

To Whom It May Concern:

Re: Curb, Sidewalk and Ditch Crossing Information Package

The following information package has been prepared as a guide for construction of sidewalk and curb crossings. It is not intended to be a complete listing of all City of Saskatoon (City) Specifications and Bylaws governing this construction.

All construction of City sidewalks and curbs requires prior approval by the Transportation and Utilities (T&U) Department and must conform to City specifications. Approval is obtained when a sidewalk crossing permit has been issued.

Prior to pouring the sidewalk or curb crossing, it will be necessary to have the forms and site preparation inspected by a City Inspector and approved prior to placing any concrete.

The inspection may be arranged by telephoning 306-986-0865.

GENERAL

All crossings construction shall conform to Bylaw No. 4785 as amended, which regulates the installation of boulevard crossings in the City of Saskatoon.

It shall be the Permit Holder's responsibility to construct the crossing in accordance with the City's current standard specifications and drawings. Pertinent drawings are attached to this letter. The entire package of standard specifications and drawings are available on the City's website.

A permit, available from T&U's Transportation Division (306-986-9729), **must** be obtained before work may start. Current application fees are listed on the City's website.

For all commercial crossings, any crossing involving paid on-street parking, and new crossings where a property is presently serviced by an existing crossing(s), the Owner or Contractor shall submit with the application for permit two copies of the site layout to scale showing the size and location of the crossing or crossings. For all crossings, all trees, light standards, hydrants, and catch basins must be shown on the plan.

Construction of concrete sidewalk, curb, or crossings may begin on or after May 15th and shall be terminated on or before October 1st, unless special permission is received from the Engineer, and section 06010-24 of the City's standard specifications is adhered.

INSPECTION

When an inspection is required in the morning, a request for inspection shall be made the afternoon of the previous working day. When an inspection is required in the afternoon, a request for inspection shall be made prior to 10:30 a.m.

Prior to pouring the sidewalk or curb crossing, it will be necessary to have the forms and site preparation inspected by a City Inspector and approved prior to placing any concrete.

Form inspections may be arranged by telephoning 306-986-0865.

A final inspection shall be made after concrete is placed and finished. If the finish is substandard, the crossing will not be approved by the City and will have to be reconstructed by the Permit Holder.

Final concrete inspections may be arranged by telephoning 306-986-0865.

When construction is being done by a Contractor, it is recommended that the payment for the crossing be held until final inspection and approval is given by the City.

PEDESTRIAN AND VEHICLE EGRESS

The Permit Holder shall provide and maintain all necessary barricades, warning lights, or any other means of protection for the safety of the public from commencement to the completion of his work. The maximum time period between removing and replacing curb and sidewalk shall not be longer than three (3) working days.

LANE AND DRIVEWAY CROSSINGS

Sidewalk crossings shall have a concrete slab 180 mm thick, (125 mm minimum for single family dwellings), and the crossing wing shall vary in thickness from the sidewalk thickness to the crossing thickness or as indicated on drawings. The crossing shall be constructed and marked as shown on the City's standard sidewalk drawings.

The sidewalk crossing cross-slope from the back of walk to face of curb shall not exceed 8%.

Existing separate sidewalk at crossings must be removed and replaced with a 180 mm thick sidewalk at all crossings, except those for single family dwellings.

SEPARATE SIDEWALK AND CURB DRIVEWAYS

At the time of crossing construction, in areas where there is separate sidewalk and curb, the Permit Holder is responsible to concrete or pave the boulevard portion between the curb and sidewalk. Paving stones allow water penetration and may not be used in this area.

REDI-MIX CONCRETE

Concrete used shall be 32 MPa minimum 28 day compressive strength Dura-Mix concrete. Slump shall be no greater than 80 mm. Air entraining limits shall be between 5% and 8%

of volume. Minimum portland cement content shall be 285 kg/cub. m. Minimum cementitious content shall be 330 kg/cub. m.

Concrete suppliers must be approved by the City, in accordance with section 06005-3 of the City's standard construction specifications. Concrete placed without proper approvals may be subject to removal and replacement at the expense of the Permit Holder. The Permit Holder must be prepared to supply proof that Dura-Mix concrete was delivered to his site and used for the sidewalk crossing.

METHOD OF REMOVING SIDEWALK AND CURB

Concrete will be removed to the nearest control joint. NO partial squares of sidewalk will be permitted. The ends of the concrete to be removed shall be cut at control joints with a concrete saw. The cut shall be of sufficient depth to permit removal without damage to the remaining structure.

FORMS

The forms used for each type of construction shall be the same as the dimensions on the drawings.

They shall be free from warps or other defects and shall have smooth, clean surfaces adjacent to the concrete. The forms shall be thoroughly cleaned and oiled before any concrete is deposited within them.

The forms shall be well staked, braced, and held rigidly to established line and grade to enable the use of mechanical concrete vibrators and vibrator screeds when placing concrete.

GRADE CONSTRUCTION (GRAVEL BASE)

Grade construction using base gravel shall include excavation and disposal of in situ soil to 150 mm below finished subgrade, and supply and placement of 150 mm of base gravel compacted to 98% standard proctor density at optimum moisture content. If the subgrade or the base is spongy or moves under a concentrated load, it shall be re-worked until hard and shows no movement.

DOWELS

Installation of 10M x 250 mm dowels is required when tying into existing concrete sidewalk or curb. These dowels must be galvanized, epoxy coated or stainless steel. The ends of each dowel shall have the same coating as the rest of the dowel. Three (3) dowels shall be installed evenly spaced across the walk; two (2) evenly spaced dowels shall be vertically installed in the curb, and one (1) dowel installed in the gutter, when present.

These dowels shall be installed 100 mm into the existing concrete equally spaced between the top and bottom.

PLACING OF CONCRETE

Concrete shall be disposed in a manner to prevent segregation of the aggregate. Special care shall be taken in placing concrete to prevent voids, pockets, rough areas and honeycombing. The concrete shall be tamped by using mechanical concrete vibrators or vibrator screed in such a manner as to work the coarse aggregate away from the forms and exposed surfaces.

FINISH OF SIDEWALK, CURB AND GUTTER

After the concrete has sufficiently set to permit further finishing without concrete bleeding, the surface shall be brought to a true surface with a wood float. The surface of walk and face of curb shall be marked as shown on drawings using approved tools. After marking, the surface shall be trowelled smooth with a steel trowel, and a uniform brush finish applied with a soft bristled push broom, to the satisfaction of the Engineer.

After the initial concrete set, the curb form shall be removed and the exposed surface of the curb shall be worked to a true surface, control joint marked on face, trowelled smooth, and then given a uniform brush finish.

CONCRETING IN SUB-NORMAL CONDITIONS

During cold weather, concrete may be placed when the air temperature in the shade is 1° C and rising. Concrete shall not be placed when the air temperature is 5° C and falling. Freshly placed concrete shall be adequately covered and protected or heated to maintain a minimum temperature of 5° C for 36 hours. Covering is to be maintained for 72 hours. The cost of all heating and protection shall be borne by the Permit Holder.

In no case shall concrete be deposited on or against any surface which is at a temperature of less than 5° C.

Concrete damaged by freezing shall be replaced at the Permit Holder's expense. All concrete pouring shall be terminated on or before October 31st, unless permission is received from the City's Engineer.

CONCRETE CURING

An approved curing compound shall be applied to the surface of the concrete (walk surface and curb face) immediately after the surface has been finished and broomed.

RAIN DAMAGE

Once concrete is placed and floated, the concrete will be rejected for the following reasons:

1. Any amount of rain falling on the surface
2. Water is sprinkled on the surface during finishing (before, during, or after trowelling or brooming).

Concrete that has been rejected shall be removed and replaced at the Permit Holder's expense.

PROTECTION

Concrete walk shall be allowed to set a minimum of twenty-four (24) hours before pedestrian traffic is permitted. Commercial and industrial lane crossings shall be barricaded for seven (7) days from vehicle traffic, and residential crossings shall be barricaded for five (5) days. Any work damaged within the time period specified shall be replaced at the Permit Holder's expense.

PAVEMENT PATCHING

Whenever a private crossing is constructed after the street is paved, the Permit Holder shall be responsible to patch the road surface to the satisfaction of the Engineer.

The area to be patch paved shall consist of City of Saskatoon Type 3 asphalt placed and compacted, over 20 MPa lean concrete.

PROVISIONAL FOR FUTURE SIDEWALK

When private driveways are constructed across the boulevard portion of the street, provision shall be made by the Permit Holder to meet the future sidewalk or street grade. Any alterations to provide driveways shall be the Permit Holder's responsibility. Information may be obtained from T&U's Transportation Division.

TYPICAL SIDEWALK AND CURB DRAWINGS

The following list of typical drawings are attached:

Attached Vertical Curb:

CR-1	102-0002-006	Crossing, Walk, 150mm Vertical Curb & Gutter
-	102-0002-008	Crossing, Walk & 150mm Vertical Curb
W-5	102-0002-033	Combined Walk & Vertical Curb

Separate Vertical Curb:

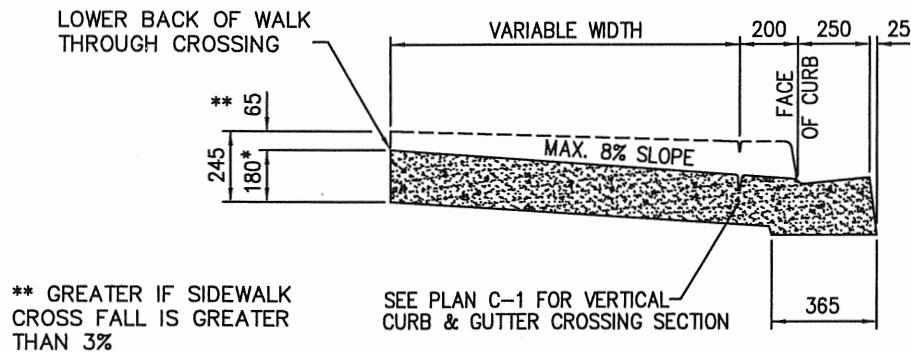
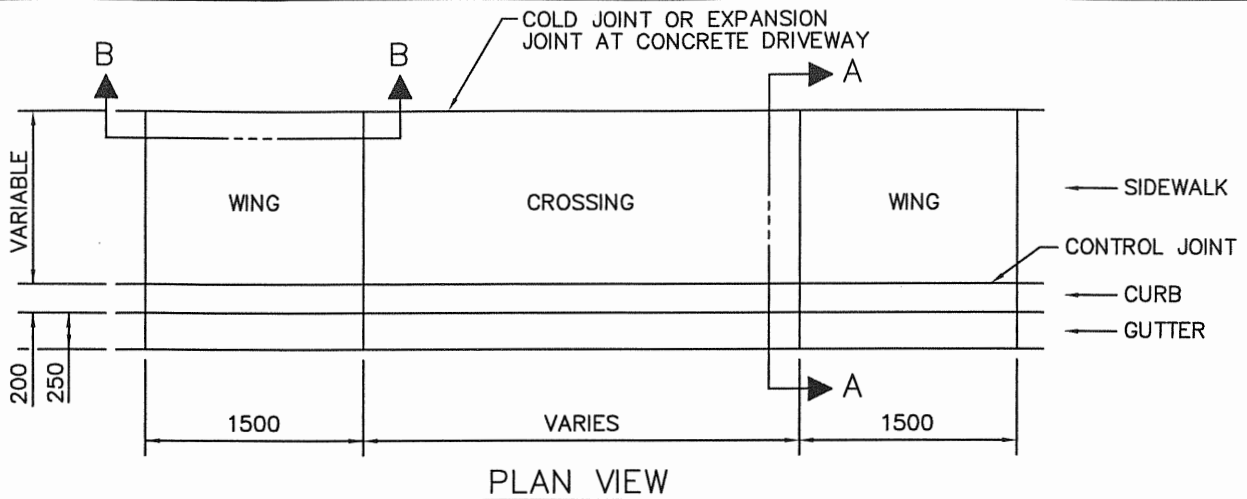
CR-5	102-0002-010	Crossing Separated Walk Vertical Curb & Gutter
CR-8	102-0002-013	Curb Return Crossing Separate Walk, Vertical Curb
CR-12	102-0002-017	Typical Driveway Curb Detail Isometric View

