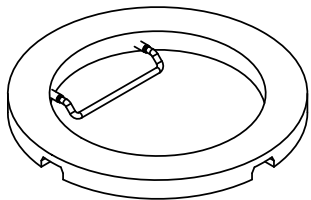
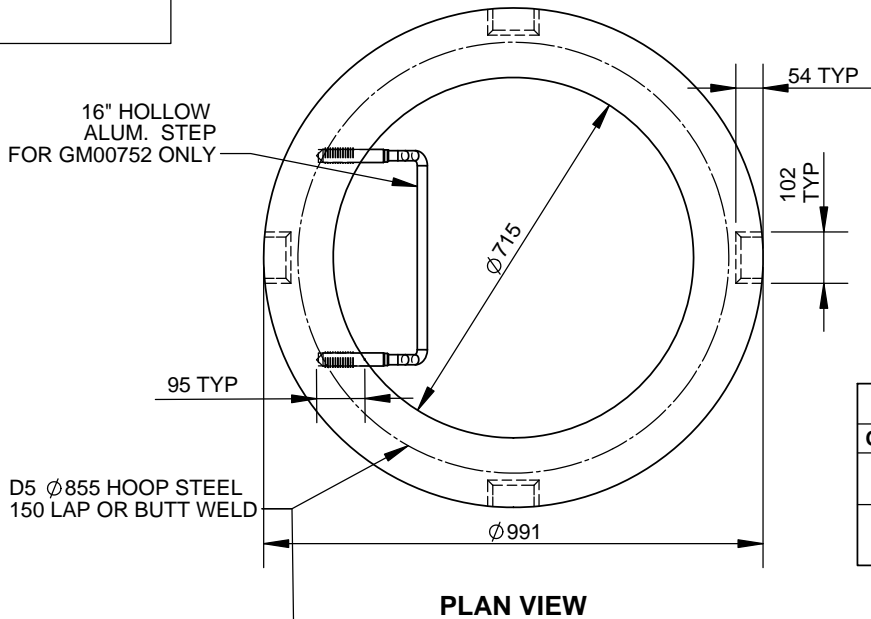


**STENCIL**  
 CCP-OAKVILLE  
 (HEIGHT)  
 (DATE OF MFG)

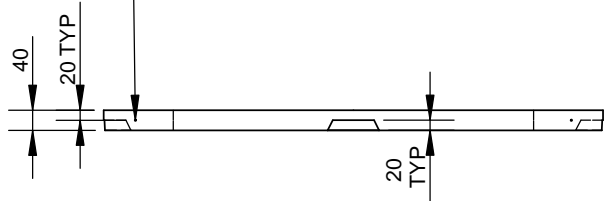


**ISOMETRIC VIEW**

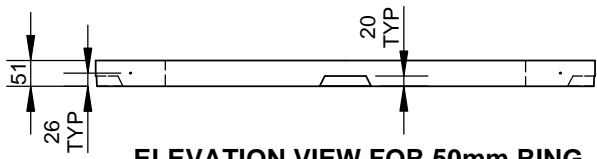


**PLAN VIEW**

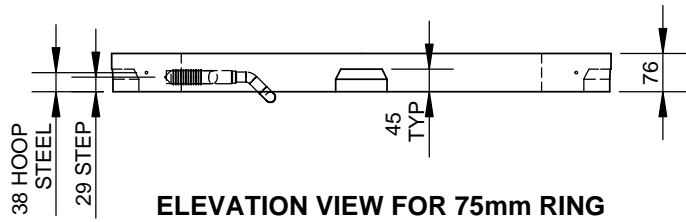
MATERIAL LIST			
QTY	TYPE	DESCRIPTION	REMARK
1	E	16" HOLLOW ALUMIN. STEP	FOR 75mm ONLY
1	E	HOOP STEEL RD. 855 X D5	



