

GENERAL NOTES AND DESIGN ASSUMPTIONS FOR CAST-IN-PLACE FAA HANDHOLES

1. THE TYPICAL INSIDE CLEAR DIMENSIONS FOR HH SHALL BE AS FOLLOWS:
HH: 4'W x 4'L X 4'H
2. STRUCTURES DESIGNED TO SUPPORT HS20 LOADING ARE TO BE INSTALLED WITHIN LANDSIDE AND AREAS OUTSIDE THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA).
3. STRUCTURES DESIGNED TO SUPPORT AIRCRAFT LOADS ARE TO BE INSTALLED WITHIN THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY (TSA).
3. IF THE CONTRACTOR OPTS TO USE PRECAST HANDHOLES, THE CONTRACTOR MUST SUBMIT STRUCTURAL DESIGN CALCULATIONS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS, TO VERIFY THAT THE STRUCTURES CAN SUPPORT THE APPROPRIATE LOADING USING THE FOLLOWING DESIGN CRITERIA:
- STRUCTURES DESIGNED TO SUPPORT HS20 LOADING:
A. EXCEPT AS NOTED, MINIMUM COMPRESSIVE STRENGTH FOR FAA ELECTRICAL HANDHOLE
f'c = 4,000 psi @ 28 DAYS
B. REINFORCEMENT: fy = 60,000 psi (ASTM A615)
C. IF SOIL BORING DATA NOT AVAILABLE, ASSUME ALLOWABLE SOIL BEARING CAPACITY = 2 ksf
REFERENCE: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002 THROUGH CURRENT INTERIMS
LOADING: LIVE LOAD HS20
- STRUCTURES DESIGNED TO SUPPORT AIRCRAFT LOADING:
A. EXCEPT AS NOTED, MINIMUM COMPRESSIVE STRENGTH FOR FAA ELECTRICAL HANDHOLE
f'c = 4,000 psi @ 28 DAYS
B. REINFORCEMENT: fy = 60,000 psi (ASTM A615)
C. IF SOIL BORING DATA NOT AVAILABLE, ASSUME ALLOWABLE SOIL BEARING CAPACITY = 2 ksf
REFERENCE: FAA AC 150/5320-6 (LATEST VERSION) APPENDIX 3 - DESIGN OF STRUCTURES FOR HEAVY AIRCRAFT
LOADING: BOEING 747-400ER
MAIN GEAR MAXIMUM LOAD/STRUR = 213,600 lbs
MANHOLE COVER = 100,000 lbs/WHEEL LOAD
- THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS DETAILING ALL CONNECTIONS AND INSERTS TO BE CAST IN THE STRUCTURE TO INCLUDE AMONG OTHERS, DRAIN PIPE, MH/HH FRAME AND COVER, GROUND ROD SLEEVE, PULL IRON, KNOCK-OUTS FOR DUCT BANKS, ETC.
4. FAA HANDHOLE FRAME AND COVER TO BE SQUARE, SPRING ASSIST, DUCTILE IRON, HINGED WITH A CLEAR OPENING OF 30" X 30". PROVIDE LID WITH ONE LIFT HANDLE AND TWO STAINLESS STEEL LOCKING BOLTS. THE FRAME MUST BE CAST INTO THE TOP SLAB WITHIN THE AIRCRAFT OPERATION AREA (AOA). USE 100,000 LB. RATED FRAME AND COVER LID WITH 2" HIGH LETTERS. CAST LETTERING FOR EACH HANDHOLE LID MUST BE CONFIRMED WITH CDA AND FAA, PER NOTE 4 IN THE "NOTES REQUIRING SPECIAL ATTENTION" SHOWN ON THIS SHEET. REFER TO SPECIFICATION L-115 FOR MORE INFORMATION.

ABBREVIATIONS:

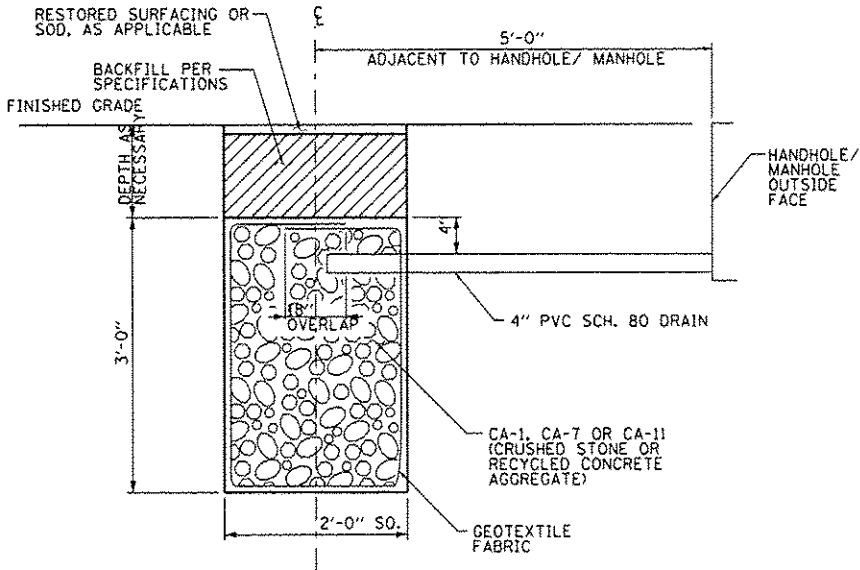
AASHTO = AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
A/E = ARCHITECT/ ENGINEER
B = BOTTOM
CED = COMMON ELECTRICAL DUCTBANK
CL = CLEARANCE
E.F. = EACH FACE
E.W. = EACH WAY
FAA = FEDERAL AVIATION ADMINISTRATION
HH = HANDHOLE