C-3	102-0002-003	Separate Dropped Curb Crossings
C-5	102-0002-005	Separate Vertical Curb
C-1	102-0002-001	Full Height Curbs and Gutters

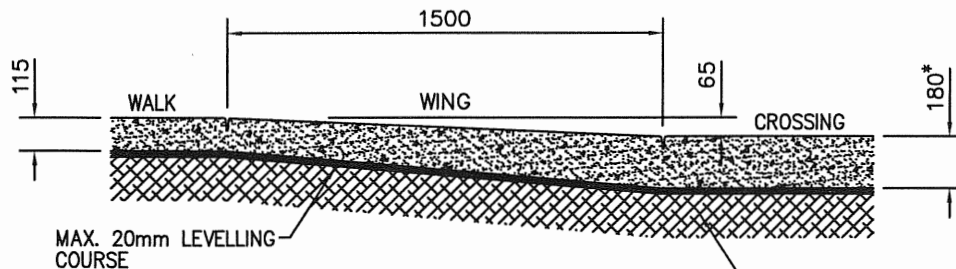
Supporting Drawings:

-	102-0010-012	Typical Catch Basin Conversion at Driveway or Crossing
-	102-0002-049	Gutter Patch Paving
J-1	102-0002-021	Control Joints
J-2	102-0002-022	Dowel/Control Joint Location & Spacing
-	102-0001-001	Standard Ditch Crossing Requirements

These drawings are the most commonly used drawings, but will not cover all situations. The entire package of standard specifications and drawings are available on the City's website.



* 125mm MIN. THICKNESS REQUIRED FOR SINGLE FAMILY DWELLING CROSSING



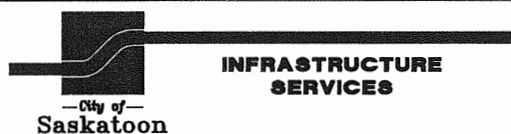
150mm GRADE CONSTRUCTION
- GRAVEL BASE IN RECONSTRUCTION
- COMPACTION IN NEW CONSTRUCTION

NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH WALK TRANSVERSELY,
BROOM FINISH CURB & GUTTER LONGITUDINALLY.
4. BROOM OVER ALL CONTROL JOINTS.
5. SPACING OF CONTROL JOINTS TO BE 1.5M

REVISIONS

1	VK 09-02-09
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APPROVED

[Signature]
GENERAL MANAGER
[Signature]
ENGINEER
[Signature]
ENGINEER

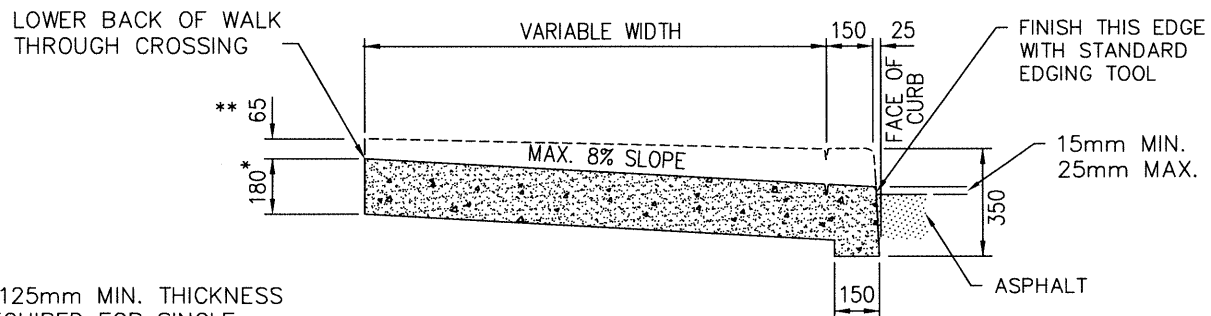
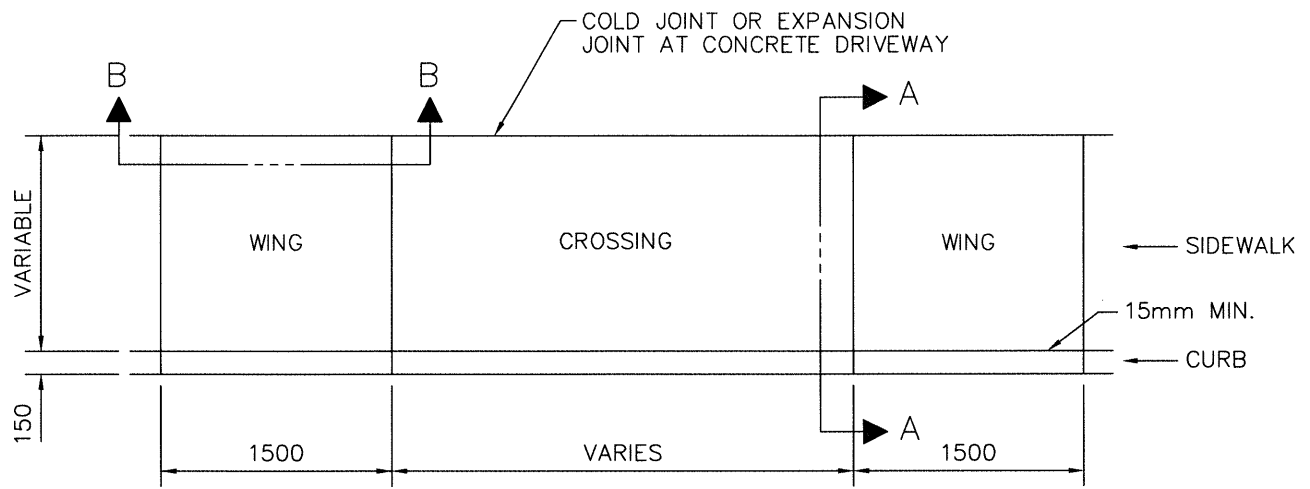
DRAWN BY R. OTTENBREIT
DATE FEBRUARY 1, 1999

CHECKED BY
DATE

CROSSING
WALK, 150mm VERTICAL CURB
& GUTTER

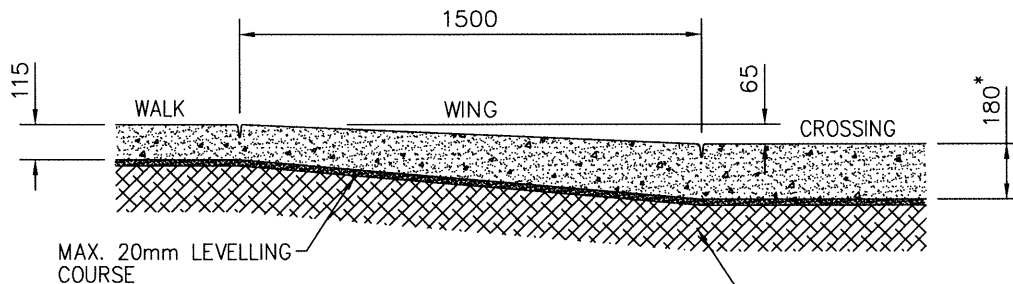
CR-1

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PLAN NO. 102-0002-006r002



* 125mm MIN. THICKNESS
REQUIRED FOR SINGLE
FAMILY DWELLING CROSSING

** GREATER IF SIDEWALK
CROSS FALL IS GREATER
THAN 8%



NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH WALK TRANSVERSELY.
BROOM FINISH CURB & GUTTER LONGITUDINALLY.
4. BROOM OVER ALL CONTROL JOINTS.
5. SPACING OF CONTROL JOINTS TO BE 1.5M

SECTION B-B

- AT BACK OF WING -

150mm GRADE CONSTRUCTION
- GRAVEL BASE IN RECONSTRUCTION
- COMPACTION IN NEW CONSTRUCTION

REVISIONS

1	VK 09-02-09
2	REVISED DETAILS AT FACE OF CURB 2015-NOV-27 HLO
3	



**City of
Saskatoon**

Transportation & Utilities Department

CHIEF ENGINEER

JAN 08 2016

DATE

ENGINEER

JAN 08 2016

DATE

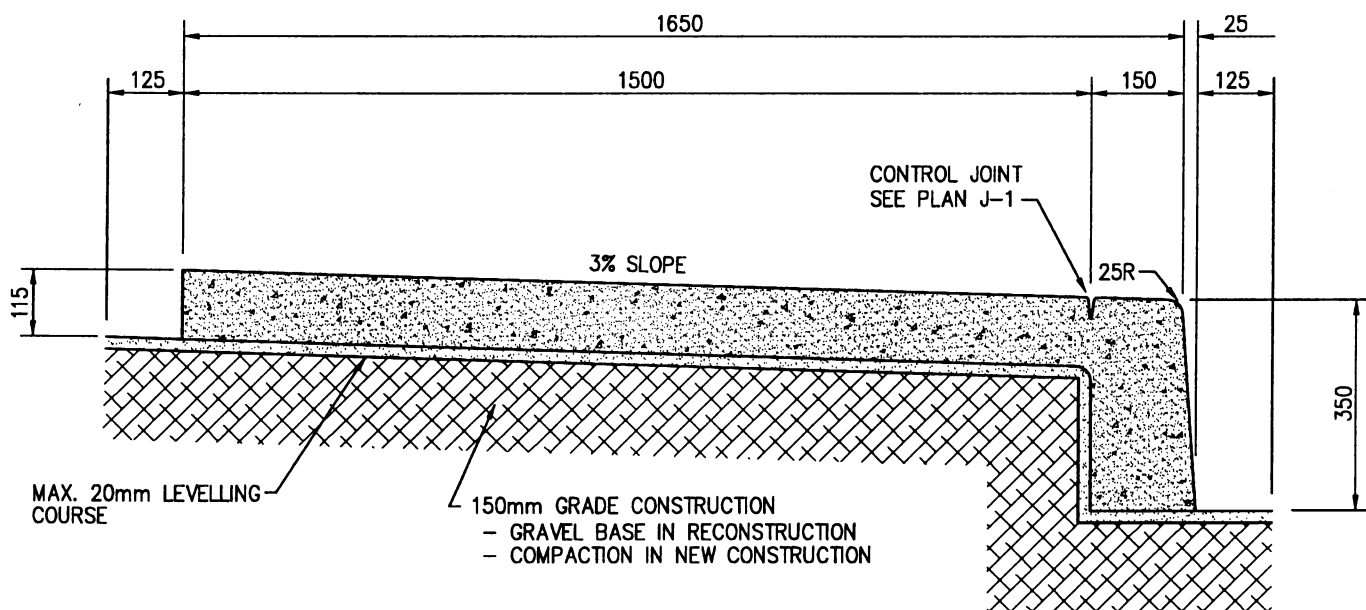
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DATE FEBRUARY 1, 1999

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CROSSING
WALK & 150mm VERTICAL CURB

PLAN NO. 102-0002-008r003



NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH WALK, CURB FACE &
GUTTER. BROOM OVER ALL CONTROL JOINTS.
4. SPACING OF CONTROL JOINTS TO BE 1.5M

REVISIONS

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COMBINED WALK & VERTICAL CURB

APPROVED

GENERAL MANAGER *[Signature]* P. ENG.