**ELEVATION VIEW FOR 40mm RING**



**ELEVATION VIEW FOR 50mm RING**



**ELEVATION VIEW FOR 75mm RING**

PRODUCT VARIABLES				
PART ID	BUNDLE QTY	UNIT HEIGHT	MASS (kg)	STEP QTY
GM00401	1	40	34	0
GM00501	1	51	43	0
GM00751	1	76	64	0
GM00752	1	76	64	1
GMB00401	12	40	413	0
GMB00501	12	51	516	0
GMB00751	8	76	512	0
GMB00752	8	76	512	8

ENGINEER STAMP (IF REQUIRED)

ALL DIMENSIONS ARE IN mm  
 DRAWINGS ARE NOT TO SCALE  
 ALL VIEW AS POURED UNLESS SPECIFIED  
 CDW TO ASTM A1064 Fy=485 MPa  
 CDW Fy = 485 MPa  
 SHIPPED IN BUNDLE

MIN. CONC STRENGTH 30 MPa  
 TOLERANCES TO CSA A257  
 DRY CAST MIX  
 CEMENT TYPE HS<sub>e</sub>  
 \*H=40 NOT ON OPSD LIST

**CON CAST PIPE (CCP) STANDARD DRAWING**

STD. OPSD 704.010 NOV 2014 REV3 PART GM00XXX

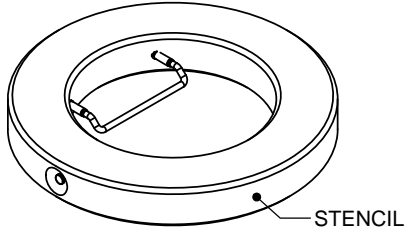
TITLE  
**MANHOLE GRADE RING**  
 HEIGHT = 40mm\*, 50mm, 75mm  
 75mm WITH STEP

REV.	DESCRIPTION	ENG.	DATE
3	CDW SPECIFICATION REFERENCED	MS	25APR2016
2	ADDED GM00401/GMB00401	SM	19/OCT/15
1	UPDATE MASS	KE	15/SEP/15