MH = MANHOLE
N.T.S. = NOT TO SCALE
RSA = RUNWAY SAFETY AREA
SCH. = SCHEDULE
SQ = SQUARE
T = TOP
TSA = TAXIWAY SAFETY AREA
TYP. = TYPICAL

W = WIDTH, L = LENGTH, H =HEIGHT

NOTES REQUIRING SPECIAL ATTENTION FOR FAA HANDHOLES

1. THE FOLLOWING NOTES ARE INCLUDED HERE FOR EMPHASIS ONLY. FURTHER INFORMATION ON THESE AND OTHER REQUIREMENTS ARE DETAILED IN THE TECHNICAL SPECIFICATIONS. CONTRACTOR MUST COMPLY WITH ALL CDA TECHNICAL SPECIFICATIONS.
2. CONTRACTOR MUST REPLACE HANDHOLE/MANHOLE COVERS FOR EXISTING AT&T STRUCTURES THAT WILL BE UTILIZED FOR RELOCATED FOTS LOOP 3. NEW COVERS MUST BE SAME AS EXISTING, HOWEVER NOMENCLATURE FOR THESE NEW COVERS MUST BE COORDINATED IN ADVANCE WITH CDA. PAYMENT FOR THIS PORTION OF THE WORK WILL BE INCLUDED IN THE CONTRACT COST.
3. CONTRACTOR MUST REPLACE HANDHOLE/MANHOLE COVERS FOR EXISTING FAA STRUCTURES THAT WILL BE UTILIZED FOR RELOCATED FOTS LOOP 3. NEW COVERS MUST BE SAME AS EXISTING, HOWEVER NOMENCLATURE FOR THESE NEW COVERS MUST BE COORDINATED IN ADVANCE WITH CDA. PAYMENT FOR THIS PORTION OF THE WORK WILL BE INCLUDED IN THE CONTRACT COST.
4. CONTRACTOR MUST PROVIDE A REMOVABLE STAINLESS STEEL OR CAST IRON GRATE COVER FOR DRAIN, IN ACCORDANCE WITH SPECIFICATION SECTION L-115.
5. CONTRACTOR MUST SUBMIT HANDHOLE GROUNDING DETAILS, SHOWING HOW ALL FRAMES AND COVERS WILL BE GROUNDED AND VERIFYING COMPLIANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTION L-115.
6. CONTRACTOR MUST SUBMIT SHOP DRAWINGS SHOWING THE NOMENCLATURE FOR HANDHOLE/MANHOLE COVERS THAT CONTAIN FAA CABLES.
7. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR EPOXY CONCRETE ADHESIVES TO VERIFY THEY MEET SECTION 1025.01 OF IDOT'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, IN ACCORDANCE WITH SPECIFICATION SECTION L-115.
8. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR CABLE RACKING APPURTENANCES.
9. CONTRACTOR MUST PROVIDE HH/MH CHECKLISTS, IN ACCORDANCE WITH SPECIFICATION SECTION L-118, INCLUDING PICTURES OF EACH WALL WITHIN THE HANDHOLEH/MANHOLE.
- 10.CONTRACTOR CAN NOT AND MUST NOT INSTALL HANDHOLE/MANHOLE STRUCTURES DESIGNED FOR HS20 LOADING WITHIN THE RSA OR TSA.



TYPICAL FRENCH DRAIN DETAIL

ADDED SHEET
FAA-46

HNTB

USER NAME = mkoair	DESIGNED SJM	REVISED -
	DRAWN SJM	REVISED -
PLOT SCALE = 2:1	CHECKED SPG	REVISED -
PLOT DATE = 26-DEC-2012	DATE	REVISED 12/28/12 ADDENDUM 1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAA
HANDHOLE GENERAL NOTES AND
FRENCH DRAIN DETAIL

SCALE: N.T.S. SHEET NO. 1 OF 5 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	0105 WRS&HB	COOK	605	605AT
CONTRACT NO. 60G37				
ILLINOIS FED. AID PROJECT				