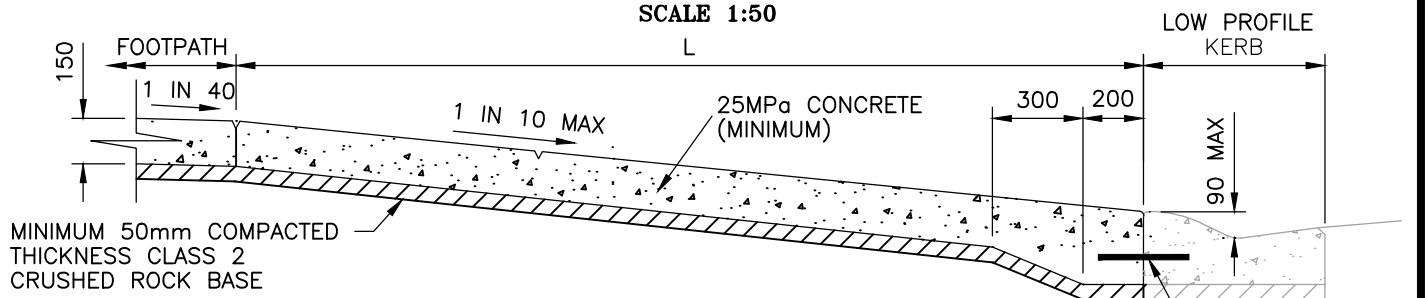
MINIMUM
600

TJ = TROWEL JOINT
SC = SAW CUT



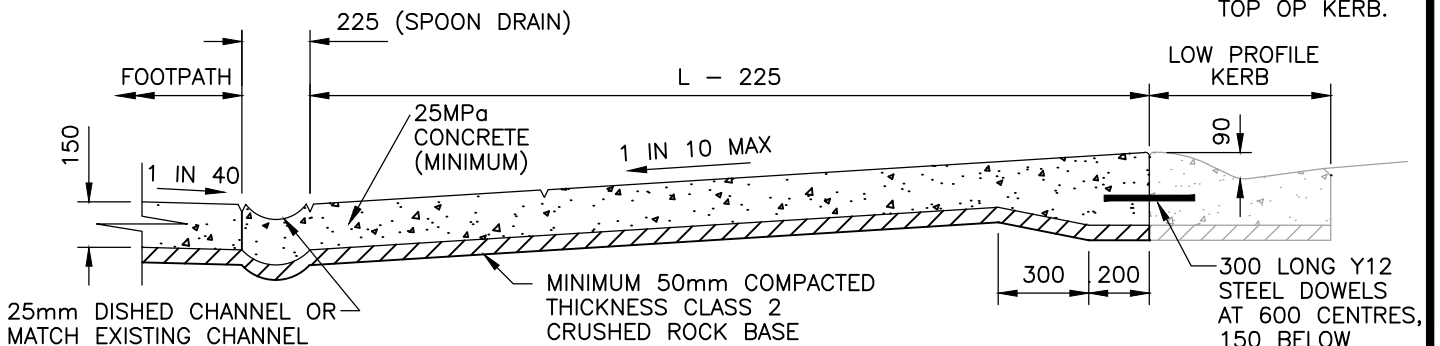
PLAN VIEW

SCALE 1:50



SECTION A-A NORMAL FALL CROSSING

SCALE 1:25



SECTION A-A REVERSE FALL CROSSING

SCALE 1:25

CITY OF WHITEHORSE

VEHICLE CROSSING

TYPE 1 - RESIDENTIAL STREETS

(MOUNTABLE KERB AND CHANNEL AND NATURE STRIP > OR = 3m)

REVISED 8/2016

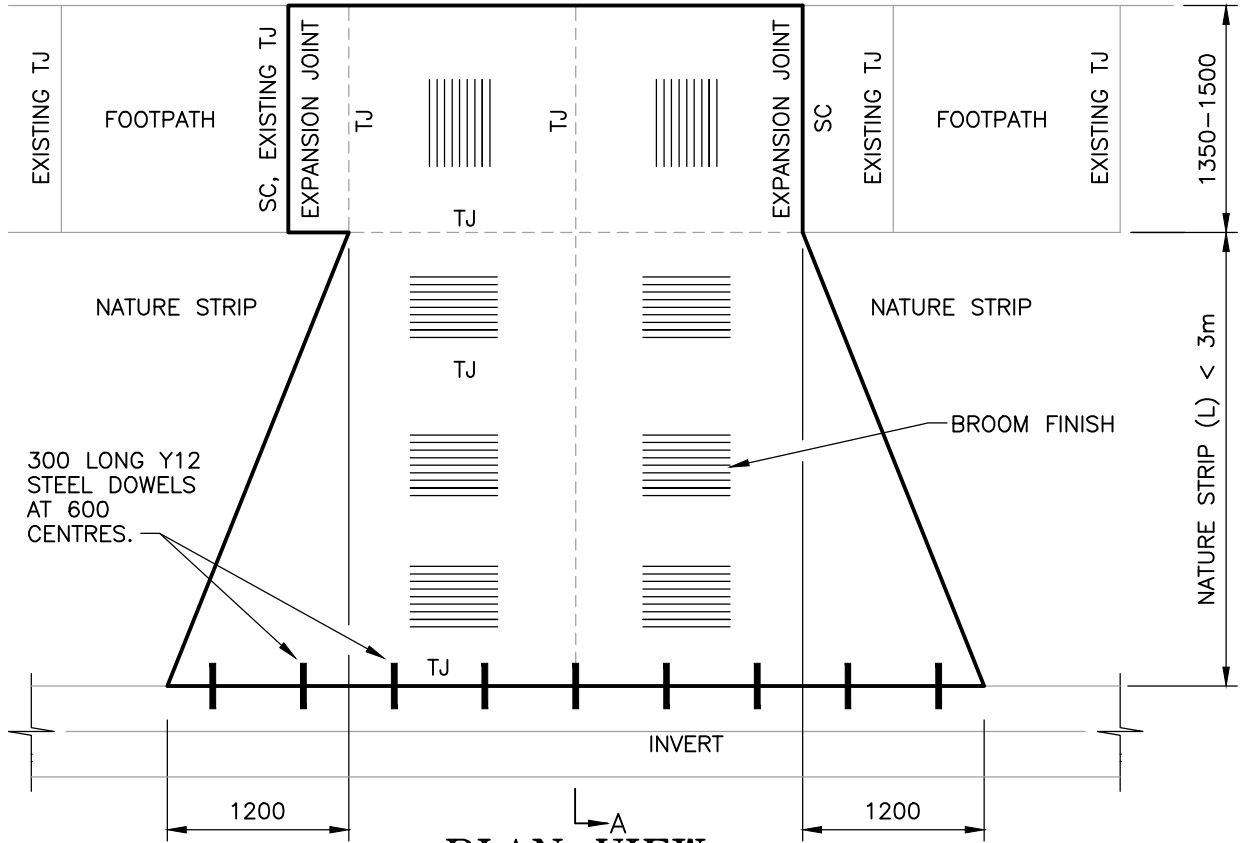
S101A

CONCRETE THICKNESS
TAPERS FROM 150mm
TO 75mm.