ENGINEER

ENGINEER *[Signature]*

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PLAN NO.

102-0002-033r001

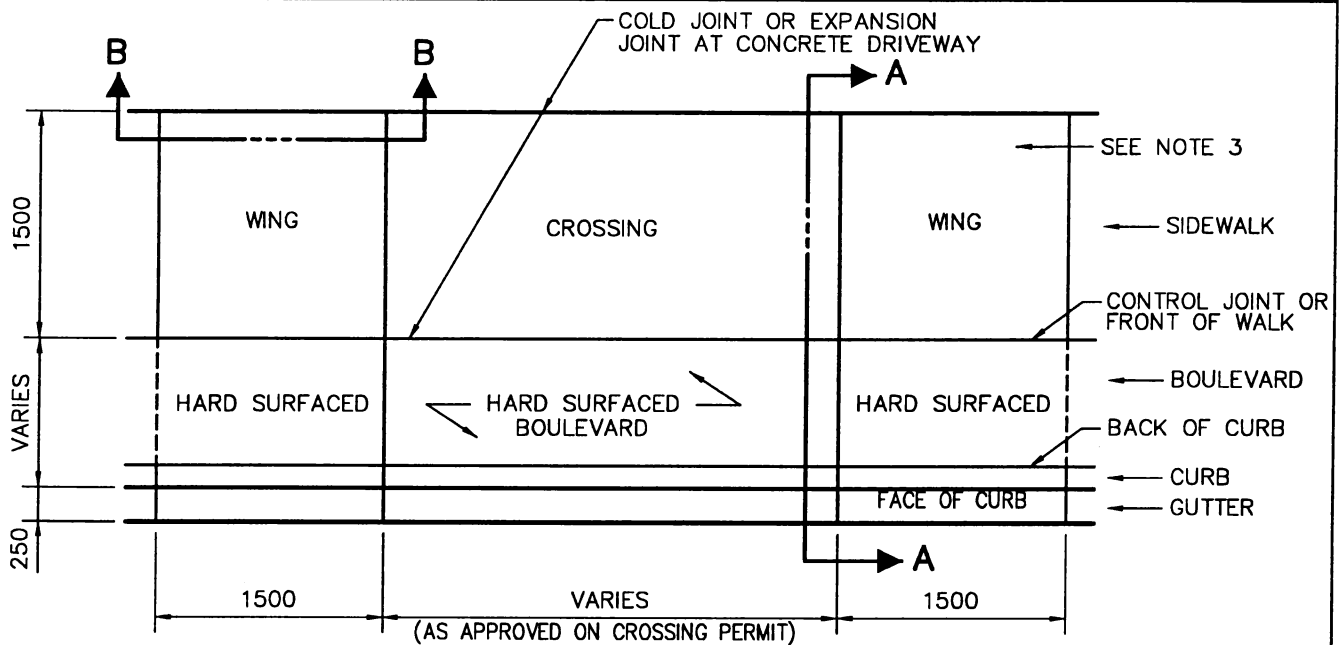
W-5

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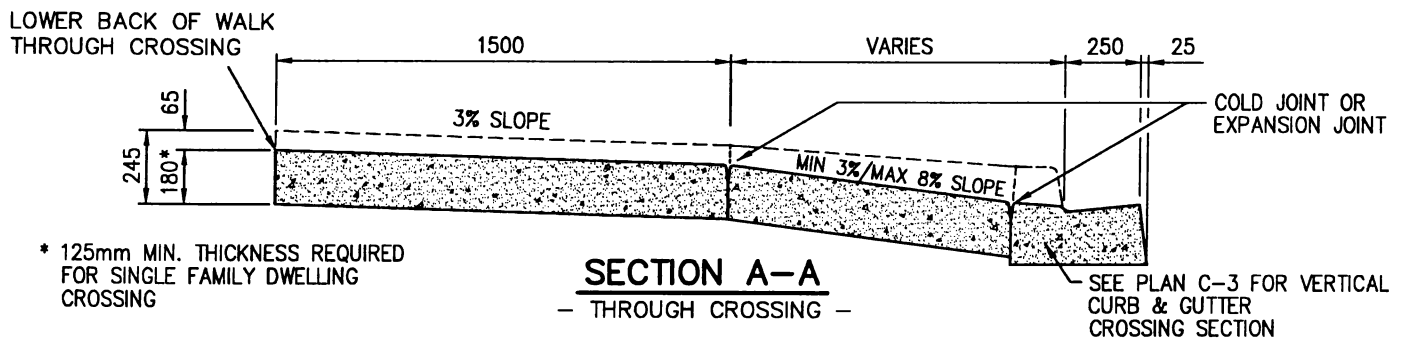
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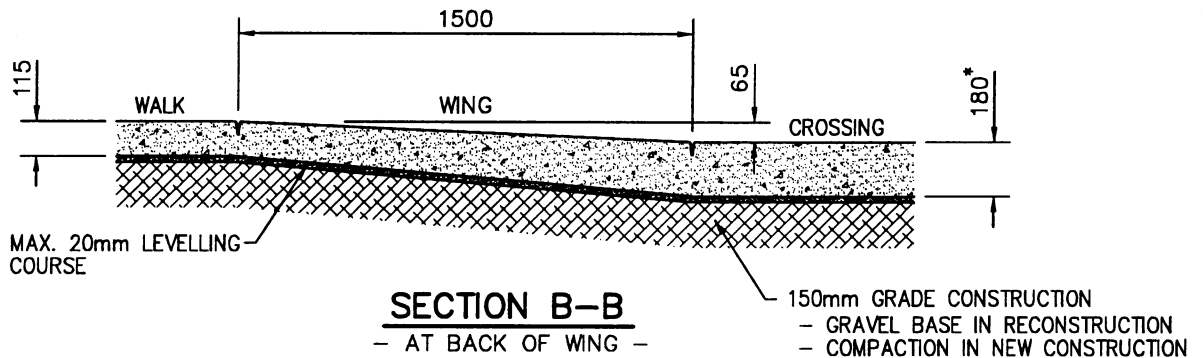


PLAN VIEW



SECTION A-A

- THROUGH CROSSING -



SECTION B-B

- AT BACK OF WING -

NOTES:

1. CONCRETE STANDARD: 32 MPa DURA-MIX CONCRETE, 5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD: 98% STANDARD PROCTOR AS PER SPEC.
3. WINGS ARE OPTIONAL TO DEPRESS THE CROSSING TO REDUCE HARD SURFACED BOULEVARD SLOPE, AT OWNERS DISCRETION. REQUIRES APPROVAL OF ENGINEER.
4. BROOM FINISH WALK TRANSVERSELY. BROOM FINISH CURB & GUTTER LONGITUDINALLY.
5. BROOM OVER ALL CONTROL JOINTS.
6. SPACING OF CONTROL JOINTS TO BE 1.5M

REVISIONS

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DRAWN BY R. OTTENBREIT
DATE FEBRUARY 1, 1999

CHECKED BY _____
DATE _____



CITY OF SASKATOON
INFRASTRUCTURE SERVICES

**CROSSING
SEPARATE WALK
VERTICAL CURB & GUTTER**

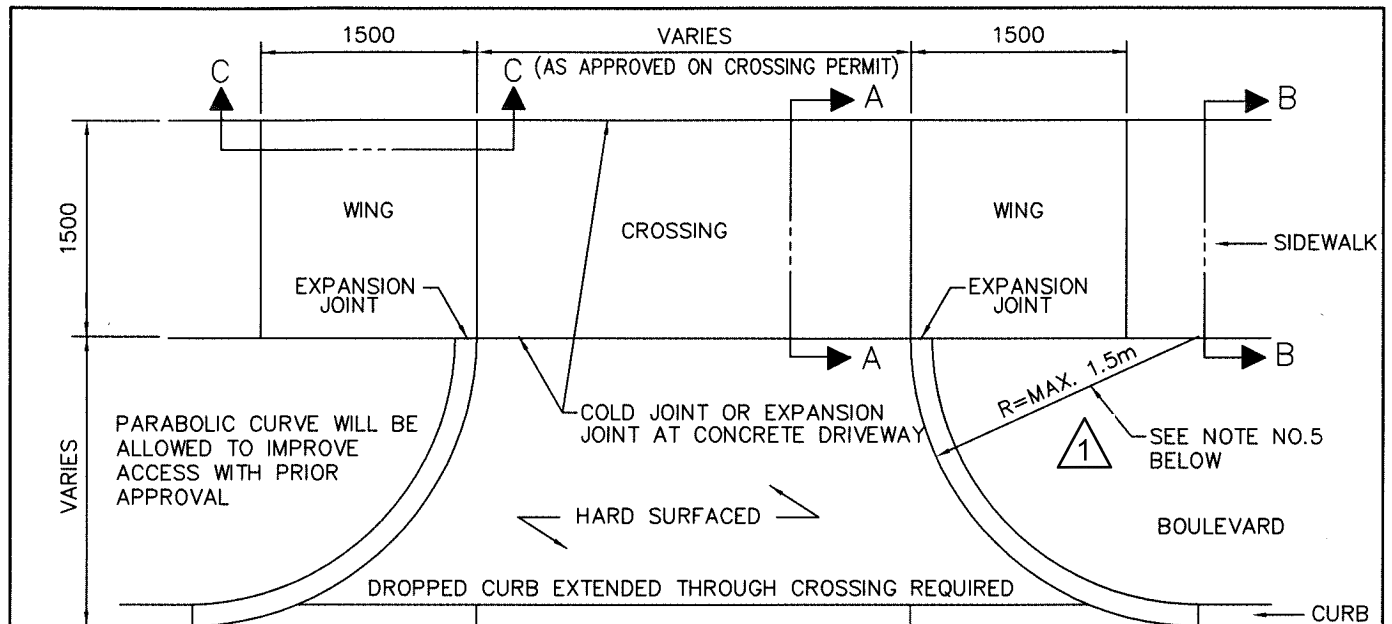
APPROVED

GENERAL MANAGER *[Signature]* P. ENG.

