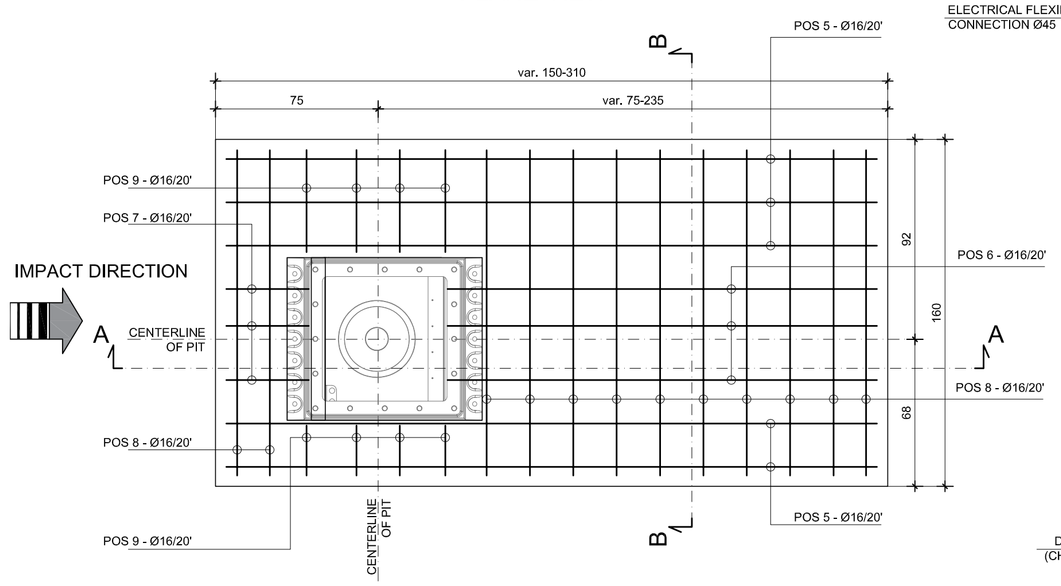
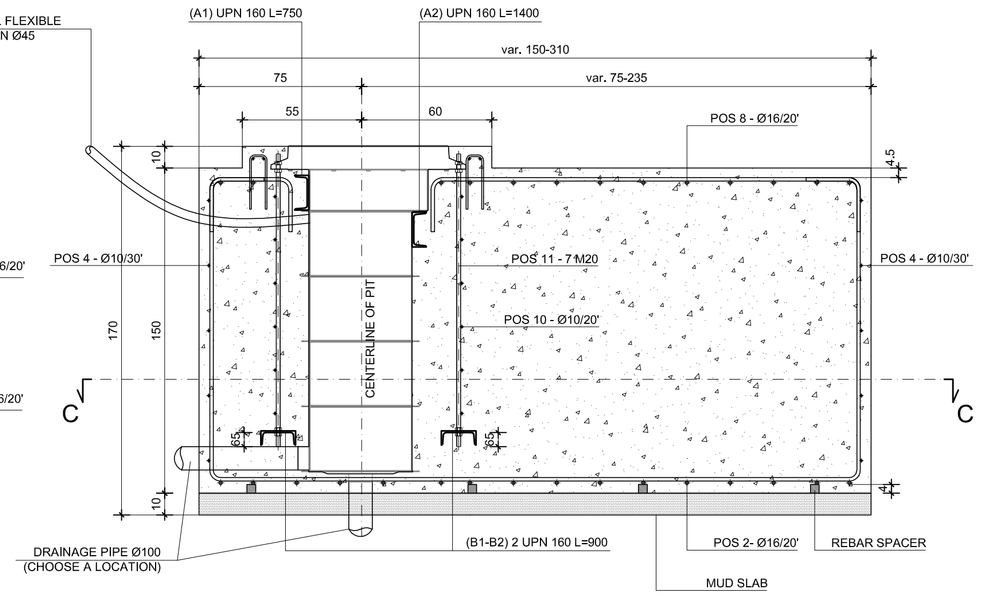
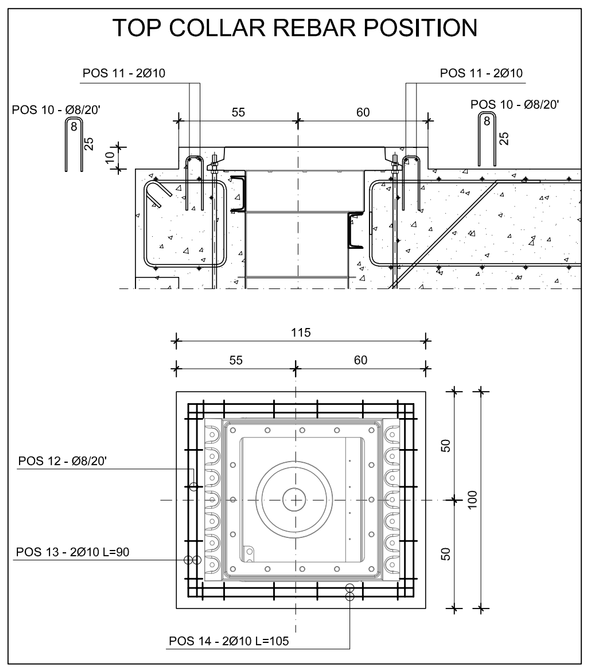
PLANE VIEW