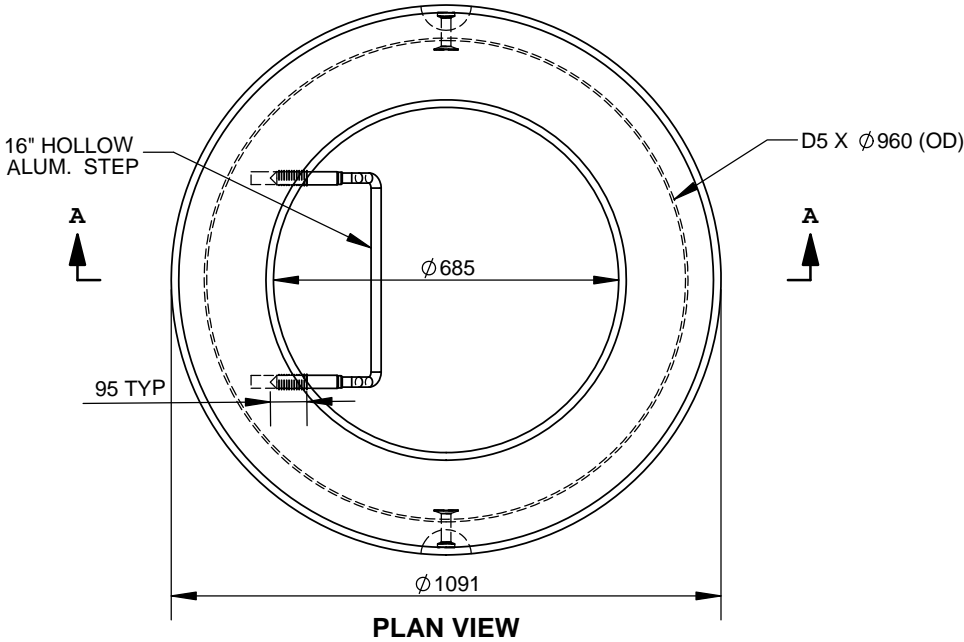
DRAWN BY	CHECKED BY	DATE	FILE	PAGE
SW	BA	29/FEB/12	MH RING	1 OF 1

**STENCIL**  
 CCP-OAKVILLE  
 CSA A257.4 /  
 OPSD 704.010  
 685 X 152  
 TYPE HSe  
 DATE OF MFG  
 213 KG

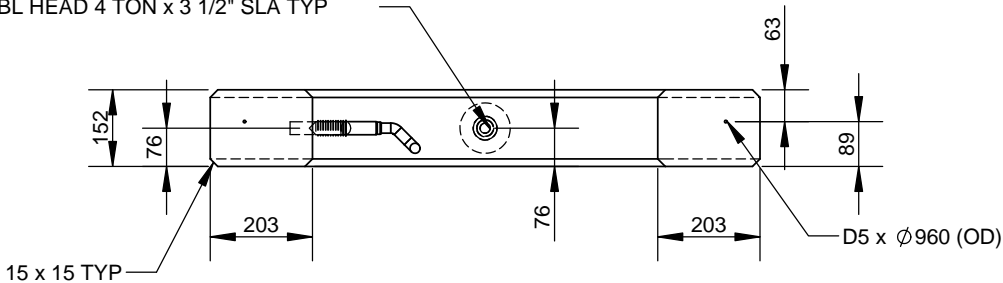
MATERIAL LIST		
QTY	TYPE	DESCRIPTION
2	E	4TON x 3 1/2" SLA DBL HEAD
1	E	16" HOLLOW ALUM. STEP
1	E	D5 X Ø960 (RD) HOOP STL



**ISOMETRIC VIEW**



DBL HEAD 4 TON x 3 1/2" SLA TYP



**SECTION A**

ENGINEER STAMP (IF REQUIRED)

ALL DIMENSIONS ARE IN mm  
 DRAWINGS ARE NOT TO SCALE  
 ALL VIEW AS POURED UNLESS SPECIFIED  
 CDW TO ASTM A1064 Fy = 485MPa (Deformed)

MIN. CONC STRENGTH 30 MPa  
 TOLERANCES TO CSA A257.4  
 DRY CAST  
 CEMENT TYPE HSe  
 MASS = 213 kg

**CON CAST PIPE (CCP) STANDARD DRAWING**

STD. OPSD 704.010 NOV 2014 REV3 PART GM01502

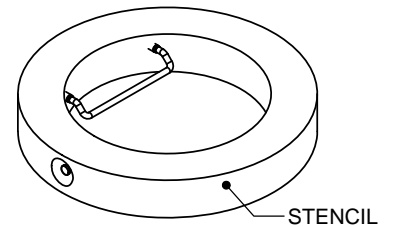
TITLE  
**MANHOLE GRADE RING  
 HEIGHT = 152mm  
 WITH STEP**

1	CDW SPECIFICATION REFERENCED	MS	25APR2016
0	INITIAL RELEASE FOR 152 HEIGHT ONLY	SW	11/AUG/15
REV.	DESCRIPTION	ENG.	DATE

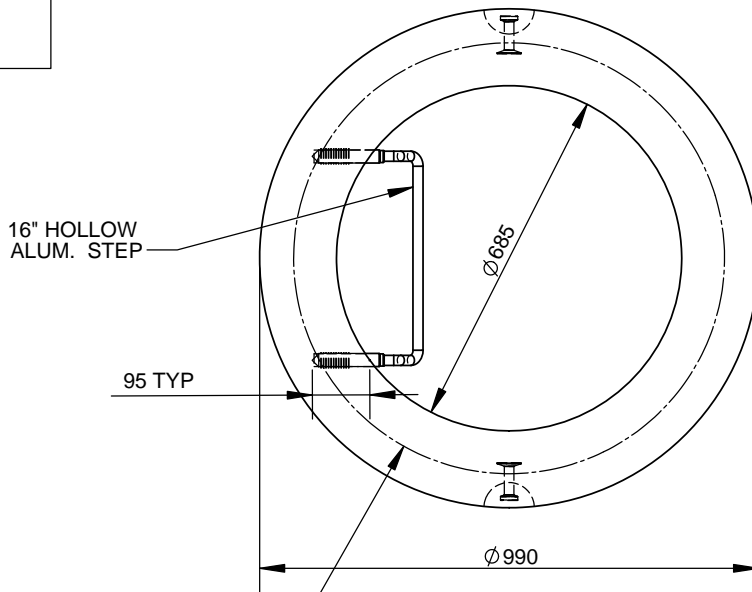
DRAWN BY KE	CHECKED BY SW	DATE 11/AUG/15	FILE MH RING 305	PAGE 1 OF 1
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**STENCIL**

