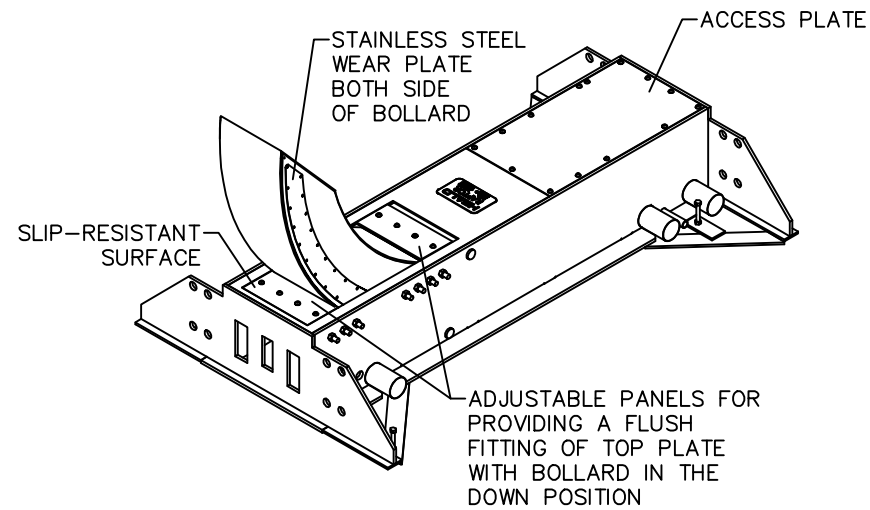
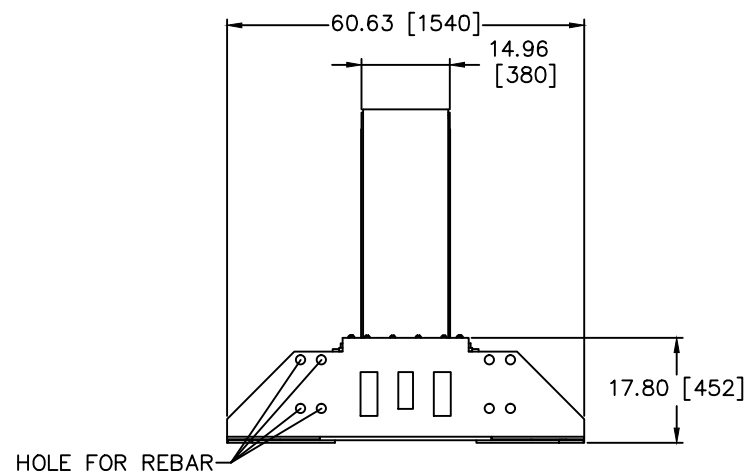
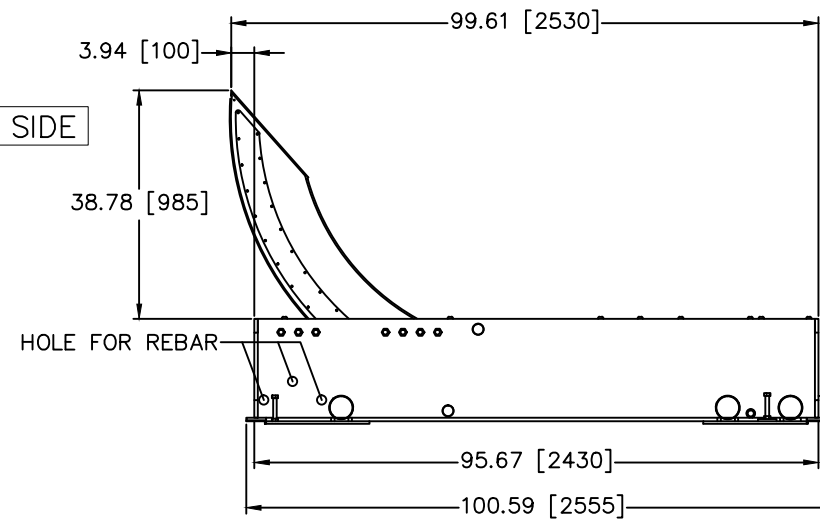