ENGINEER *[Signature]*
ENGINEER *[Signature]*

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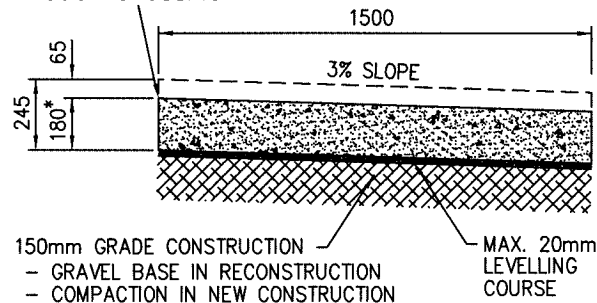
CR-5 PLAN NO. 102-0002-010r001



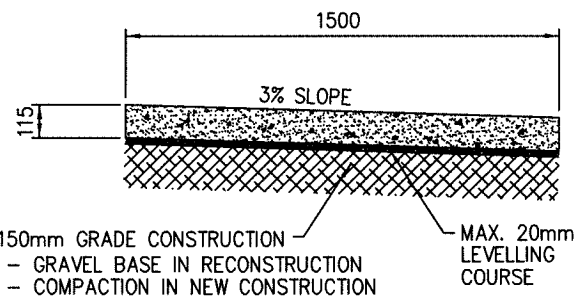
PLAN VIEW

CURB RETURN TO BE POURED MONOLITHICALLY WITH DROPPED CURB &/OR CURB & GUTTER

LOWER BACK OF WALK THROUGH CROSSING



SECTION A-A
- THROUGH CROSSING -

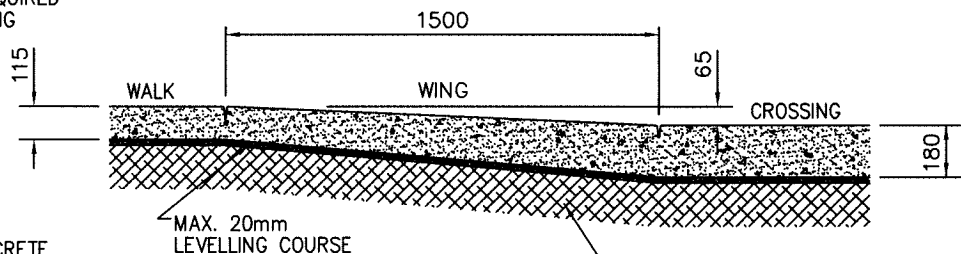


SECTION B-B

* 125mm MIN. THICKNESS REQUIRED FOR SINGLE FAMILY DWELLING CROSSING

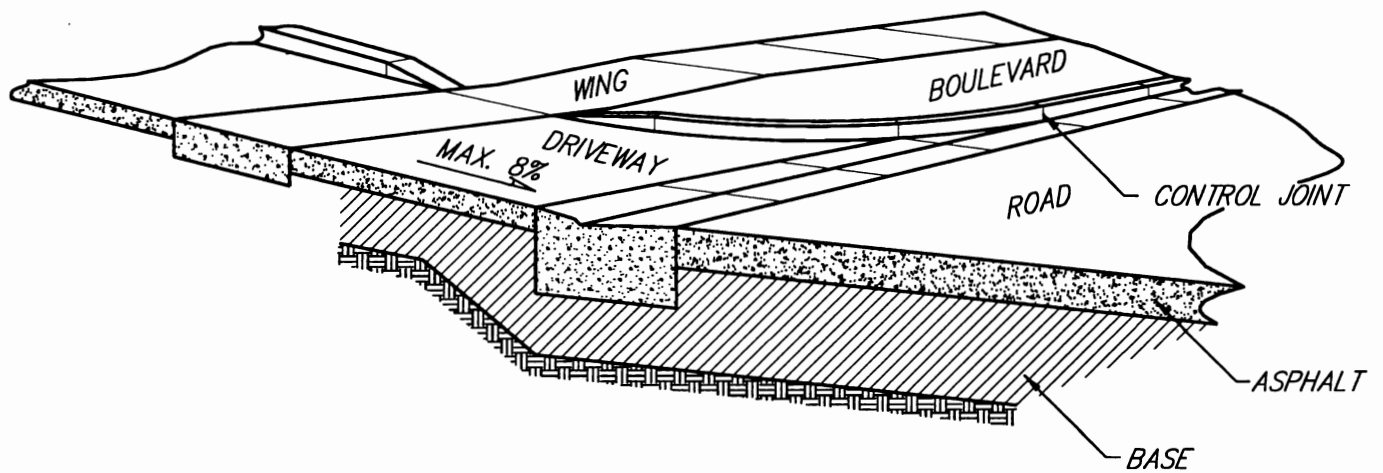
NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH WALK TRANSVERSELY.
BROOM FINISH CURB & GUTTER LONGITUDINALLY.
4. BROOM OVER ALL CONTROL JOINTS.
5. TRUCK SWEEP PATH ANALYSIS OR TRAFFIC IMPACT STUDY
REQUIRED FOR APPROVAL OF LARGER CORNER RADIUS



SECTION C-C
- AT BACK OF WING -

PLAN DESCRIPTION/REVISIONS		 City of Saskatoon Transportation & Utilities Department	APPROVED	
4			 DIRECTOR OF TRANSPORTATION P.ENG	
3		CURB RETURN CROSSING SEPARATE WALK, VERTICAL CURB	 ENGINEER	
2			PLAN NO. 102-0002-013r002	
1	ADDED MAX RADIUS NOTE - AMR - 05/2016		CR-8	
DRAWN BY R. OTTENBREIT DATE FEBRUARY 1, 1999				
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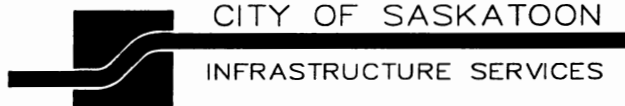


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DRAWN BY R. OTTENBREIT
 DATE FEBRUARY 1, 1999

CHECKED BY _____
 DATE _____



TYPICAL DRIVEWAY CURB DETAIL ISOMETRIC VIEW

APPROVED

GENERAL MANAGER [Signature] P. ENG.

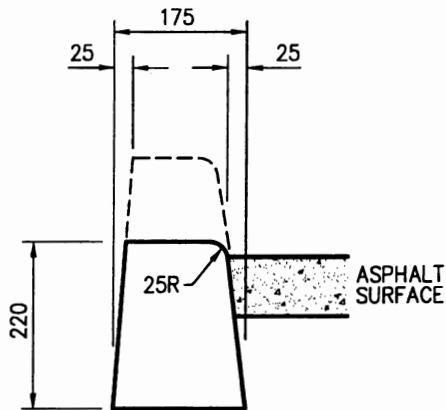
ENGINEER [Signature]

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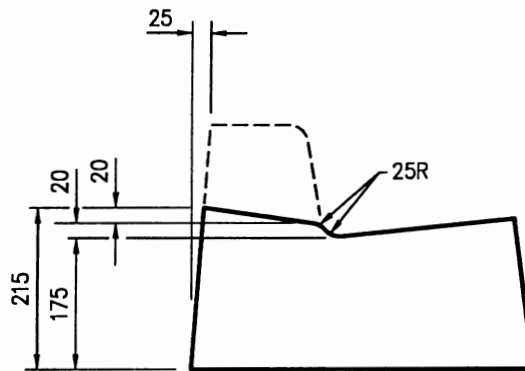
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CR-12

PLAN NO. 102-0002-017r001



**150mm SEPARATE CURB
CROSSING SECTION**



**VERTICAL CURB & GUTTER
CROSSING SECTION**

NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. STRAIGHT VERTICAL BACK OF CURB MAY
BE USED IN PLACE OF 25MM BATTER

REVISIONS

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DRAWN BY R. OTTENBREIT
DATE FEBRUARY 1, 1999

CHECKED BY _____
DATE _____



CITY OF SASKATOON

INFRASTRUCTURE SERVICES

SEPARATE DROPPED CURB CROSSINGS

C-3

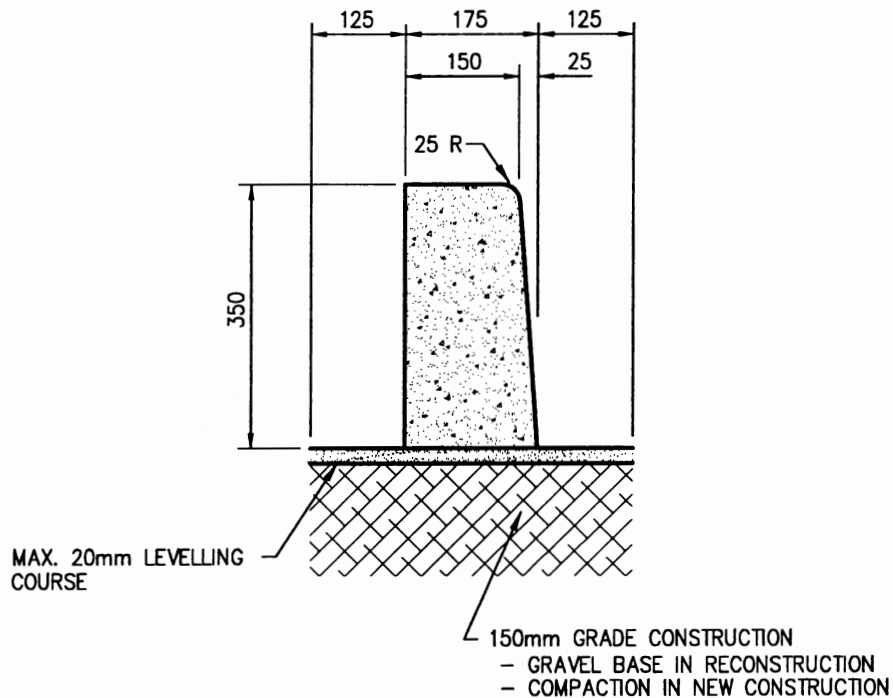
APPROVED

GENERAL MANAGER [Signature] P. ENG.