CCP-GUELPH  
152 W/ STEP  
(DATE OF MFG)  
TYPE HSe  
151 kg

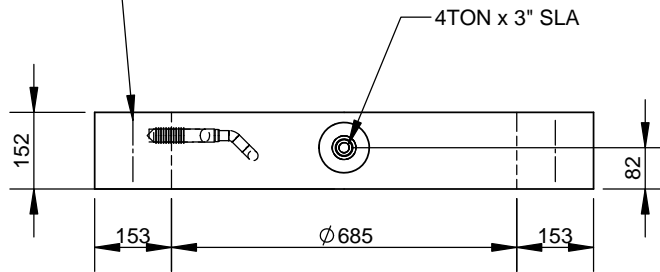


**ISOMETRIC VIEW**



**PLAN VIEW**

3 X 8 6 / 8 WWF  
PLACE CENTRE OF WALL  
LAP 150 MIN OR BUTT WELD  
ALT D5  $\phi 820 \pm 15$



**ELEVATION VIEW**

**MATERIAL LIST**

QTY	TYPE	DESCRIPTION
2	E	4TON x 3" SLA
1	E	16" HOLLOW ALUM. STEP
1	E	3X8 6/8 WWF $\phi 820 \pm 15$ X 125

ENGINEER STAMP (IF REQUIRED)

ALL DIMENSIONS ARE IN mm  
DRAWINGS ARE NOT TO SCALE  
ALL VIEW AS POURED UNLESS SPECIFIED  
WWF TO ASTM 1064  
WWF  $F_y = 485\text{MPa}$  (Deformed)

MIN. CONC STRENGTH 30 MPa  
TOLERANCES TO CSA A257.4  
WET CAST MIX  
CEMENT TYPE HSe  
MASS = 151kg

**CON CAST PIPE (CCP) STANDARD DRAWING**

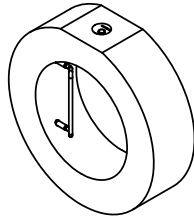
STD. OPSD 704.010 NOV 2014 REV3 PART GM01502-1

TITLE  
**MANHOLE GRADE RING  
HEIGHT = 152mm  
WITH STEP**

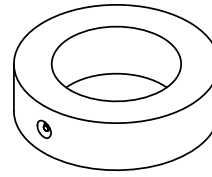
3	REVISED AS PER LATEST STANDARD	MS	25APR2016
2	OD ERROR CORRECTED	KE	9/APR/13
1	ALT. REINFORCEMENT FOR OCP	KE	1/AUG/12
REV.	DESCRIPTION	ENG.	DATE

DRAWN BY KE	CHECKED BY SW	DATE 8/AUG/12	FILE MH RING WC	PAGE 1 OF 1
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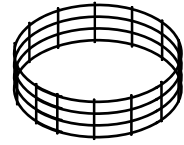
<b>STENCIL</b>	
CCP-GUELPH 685 X 305 (DATE OF MFG) A257.4 TYPE HSe 430 kg	



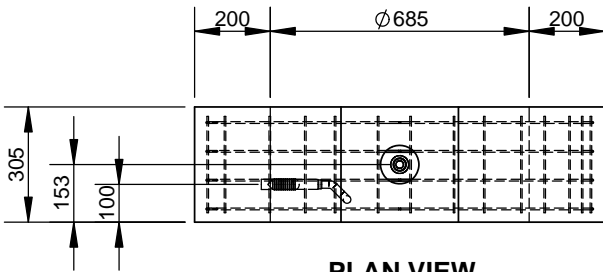
**ISOMETRIC VIEW  
NEW HAMPTON FORM  
(AS POUR)**