W (3000 MINIMUM)

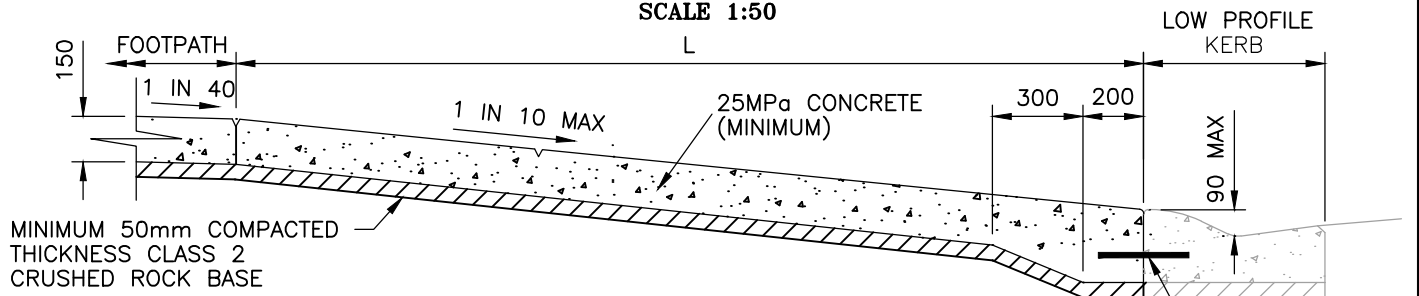
MINIMUM
600

TJ = TROWEL JOINT
SC = SAW CUT



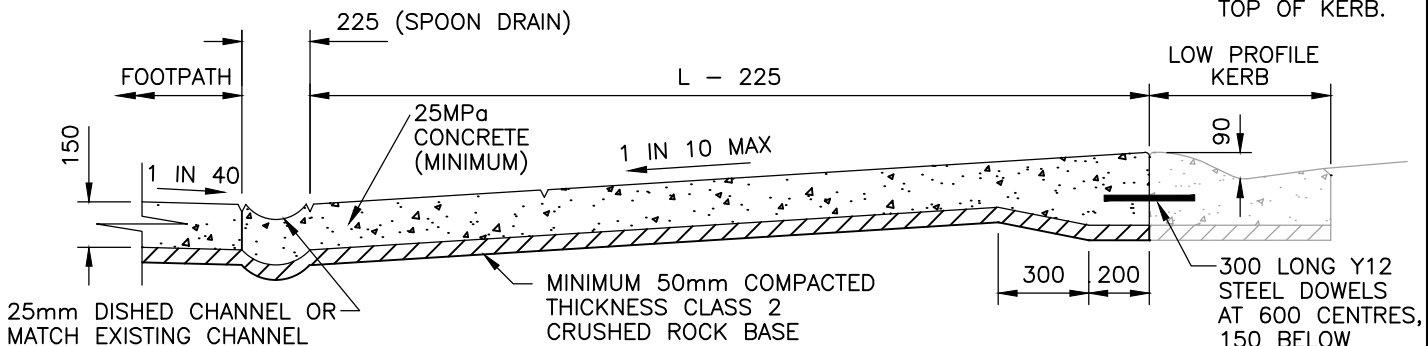
PLAN VIEW

SCALE 1:50



SECTION A-A NORMAL FALL CROSSING

SCALE 1:25



SECTION A-A REVERSE FALL CROSSING

SCALE 1:25

CITY OF WHITEHORSE

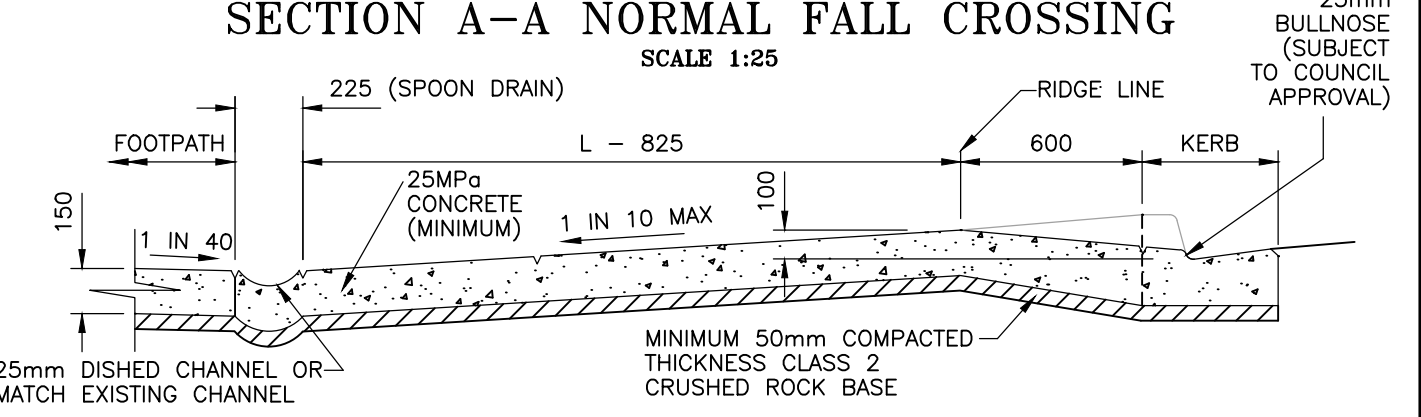
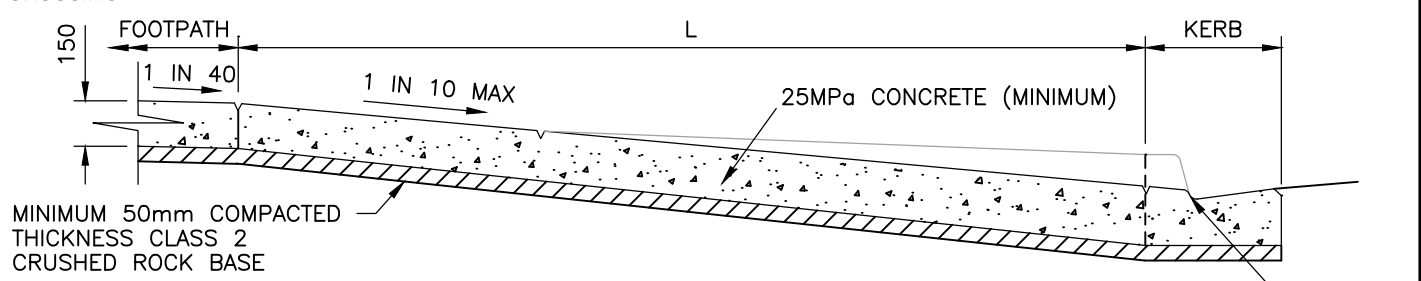
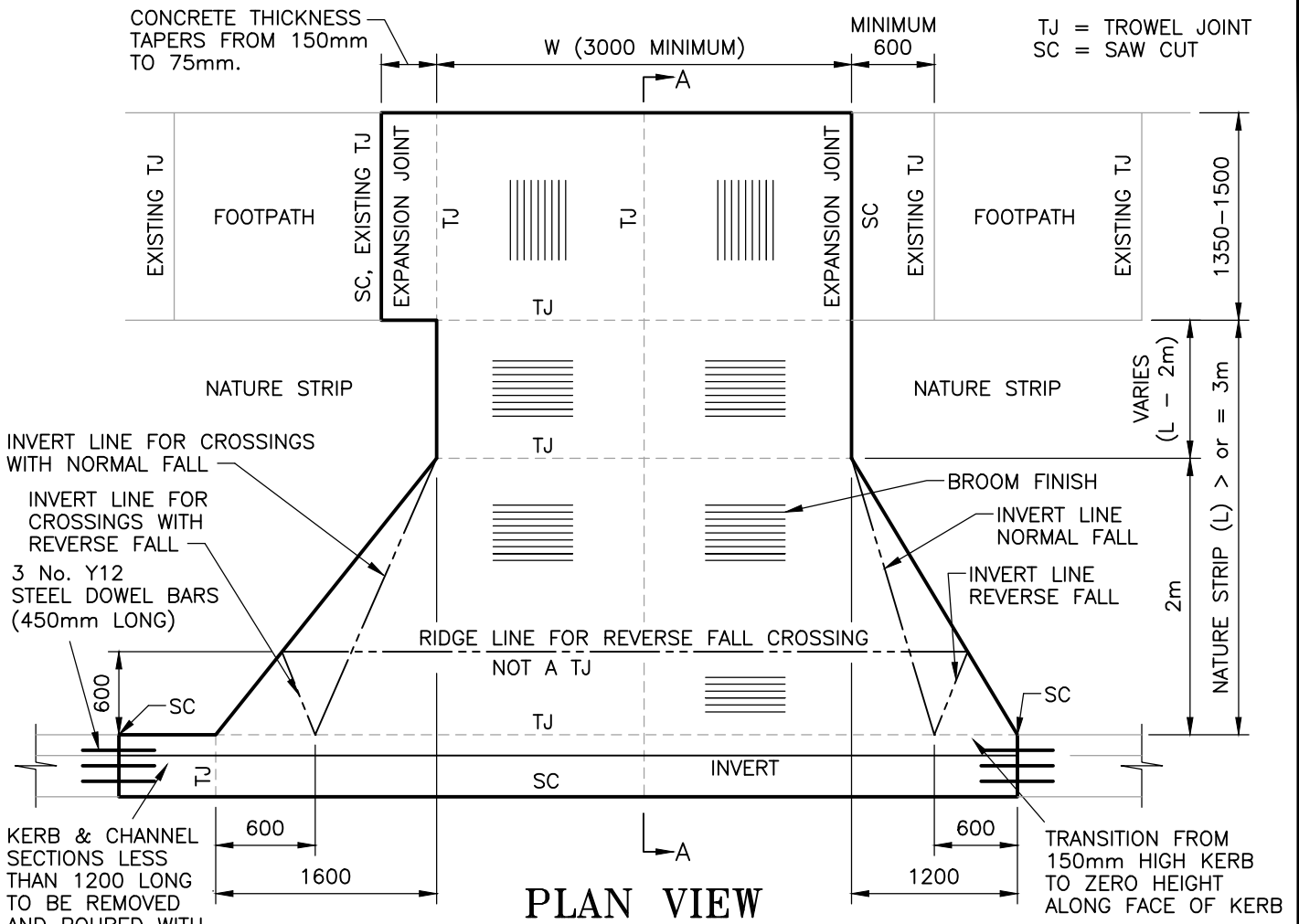
VEHICLE CROSSING