ENGINEER [Signature]
ENGINEER

SCALES : HOR. 1:10 VERT. _____

PLAN NO. **102-0002-003-001**



NOTES:

1. CONCRETE STANDARD:
32 MPa DURA-MIX CONCRETE
5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH TOP & FACE OF CURB AND GUTTER LONGITUDINALLY
4. BROOM OVER ALL CONTROL JOINTS.
5. SPACING OF CONTROL JOINTS TO BE 1.5M

REVISIONS

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DRAWN BY R. OTTENBREIT
 DATE FEBRUARY 1, 1999

CHECKED BY _____
 DATE _____



CITY OF SASKATOON
 INFRASTRUCTURE SERVICES

SEPARATE VERTICAL CURB

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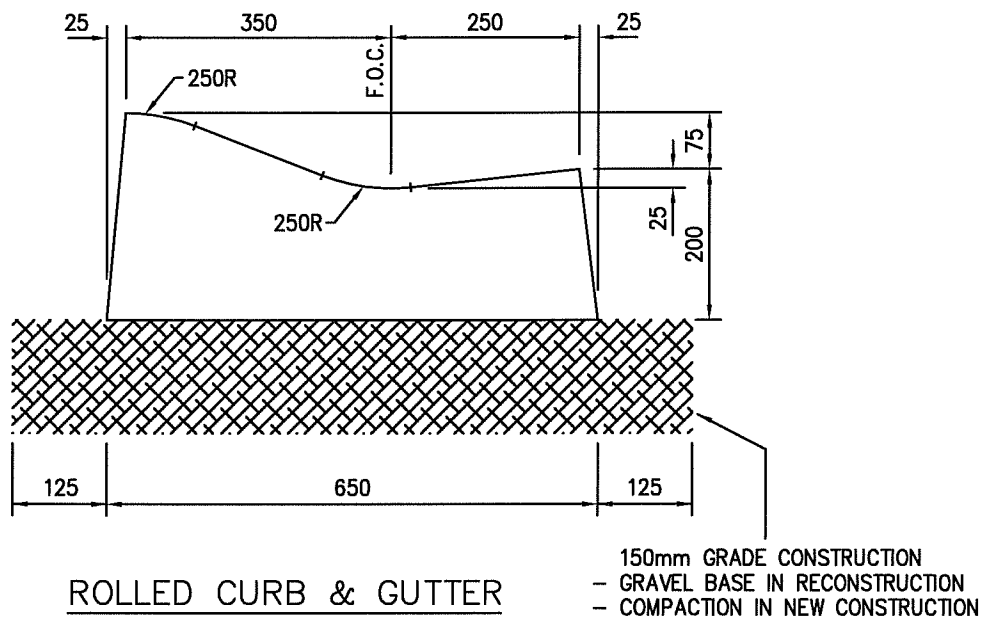
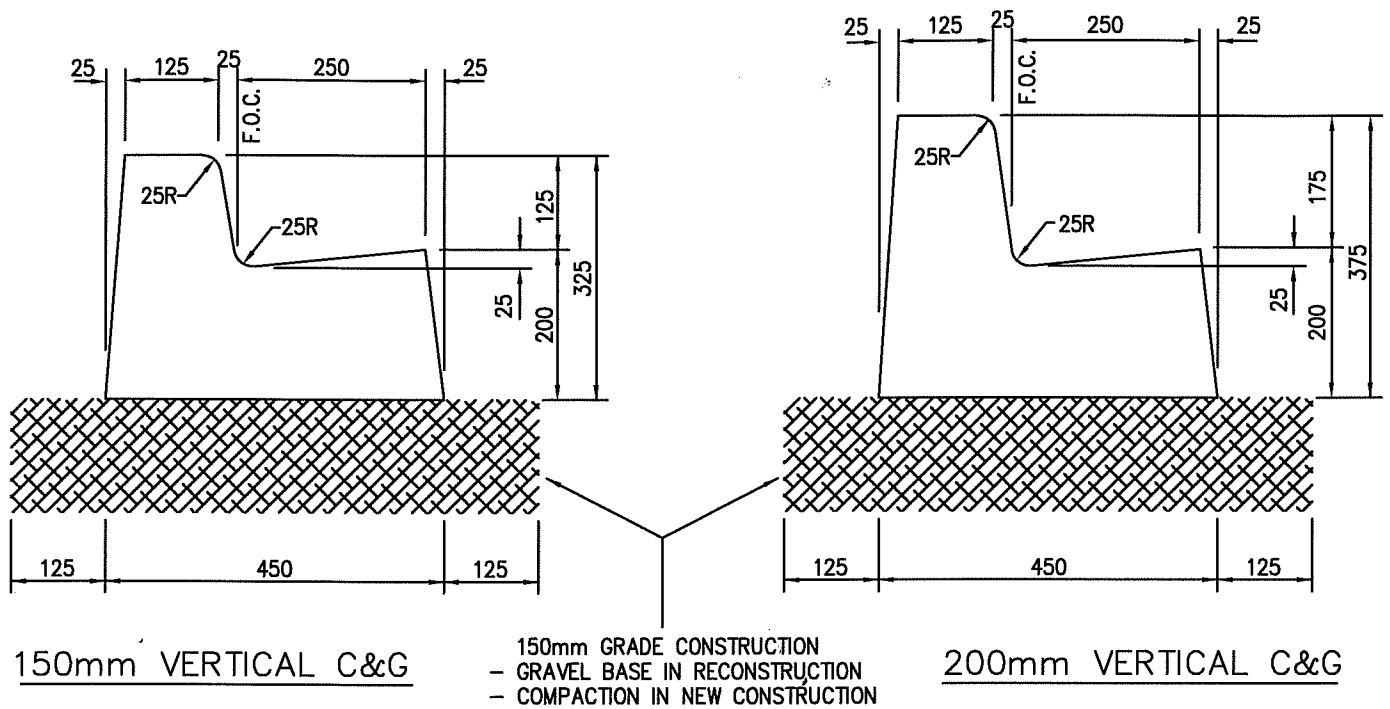
GENERAL MANAGER *[Signature]* P. ENG.

ENGINEER *[Signature]*
 ENGINEER

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C-5

PLAN NO. **102-0002-005r001**

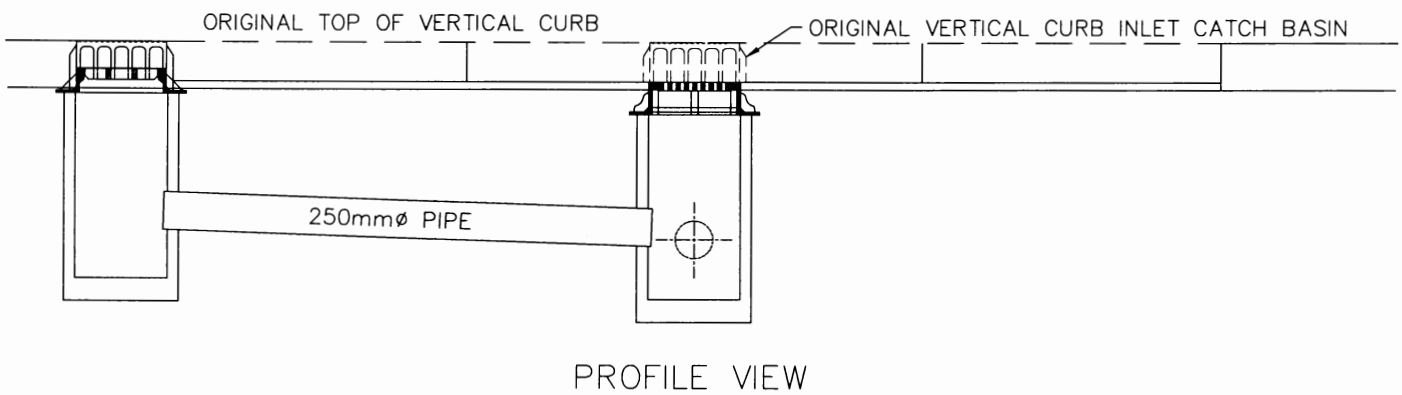
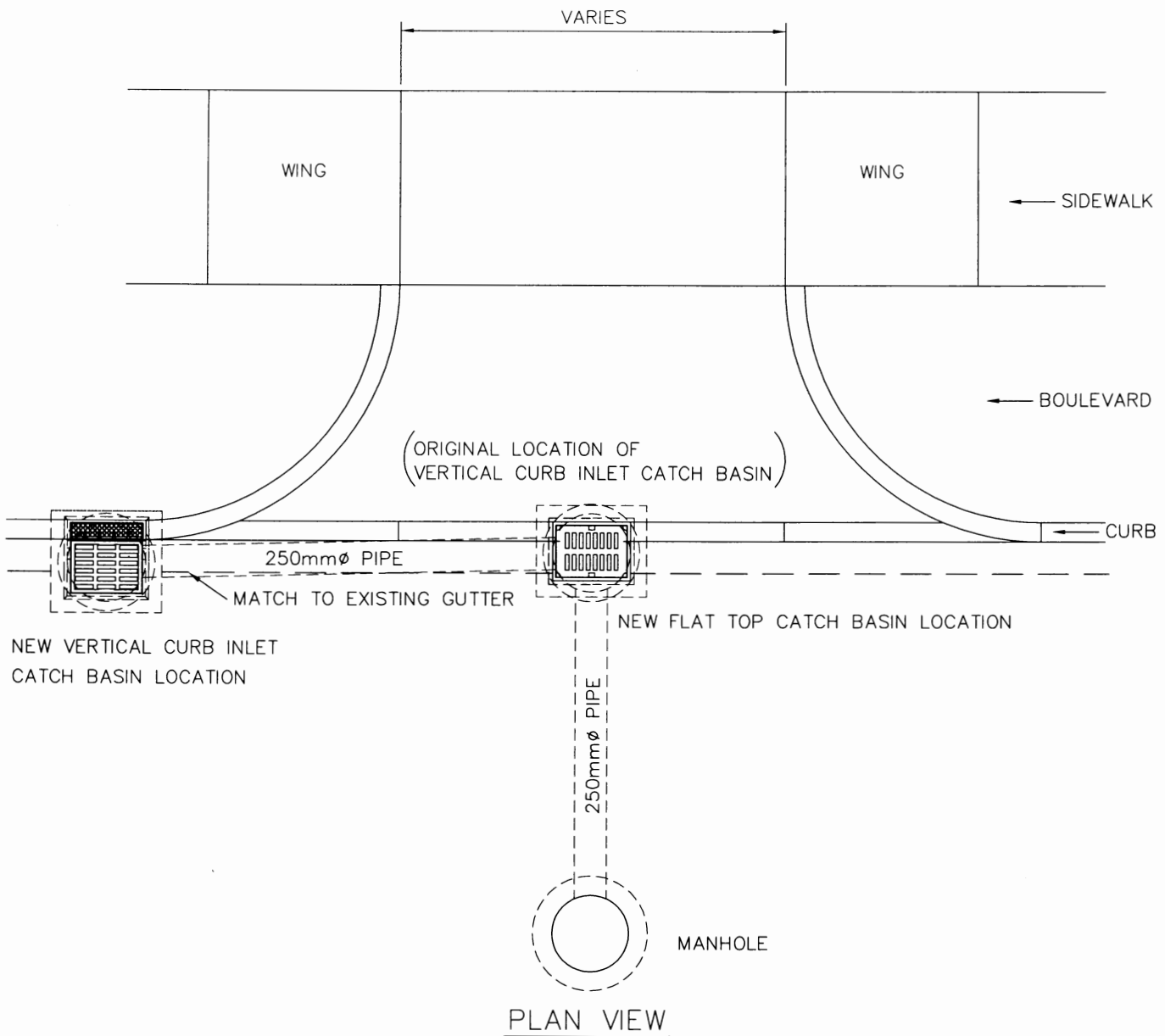