THREAT SIDE



THREAT SIDE



SECURE SIDE

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 GB Patent Application Number GB1006439.2
 European Patent Application Number EP11716612.4
 US Patent Application Number US13/641, 831
 US Patent No D715, 174

SUMMARY OF PROVIDED MATERIAL

Item	DESCRIPTION	QTY
1	XT-2200-RB HEALD "RAPTOR" SHALLOW MOUNT BOLLARD M50P1 CRASH RATING	1
2	xx	
3	xx	
4	xx	
5	xx	
6	xx	
7	xx	
8	xx	
9	xx	
10	xx	

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SITE MATERIAL REQUIRED BY BUILDER

Item	DESCRIPTION	QTY
A	xx	x
B	xx	
C	xx	
D	xx	
E	xx	
F	xx	
G	xx	
H	xx	
i	xx	
J	xx	

PLEASE NOTE REFER TO DATA SHEET(S) FOR FULL EQUIPMENT SPECIFICATION DETAILS.
 INFORMATION ON THIS DRAWING IS FOR GUIDANCE ONLY AND NOT SITE SPECIFIC.
 DIMENSIONS IN [] ARE IN MILLIMETERS



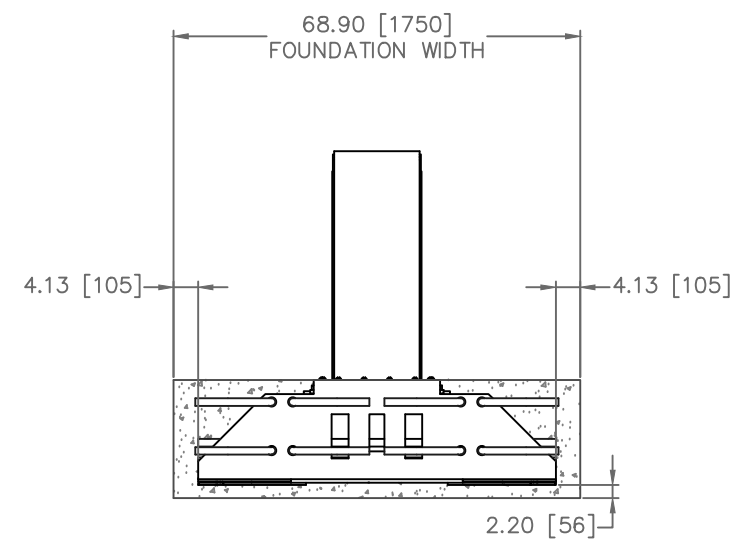
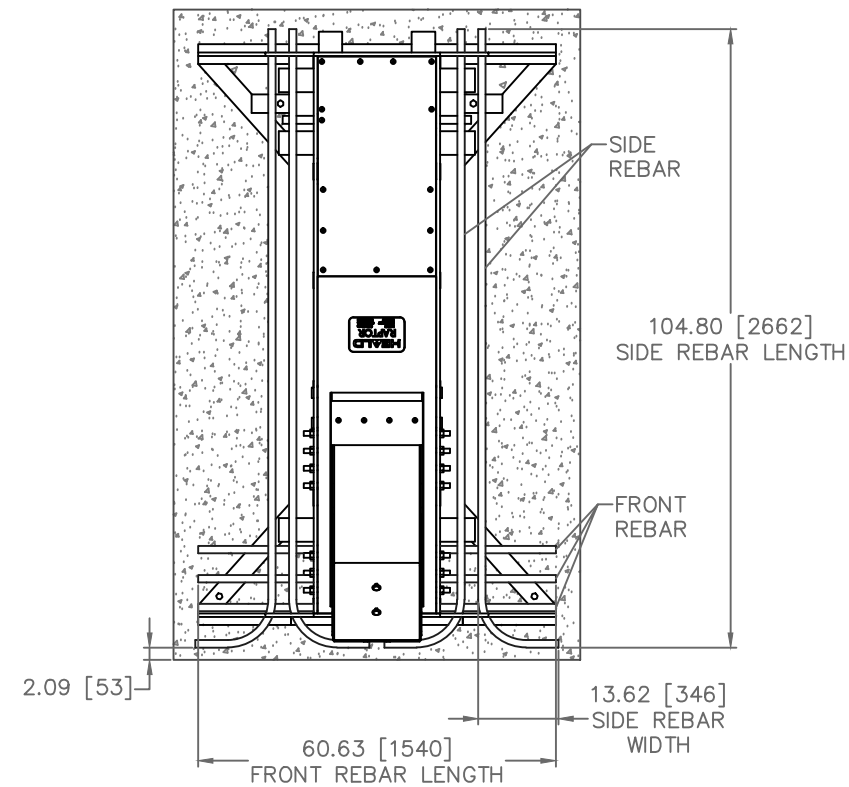
ROSS Technology Corp.
 Leola, PA USA