TYPE 1 - RESIDENTIAL STREETS

(MOUNTABLE KERB AND CHANNEL AND NATURE STRIP < 3m)

REVISED 8/2016

S101B



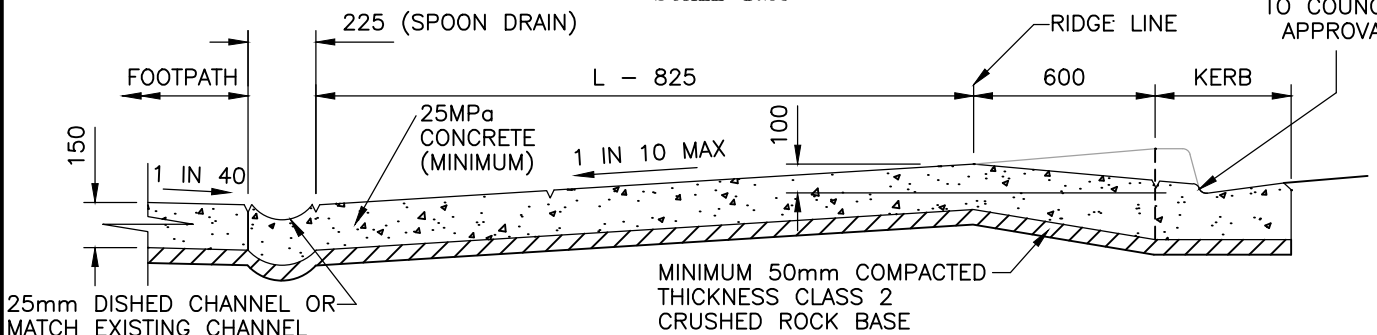
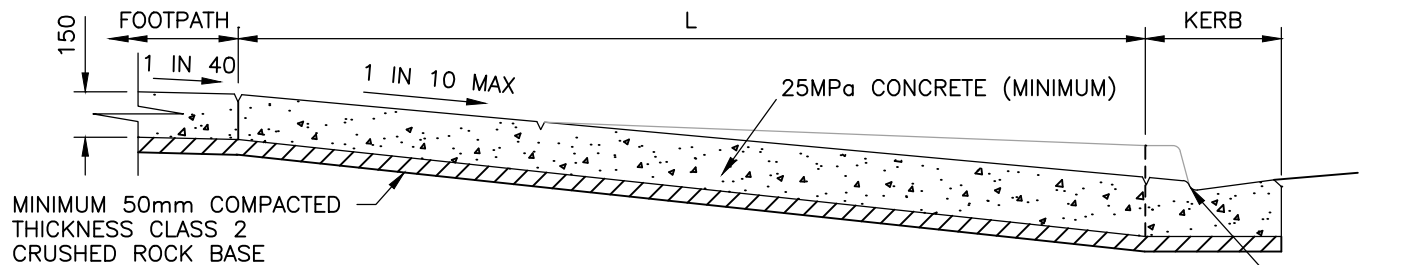
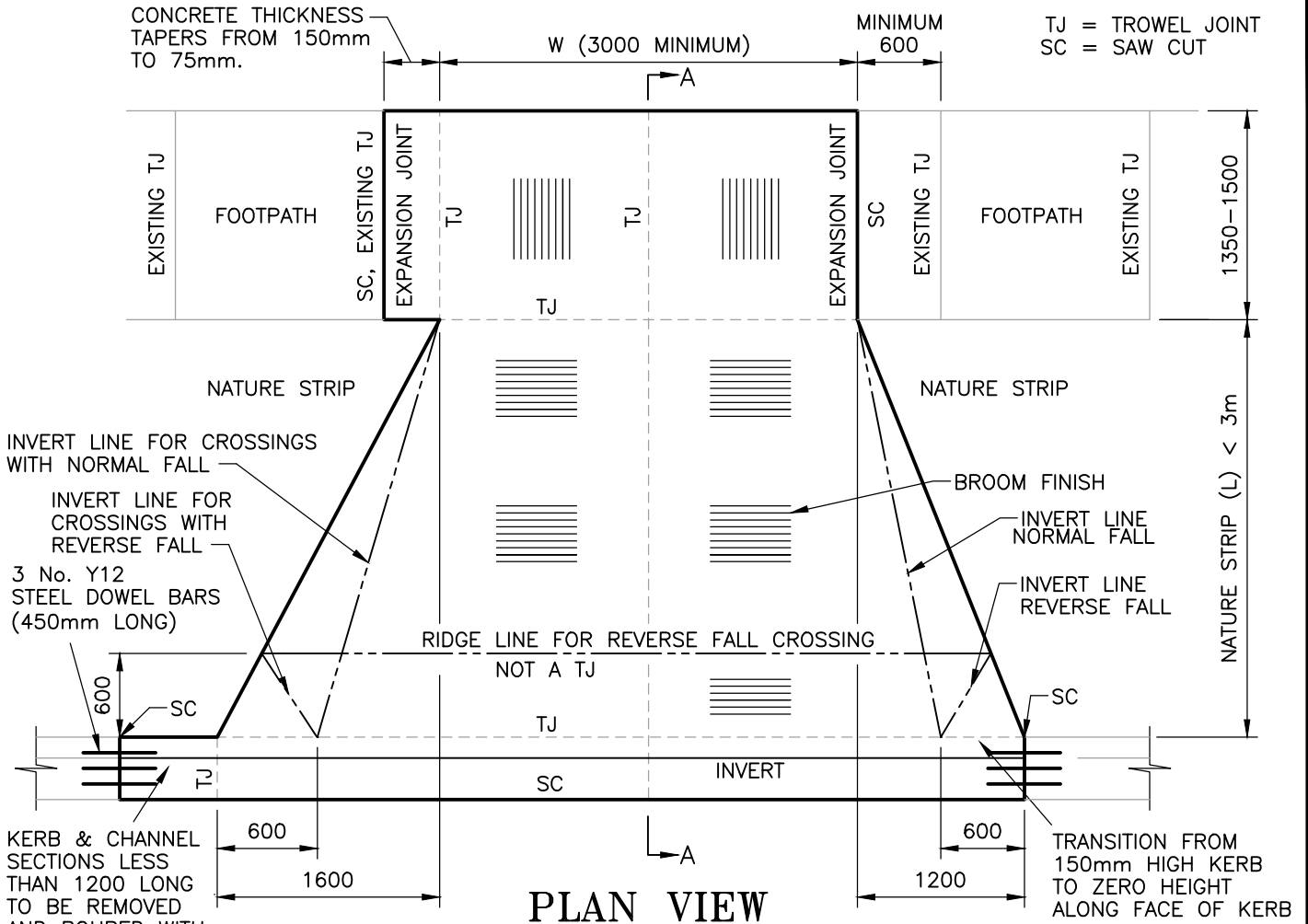
CITY OF WHITEHORSE

