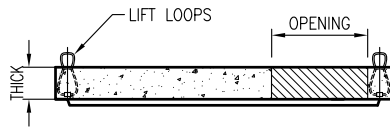


## GENERAL DESIGN NOTES:

- STRENGTH DESIGN METHOD IN ACCORDANCE WITH (I.A.W.) ACI 318.
- APPLICABLE DESIGN DOCUMENTS (CURRENT EDITIONS):
  - NCDOT STANDARD DRAWING # 840.45 (WAFFLE/NON - TRAFFIC RATED) OR # 840.46(SOLID / TRAFFIC RATED).
  - ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (MAIN DESIGN SPECIFICATION).
  - ASTM C890 STANDARD PRACTICE FOR MINIMUM STRUCTURAL LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES (LOADING SPECIFICATION).
  - ASTM C913 STANDARD SPECIFICATION FOR PRECAST CONCRETE & WATER & WASTEWATER STRUCTURES.
- MAX DEPTH TO INVERT OF PRECAST (I.E. FLOOR) = 15' FOR SOLID BASE & 10' FOR WAFFLE BASE.
- GWT ASSUMED BELOW INVERT OF PRECAST.
- LATERAL DESIGN PRESSURES (AS APPLICABLE TO DESIGN):
  - EQUIV DRY SOIL FLUID PRESSURE = 47 PCF.
  - EQUIV SATURATED SOIL FLUID PRESSURE = 85 PCF.
  - LIVE LOAD SURCHARGE = 80 PSF.
- DESIGN CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS = 4,000 PSI (MIN).
- REINFORCEMENT:
  - CARBON-STEEL DEFORMED BARS: ASTM A615,  $f_y = 60$ KSI (MIN).
  - WELDED WIRE REINFORCEMENT (DEFORMED): ASTM A1064  $f_y = 70$  KSI (MIN).
- COPOLYMER POLY PROPYLENE STEEL REINFORCED STEPS I.A.W ASTM C478 SPACED 16" O.C.
- PRECAST BASE AND RISER SECTIONS MAY BE USED FOR THE FOLLOWING DOT STANDARDS AS NOTED ON NCDOT STANDARD DRAWING:
  - WAFFLE BOX (NCDOT#840.45): 840.01, 840.20, 8940.04, 840.05, 840.11, 840.12, 840.14, 840.15, 840.17, 840.18, 840.19, 840.26, 840.27, 840.28, 840.28, 840.31, 840.32 & 840.41.
  - SOLID BOX (NCDOT #840.46): 840.04, 840.05, 840.14, 840.31, 840.32, 840.34, 840.35, 840.36, & 840.41.
  - MIN 4" BEAM FOR OPENINGS IN WALL & 6" BEAM FOR CORNER HOLES PER NC DOT.
- LIFT LOOPS, PINS OR UTILITY ANCHORS PROVIDED FOR HANDLING. CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING OLDCASTLE PRECAST, INC. LIFTING INSTRUCTIONS AS SHOWN ON BACK OF SHIPPING TICKET.

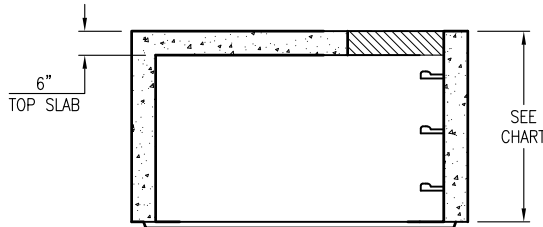
### TOP SLAB

THICKNESS	WEIGHT (lbs)
6"	4,457
8"	5,682



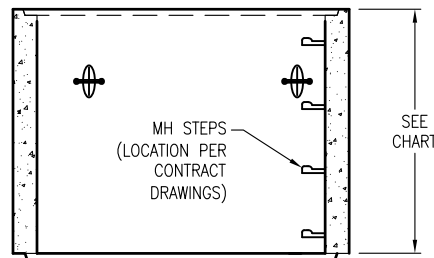
### RETURN TOP

HEIGHT	WEIGHT (lbs)
1.5'	5,732
2.5'	7,682
3.5'	9,632
4.5'	11,582
5.5'	13,532



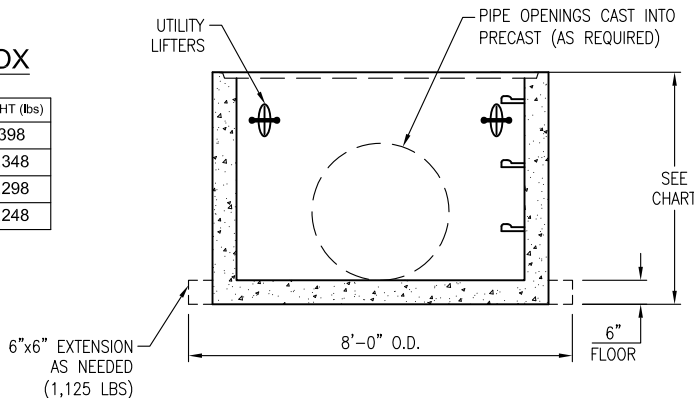
### RISER SECTION

HEIGHT	WEIGHT (lbs)
1.33'	2,573
2.67'	5,186
4.00'	7,780
5.00'	9,730
6.00'	11,680



### SOLID BOX

HEIGHT	WEIGHT (lbs)
3.5'	9,398
4.5'	11,348
5.5'	13,298
6.5'	15,248



SCALE (TYP): 1/4" = 1'-0"



\*\*THIS MUST BE FILLED OUT BEFORE MANUFACTURING BEGINS\*\*

APPROVED W/ NO EXCEPTIONS TAKEN:

APPROVED AS NOTED:

REVISED AND RESUBMIT:

SIGNATURE

DATE



**Oldcastle Precast**<sup>®</sup>  
1431 PRODUCT RD, FUQUAY VARINA, NC  
OFFICE 919-552-2252, FAX 844-866-7476  
NC ENGINEERING LICENSE #F-1002

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**72"x72" DRAINAGE BOX**  
SUBMITTAL LAYOUT

CUSTOMER

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
08/04/17		PPS			
DRAWING NUMBER				REVISION	SHEET
6x6 DRAINAGE BOXES				REV DATE	1 OF 1