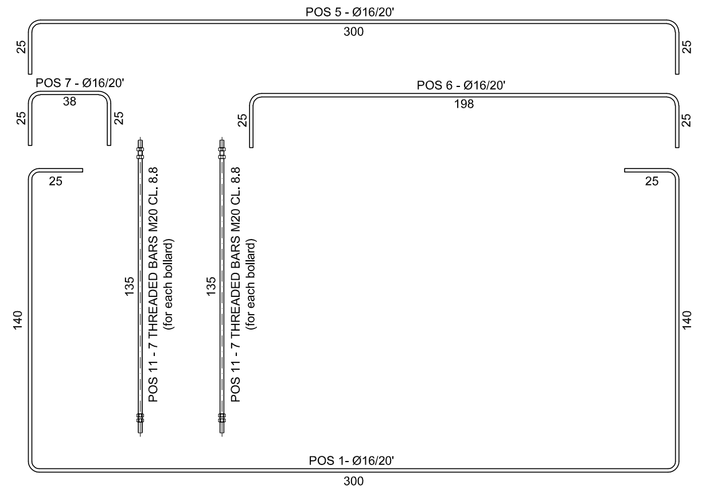
SECTION A-A



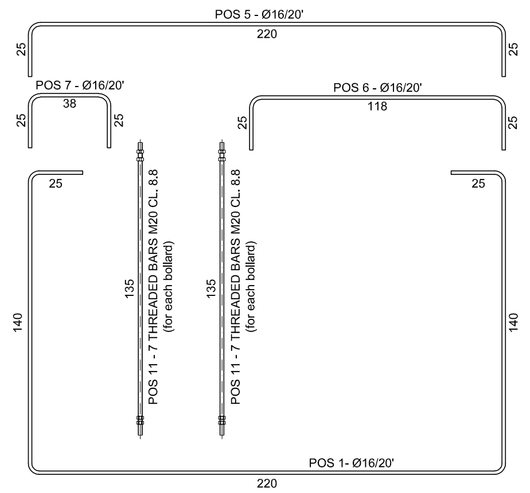
TOP COLLAR REBAR POSITION



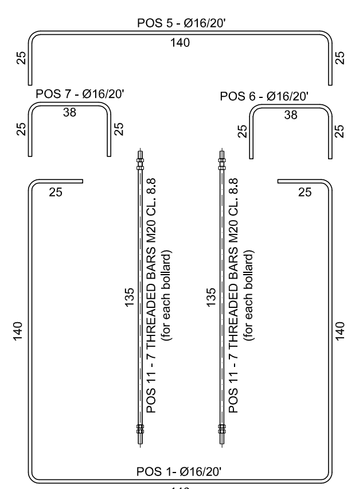
REBAR CONFIG. 1



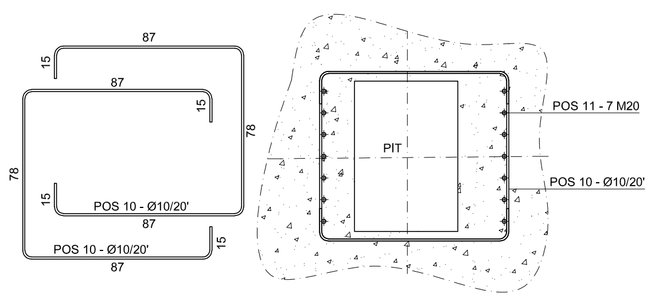
REBAR CONFIG. 2



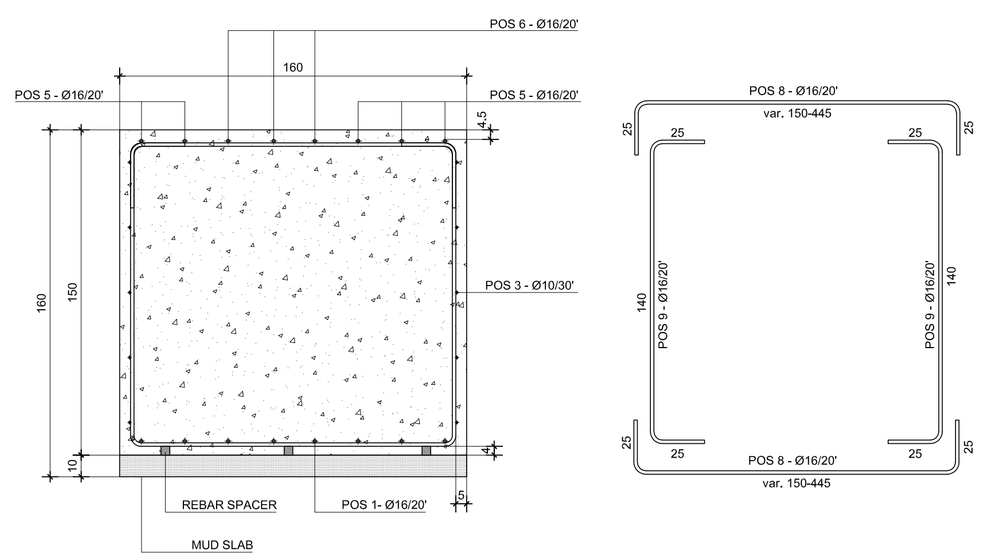
REBAR CONFIG. 3



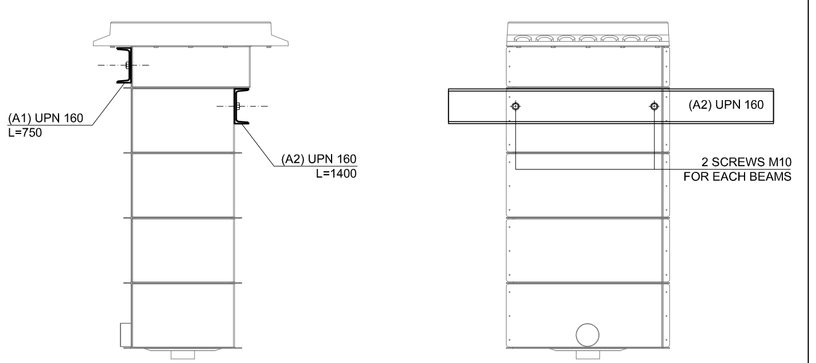
SECTION C-C



SECTION B-B



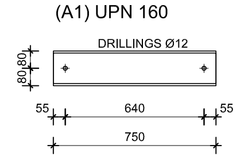
PIT ASSEMBLY WITH METAL BEAMS



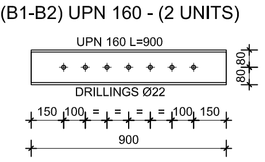