**VEHICLE CROSSING
TYPE 1 - MAJOR ROADS**

(BARRIER KERB AND CHANNEL AND NATURE STRIP > OR = 3m)

REVISED 8/2016

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CITY OF WHITEHORSE

VEHICLE CROSSING
TYPE 1 - MAJOR ROADS
(BARRIER KERB AND CHANNEL AND NATURE STRIP < 3m)

REVISED 8/2016

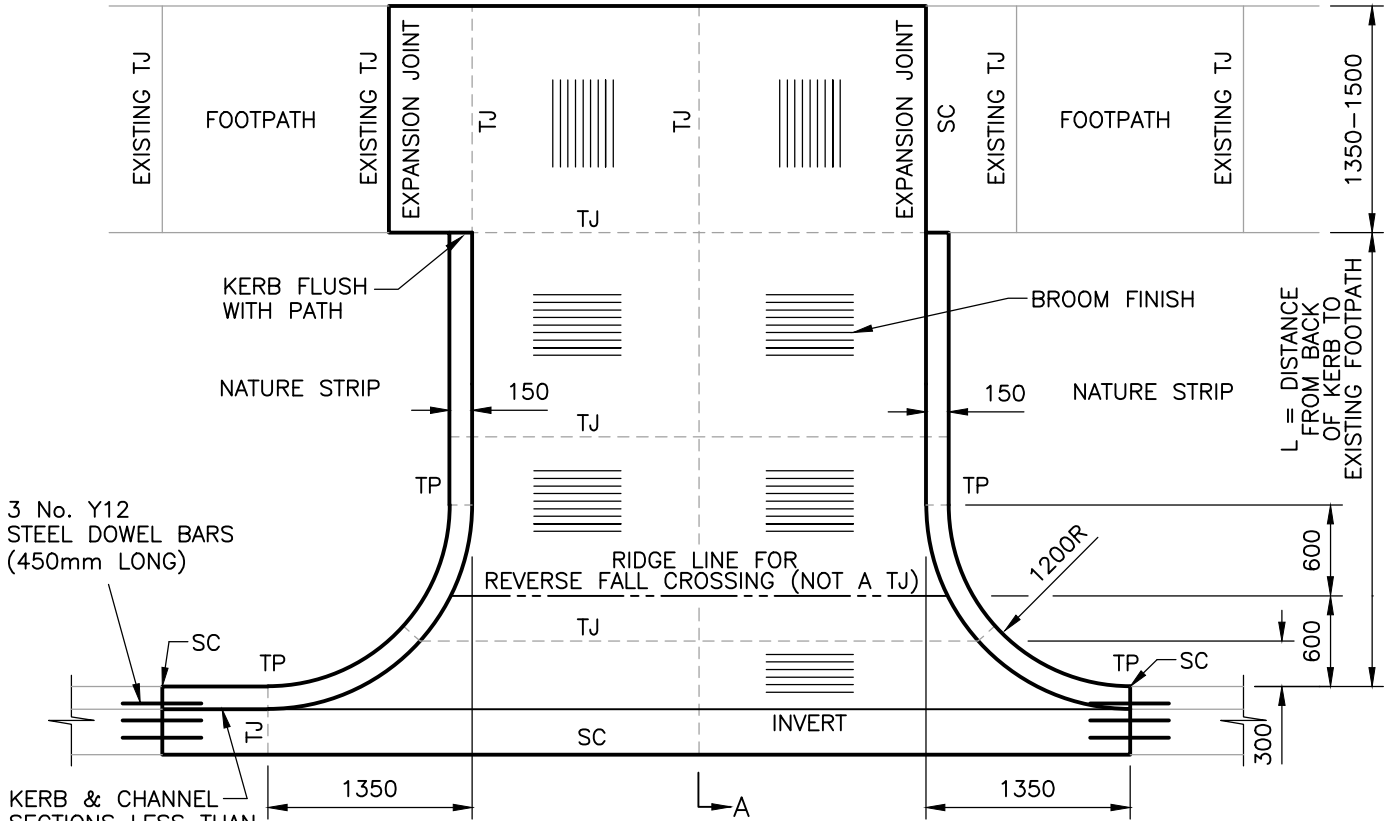
S102B

CONCRETE THICKNESS
TAPERS FROM 150mm
TO 75mm.

W (3000 MINIMUM)

MINIMUM
600

TP = TANGENT POINT
TJ = TROWEL JOINT
SC = SAW CUT



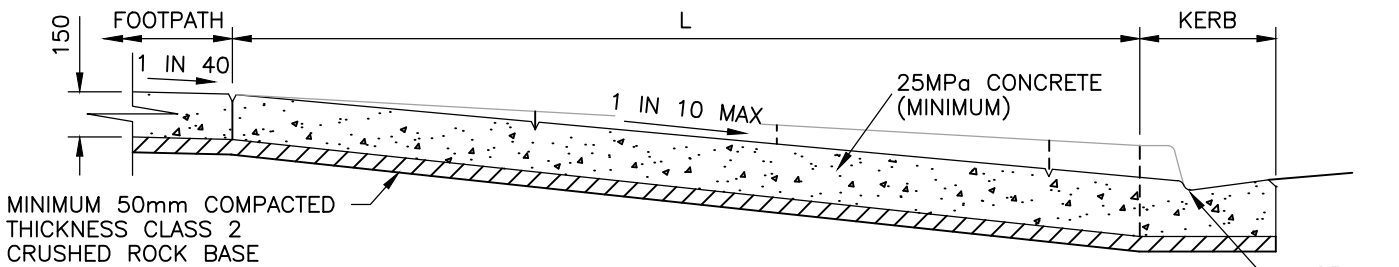
3 No. Y12
STEEL DOWEL BARS
(450mm LONG)

RIDGE LINE FOR
REVERSE FALL CROSSING (NOT A TJ)