Title
 RAPTOR HYDRAULIC BOLLARD CUT SHEET

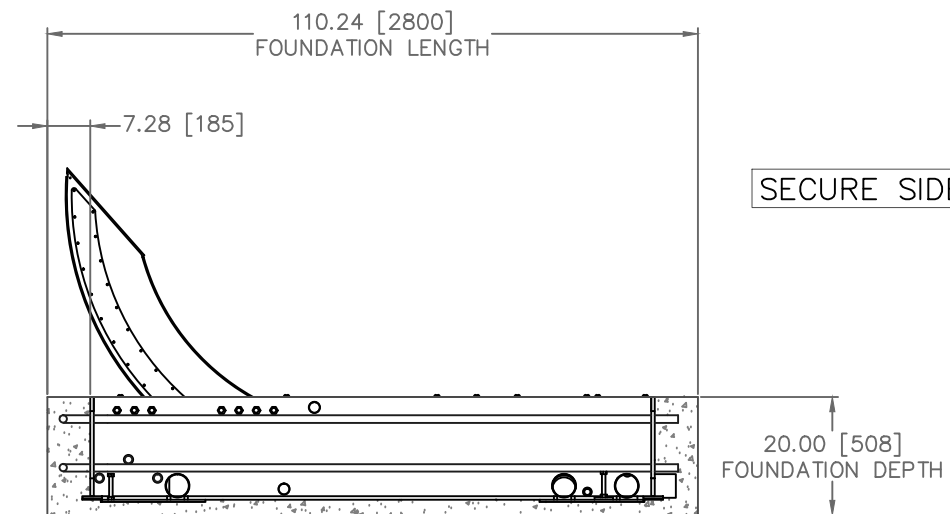
Project Number

Drawn TJM	Checked TJM	Date 1/23/2014	Scale NTS
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Dwg no. XT-2200-RB Sheet 1 of 5



THREAT SIDE



SECURE SIDE

INSTALLATION NOTES:

