

DOCUMENT 00 21 14

QUESTIONS ON BID DOCUMENTS (QBD)

Potential Bidders must complete this QBD Form and submit to the address below no later than 4:00 PM and three (3) business days before the bid opening date.

Project: PIER 80 MOORING AND BERTHING
IMPROVEMENTS

Contract No. 2871

To: Port of San Francisco
Pier 1
San Francisco, CA 94111
Phone: (415) 274-0526
Attention: **Noel Aquino**
Email: constructionbids@sfport.com

City Use Only	
QBD No.	05
Received by:	Noel A.
Date Received:	4/4/25
Addendum Issued?	☐ Yes ☒ No
Date Sent	
Response:	4/8/25

CONTRACTOR'S QUESTIONS			
Company Name:	Power Engineering Construction	Date	4/4/2025
Contact Name:	Sharon Rowe	Tel:	714-290-1260
Title:	Estimator	Fax:	
<i>Check One Only (Use separate form for each specifications and drawing question.)</i>			
☐ Spec. Section:		Paragraph(s):	
☒ Drawing Sheet:	S-605	Detail(s):	2
<i>Question:</i> Please confirm if a Trelleborg 250-Ton Bollard with a non-square base is acceptable in lieu of a square base. See attached brochures for the tee bollard and stag horn bollard. (Trelleborg has discontinued the square base model).			

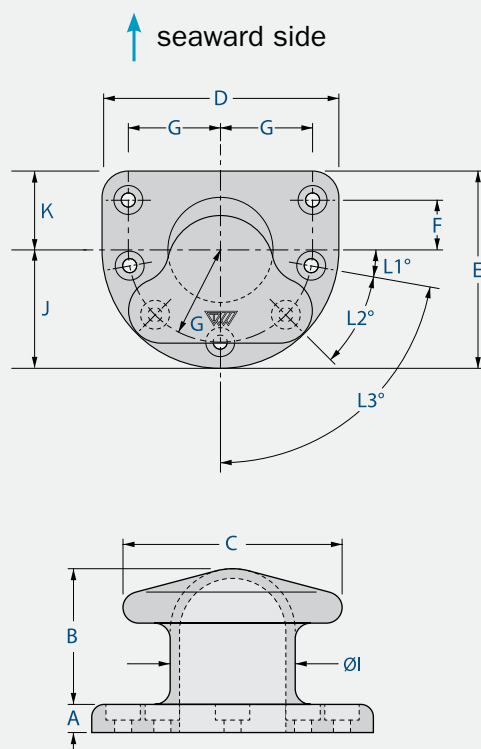
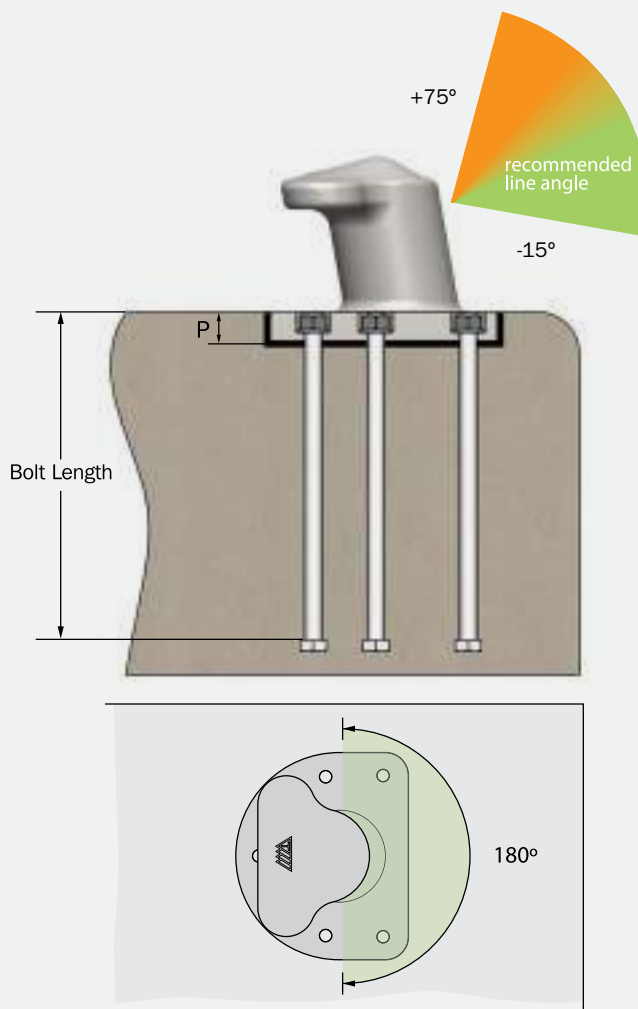
CITY'S REPLY	
☒	Mark this box if the QBD can be answered by Bidder's review of the documents. Reply with location(s) where the information can be obtained.
<i>Reply:</i> Contractor to base their bids on a square base as shown in the plans. Contractor has the opportunity during construction to submit a request for substitution.	
By: Noel A.	Bureau/Firm: Port of SF
Date: 4/8/25	