KERB & CHANNEL
SECTIONS LESS THAN
1200 LONG TO BE
REMOVED AND POURED
WITH CROSSING

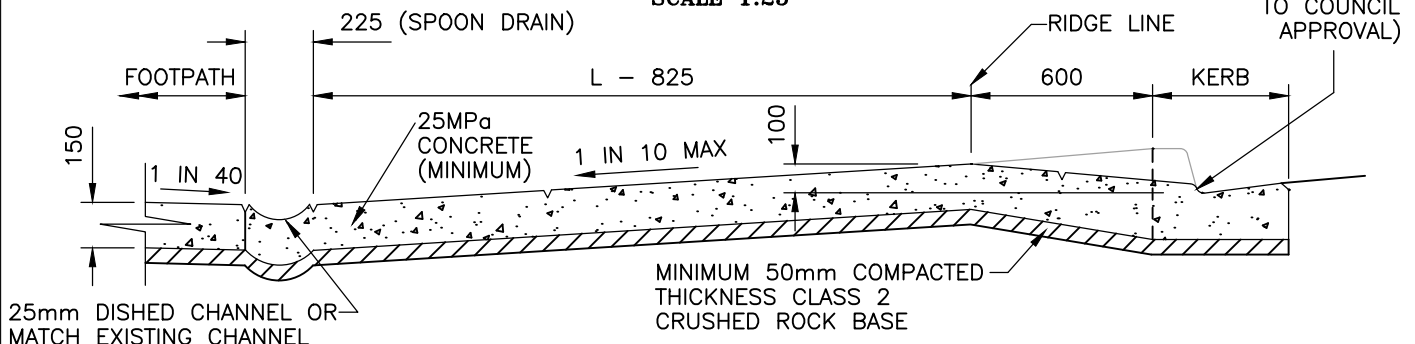
PLAN VIEW

SCALE 1:50



SECTION A-A NORMAL FALL CROSSING

SCALE 1:25



SECTION A-A REVERSE FALL CROSSING

SCALE 1:25

CITY OF WHITEHORSE

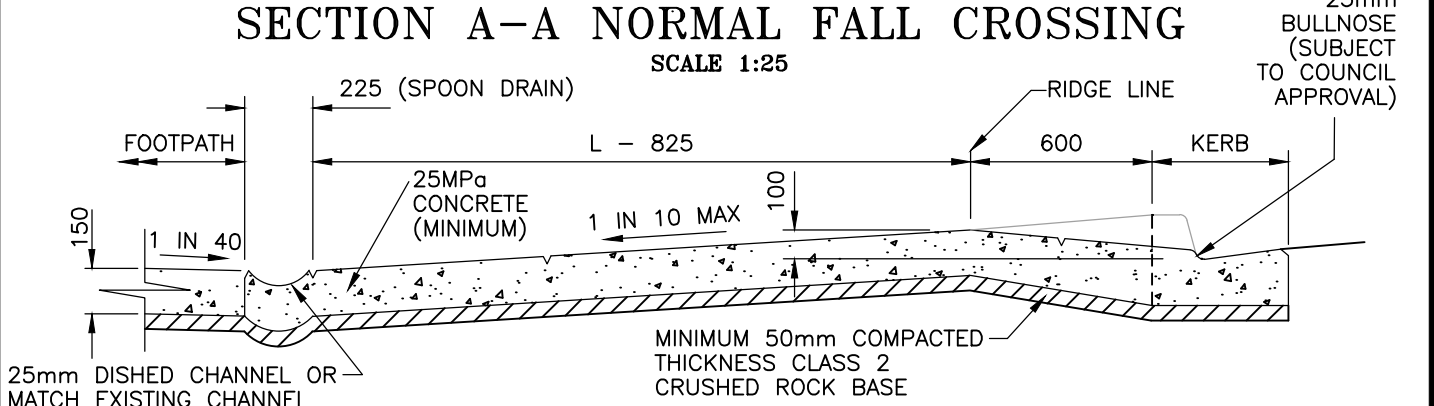
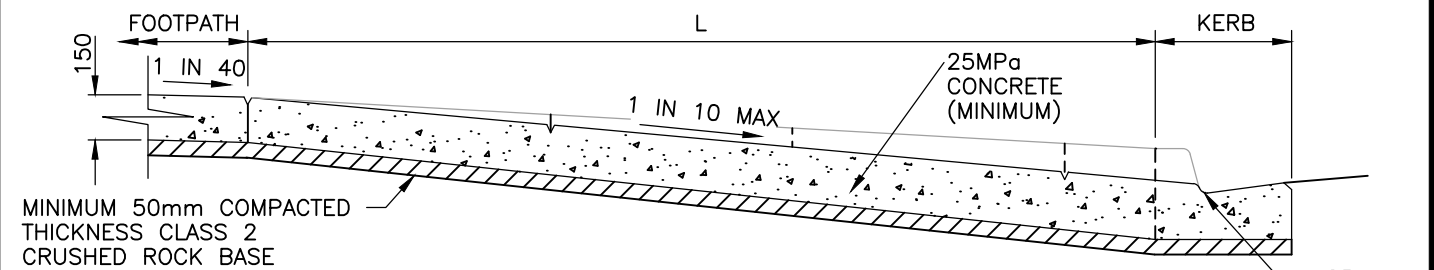
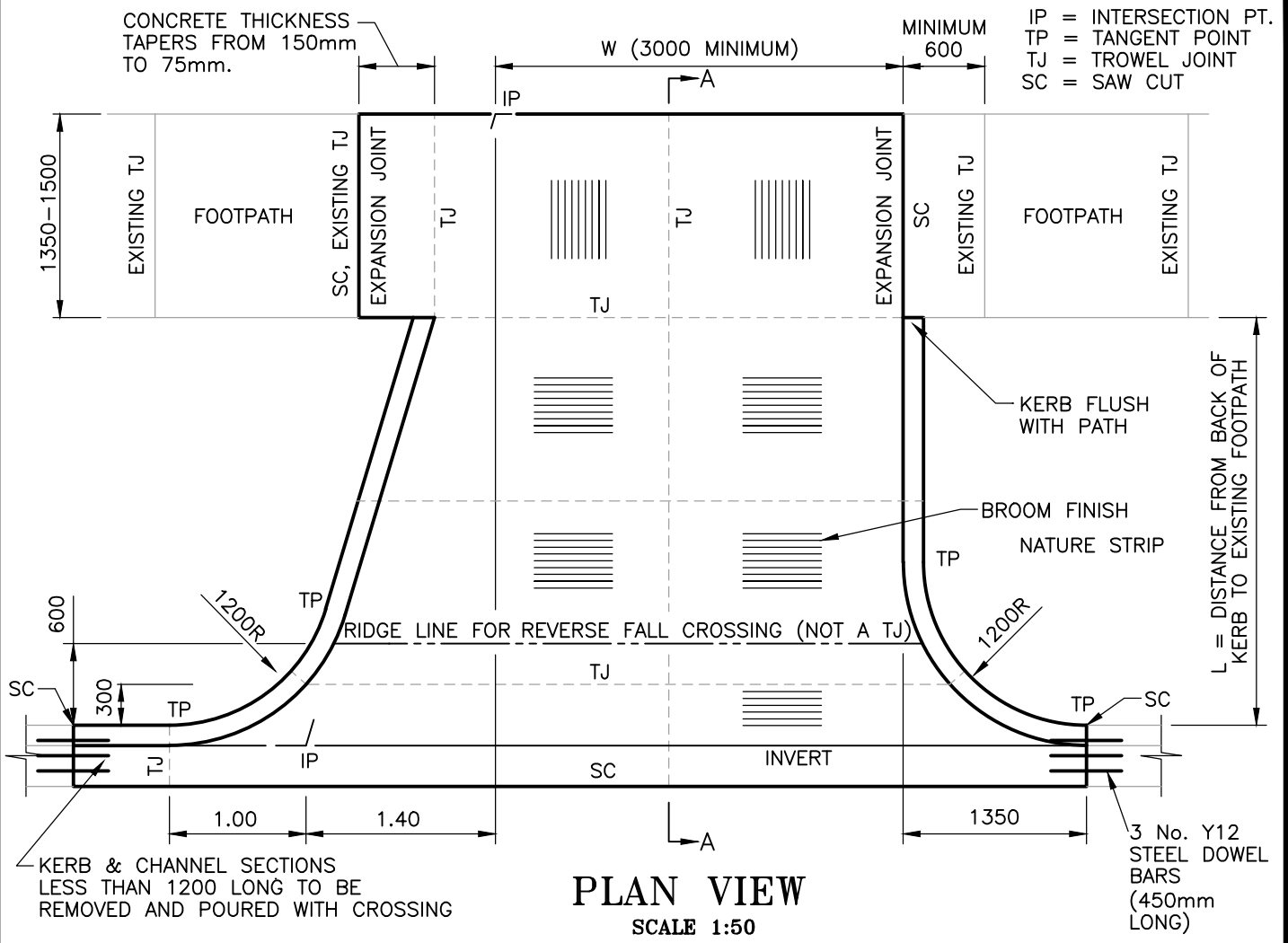
VEHICLE CROSSING

TYPE 2 - RESIDENTIAL STREETS

(ONLY TO BE USED WHEN EXTENDING AN EXISTING TYPE 2 CROSSING)

REVISED 8/2016

S103A



CITY OF WHITEHORSE

VEHICLE CROSSING TYPE 2 - MAJOR ROADS

(ONLY TO BE USED WHEN EXTENDING AN EXISTING TYPE 2 CROSSING)