1. SITE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE.
2. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT AREAS AGAINST DAMAGE.
3. SITE CONTRACTOR SHALL REPAIR OR PATCH DAMAGED AREAS TO MATCH EXISTING AREA.
4. SITE CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA CLEAN AT ALL TIMES.
5. SITE CONTRACTOR SHALL AT COMPLETION OF WORK, REMOVE ALL SURPLUS MATERIALS, EQUIPMENT AND DEBRIS AND LEAVE THE PREMISES IN A CLEAN CONDITION ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE.
6. SITE CONTRACTOR WILL PROVIDE THE INSTALLATION MATERIAL SUCH AS PVC, AGGREGATE, REBAR, TIES, FRAMING, CONCRETE, CHAIRS, OFFSETS, ETC. REBAR SHALL CONFORM TO ASTM A615, GRADE 60.
7. THE EXCAVATION SHALL BE KEPT DRY AT ALL TIMES, PUMPING WATER IF NECESSARY.
8. BARRIER SHALL BE SET AND ADJUSTED WITH THE LEVELLING FEET SO THAT THE TOP PLATES ARE LEVEL AND PLUMB WITH THE DRIVING SURFACE OF THE ROADWAY.
9. CONSTRUCTION JOINTS ARE NOT ALLOWED ON ROAD GRADE SURFACE. IF JOINTS ARE USED ELSEWHERE, THEY SHALL BE APPROVED AND CLEANED OF SURFACE LAITANCE, CURING COMPOUND, AND OTHER FOREIGN MATERIALS BEFORE FRESH CONCRETE IS PLACED AGAINST THE SURFACE OF THE JOINT.
10. AGGREGATES SHALL CONFORM TO ASTM C33. MAXIMUM AGGREGATE SIZE SHOULD BE 1.5".
12. CONCRETE SHALL BE CONVEYED FROM THE MIXER TO FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION OR LOSS OF MATERIAL.
12. CONCRETE SHALL BE MAINTAINED ABOVE 50°F, AND ADEQUATE EQUIPMENT SHALL BE PROVIDED.
13. CONCRETE SHALL BE TESTED PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE I.
14. CONCRETE SHALL HAVE AT LEAST 5000 PSI AT 28 DAYS. ENSURE THAT ALL AREAS HAVE BEEN FILLED AND VIBRATED TO FILL ALL VOIDS.
15. BACKFILLING SHALL BE DONE BY LAYERING AND TAMPING INTO PLACE CRUSHED LIMESTONE BASE MATERIAL TO 95% COMPACTION.

SUMMARY OF PROVIDED MATERIAL

Item	DESCRIPTION	QTY
1	XT-2200-RB HEALD "RAPTOR" SHALLOW MOUNT BOLLARD M50P1 CRASH RATING	1
2	xx	
3	xx	
4	xx	
5	xx	
6	xx	
7	xx	
8	xx	
9	xx	
10	xx	

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SITE MATERIAL REQUIRED BY BUILDER

Item	DESCRIPTION	QTY
A	#10 REBAR, SIDE OF BARRIER	8
B	#10 REBAR, FRONT OF BARRIER	3
C	5000 PSI CONCRETE	3 CY
D	xx	
E	xx	
F	xx	
G	xx	
H	xx	
i	xx	
J	xx	

PLEASE NOTE REFER TO DATA SHEET(S) FOR FULL EQUIPMENT SPECIFICATION DETAILS.