METAL BEAMS DETAIL

(FOR EACH BOLLARD)

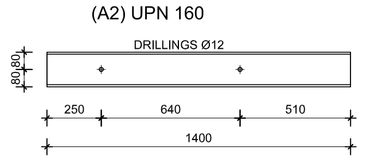
(A1) UPN 160



(B1-B2) UPN 160 - (2 UNITS)



(A2) UPN 160



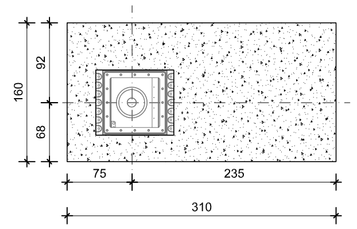
BILL OF STEEL BEAMS

type	n°	L (cm)	W (kg)
A1 UPN 160	1	75	14,18
A2 UPN 160	1	140	26,46
B1-B2 UPN 160	2	90	34,02
	total weight of beams		60,48

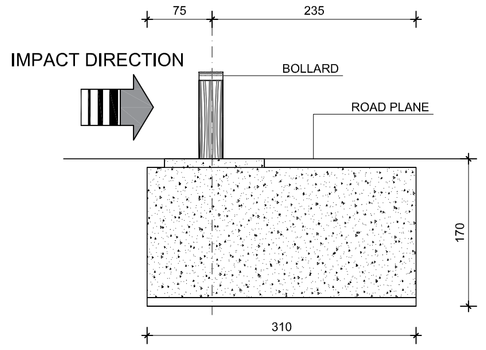
WARNING: to guarantee the certified performances it's necessary to replicate the crash tested configuration