REVISED 8/2016

S104A

1. GENERAL

- (a) It must be noted that a permit to construct or modify a vehicle crossing will not be issued unless a crossing application form has been lodged and approved by Council. This process is in place to ensure that the proposed location of the crossing does not conflict with council and other authorities assets. A max 3 day turn around time may apply.
- (b) In accordance with Clause 27 of Community Local Law Number No. 1 - 2006, a crossing permit shall be obtained following application approval for the construction, removal or alteration of a vehicle crossing. A Permit Fee and a deposit is payable in each case. The permit is valid for three (3) months.
- (c) Residential vehicle crossings shall be constructed of unreinforced concrete, 150mm in depth, to the shape, grade and section as shown on the attached standard drawing and to the satisfaction of the Manager Engineering & Environmental Services or his representative.
- (d) Commercial vehicle crossings shall be reinforced with F82 mesh.
- (e) Every crossing shall be at least equal to the width of the gateway or driveway it serves and must be a minimum of 3.00m in width (measured between kerbs where applicable) unless otherwise stipulated on any planning permit. The maximum width of a residential crossing shall be 6.00m and for a commercial crossing 8.00m, unless permission from the Manager Engineering & Environmental Services is obtained to exceed this width.
- (f) No crossing shall be constructed within 9.00m of any street or road intersection, measured from the fence line intersection point.
- (g) Where two adjacent driveways are less than 1.20m apart, a double vehicle crossing shall be constructed.
- (h) Type 1 crossings shall be selected unless widening an existing Type 2 crossing or constructing a double crossing with the existing section being a Type 2 crossing. Refer to Clause 15 for crossings on major roads.
- (i) Install 3 No. Y12 Steel Dowel Bars (450mm) to connect proposed vehicle crossing to existing kerb and channel.

2. INSPECTIONS

- (a) A minimum of twenty-four (24) hours notice shall be given as to when the works will be ready for inspection. Approval will not be given unless the Permit Holder is on site at the time of inspection. No concrete is to be poured until the base, formwork and reinforcement (if any) has been inspected and approved.
- (b) Crossings will only be inspected between the hours of 8.30am and 5.30pm, Monday to Friday.
- (c) Crossings will not be inspected on Saturdays, Sundays or Public Holidays unless warranted by special circumstances. If special circumstances exist, a special inspection fee is to be pre-paid at least one week prior to the commencement of work. Approval to carry out works under special circumstances is subject to the availability of a Council Officer to supervise the works.

3. ALTERATIONS TO EXISTING SERVICES

- (a) Vehicle crossings shall be located to avoid interference with existing services including pits, poles, valves, etc. If such interference is unavoidable, the Permit Holder shall be responsible for the cost of all necessary alterations and/or additions. The minimum clearance to poles shall be 1.00m.
- (b) Existing junction pits shall be lowered and appropriate size and type of "Gatic" cover and frame fitted, the top of the cover being set flush with the finished surface of the new crossing.
- (c) Permission may be granted to modify or delete an existing side entry pit provided that an additional pit(s) is constructed at the applicant's expense, as directed by the Manager Engineering & Environmental Services or his representative. A written application is to be submitted to the Manager Engineering & Environmental Services for approval. A crossing permit will be invalidated if approval has not been obtained prior to a permit being issued.
- (d) No crossing shall be constructed within 3.00m of an existing street tree. Council reserves the right to direct that any street tree be removed and replaced by Council staff, at the applicant's expense, as deemed necessary. If the location of the proposed crossing conflicts with an existing street tree or the required clearances cannot be met, a written application for its removal, or exemption from the specified clearance, is to be submitted to the Manager Park and Horticultural Services for approval. The Manager Parks and Horticultural Services shall determine fee payable. A crossing permit will be invalidated if approval has not been obtained prior to a permit being issued.
- (e) If the construction of a crossing necessitates the alteration of any public service or utility, such alterations are to be arranged with the respective Authority at the applicant's expense prior to the commencement of construction of the crossing. House drains, agricultural drains, conduits, etc., damaged during construction of the crossing shall be repaired or reconstructed to the satisfaction of the Manager Engineering & Environmental Services or his representative at the Permit Holder's expense.

CITY OF WHITEHORSE

SPECIFICATION FOR CONSTRUCTION

VEHICLE CROSSINGS

REVISED 8/16

S105

4. EXISTING CONCRETE

- (a) Existing concrete kerb and channel shall be removed to the nearest whole bay and repoured as an integral part of the crossing. The kerb and channel may be sawcut if the residual bay is a minimum 1.20m long
- (b) Where there is existing 75mm thick concrete footpath in the line of the works, this is to be replaced with 150mm thick concrete across the crossing.
- (c) Where an unused crossing exists at a different location to the proposed crossing, the existing crossing, including the concrete channel, shall be removed completely and concrete kerb and channel reinstated. It may be acceptable for the footpath to remain provided that it is in a good condition and is sawcut along the front of path. Nature strips adjoining the reinstatement are to be made good to correct levels with topsoil and seeded. This work shall be carried out concurrently with the crossing construction.

5. PREPARATION

- (a) The ground is to be excavated and neatly trimmed to give a clear depth of 200mm below the finished level of the concrete. All excavated material shall be removed from the road reserve at the time of construction.
- (b) In cases where over-excavation has occurred or where unstable ground conditions are encountered, class 2 crushed rock must be used to bring the over-excavation up to the level of the boxing. Unstable ground must be removed and replaced with class 2 crushed rock and must be compacted in 150mm layers using a vibrating plate.
- (c) The Permit Holder shall spread a layer of class 2 crushed rock to give a finished base depth of 50mm after compaction with a vibrating plate. Crushed rock is to be wetted prior to compaction.

6. MATERIAL STORAGE

Construction materials shall not be placed or dumped on the road pavement, kerb and channel or footpath. Hand mixing of concrete or mortar on the road pavement or footpath is prohibited.

7. REINFORCEMENT

Commercial crossings shall be reinforced with F82 mesh. The reinforcement shall be set up on bar chairs to provide 40mm cover from the top surface of the concrete.

8. CONCRETE

Pre-mixed concrete shall consist of a mixture of 20mm maximum size aggregate, washed sand and Portland cement. Sufficient water shall be added at the batch plant to provide a slump of not less than 40mm and not more than 75mm at the time of pouring. No water is to be added to the concrete after it leaves the batch plant. The compressive strength of the concrete shall not be less than 25Mpa at 28 days. Every batch of concrete transported in a truck agitator shall be delivered and placed before rapid stiffening of the concrete develops, but in no case shall the time exceed 1.5 hours after the introduction of water to the mixture.

9. JOINTS

- (a) Expansion joints shall be located at the nearest joint in the footpath on either side of the crossing and at the property boundary where the crossing abuts a concrete driveway. Expansion jointing material shall extend the full width and depth of the paving.
- (b) Contraction joints shall be formed in the crossing in accordance with the attached standard drawing or as directed. The jointing pattern will be such as to form the crossing into bays of not more than 3 square metres. Joints shall be formed by creating a plane of weakness through the concrete after it has taken its initial set and should be defined in the finished concrete surface by means of an approved grooving tool.

10. FINISH

The surface of the concrete shall be brought to a smooth, even mortar finish, which must be applied to the concrete within half an hour after placing or be brought to the surface by the use of a perforated roller or wood float. The mortar finish shall consist of 1 part cement, 1 part sand and 1 part screened bluestone dust. The use of driers is not permitted. The final surface is to be obtained by lightly drawing a hair broom over the whole of the finished surface to provide an even, non-skid finish. Concrete kerb and channel shall be finished with a steel trowel to a smooth surface. On no account will consideration be given to using concrete abrasives, additives or any similar products with a view to the mortar finish being applied after the half hour has elapsed.

11. CURING

No vehicle shall use a newly poured crossing for at least thirty-six (36) hours from the time of pouring to allow the concrete to attain a satisfactory strength. An approved curing compound shall be applied between the months of December and March inclusive or when the forecast top temperature exceeds 25 degrees Celsius.

12. BARRICADES AND LIGHTING

The Permit Holder shall supply and erect any barriers, signs, lights, etc. to ensure the safety of all traffic, both vehicular and pedestrian and to protect the works from damage, in accordance with the VIC ROADS Roadworks Signing Code of Practice.

13. CLEANING UP

Upon completion of the work the Permit Holder shall remove all surplus material from the site and resurface the nature strip with a minimum of 100mm topsoil and seed. The Permit Holder shall reinstate any damaged road pavement along the road/crossing interface to the satisfaction of the Manager Engineering & Environmental Services or his representative.