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Leola, PA USA

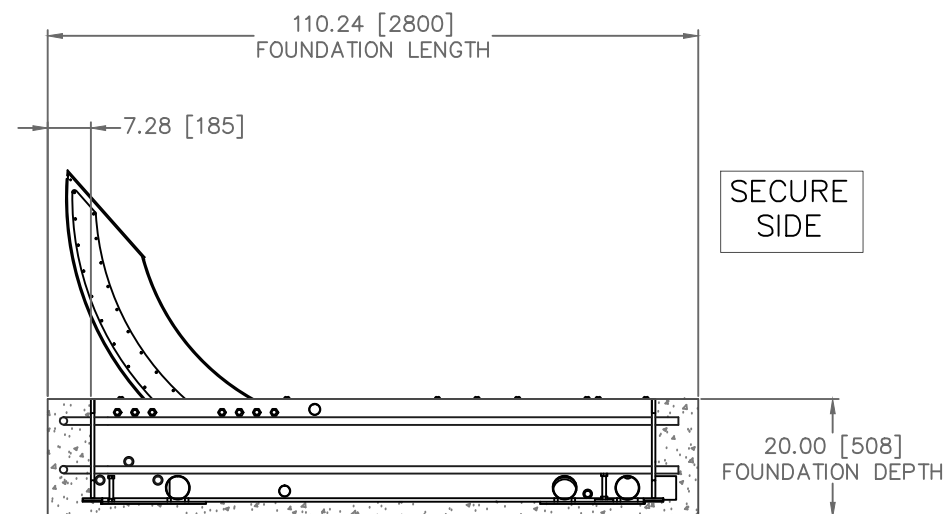
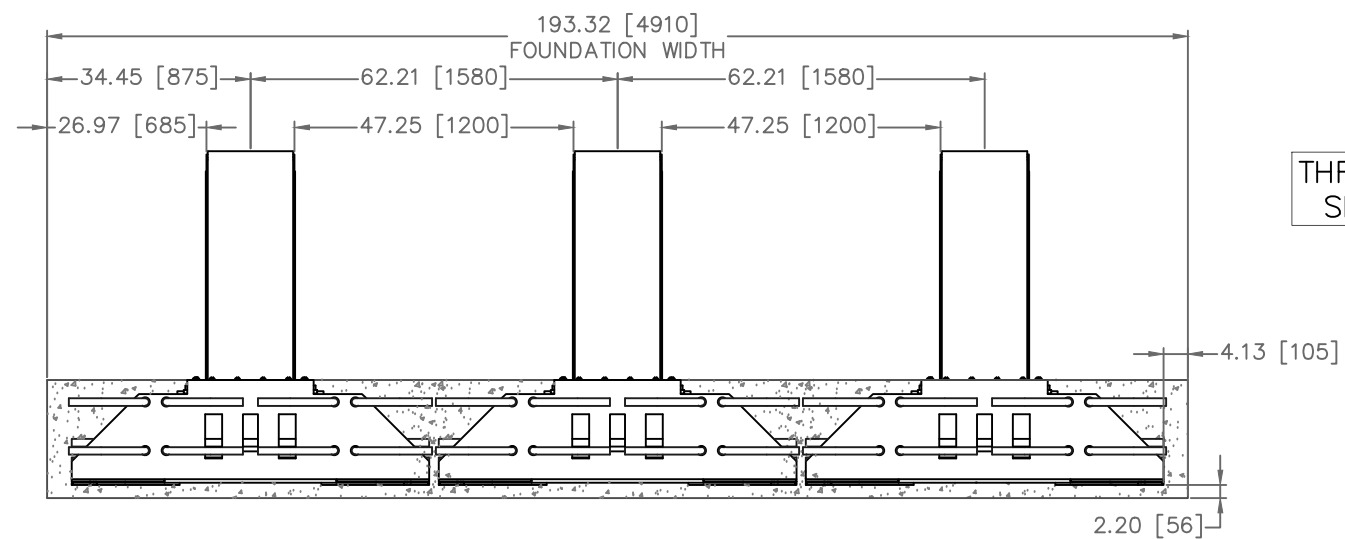
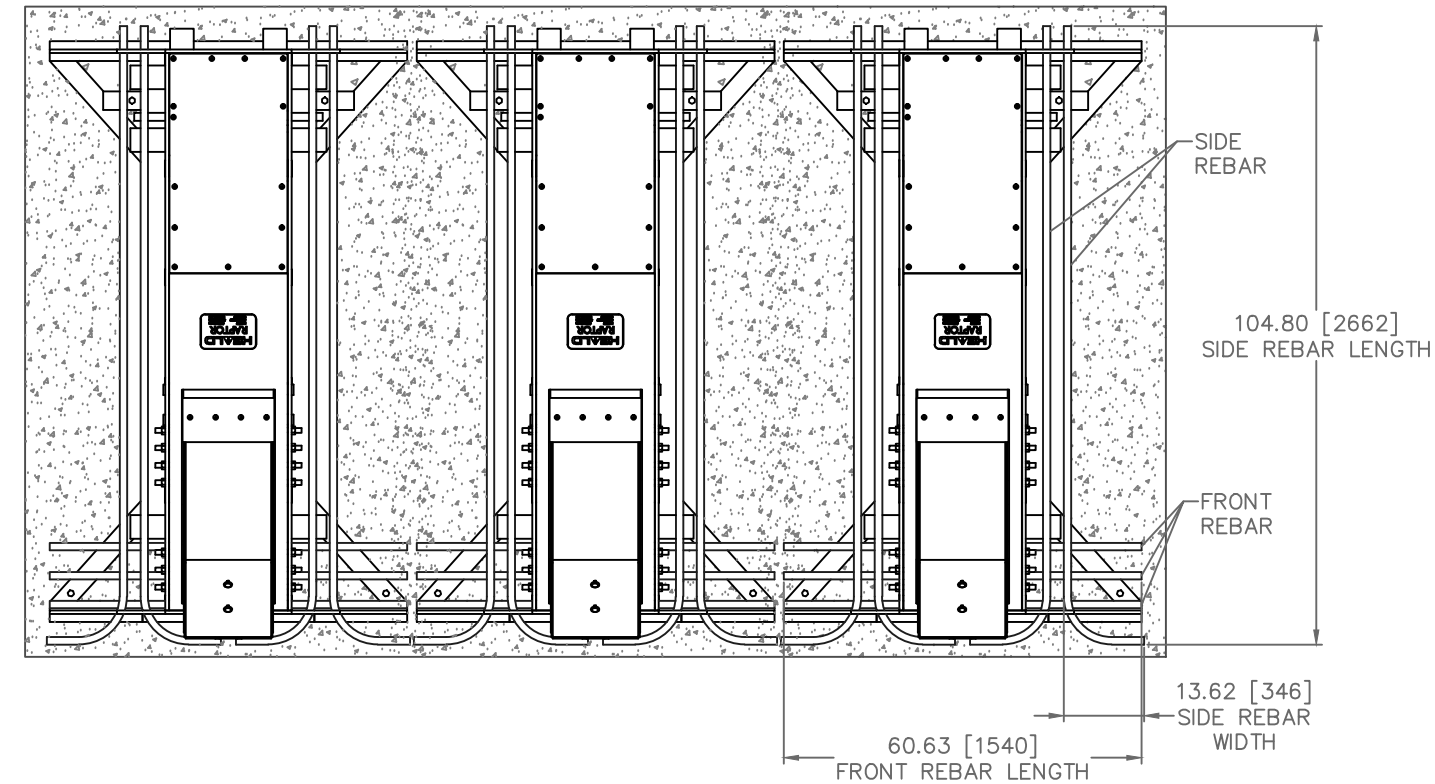
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GB Patent Application Number GB1006439.2
European Patent Application Number EP11716612.4
US Patent Application Number US13/641, 831
US Patent No D715, 174

