

UNDERGROUND CROSSINGS - RAILWAY

DRAWING NUMBER	SHT.	DRAWING TITLE	DWG REV.	BOM REV.
C-26-24.01	1 - 3	RAILWAY CROSSING	I / F	I
C-26-24.03	1 - 3	RAILWAY DOUBLE CROSSING	G / E	G
C-26-24.04	1 - 3	RAILWAY TRIPLE CROSSING	- / -	-

SaskPower - DISTRIBUTION STANDARDS

APPROVAL	DESIGN CHK	DRN. LM	INDEX
L MOEN	B GEBHART	CHKD. BG	
		2022-06-08	
DATE OF ISSUE: 2022-08-15		DRAWING NO: C-26-24-INDEX	SHEET 1 of 1 REV. N

CROSSING SPECIFICATIONS

1. A DETAILED RAILWAY CROSSING DRAWING MUST BE SUBMITTED TO AND APPROVAL OBTAINED FROM THE APPROPRIATE RAILWAY AUTHORITY PRIOR TO ANY DIGGING OR CONSTRUCTION OCCURRING. REQUESTS FOR APPROVAL ARE TO BE ROUTED THROUGH THE APPROPRIATE SASKPOWER REGIONAL OFFICE AT LEAST SIX WEEKS PRIOR TO CONSTRUCTION. THE APPROPRIATE SASKPOWER REGION'S CONSTRUCTION/OPERATING SUPERVISOR SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
2. STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 4.80mm (0.189") ARE TO BE INSTALLED BELOW EACH OTHER, 0.3 m APART, UNDER THE RAIL BED WITH THE TOP OF THE PIPE AT A DEPTH OF AT LEAST 1.68 m BELOW THE RAIL BED AND 1.0 m BELOW THE LOWEST POINT OF EITHER SIDE OF THE RIGHT-OF-WAY. THE PIPES SHALL EXTEND ACROSS THE ENTIRE RIGHT-OF-WAY.
3. IN ORDER TO PREVENT DAMAGE TO THE CABLE DURING PULLING OR GROUND SETTLING, HDPE OR PVC DUCT IS REQUIRED. THE DUCT IS PLACED INSIDE OF AND PROJECTS 150mm (6") BEYOND THE ENDS OF THE STEEL PIPE. THE DUCT SHALL BE SEALED TO THE CABLE AT BOTH ENDS WITH PUTTY AND ELECTRICAL VINYL TAPE.
4. ON THE CROSSING DRAWING, FROM THE CROSSING POINT, GIVE A TIE DIMENSION ALONG THE TRACK TO ONE OF THE FOLLOWING: CENTER OF ROAD ALLOWANCE, 1/4 SECTION LINE, TOWN STREET OR BLOCK, OR RAILWAY SWITCH.
5. THE CABLE SHALL CROSS THE RAILWAY AT AN ANGLE OF 90° WHEREVER POSSIBLE. THE CROSSING IS TO BE THROUGH THE SHORTEST PART OF THE RIGHT-OF-WAY. PARALLELING IN THE RIGHT-OF-WAY SHALL BE AVOIDED.
6. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE INDICATED.
7. INDICATE PERTINENT DIMENSIONS ON CROSSING PROFILE.
8. UNDER NO CIRCUMSTANCES SHALL CABLE BE DIRECT BURIED WITHIN 7.5 m OF THE CENTRELINE OF RAIL TRACKS.
9. THE INSTALLATION OF DUCT PARALLEL TO RAILWAY RIGHT-OF-WAY SHALL BE LOCATED AS FAR AS POSSIBLE FROM TRACKS OR OTHER ESSENTIAL STRUCTURES. IN CASES WHERE DUCT IS INSTALLED WITHIN 7.5 m FROM THE CENTRELINE OF THE TRACKS, IT SHALL BE ENCLOSED IN CASING PIPE ACCORDING TO CSA C22.3 NO.7 SECTION 11.