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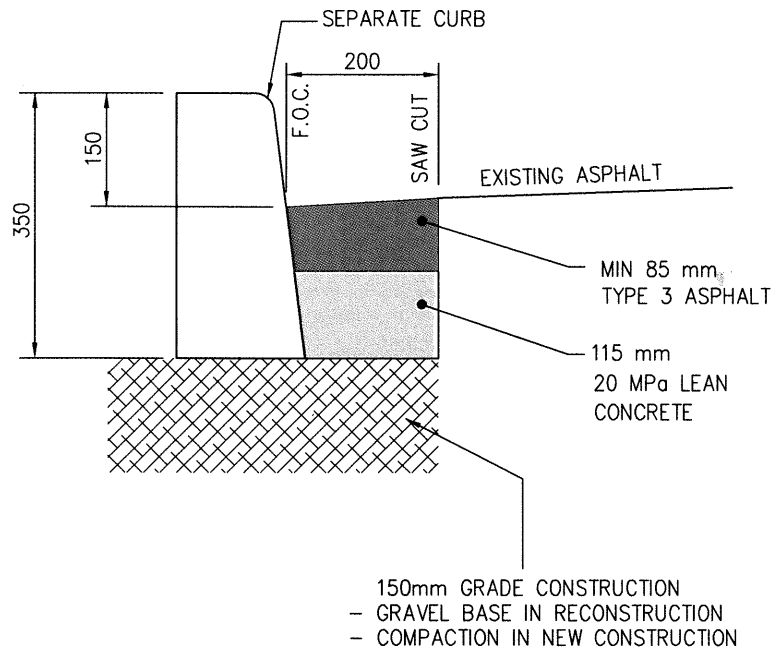
1. CONCRETE STANDARD:
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5-8% AIR AS PER SPEC.
2. COMPACTION STANDARD:
98% STANDARD PROCTOR AS PER SPEC.
3. BROOM FINISH TOP & FACE OF CURB AND GUTTER LONGITUDINALLY
4. BROOM OVER ALL CONTROL JOINTS.
5. SPACING OF CONTROL JOINTS TO BE 1.5M

REVISIONS 1 REMOVED CONCRETE SWALE HLO DEC 14, 2012 2 3			APPROVED GENERAL MANAGER P. ENG. ENGINEER ENGINEER SCALES : HOR. 1:10 VERT. 1:10	
DRAWN BY R. OTTENBREIT DATE FEBRUARY 1, 1999 CHECKED BY DATE			C-1 PLAN NO. 102-0002-001r002	

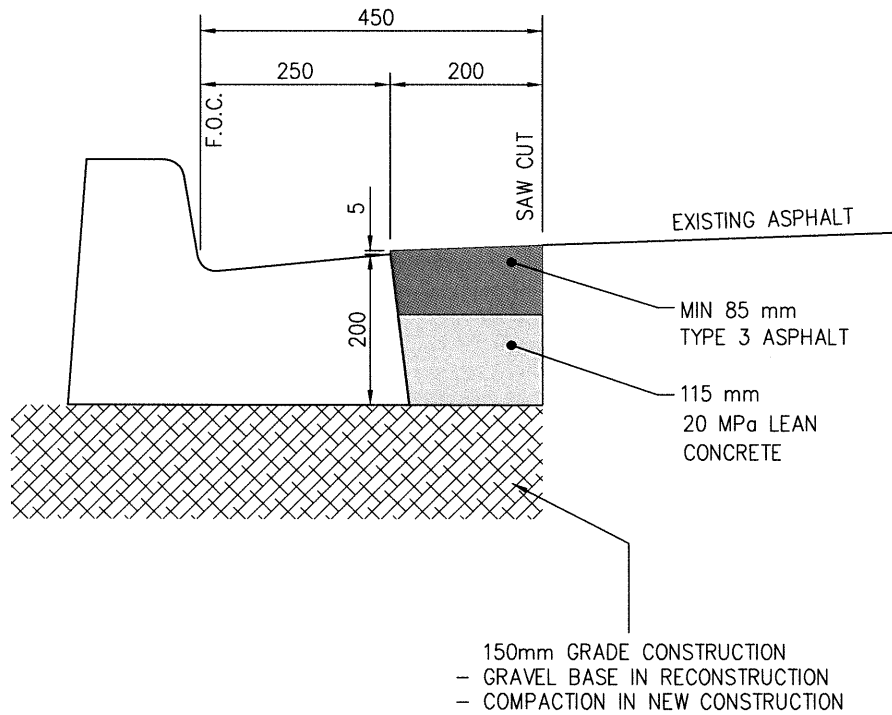
FULL HEIGHT CURBS AND GUTTERS



REVISIONS 1 2 3		 City of Saskatoon Infrastructure Services Department	APPROVED  GENERAL MANAGER P. ENG.  ENGINEER  ENGINEER	
DRAWN BY <u>RBV</u> DATE <u>NOVEMBER 16, 2004</u> CHECKED BY _____ DATE _____			TYPICAL CATCH BASIN CONVERSION AT DRIVEWAY OR CROSSING SCALES : HOR. <u>1:50</u> PLAN NO. <u>102-0010-012r001</u>	



CURB



CURB AND GUTTER

REVISIONS

1	ASPHALT DEPTH MIN 85mm 15-DEC-2014 HLO
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DRAWN BY VK
DATE 09-01-27

CHECKED BY
DATE





**City of
Saskatoon**

Transportation & Utilities Department

GUTTER PATCH PAVING

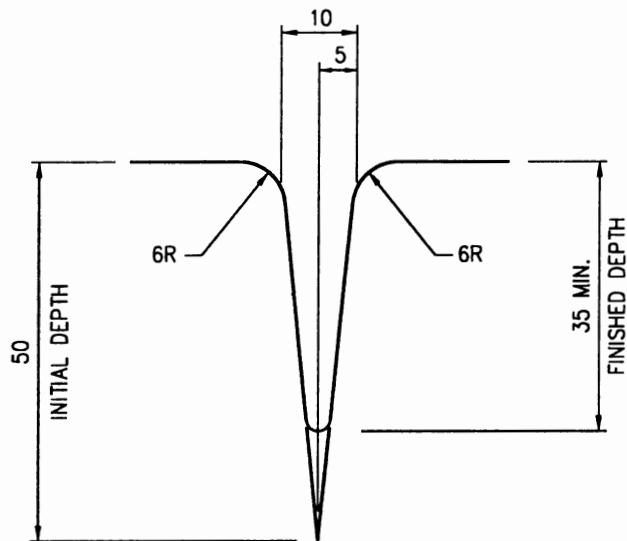
APPROVED

ENGINEER  P. ENG.

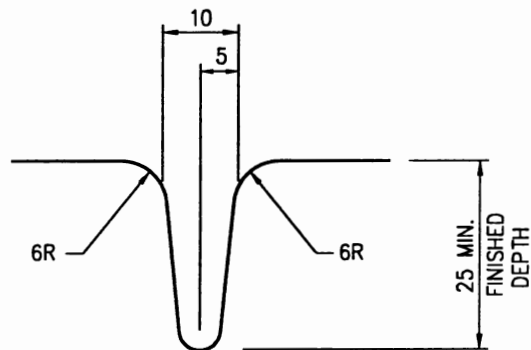
ENGINEER 

SCALES : HOR. 1:10 1:10

PLAN NO. 102-0002-049r002



LONGITUDINAL CONTROL JOINT



TRANSVERSE CONTROL JOINT

TRANSVERSE CONTROL JOINTS MUST EXTEND
ACROSS WALK & CURB, DOWN THE FACE
OF CURB, AND ACROSS GUTTER

REVISIONS

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DRAWN BY R. OTTENBREIT
DATE FEBRUARY 1, 1999

CHECKED BY _____
DATE _____



CITY OF SASKATOON
INFRASTRUCTURE SERVICES

CONTROL JOINTS

APPROVED

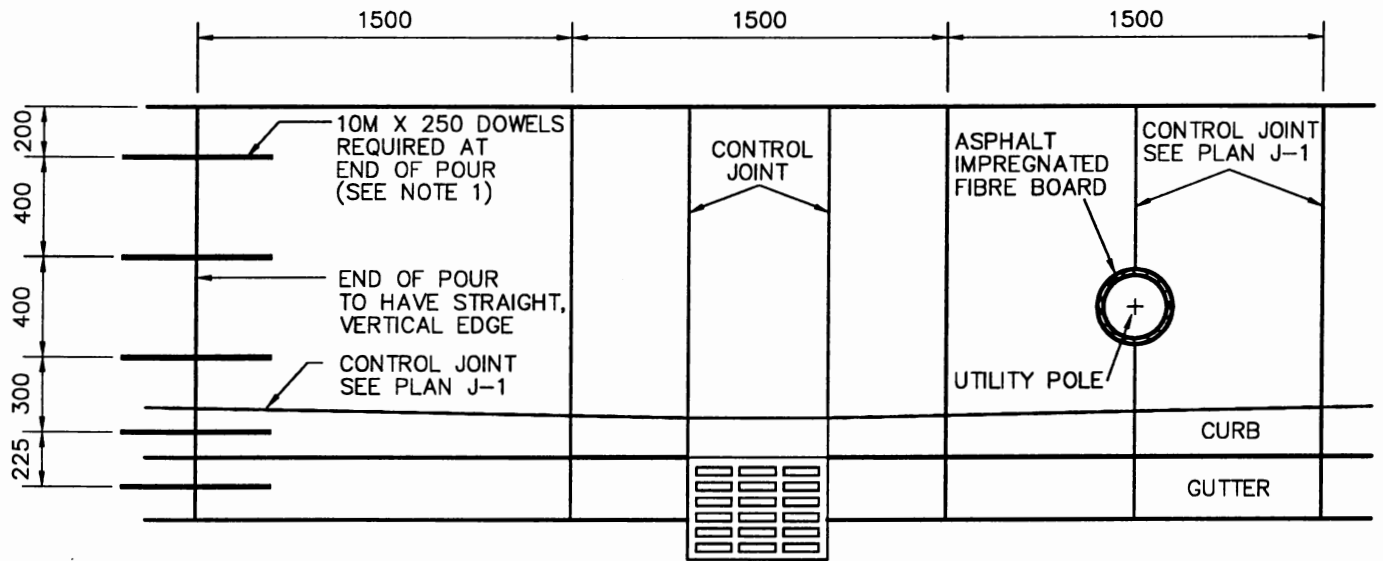
GENERAL MANAGER *[Signature]* P. ENG.