14. CROSSING CONSTRUCTED WITHOUT A PERMIT

If a crossing is constructed without a permit, without Council Supervision or has not been properly constructed to Council standards the Council may require the property owner or Permit Holder to reconstruct the crossing or completely remove the crossing and reinstate the footpath, kerb and channel, etc. in accordance with Section 604(2) of the Local Government Act 1989. Deposits shall be forfeited.

15. CROSSINGS FOR MAJOR ROADS

Vehicle crossings on the roads listed below are to be constructed with a wide splay on the approach side to provide ease of entry, in accordance with the appropriate standard drawing:

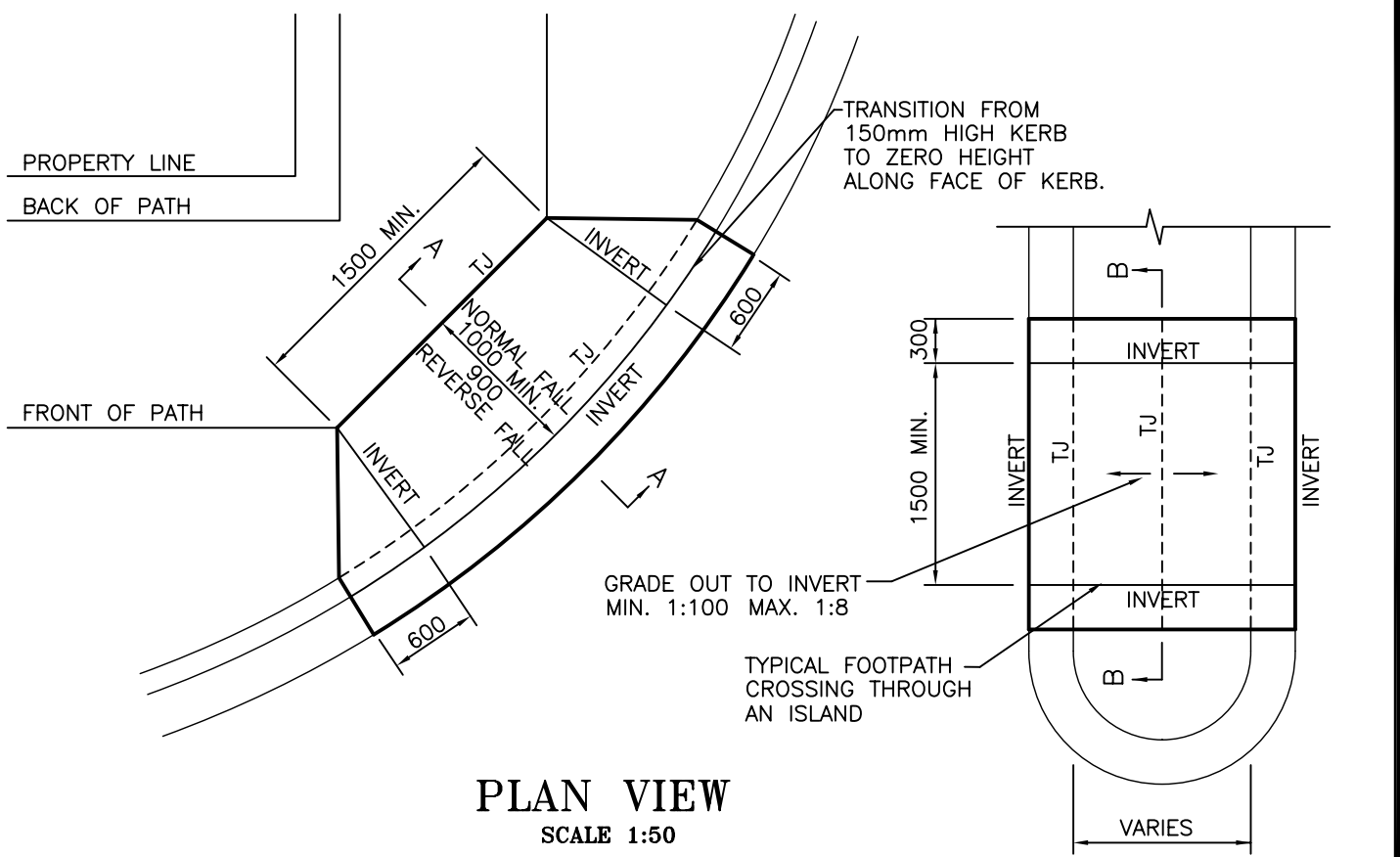
- Albion Rd, Box Hill
- Belmore Rd, Box Hill North
- Beresford St, Surrey Hills
- Blackburn Rd
- Boronia Rd, Vermont
- Burwood Hwy
- Canterbury Rd
- Deep Creek Rd, Mitcham
- Doncaster East Rd, Mitcham
- Dorking Rd, Box Hill / Box Hill North
- Eley Rd, Blackburn South / Box Hill South
- Elgar Rd
- Gillard St, Burwood
- Heatherdale Rd, Vermont / Mitcham
- High St, Mont Albert
- Highbury Rd
- Kenmare St, Box Hill North
- Margaret St, Box Hill North
- Middleborough Rd
- Mitcham Rd, Mitcham / Vermont
- Mont Albert Rd, Box Hill / Mont Albert
- Nelson Rd, Box Hill / Box Hill North
- Peter St, Box Hill North
- Prospect St, Box Hill
- Riversdale Rd, Box Hill South / Surrey Hills
- Rostrevor Pde, Box Hill North / Surrey Hills
- Springfield Rd
- Springvale Rd
- Station St, Box Hill North / Box Hill South / Box Hill / Burwood
- Strabane Ave, Box Hill North
- Surrey Rd, Blackburn / Blackburn North
- Thames St, Box Hill
- Warrigal Rd, Burwood / Surrey Hills
- Whitehorse Rd
- Wimmera St, Box Hill North
- Woodhouse Gve, Box Hill North