SaskPower - DISTRIBUTION STANDARDS				
	APPROVAL	DESIGN CHK	DRN. OFF	RAILWAY CROSSING
	L MOEN	O FRANCIS	CHKD. LM	
			2020-11-02	
	DATE OF ISSUE:	2021-01-20	DRAWING NO: C-26-24.01	SHEET 1 of 3
				REV. I

BILL OF MATERIAL

ITEM NO.	CODE NO.	QUANTITY			DESCRIPTION
		A	B	C	
1	2 65 4X	--	4	--	SLEEVE – COMPRESSION AL
2	2 68 XX	1	--	3	SPLICE – PRIMARY CABLE
3	2 68 XX	1	--	3	SPLICE – COVER PRIMARY JACKET
4	2 68 XX	--	4	--	SPLICE – COVER SECONDARY INSULATION
5	5 12 XX	1	--	3	CRIMPIT – CU
6	70 31 45	1	1	1	DUXSEAL
7	70 45 05	--	5	5	PIPE, PVC 5" (20 FT LENGTHS) – SEE NOTE 4
8	70 85 02	100'	--	--	CONDUIT, HDPE 2"
9	71 35 00	1	--	3	KIT – CABLE PREPARATION
10	01 433 722	30 m	--	--	STEEL PIPE – 3 ½" (MIN. W.T. 0.189")
11	01 433 728	--	30 m	30 m	STEEL PIPE – 8" (MIN. W.T. 0.189") – SEE NOTE 4

NOTE:

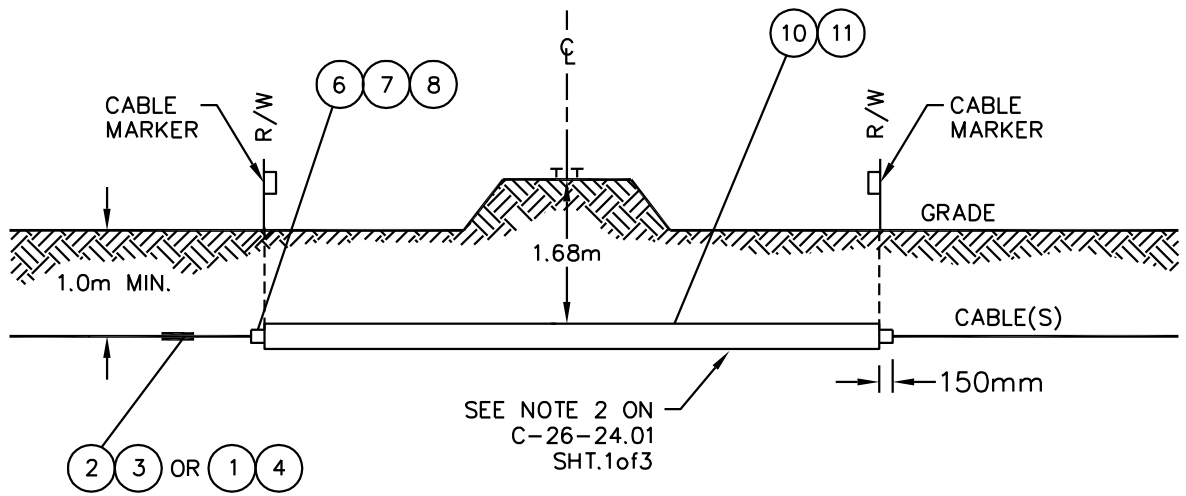
1. COLUMN A IS FOR A SINGLE-PHASE PRIMARY JACKETED CONCENTRIC NEUTRAL CABLE.
2. COLUMN B IS FOR A 4-WIRE SECONDARY CABLE. MATERIAL DEFAULTS TO 5" PVC PIPE WITH 8" STEEL PIPE. IF CABLE SIZE PERMITS, 30m OF 2" HDPE CONDUIT WITH 30m OF 3 ½" STEEL PIPE CAN BE USED INSTEAD.
3. COLUMN C IS FOR THREE PRIMARY JACKETED CONCENTRIC NEUTRAL CABLES.
4. IF CABLE SIZE PERMITS, 4" PVC DUCT (704504) INSIDE 6" STEEL PIPE (1433726) MAY BE USED AS AN ALTERNATIVE.

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SaskPower - DISTRIBUTION STANDARDS

APPROVAL	DESIGN CHK	DRN. ARU	RAILWAY CROSSING
L. MOEN	A. UHREN	CHKD.	
		2017-03-16	
DATE OF ISSUE: 2017/05/03		DRAWING NO. C-26-24.01	SHEET 2 OF 3 REV. I

CROSSING PROFILE



NOTE:

1. FOR CABLE MARKER SEE B-30-15

SCALE: N.T.S.