ENGINEER *[Signature]*

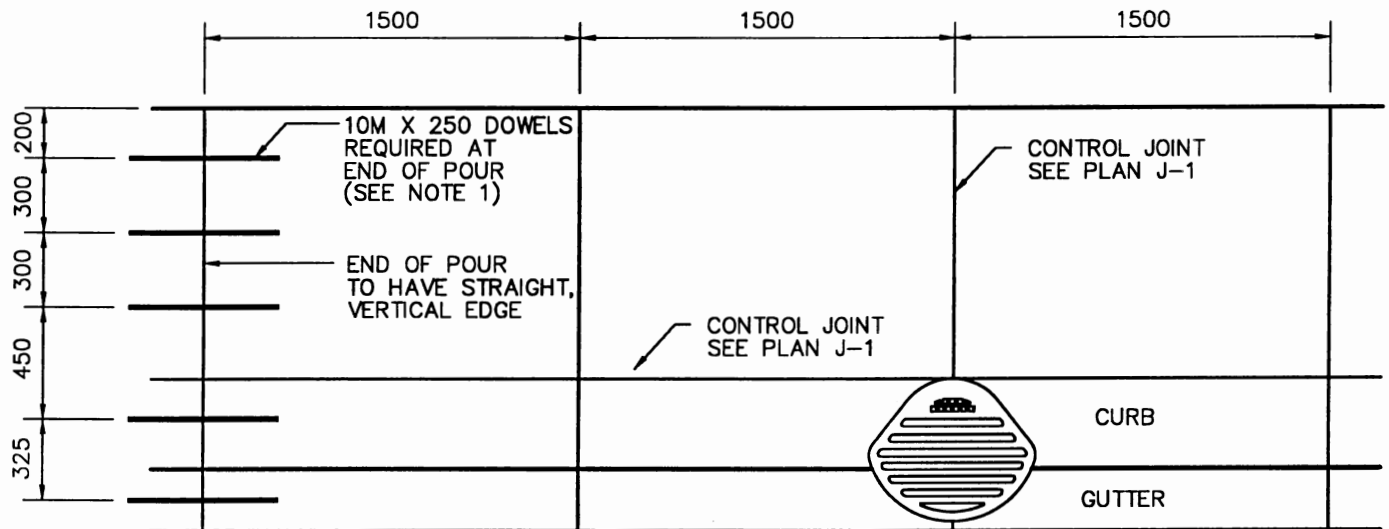
ENGINEER *[Signature]*

SCALES : HOR. 1:1 VERT. _____

J-1 PLAN NO. **102-0002-021r001**



VERTICAL CURB



ROLLED CURB

NOTES:

1. REBAR TO BE STAINLESS STEEL, EPOXY COATED, OR GALVANIZED. (EPOXY CAN NOT BE DRIVEN)

REVISIONS

1	MOVED CURB CNTRL. JOINT
2	
3	



CITY OF SASKATOON
INFRASTRUCTURE SERVICES

APPROVED

GENERAL MANAGER *[Signature]* P. ENG.

ENGINEER *[Signature]*

ENGINEER *[Signature]*

SCALES: HOR. 1:30 VERT. _____

DRAWN BY R. OTTENBREIT
DATE FEBRUARY 1, 1999

CHECKED BY _____
DATE _____

DOWEL/CONTROL JOINT
LOCATION & SPACING

J-2

PLAN NO. 102-0002-022r001

NOTES: 1

1. MAXIMUM DRIVEWAYS WIDTHS SHALL BE THE LESSER OF:

- a. RESIDENTIAL = 6.1m
- b. COMMERCIAL = 10.7m
- c. INDUSTRIAL = 12.2m

OR

ONE-THIRD OF PROPERTY FRONTAGE OR FLANKAGE.

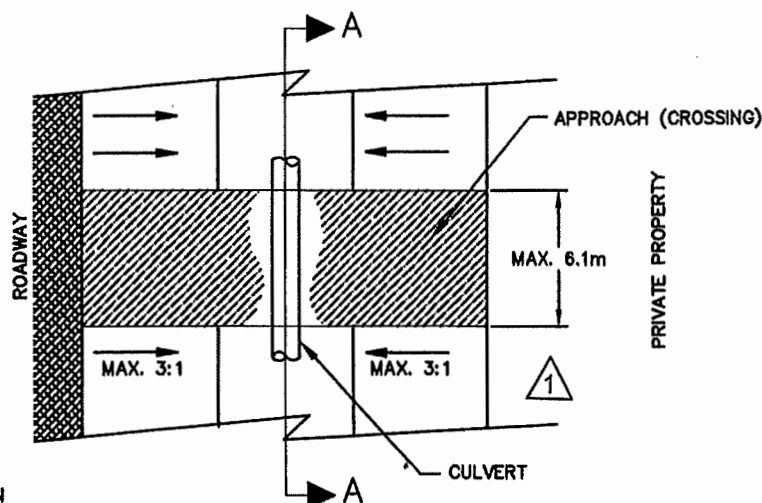
2. MINIMUM CULVERT SIZES SHALL BE AS BELOW:

- a. RESIDENTIAL = 300mm
- b. COMMERCIAL/INDUSTRIAL = 450mm

3. ANY ALTERNATE CULVERT SIZE AND MINIMUM COVER SHALL BE REVIEWED AND APPROVED BY T&U DEPARTMENT.

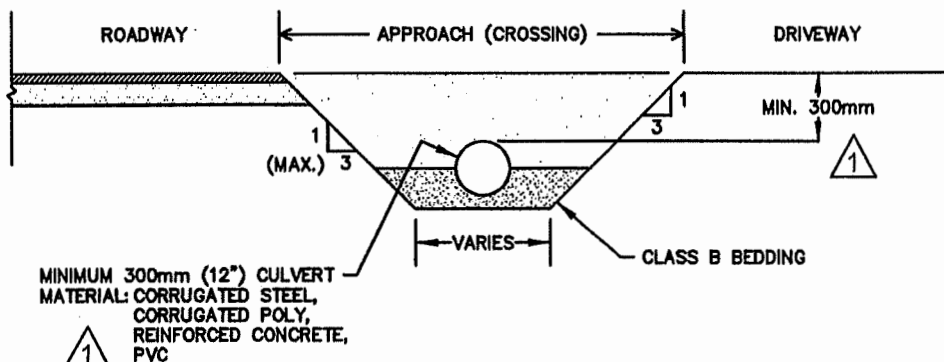
4. ALL DRIVEWAYS REQUIRE APPLICATION FOR PRIVATE DRIVEWAY CROSSING PERMIT.

PLAN VIEW



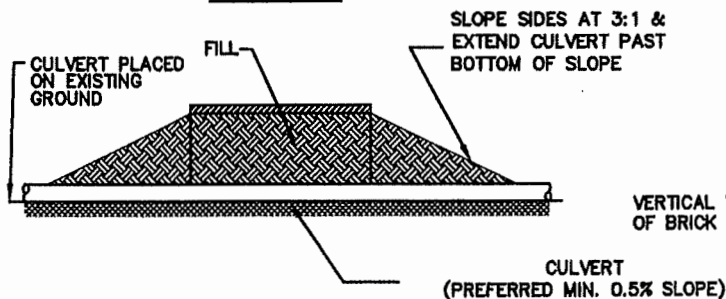
CITY OF SASKATOON
RIGHT-OF-WAY

PRIVATE
PROPERTY

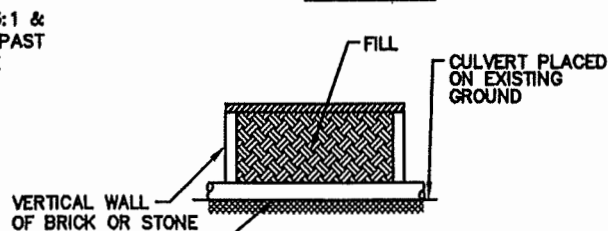


SECTION A-A

OPTION 1



OPTION 2



NOTE: 1

IF DRIVEWAY CROSSINGS ARE IN CLOSE PROXIMITY THAT DOES NOT ALLOW 3:1 SIDE SLOPE, OPTION 2 (VERTICAL SIDE WALL) SHALL BE USED.

REVISIONS

1	DIMENSIONS CHANGE, NOTES ADDED EDH 2018-03-05
2	
3	
4	

DRAWN BY MRH
DATE 2000-07-26

SCALES: HOR. NTS VERT.



**City of
Saskatoon**

Transportation & Utilities Department

STANDARD DITCH CROSSING CULVERT REQUIREMENTS

ENGINEER

ENGINEER

PLAN NO. 102-0018-009r002



Protect Saskatoon Trees

URBAN FORESTRY

Tree Protection Required When Working Near City Trees

Equipment and vehicles can injure tree trunks, break branches, tear bark, cause soil compaction or damage roots.

If you are planning any work near a City tree you are responsible for providing tree protection measures as determined

by the Urban Forestry Section of the Parks Branch.

Any unauthorized excavation, removal, relocation, pruning, or damage of City trees may result in a fine or penalty as per City Council Policy #C09-011.

Damage to City trees will be assessed on the value of the plant material as well as the cost of any removal or repairs.

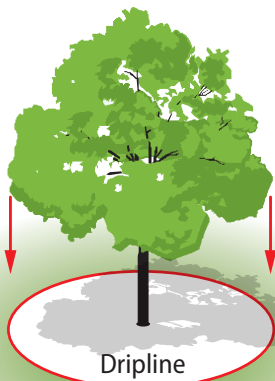
Plan Ahead - Contact Urban Forestry at **306-986-0836** before you proceed with any construction near City trees.

When working near City trees the required protective measures include the following:

Protect the tree roots

Severing tree roots, compacting soil, or changing the grade in the critical root zone of a tree can impact both the health and stability of a tree.

- You will only be permitted to excavate on one side of a tree.
- If construction takes place when soil moisture levels are high, it increases compaction within the drip zone.
- All exposed roots must be pruned with a sharp pruning tool to provide a clean severance of the root.
- Exposed roots must be protected from drying during construction and exposed roots must be backfilled as soon as possible.
- To prevent compaction 150mm (6") of woodchip mulch must be placed on any area under the drip line of a protected tree if it is not fenced off.



Provide Protective Fencing

The best way to avoid tree damage at construction sites is to set up a protective fence to act as a physical barrier to keep vehicles, equipment, and materials away from trees.

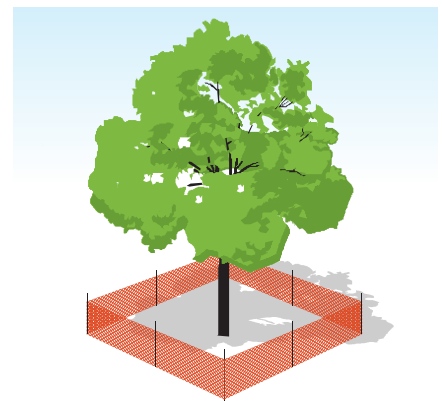
Protective fencing must be constructed of either:

- a) Solid wood frame with orange snow fencing securely stapled to the outside;
- or
- b) Snow fencing fastened securely to metal stakes spaced no more than 1 meter apart.

Protective fencing must:

- Be 1.2 meters high measured from the ground;
- Not interfere with access to fire hydrants or obscure intersections or traffic signage;
- Be sturdy with vertical posts driven firmly into the ground to keep it in place;
- Stay in good repair for the duration of the demolition or construction project.

For safety reasons an underground utility check must be completed before installing the fence to ensure you do not hit any buried utilities.



Protective Fencing

Construction of the protective fencing will be inspected and must be acceptable to Urban Forestry.

Tree Protection Zone Radius Requirements

(measured from base of tree)

Trunk Diameter @ 1.2m	Good Protection	Better Protection
1 – 20 cm	2.0 m	3.0 m
21 – 50 cm	2.5 m	4.5 m
50+ cm	3.5 m	6.5 m



City of
Saskatoon

<http://www.saskatoon.ca/go/forestry>

Contractors to be added to our Contractors List (2017)

The following list of contractors have expressed an interest in doing work for crossings and other work, and would like to be included on our list we hand out to homeowners and developers.

