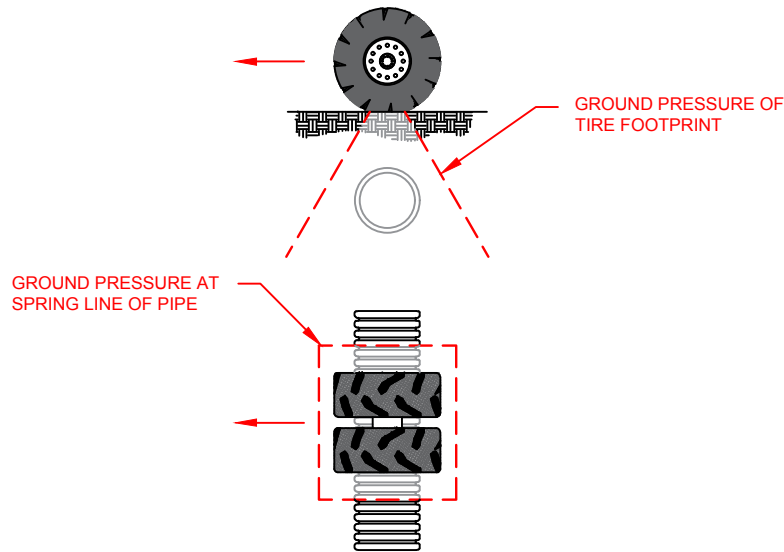
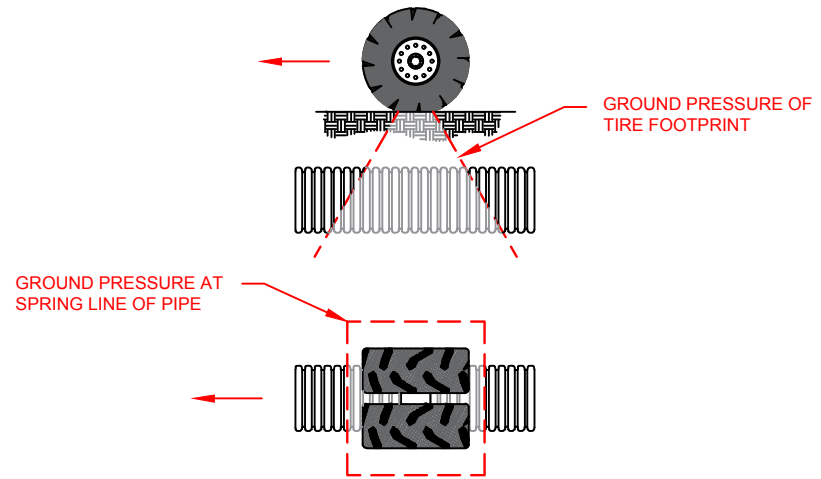


**PIPE PERPENDICULAR TO TRAFFIC DIRECTION**



**PIPE PARALLEL TO TRAFFIC DIRECTION**



**NOTES:**

1. MINIMUM COVER HEIGHTS ARE BASED ON LIVE LOADING CALCULATIONS PER AASHTO LRFD SECTION 12. VEHICLE LOADS ARE BASED UPON DRIVING OVER THE PIPE WHILE NOT PERFORMING OPERATIONAL TASKS.
2. COVER HEIGHTS DO NOT TAKE INTO CONSIDERATION POTENTIAL RUTTING OF DRIVE SURFACE. BACKFILL MATERIAL IS ASSUMED FULLY COMPACTED TO SURFACE.
3. IF MINIMUM COVER CANNOT BE ACHIEVED, IT IS RECOMMENDED TO PERFORM PERIODIC DEFLECTION EVALUATIONS TO ENSURE PIPE ROUNDNESS. THE USE OF STEEL PLATES, MOUNDING, OR TEMPORARY FILL MAY BE REQUIRED TO DISTRIBUTE VEHICLE LOADING.
4. CONTACT YOUR LOCAL ADS REPRESENTATIVE WHEN VEHICLES ENCOUNTERED IN THE FIELD EXCEED THE MAXIMUM LOADINGS INCLUDED IN THE TABLE. VEHICLES LISTED IN THE TABLE ARE FOR REFERENCE AND COMPARISON PURPOSES.
5. REFER TO STANDARD STD-101D & STD-101F FOR RECOMMENDED INSTALLATION PRACTICES.

VECHICLE	VEHICLE DESCRIPTION	MINIMUM TIRE	SINGLE AXLE LOAD lbs.	PIPE DIAMETER	TEMPORARY MINIMUM COVER HEIGHTS	
					CLASS I COMPACTED	CLASS II @ 95% SPD
FORD F150	PICKUP TRUCK (GWVR)	P275/55R20	7,450 (3379kg)	12"- 48" * (300mm-1200mm)*	3" (76mm)	3" (76mm)
CHEVY 3500	UTILITY TRUCK (GWVR)	235/80-17	13,200 (5987kg)	12"- 48" (300mm-1200mm)	6" (152mm)	6" (152mm)
				60" (1500mm)	6" (152mm)	9" (229mm)
CAT CS78B	DRUM ROLLER	84" SMOOTH DRUM ROLLER	29,626 (13438kg)	12"- 48" (300mm-1200mm)	9" (229mm)	9" (229mm)
				60" (1500mm)	9" (229mm)	12" (305mm)
CAT 637G	SCRAPER	37.25-35	102,145 (46332kg)	12"- 60" (300mm-1500mm)	12" (305mm)	15" (381mm)
KOMATSU WA800-3	MEDIUM LOADER	45/65-45	158,270 (71790kg)	12"- 60" (300mm-1500mm)	15" (381mm)	18" (457mm)
CAT 993K	LARGE LOADER	50/65-51	276,808 (125558kg)	12"- 15" (300mm-375mm)	18" (457mm)	21" (533mm)
				18"- 60" (450mm-1500mm)	21" (533mm)	24" (610mm)
CAT 789D	MINING TRUCK	37.00-R57	479,050 (217293kg)	12"-18" (300mm-450mm)	24" (610mm)	37" (940mm)
				21"-60" (525mm-1500mm)	27" (686mm)	30" (762mm)

\* COVER OVER 60" (1500mm) PIPE SHOULD BE NO LESS THAN 6" (152mm)

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REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

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**SINGLE AXLE VEHICLE TEMPORARY MINIMUM COVER (HP)**

DRAWING NUMBER: STD-111D



4640 TRUEMAN BLVD  
HILLIARD, OHIO 43026

DRAWN BY	CMF
DATE	2/19/2016
CHECKED BY	
SCALE	NTS
SHEET	1 OF 1