SaskPower – DISTRIBUTION STANDARDS				
APPROVAL L.MOEN	DESIGN CHK. Q.SUN	DRN. E.GOTANA CHKD.	RAILWAY CROSSING	
		2018-04-05		
DATE OF ISSUE	2018-06-07	DRAWING NO. C-26-24.01	SHEET 3 of 3	REV. F

CROSSING SPECIFICATIONS

1. A DETAILED RAILWAY CROSSING DRAWING MUST BE SUBMITTED TO AND APPROVAL OBTAINED FROM THE APPROPRIATE RAILWAY AUTHORITY PRIOR TO ANY DIGGING OR CONSTRUCTION OCCURRING. REQUESTS FOR APPROVAL ARE TO BE ROUTED THROUGH THE APPROPRIATE SASKPOWER REGIONAL OFFICE AT LEAST SIX WEEKS PRIOR TO CONSTRUCTION. THE APPROPRIATE SASKPOWER REGION'S CONSTRUCTION/OPERATING SUPERVISOR SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
2. TWO STEEL PIPES WITH A MINIMUM WALL THICKNESS OF 4.80mm (0.189") ARE TO BE INSTALLED BESIDE EACH OTHER, 0.3 METERS APART, UNDER THE RAIL BED WITH THE TOP OF THE PIPE AT A DEPTH OF AT LEAST 1.37 METERS BELOW THE RAIL BED AND 1.0 METER BELOW THE LOWEST POINT OF EITHER SIDE OF THE RIGHT-OF-WAY. THE PIPES SHALL EXTEND ACROSS THE ENTIRE RIGHT-OF-WAY.
3. IN ORDER TO PREVENT DAMAGE TO THE CABLE DURING PULLING OR GROUND SETTling, HDPE OR PVC DUCT IS REQUIRED. THE DUCT IS PLACED INSIDE OF AND PROJECTS 150mm (6") BEYOND THE ENDS OF THE STEEL PIPE. THE DUCT SHALL BE SEALED TO THE CABLE AT BOTH ENDS WITH PUTTY AND ELECTRICAL VINYL TAPE.
4. ON THE CROSSING DRAWING, FROM THE CROSSING POINT, GIVE A TIE DIMENSION ALONG THE TRACK TO ONE OF THE FOLLOWING: CENTER OF ROAD ALLOWANCE, 1/4 SECTION LINE, TOWN STREET OR BLOCK, OR RAILWAY SWITCH.
5. THE CABLE SHALL CROSS THE RAILWAY AT AN ANGLE OF 90° WHEREVER POSSIBLE. THE CROSSING IS TO BE THROUGH THE SHORTEST PART OF THE RIGHT-OF-WAY. PARALLELING IN THE RIGHT-OF-WAY SHALL BE AVOIDED.
6. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE INDICATED.
7. INDICATE PERTINENT DIMENSIONS ON CROSSING PROFILE.
8. UNDER NO CIRCUMSTANCES SHALL CABLE BE DIRECT BURIED WITHIN 7.5 m OF THE CENTRELINE OF RAIL TRACKS.
9. THE INSTALLATION OF DUCT PARALLEL TO RAILWAY RIGHT-OF-WAY SHALL BE LOCATED AS FAR AS POSSIBLE FROM TRACKS OR OTHER ESSENTIAL STRUCTURES. IN CASES WHERE DUCT IS INSTALLED WITHIN 7.5 m FROM THE CENTRELINE OF THE TRACKS, IT SHALL BE ENCLOSED IN CASING PIPE ACCORDING TO CSA C22.3 NO.7 SECTION 11.

SaskPower - DISTRIBUTION STANDARDS				
APPROVAL	DESIGN CHK	DRN. OFF	RAILWAY DOUBLE CROSSING	
L MOEN	O FRANCIS	CHKD. LM		
		2020-11-02		
DATE OF ISSUE:	2021-01-20	DRAWING NO:	C-26-24.03	SHEET 1 of 3
				REV. G

BILL OF MATERIAL

ITEM NO.	CODE NO.	QUANTITY			DESCRIPTION
		A	B	C	
1	2 65 4X	8	--	--	SLEEVE – COMPRESSION AL
2	2 68 XX	--	2	6	SPLICE – PRIMARY CABLE
3	2 68 XX	8	--	--	SPLICE – COVER SECONDARY INSULATION
4	2 68 XX	--	2	6	SPLICE – COVER PRIMARY JACKET
5	5 12 XX	--	2	6	CRIMPIT – CU
6	70 31 45	2	2	2	DUXSEAL
7	70 45 05	10	--	10	PIPE, PVC 5" (20 FT LENGTHS) – SEE NOTE 4
8	70 85 02	--	200'	--	CONDUIT, HDPE 2"
9	71 35 00	--	2	6	KIT – CABLE PREPARATION
10	01 433 722	--	60m	--	STEEL PIPE – 3 ½" (MIN. W.T. 0.189")
11	01 433 728	60m	--	60m	STEEL PIPE – 8" (MIN. W.T. 0.189") – SEE NOTE 4