The reply is an answer to a Bidder's question. The reply does not change the Bid Documents unless the information contained therein is issued in an Addendum. At the sole discretion of the City, the question and reply may be returned to the questioner and distributed to all bidding general contractors for informational purposes.

Tee Bollard

FEATURES

- General purpose applications up to 300 tons
- Suitable for rope angles from -15° to $+75^{\circ}$



DIMENSION	BOLLARD CAPACITY (Tonnes)									
	15	30	50	80	100	125	150	200	250	300
A	35	38	48	50	60	65	70	80	100	100
B	235	255	350	380	410	410	435	500	610	670
C	330	350	470	540	525	600	640	740	890	980
D	410	450	640	640	790	850	900	1000	1090	1200
E	335	375	540	550	640	700	750	850	915	925
F	80	100	150	160	175	175	200	225	250	200
G	155	175	250	250	325	325	350	375	425	475
ØI	150	200	260	260	300	310	325	375	430	500
J	205	225	320	320	395	425	450	500	545	600
K	130	150	220	230	245	275	300	350	370	325
L1°	30°	30°	30°	15°	10°	10°	10°	0°	5°	23°
L2°	-	-	-	45°	40°	40°	40°	36°	34°	26°
L3°	60°	60°	60°	-	80°	80°	80°	72°	68°	52°
Bolts	M24	M30	M36	M42	M42	M48	M48	M56	M64	M64
Bolt Length	500	500	500	800	800	900	1000	1000	1375	1550
P	50	53	63	65	75	80	85	95	115	115
Quantity	5	5	5	6	7	7	7	8	8	10