CITY OF WHITEHORSE

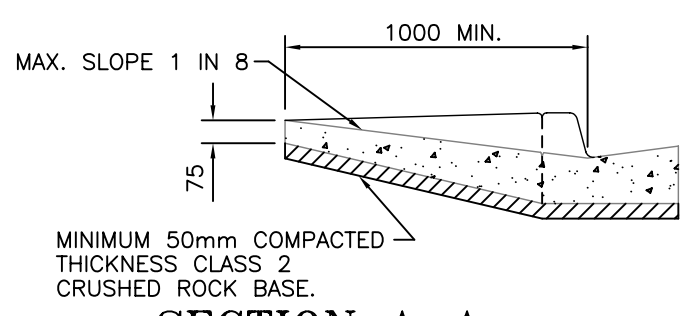
**SPECIFICATION FOR CONSTRUCTION
VEHICLE CROSSINGS**

REVISED 8/16

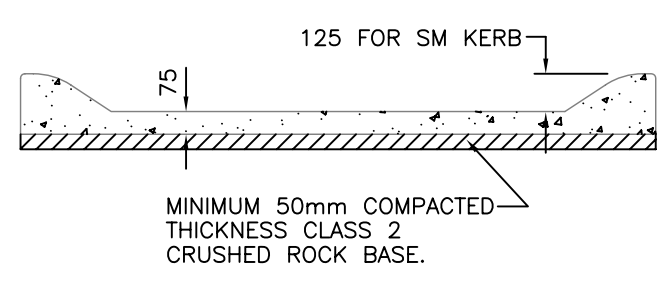
S105



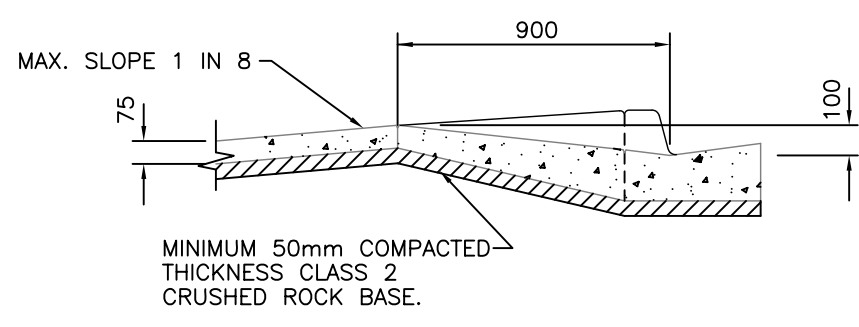
PLAN VIEW
SCALE 1:50



SECTION A-A
NORMAL FALL CROSSING
SCALE 1:25



SECTION B-B
SCALE 1:25



SECTION A-A
REVERSE FALL CROSSING
SCALE 1:25

CITY OF WHITEHORSE

FOOTPATH CROSSINGS

APPROVED 6/97

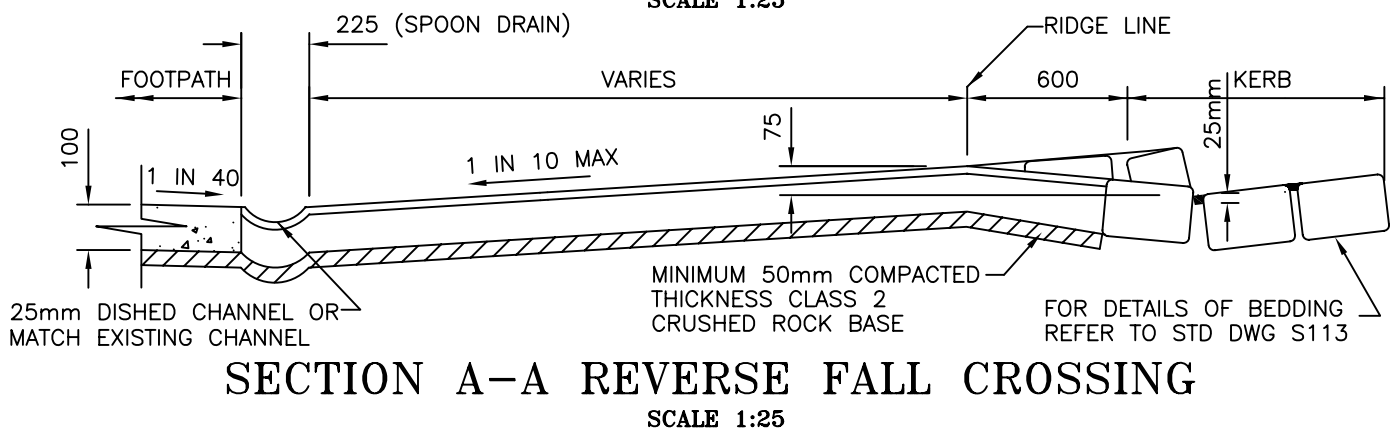
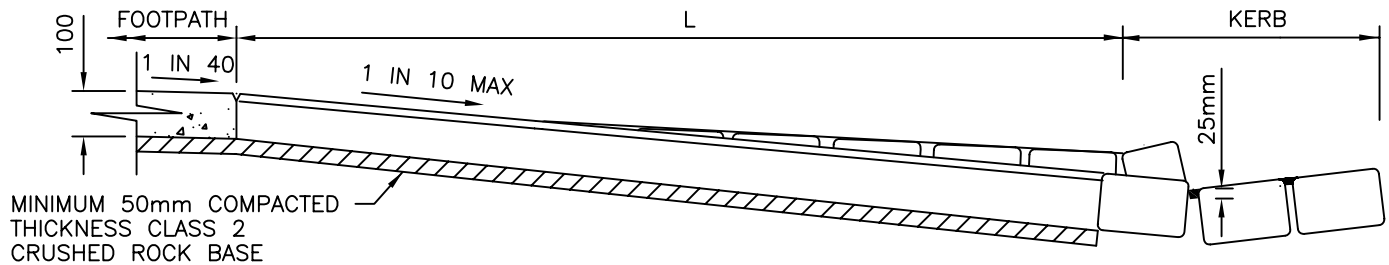
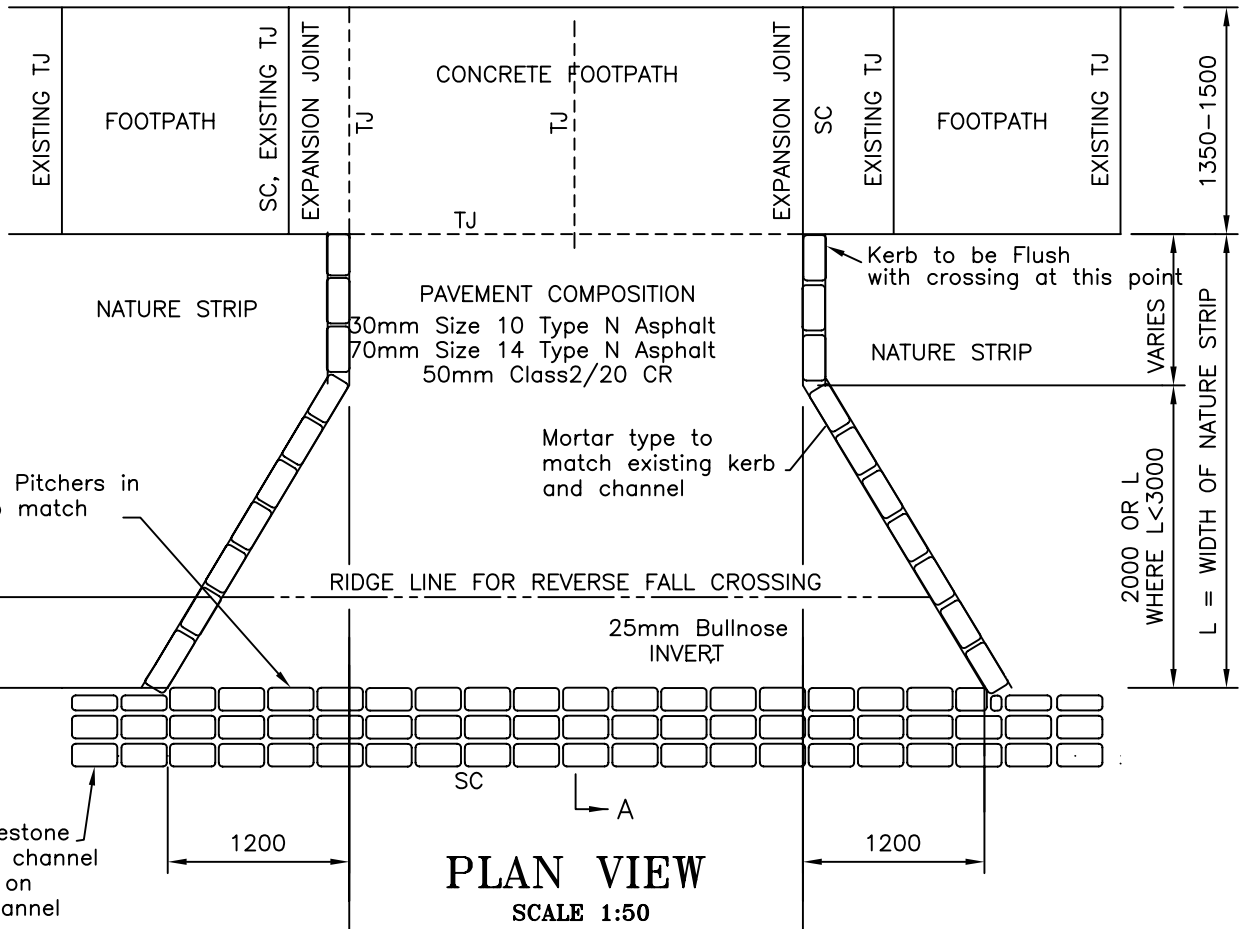
S106

CONCRETE THICKNESS
TAPERS FROM 150mm
TO 75mm.

W (3000 MINIMUM)

MINIMUM
600

TJ = TROWEL JOINT
SC = SAW CUT



CITY OF WHITEHORSE

VEHICLE CROSSING
TYPE 1 - RESIDENTIAL STREETS
(FOR USE WITH PITCHER KERB AND CHANNEL)

APPROVED 6/97

S107