NOTE:

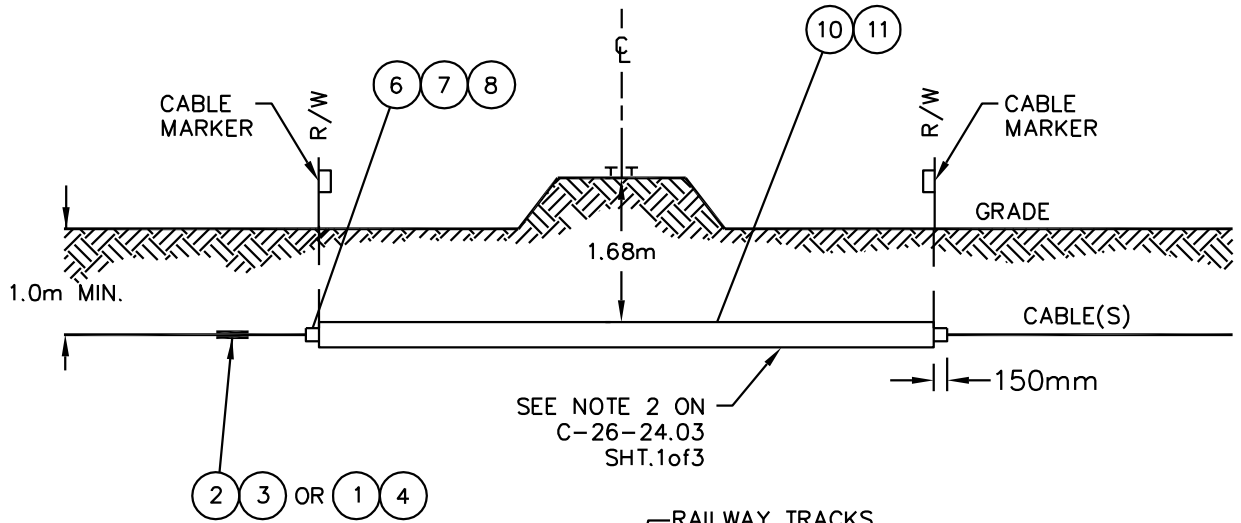
1. COLUMN A IS FOR TWO RUNS OF 4-WIRE SECONDARY CABLES. MATERIAL DEFAULTS TO 5" PVC PIPE WITH 8" STEEL PIPE. IF CABLE SIZE PERMITS, 2 x 30m RUNS OF 2" HDPE CONDUIT WITH 30m OF 6" STEEL PIPE (1433726) CAN BE USED INSTEAD, BY RUNNING BOTH CONDUITS IN ONE CASING PIPE. REFER TO SHEET 3 FOR INSTALLATION DETAILS.
2. COLUMN B IS FOR TWO RUNS OF SINGLE PHASE PRIMARY JACKETED CONCENTRIC NEUTRAL CABLES.
3. COLUMN C IS FOR TWO RUNS OF THREE PRIMARY JACKETED CONCENTRIC NEUTRAL CABLES. (2 - 3Ø PRIMARY CIRCUITS)
4. IF CABLE SIZE PERMITS, 4" PVC DUCT (704504) INSIDE 6" STEEL PIPE (1433726) MAY BE USED AS AN ALTERNATIVE.