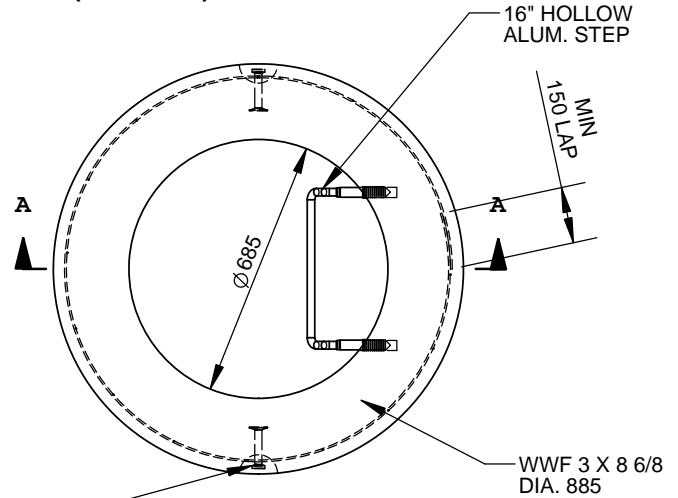
**ISOMETRIC VIEW  
TRADITIONAL FORM  
(AS POUR)**



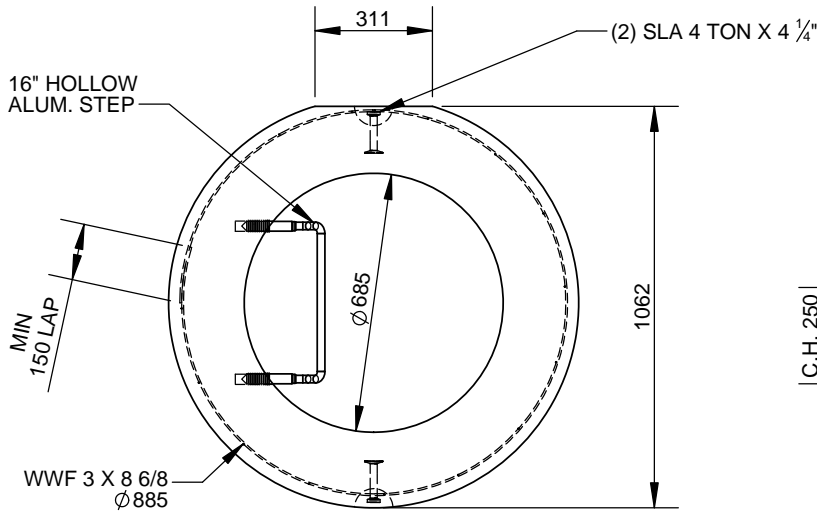
**ISOMETRIC VIEW  
CAGE**



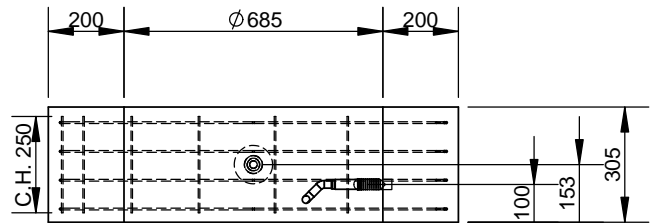
**PLAN VIEW  
NEW HAMPTON FORM  
(AS POUR)**



**PLAN VIEW  
TRADITIONAL FORM  
(AS POUR)**



**ELEVATION VIEW  
NEW HAMPTON FORM  
(AS POUR)**



**SECTION A  
TRADITIONAL FORM  
(AS POUR)**

MATERIAL LIST		
QTY	TYPE	DESCRIPTION
1	E	16" HOLLOW ALUMINUM STEP
2	E	4 TON X 4 1/4" SLA
1	E	3X8 6/8 WWF Ø885 ±15 X 250

ALL DIMENSIONS ARE IN mm  
DRAWINGS ARE NOT TO SCALE  
WWF SHEETS TO ASTM A1064  
WWF Fy = 485MPa (Deformed) 450MPa (Smooth)