- 1. Dunmac General Contractors – Ryan – (306) 260-6078**
- 2. Local Asphalt Ltd. (City Concrete Ltd) – Jeton – (306) 221-7918**
- 3. Nienhuis Contractors Ltd. – Jordan – (306) 250-3308**
- 4. City Gardens Ltd. – Luke – (306) 280-6609**
- 5. Con-Tech General Contractors – Steve – (306) 250-1109**
- 6. Friesen Concrete Ltd. – Rob – (306) 229-4280**
- 7. JMF Concrete Construction – Murry – (306) 261-2346**
- 8. Contour Developments – Karl – (306) 290-6353**
- 9. Concrete Work – Vasyl Myrutenko – (306) 850-1872**
- 10. Key Concrete Services – John – (306) 716-8993**
- 11. WB Construction – Wilf – (306) 280-9681**
- 12. Rockwell Concrete – Jared – (639) 317-9506**
- 13. Bellevue Construction Inc. – Gregg – (306) 221-6998**
- 14. Mustang Concrete – Phil – (306) 880-5857**
- 15. Saskatoon Concrete Developments – Tyler – (306) 716-7687**
- 16. Quorex Construction – Rick – (306) 222-9977**
- 17. Richter Masonary – Peter – (306) 384-3301**
- 18. Highmark Foundations – Dan – (306) 220-9703**
- 19. 14 – North – Mike – (306) 341-0723**
- 20. Aberdeen Speciality Concrete – Ken – (306) 227-4491**
- 21. Newestern – Kyle – (306) 716-1315**
- 22. Mid-West Damproofing – Brad – (306) 261-0894**
- 23. Procrete Concrete Services – Kevin Balzer – (306) 290-6656**
- 24. Prairie Life Construction – Marshall – (306) 241-0694**
- 25. Little Pine Concrete – Gary – (306) 241-8933**
- 26. Scenic Land & Construction – Angelo – (306) 717-0262**
- 27. Wilco – Liam – (306) 361-4855**
- 28. Canadian Basement Replacements – Dave – (306) 270-0958**
- 29. Virtue Construction Ltd. – Billy – (306) 251-0177**
- 30. Next Level Concrete Services – Marshall – (306) 881-3732**
- 31. Bullfloat Concrete Ltd – Al – (306) 221-1113**
- 32. Conco – Mark – (306) 241-6200**
- 33. Lafarge – John Jones – (306) 221-3934**
- 34. Capital Concrete Inc. – Alex – (306) 281-2370**
- 35. MN Construction – Mark – (306) 361-3910**

PRIVATE DRIVEWAY CROSSING GUIDELINES

The following guidelines are for the installation of driveway crossings. These guidelines are to be applied in conjunction with Bylaw 4785 (The Private Crossing Bylaw), and constructed to the Construction & Design Division's specifications.

GUIDELINES

- 1) Driveway crossings require an Application and Permit. The Application is usually a part of the Building Permit on commercial and industrial properties and shall include a site plan containing information outlined in item 2). Once the driveway crossing has been approved, a Crossing Permit may be obtained from the Transportation & Utilities Division (306-986-9729).
- 2) A site plan is required with the following information:
 - a) Property lines and adjacent street curbs drawn to scale
 - b) Desired width of each crossing
 - c) Location of the crossing with relation to property lines and intersections (if on a corner lot)
 - d) Location of all City trees on the boulevard
 - e) Zoning designation of the parcel
- 3) In conjunction with the Crossing Permit, two inspections will be undertaken by City of Saskatoon, Construction & Design Inspectors. The first inspection will take place when the base and forms are in place. The second inspection will take place after the crossing has been finished. The inspections are to ensure that all driveway crossings are constructed to City of Saskatoon Standards and Specifications. Arrangement for inspections can be made by the Transportation & Utilities clerical staff once a permit has been issued (306-986-0865).
- 4) The maximum width for driveway crossings is as follows:
 - a) Residential: 6.1 metres (20')
 - b) Commercial: 10.7 metres (35')
 - c) Industrial: 12.2 metres (40')
- 5) Driveways shall not be constructed which are more than one third of the total property frontage or flankage.
- 6) For signalized intersections, the following minimum corner clearances shall be observed:
 - a) Arterials – 70 metres (230')
 - b) Collectors – 55 metres (180')
 - c) Local – 15 metres (50')
- 7) For un-signalized intersections, the following minimum corner clearances shall be observed:
 - a) Arterials – 30 metres (100')
 - b) Collectors – 20 metres (66')
 - c) Local – 15 metres (50')

- 8) The minimum distance between two driveway crossings is 3 metres.
- 9) Driveway crossings shall be constructed at least 1 metre (residential) and 3 metres (commercial and industrial) away from a property line in order to accommodate curb returns.
- 10) If a driveway crossing is requested on a roadway classified as an arterial or higher, a Traffic Impact Study may be required. High density or intense commercial developments may also require a Traffic Impact Study.
- 11) Driveway crossings which include a request for a median opening require Council approval pursuant to Policy C07-012
- 12) Shared driveway crossings between two property lines are not encouraged, but may be permitted as long as a shared driveway agreement is in place between the owners of both properties. A copy of this agreement will be required prior to the approval of any shared driveway crossing application.
- 13) Properties with lane access are encouraged to have their primary access off of the lane.
- 14) Multi-unit developments with the majority of their parking accessing the alley/lane are required to pave the lane from the parking area to the nearest street.
- 15) Driveway crossings must be at least 3.0 metres from any existing tree on City owned land. It is recommended that interested parties contact the Urban Forestry section of the Parks Division of the Community Standards department for more information.
- 16) No City owned tree may be removed to accommodate installation of a private driveway crossing.

BYLAW NO. 4785

A bylaw to regulate the installation of private crossings in the City of Saskatoon.

The Council of The City of Saskatoon enacts as follows:

1. Any owner who desires to construct a private crossing over a concrete or asphalt sidewalk, curb or boulevard for the purpose of gaining vehicular access to his property, shall by himself, or through his authorized agent, make written application to the City Engineer for a permit.
2.
 - (1) Every such application shall describe in detail the premises to which such access is desired, and shall be accompanied by a plan of the proposed crossing showing all trees, light standards, hydrants, catch basins and other civic property or works which might be affected by its installation, and shall contain such additional data as the City Engineer may require.
 - (2) The owner shall, in his application, undertake to remove the said crossing whenever required by Council to so do, and restore the sidewalk to its original conditions, or to pay the City the cost of such removal and restoration.
3. "Owner" in this bylaw shall mean either the assessed owner or the registered owner.
4.
 - (1) The City Engineer, after approving the application of the owner, may issue a permit for the construction of curb or sidewalk crossings in accordance with the following schedule:
 - (a) INTERIOR RESIDENTIAL SITE - two (2) crossings with a maximum combined total width of not more than twenty (20) feet.
 - (b) CORNER RESIDENTIAL SITE - one (1) crossing on frontage and one (1) on flankage either of which shall not be greater in width than sixteen (16) feet; or two (2) crossings either on frontage or flankage with a total combined width of not more than twenty (20) feet.
 - (c) INTERIOR COMMERCIAL SITE UP TO ONE HUNDRED (100) FEET IN FRONTAGE - One (1) twenty-five (25) foot crossing or two (2) sixteen (16) foot crossings.
 - (d) INTERIOR COMMERCIAL SITE WITH FRONTAGE OR MORE THAN ONE HUNDRED (100) FEET BUT NOT MORE THAN TWO HUNDRED (200) FEET - one (1) twenty-five (25) foot crossing and one (1) thirty-five (35) foot crossing.

- (e) CORNER COMMERCIAL SITE - two (2) crossings on the major side and one (1) crossing on the minor side wherein one of the three crossings may be up to twenty-five (25) feet wide, and the remaining two each up to twenty (20) feet wide.
 - (f) INTERIOR INDUSTRIAL SITE WITH FRONTAGE NOT EXCEEDING ONE HUNDRED AND FIFTY (150) FEET - one (1) thirty (30) foot crossing or two (2) twenty (20) foot crossings.
 - (g) INTERIOR INDUSTRIAL SITE WITH FRONTAGE GREATER THAN ONE HUNDRED AND FIFTY (150) FEET - the number of crossings may be authorized by the City Engineer according to the area and frequency of usage of property concerned, provided however that no one crossing shall have a width of greater than forty (40) feet.
 - (h) CORNER INDUSTRIAL SITE - subsections (f) and (g) apply to both frontage and/or flankage dimensions.
- (2) Notwithstanding Subsections (b), (e) and (h), no corner lot crossing shall be permissible with its outer limit a distance of less than twenty (20) feet from the intersection of the property lines except on directional crossings, in which case the inbound crossing may commence with its outer limit fifteen (15) feet from the intersection of the property lines.
 - (3) Subsection (2) does not apply to property zoned Residence R.1, R.2 and R.3 Districts under the Zoning Bylaw.
 - (4) Corner crossings on property zoned Residence R.1, R.2 and R.3 may commence at the tangent point of the curb return, and one of the crossing wings may be in the curb return.
 - (5) Applications for crossings of a greater number of a width greater than permitted by this bylaw shall be referred by the City Engineer to the Chief City Commissioner for presentation to Council, such application to be accompanied with a report from the City Engineer.
 - (6) In this section the following expressions shall mean as follows:
 - (a) INTERIOR SITE - a site which has street right-of-way on one side only.
 - (b) CORNER SITE - a site which has street right-of-way on two or more sides.
 - (c) COMMERCIAL SITE - is any piece of land in a B or M District.
 - (d) INDUSTRIAL SITE - is any piece of land that is in an I.D District.

(e) RESIDENTIAL LOT - is any piece of land in an R District.

5. In cases where the crossing is to be installed by the City, the applicant shall, prior to the commencement of the work, deposit with the City Treasurer the estimated cost thereof. Should the amount deposited prove to be less than the actual cost of the work, the owner shall pay the City the balance forthwith upon the completion of the work. If the amount deposited proves to be more than the actual cost, the excess shall be repaid to the applicant by the City Treasurer.
6. Every such crossing shall be constructed in accordance with current standard plans, specifications and profiles for standard or directional crossings on file in the office of the City Engineer.
7. Every such crossing shall when installed, be kept clean and in a good and proper state of repair, and clear of ice and snow, by the owner of the premises to which access is afforded thereby, and the City Engineer may from time to time carry out at the expense of such owner any repairs to or cleansing of the crossing that he deems necessary. In default of the owner paying to the City in advance the estimated cost of carrying out such repairs or cleansing, the City may remove the crossing forthwith and cut off access to the property thereby.
8. Bylaws No. 1881, No. 2377, No. 2502 and No. 3941 are hereby repealed.
9. This bylaw shall come into force and take effect on the day of the final passing thereof.

Read a first time this 11th day of March A.D. 1968.

Read a second time this 11th day of March A.D. 1968.

Read a third time and passed this 11th day of March A.D. 1968.

"J.B. Wedge"

Deputy Mayor

"L.A. Kreutzweiser"

City Clerk

(SEAL)