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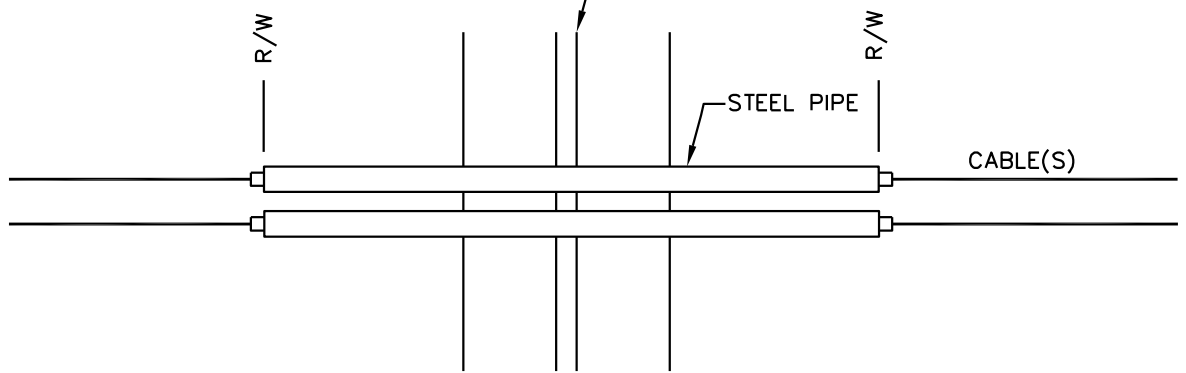
SaskPower - DISTRIBUTION STANDARDS

APPROVAL	DESIGN CHK	DRN. ARU	RAILWAY DOUBLE CROSSING
L. MOEN	A. UHREN	CHKD.	
		2017-03-16	
DATE OF ISSUE: 2017/05/03		DRAWING NO. C-26-24.03	SHEET 2 OF 3 REV. G

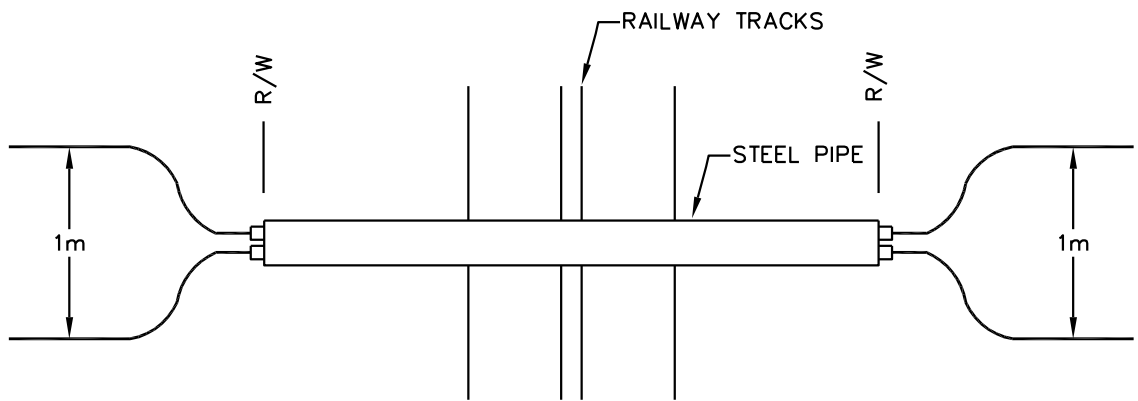
CROSSING PROFILE



RAILWAY TRACKS



OVERHEAD VIEW



TWO CONDUITS IN ONE CASING PIPE

NOTE:

1. FOR CABLE MARKER SEE B-30-15

SCALE: N.T.S.

SaskPower – DISTRIBUTION STANDARDS				
APPROVAL L.MOEN	DESIGN CHK. Q.SUN	DRN. E.GOTANA CHKD. 2018-04-05	RAILWAY DOUBLE CROSSING	
DATE OF ISSUE	2018-06-07	DRAWING NO. C-26-24.03	SHEET 3 of 3	REV. E