MIN. CONC STRENGTH 35 MPa  
CLEAR COVER = 25 mm ± 5 mm  
TOLERANCES TO CSA A257.4  
APPROX. MASS 430 kg  
STRIP CONC. STRENGTH 20 MPa  
AIR ENTRAINMENT 5 % TO 8 %  
CEMENT TYPE HSe

**CON CAST PIPE (CCP) STANDARD DRAWING**

STD. OPSD 704.010	NOV 2014 REV3	PART GM03002
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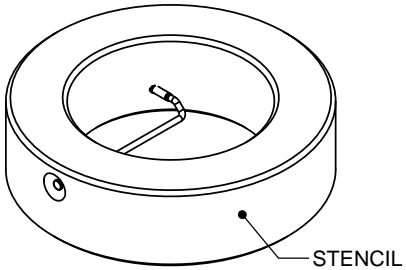
TITLE  
**305 MANHOLE GRADE RING  
Ø 685**

6	REVISED AS PER LATEST STANDARDS	MS	25APR2016
5	UPDATE SHEET FRMT / ADD GEOMETRY FOR NEW FORM	CW	05/APR/11
REV.	DESCRIPTION	ENG.	DATE

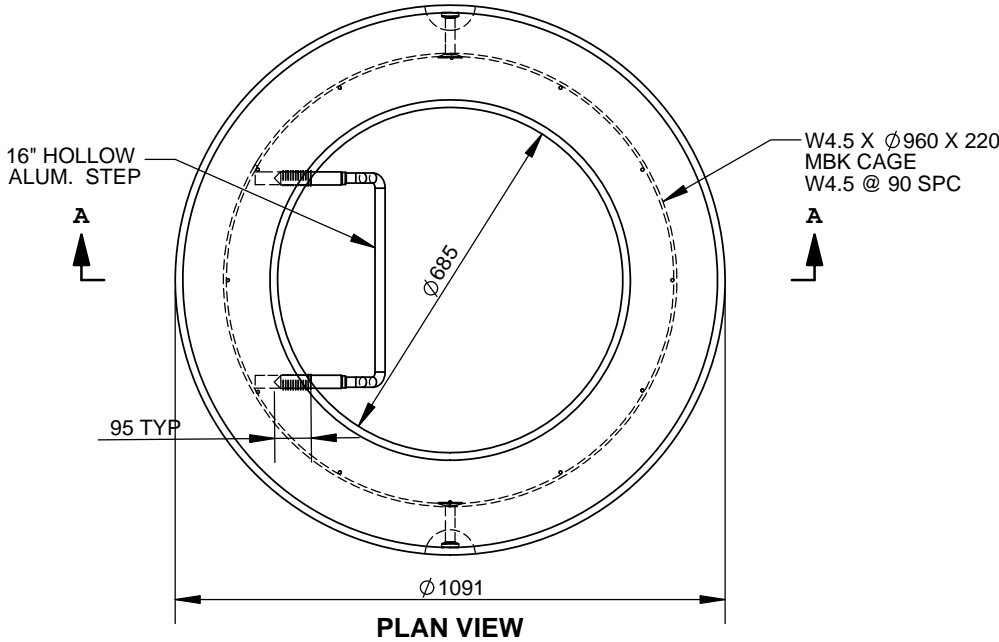
DRAWN BY CW	CHECKED BY SW	DATE 05/APR/11	FILE GM03002	PAGE 1 OF 1
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**STENCIL**  
 CCP-OAKVILLE  
 CSA A257.4 /  
 OPSD 704.010  
 685 X 305  
 TYPE HSe  
 DATE OF MFG  
 425 KG