CONFIG. 1
1 SINGLE BOLLARD
(CRASH TEST CONFIGURATION)

PLANE VIEW



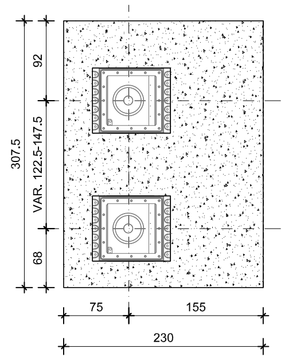
LATERAL VIEW



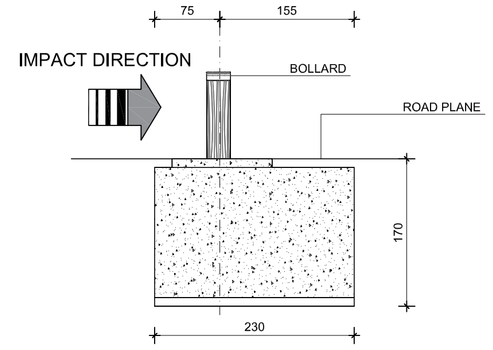
VOLUME OF CONCRETE		
for mud slab	mc	0,50
for foundation	mc	6,44
VOLUME OF DIGGING	mc	8,42
WEIGHT OF THE PIT FOR EACH BOLLARD	Kg	250,00

CONFIG. 2
2 CONSECUTIVE BOLLARD

PLANE VIEW



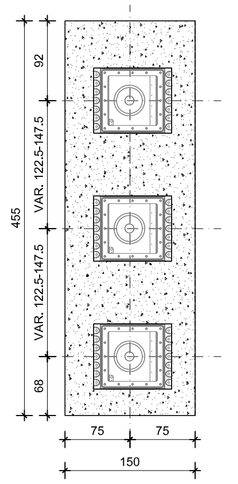
LATERAL VIEW



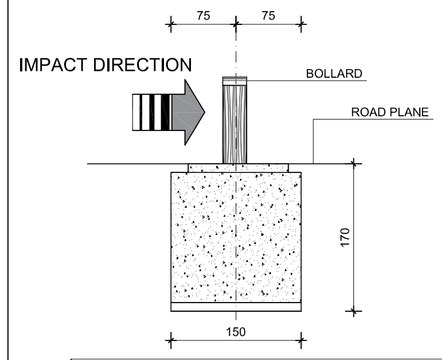
VOLUME OF CONCRETE		
for mud slab	mc	0,71
for foundation	mc	9,80
VOLUME OF DIGGING	mc	12,02
WEIGHT OF THE PIT FOR EACH BOLLARD	Kg	250,00

CONFIG. 3
3 AND MORE CONSECUTIVE BOLLARD

PLANE VIEW



LATERAL VIEW



VOLUME OF CONCRETE (FOR 3 BOLLARDS)		
for mud slab	mc	0,68
for foundation	mc	9,03
VOLUME OF DIGGING	mc	11,60
WEIGHT OF THE PIT FOR EACH BOLLARD	Kg	250,00

MATERIALS + SPECIFICATION

CONCRETE

	Resistance class	Type of cement	water/cement ratio (weight)	Consistance slump [mm]	Exposure class (EN206-1)	max. aggregate diameter	min. rebar cover (EC2)	additives
MODERATE EXPOSURE	C25/30	Portland 325/425	0.60	S4-160/210	XC2	20-25 mm	4.0 cm	thinner
SEVERE EXPOSURE	C30/37	Portland 325/425	0.55	S4-160/210	XD1	20-25 mm	4.0 cm	thinner
MUD SLAB CONCRETE	C12/15	Portland 325			X0	20-25 mm		

MATURATION RULES (UNI EN 13670-1:02)
Formwork removal time 48 hours
Max resistance 28 days

REBAR

IRON B450C or N20

Min. distance between bars = 35 mm

STEEL BEAM

STEEL S275JR

CONCRETE COVERS MUST BE GUARATEED BY SUITABLE MESH SPACERS

ALL DIMENSIONS MUST BE CHECKED ON SITE BEFORE BEGINNING WORK

FAAC
Via Calari 10, Zola Predosa, Bologna, Italy
Tel: 051-6172411 Fax: 051-758518

Description	Code	Revision
JS 80 HA PIT FOUNDATION	**532340**	**B**

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