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CROSSING SPECIFICATIONS

1. A DETAILED RAILWAY CROSSING DRAWING MUST BE SUBMITTED TO AND APPROVAL OBTAINED FROM THE APPROPRIATE RAILWAY AUTHORITY PRIOR TO ANY DIGGING OR CONSTRUCTION OCCURRING. REQUESTS FOR APPROVAL ARE TO BE ROUTED THROUGH THE APPROPRIATE SASKPOWER REGIONAL OFFICE AT LEAST SIX WEEKS PRIOR TO CONSTRUCTION. THE APPROPRIATE SASKPOWER REGION'S CONSTRUCTION/OPERATING SUPERVISOR SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO CONSTRUCTION.
2. THREE STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 4.80mm (0.189") ARE TO BE INSTALLED BESIDE EACH OTHER, 1 m APART, UNDER THE RAIL BED WITH THE TOP OF THE PIPE AT A DEPTH OF AT LEAST 1.68 m BELOW THE RAIL BED AND 1.0 m BELOW THE LOWEST POINT OF EITHER SIDE OF THE RIGHT-OF-WAY. THE PIPES SHALL EXTEND ACROSS THE ENTIRE RIGHT-OF-WAY.
3. IN ORDER TO PREVENT DAMAGE TO THE CABLE DURING PULLING OR GROUND SETTLING, HDPE OR PVC DUCT IS REQUIRED. THE DUCT IS PLACED INSIDE OF AND PROJECTS 150mm (6") BEYOND THE ENDS OF THE STEEL PIPE. THE DUCT SHALL BE SEALED TO THE CABLE AT BOTH ENDS WITH PUTTY AND ELECTRICAL VINYL TAPE.
4. ON THE CROSSING DRAWING, FROM THE CROSSING POINT, GIVE A TIE DIMENSION ALONG THE TRACK TO ONE OF THE FOLLOWING: CENTER OF ROAD ALLOWANCE, 1/4 SECTION LINE, TOWN STREET OR BLOCK, OR RAILWAY SWITCH.
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SaskPower - DISTRIBUTION STANDARDS				
APPROVAL	DESIGN CHK	DRN. YP	RAILWAY TRIPLE CROSSING	
L MOEN	Y PATEL	CHKD. LM		
		2022/04/25		
DATE OF ISSUE: 2022-08-15		DRAWING NO: C-26-24.04		SHEET 1 of 3 REV. -