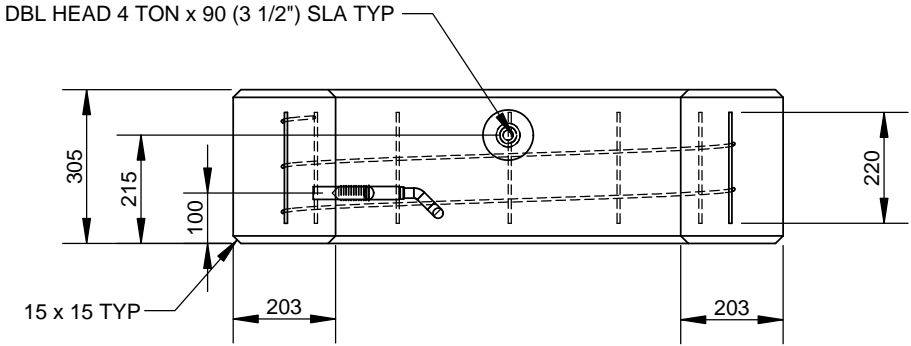
MATERIALS LIST		
QTY.	TYPE	DESCRIPTION
1	E	16" HOLLOW ALUM. STEP
2	E	4TON x 90 (3 1/2") SLA DBL HEAD
1	E	W4.5 @ 90 X Ø960 X 220 MBK CAGE



**ISOMETRIC VIEW**



**PLAN VIEW**



**SECTION A**

ENGINEER STAMP (IF REQUIRED)

ALL DIMENSIONS ARE IN mm  
 DRAWINGS ARE NOT TO SCALE  
 ALL VIEW AS POURED UNLESS SPECIFIED  
 CDW TO ASTM A1064 Fy = 485MPa (Deformed)

MIN. CONC STRENGTH 30 MPa  
 TOLERANCES TO CSA A257.4  
 DRY CAST  
 CEMENT TYPE HSe  
 MASS = 425 kg

**CON CAST PIPE (CCP) STANDARD DRAWING**

STD.	OPSD 704.010	NOV 2014 REV3	PART	GM03002K
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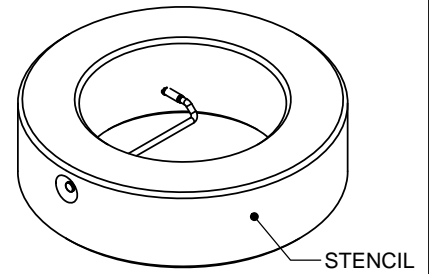
TITLE  
**MANHOLE GRADE RING  
 HEIGHT = 305mm  
 WITH STEP**