P = bollard base recess mounting depth
= hold-down bolt protrusion height

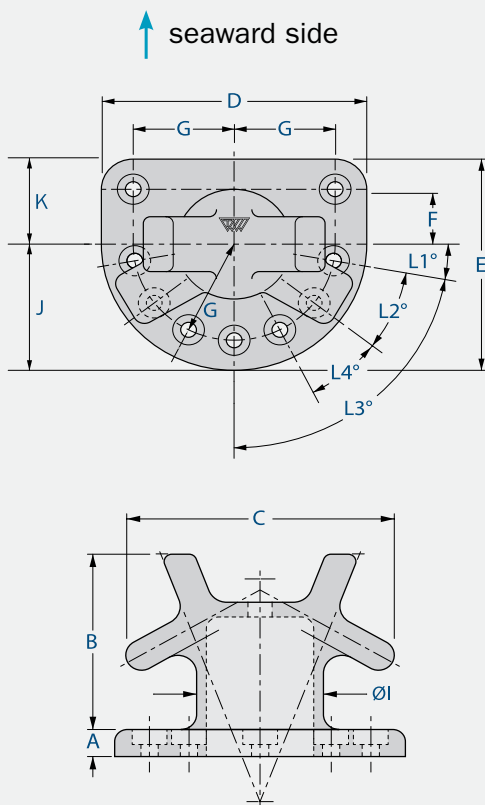
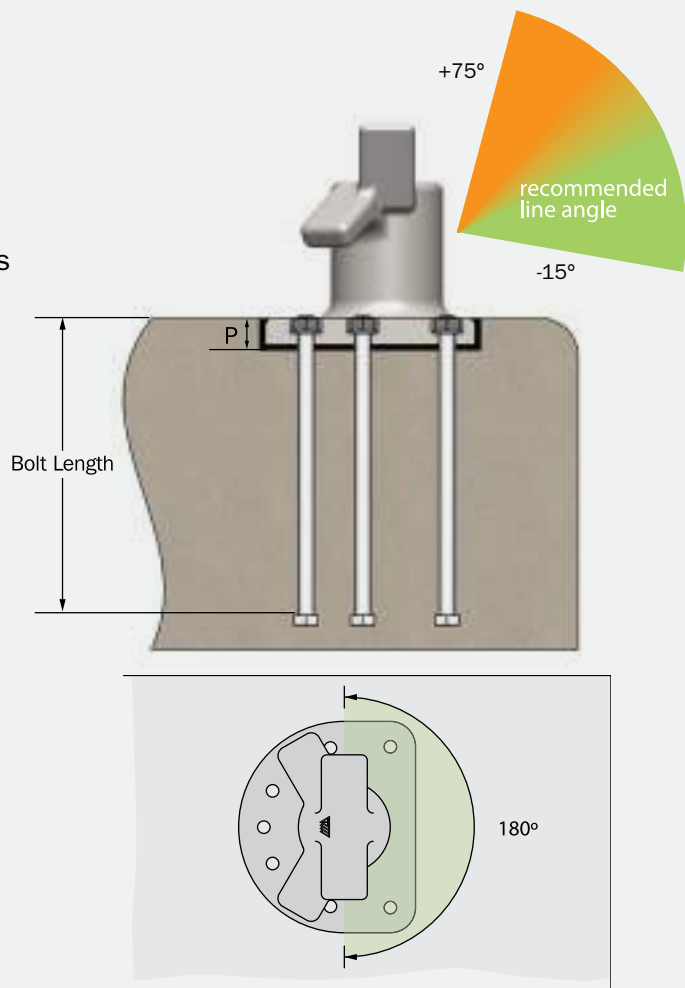
[units: mm]

For imperial units refer to appendix

Horn Bollard

FEATURES

- General purpose applications up to 250 tons
- Suitable for rope angles from -15° to $+75^{\circ}$
- Two lines may share a single bollard (subject to bollard capacity)



DIMENSION	BOLLARD CAPACITY (Tonnes)									
	15	30	50	80	100	125	150	200	250	300
A	35	35	50	50	65	70	70	80	90	100
B	370	410	500	520	570	595	595	660	690	850
C	410	450	600	600	670	700	770	820	855	975
D	410	480	640	650	800	820	920	1000	1000	1200
E	335	405	540	560	650	670	770	850	850	925
F	80	100	150	160	175	175	200	225	225	200
G	155	175	250	250	325	325	350	375	375	475
ØI	160	200	260	260	275	300	325	350	375	450
J	205	240	320	325	400	410	460	500	500	600
K	130	165	220	235	250	260	310	400	400	325
L1°	30°	30°	30°	15°	10°	12°	10°	-	-	23°
L2°	-	-	-	45°	40°	39°	40°	36°	36°	23°
L3°	60°	60°	60°	-	80°	78°	80°	-	-	67°
L4°	-	-	-	-	-	-	-	36°	36°	26°
Bolts	M24	M30	M36	M42	M42	M48	M48	M56	M64	M64
Bolt Length	500	500	500	800	800	900	1000	1000	1375	1550
P	50	50	65	65	80	85	85	95	105	115
Quantity	5	5	5	6	7	7	7	8	8	10

P = bollard base recess mounting depth
= hold-down bolt protrusion height

[units: mm]

For imperial units refer to appendix