BILL OF MATERIAL

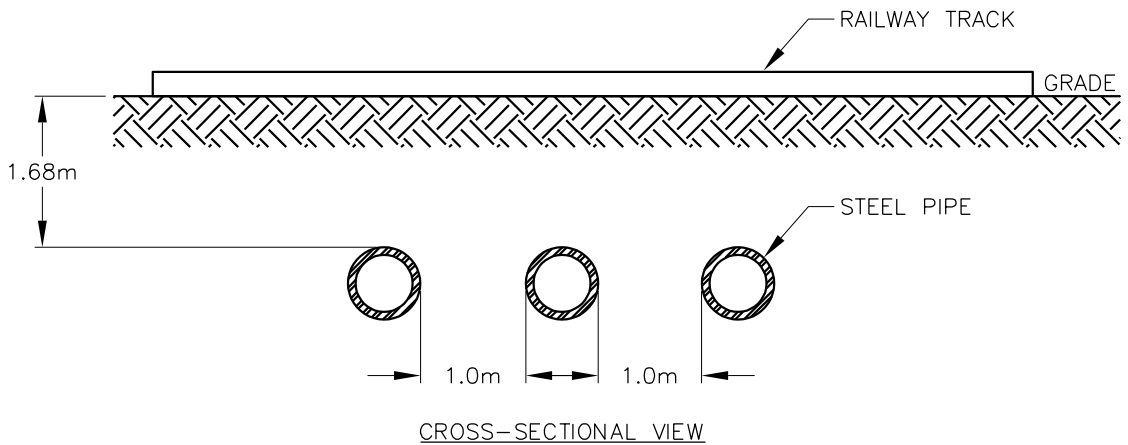
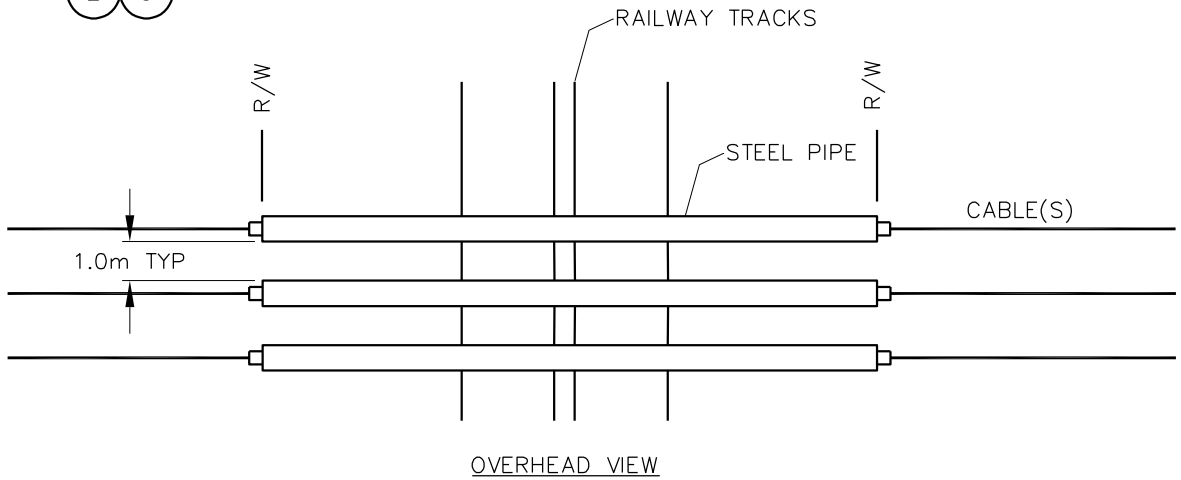
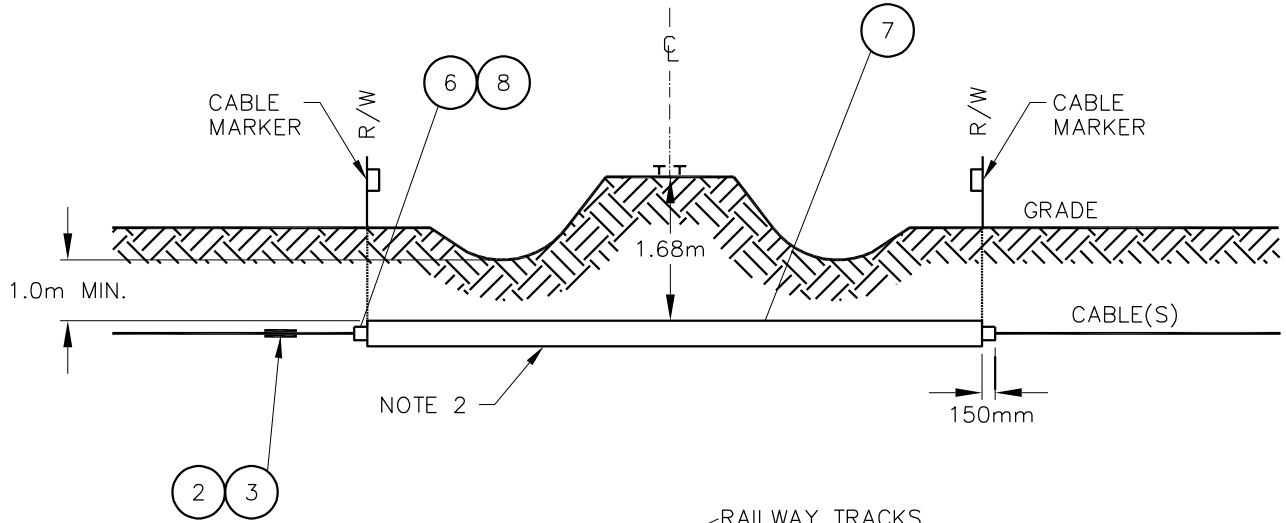
ITEM NO.	CODE NO.	QUANTITY	DESCRIPTION
1	2 68 XX	3	SPLICE – PRIMARY CABLE
2	2 68 XX	3	SPLICE COVER – PRIMARY – JACKET
3	5 12 XX	3	CRIMPIT – CU
4	70 31 45	1	DUXSEAL
5	70 43 13	15	CONDUIT – 3” – 20’ LENGTHS
6	71 35 00	3	KIT – CABLE PREPARATION
7	01 433 725	90 m	STEEL PIPE – 5" (MIN. W.T. 0.258")

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SaskPower - DISTRIBUTION STANDARDS

APPROVAL	DESIGN CHK	DRN. YP	RAILWAY TRIPLE CROSSING
L MOEN	Y PATEL	CHKD. LM	
		2022/04/25	
DATE OF ISSUE: 2022-08-15	DRAWING NO: C-26-24.04	SHEET 2 OF 3	REV. -

CROSSING PROFILE



NOTES:

1. FOR CABLE MARKER SEE B-30-15
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED.

SCALE: N.T.S.

SaskPower – DISTRIBUTION STANDARDS				
APPROVAL	DESIGN CHK.	DRN.D.REDEKOPP	RAILWAY TRIPLE CROSSING	
L.MOEN	Y.PATEL	CHKD.		
		2022-05-13		
DATE OF ISSUE	2022-08-15	DRAWING NO.	C-26-24-04	SHEET 3 of 3
				REV. -

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