1	CDW SPECIFICATION REFERENCE	MS	25APR2016
0	INITIAL RELEASE FOR 305 HEIGHT ONLY	KE	11/AUG/15
REV.	DESCRIPTION	ENG.	DATE

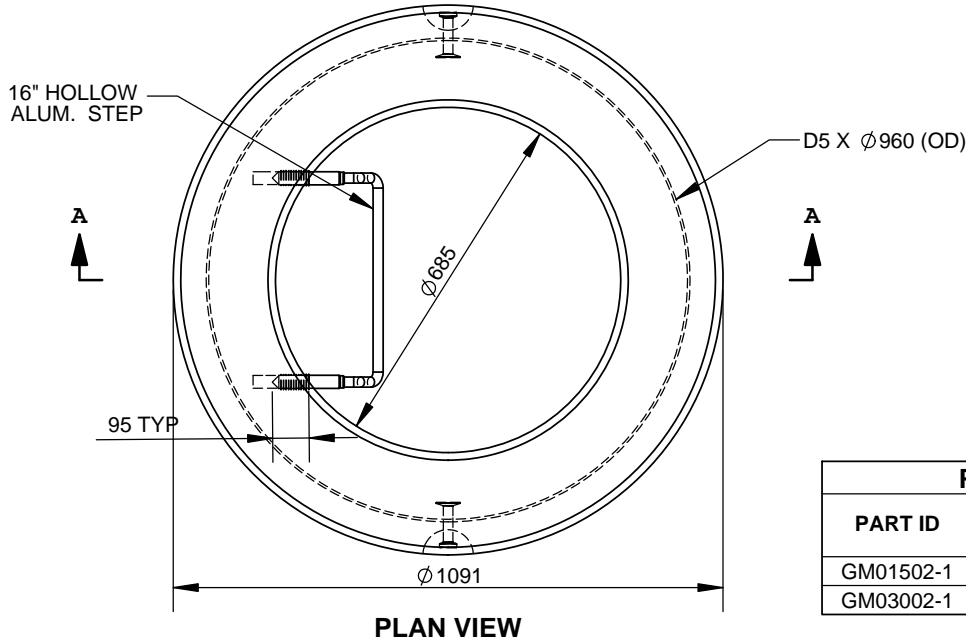
DRAWN BY	CHECKED BY	DATE	FILE	PAGE
KE	SW	11/AUG/15	MH RING 305	1 OF 1

STENCIL
CCP-OAKVILLE CSA A257.4 / OPSD 0704.010 685 X H TYPE HSe DATE OF MFG (MASS) KG

QTY.	TYPE	DESCRIPTION
X	E	D5 X Ø960 (OD) HOOP STEEL (FOR 305)
1	E	16" HOLLOW ALUM. STEP
2	E	4TON x 3 1/2" SLA

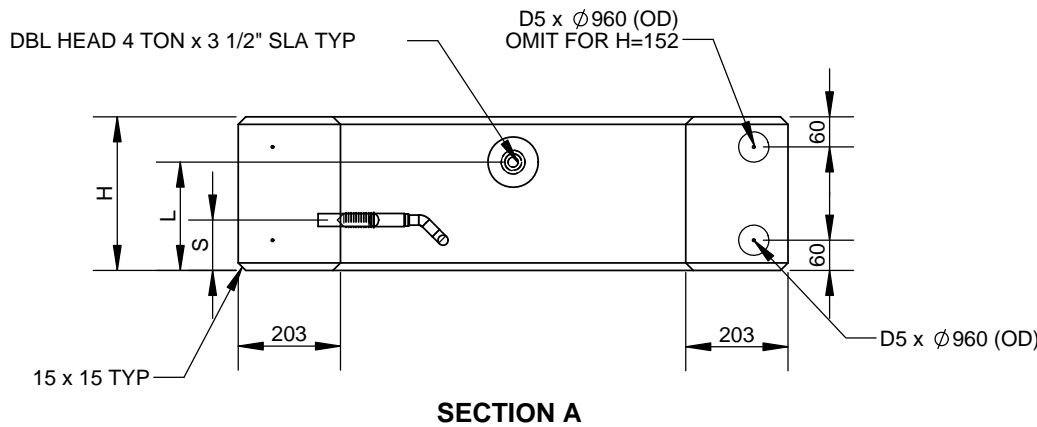


ISOMETRIC VIEW



PLAN VIEW

PART ID	VARIABLE DIMENSIONS				MASS (kg)
	H	S	L	X	
GM01502-1	152	76	89	1	213
GM03002-1	305	100	215	2	425



SECTION A

ENGINEER STAMP (IF REQUIRED)

ALL DIMENSIONS ARE IN mm  
DRAWINGS ARE NOT TO SCALE  
ALL VIEW AS POURED UNLESS SPECIFIED  
CDW TO ASTM A1064 Fy = 485MPa (Deformed)

MIN. CONC STRENGTH 30 MPa  
TOLERANCES TO CSA A257.4  
DRY CAST  
CEMENT TYPE HSe

CON CAST PIPE (CCP) STANDARD DRAWING

STD. OPSD 704.010	NOV 2014 REV3	PART GM0XXX2
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TITLE  
**MANHOLE GRADE RING  
HEIGHT = 152, 305mm  
WITH STEP**

3	CDW SPECIFICATION REFERENCED	MS	25APR2016
2	REMOVE GM01252-1	SM	29JUN2015
1	INITIAL RELEASE	MS	15JUNE2015
REV.	DESCRIPTION	ENG.	DATE

DRAWN BY SM	CHECKED BY SW	DATE 29JUN2015	FILE MH RING 305	PAGE 1 OF 1
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