

FIGURE 1: EXAMPLE AIRCRAFT W/ SUBGRADE CROSS SECTION

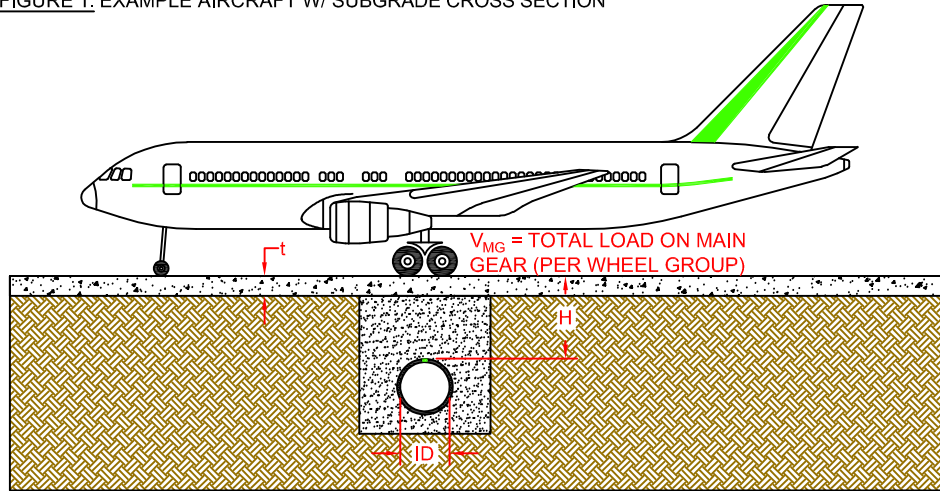


FIGURE 2A:  
BOEING 737 LANDING GEAR  
(1X2 WHEEL GROUP)

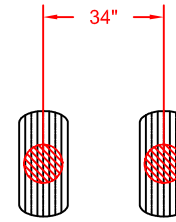


FIGURE 2B:  
BOEING 757 LANDING GEAR  
(2X2 WHEEL GROUP)

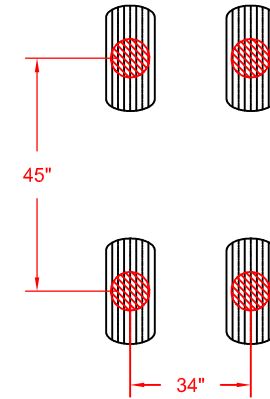


TABLE 1

MIN RECOMMENDED COVER (H) FOR TYPICAL AIRCRAFT LOADING	
INSIDE DIAMETER (ID)	COVER (H)
12"- 36" (300mm-900mm)	24" (610mm)
42"-60" (1050mm-1500mm)	36" (914mm)

NOTES:

1. THIS DETAIL IS INTENDED TO PRESENT MAX LOADS ABLE TO BE APPLIED TO LANDING GEAR CONFIGURATIONS AT MINIMUM ALLOWABLE COVER. ALTERNATE GEAR CONFIGURATIONS NOT ADDRESSED WITHIN MAY REQUIRE ADDITIONAL COVER. PLEASE CONTACT YOUR LOCAL ADS REPRESENTATIVE FOR GEAR CONFIGURATIONS NOT COVERED BY THE SCENARIOS ON THIS DETAIL.
2. SUITABLE BACKFILL MATERIAL SHALL BE CLASS I COMPACTED OR CLASS II AT 95% SPD PER ASTM D2321. REFER TO ADS STANDARD DETAIL STD-101H FOR RECOMMENDED INSTALLATION PRACTICES.
3. CALCULATIONS ASSUME A MODULUS OF SUBGRADE REACTION OF 300PSI/IN BELOW THE PAVEMENT LAYER, WITH A MINIMUM COVER REFLECTED IN TABLE 1 & BACKFILL MATERIAL REFLECTED IN NOTE 2.
4. MINIMUM COVER & ASSOCIATED LOAD LIMITS IN THIS DETAIL ARE BASED ON PRODUCT STRUCTURAL CAPACITY PER AASHTO LRFD. THESE RECOMMENDATIONS DO NOT INCLUDE ASSESSMENT OF THE OVERLYING PAVEMENT LAYER.
5. DIFFERENT PAVEMENT TYPES ARE REFERENCED IN TABLES 2A & 2B. RIGID PAVEMENT CAN BE CONSIDERED A PORTLAND CEMENT CONCRETE OR ANY OTHER MATERIAL RESISTANT TO FLEXURE. HMA REFERS TO HOT-MIX ASPHALT, WHICH IS COMMONLY RECOGNIZED AS A FLEXIBLE PAVEMENT.

TABLE 2A

MAX LOAD ( $V_{MG}$ ) WITH MIN COVER FOR <u>1X2 WHEEL GROUP</u> - lb(kg)			
PAVEMENT (t)	12"-36" Nominal ID	42"-60" Nominal ID	
4" RIGID	115,900 (101,814)	169,600	(76,916)
8" RIGID	224,500 (101,814)	277,400	(125,805)
12" RIGID	361,900 (164,127)	420,500	(190,702)
12" FLEXIBLE	255,700 (115,963)	306,400	(138,956)
16" FLEXIBLE	361,100 (163,764)	417,500	(189,342)

TABLE 2B

MAX LOAD ( $V_{MG}$ ) WITH MIN COVER FOR <u>2X2 WHEEL GROUP</u> - lb(kg)			
PAVEMENT (t)	12"-36" Nominal ID	42"-60" Nominal ID	
4" RIGID	168,000 (76,190)	215,200	(97,596)
8" RIGID	268,800 (121,904)	321,100	(145,623)
12" RIGID	404,900 (183,628)	463,200	(210,068)
12" FLEXIBLE	299,500 (135,827)	350,200	(158,820)
16" FLEXIBLE	404,600 (183,492)	460,200	(208,707)

© 2022 ADS, INC.

4	LENGTHENED TABLE COLUMNS	BSW	06-24-22	SDL
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

**MIN COVER FOR AIRCRAFT LOADS  
(HP STORM)**

DRAWING NUMBER: STD-111G



1640 TRUEMAN BLVD  
HILLIARD, OHIO 43026

DRAWN BY:	CMF
DATE:	02-19-2016
SCALE:	NTS
SHEET:	1 OF 1