Title RAPTOR HYDRAULIC BOLLARD INSTALLATION PLAN

Project Number -

Drawn TJM	Checked TJM	Date 1/24/2014	Scale NTS
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Dwg no. XT-2200-RB Sheet 2 of 5



INSTALLATION NOTES:

1. SITE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE.
2. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT AREAS AGAINST DAMAGE.
3. SITE CONTRACTOR SHALL REPAIR OR PATCH DAMAGED AREAS TO MATCH EXISTING AREA.
4. SITE CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA CLEAN AT ALL TIMES.
5. SITE CONTRACTOR SHALL AT COMPLETION OF WORK, REMOVE ALL SURPLUS MATERIALS, EQUIPMENT AND DEBRIS AND LEAVE THE PREMISES IN A CLEAN CONDITION ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE.
6. SITE CONTRACTOR WILL PROVIDE THE INSTALLATION MATERIAL SUCH AS PVC, AGGREGATE, REBAR, TIES, FRAMING, CONCRETE, CHAIRS, OFFSETS, ETC. REBAR SHALL CONFORM TO ASTM A615, GRADE 60.
7. THE EXCAVATION SHALL BE KEPT DRY AT ALL TIMES, PUMPING WATER IF NECESSARY.
8. BARRIER SHALL BE SET AND ADJUSTED WITH THE LEVELLING FEET SO THAT THE TOP PLATES ARE LEVEL AND PLUMB WITH THE DRIVING SURFACE OF THE ROADWAY.
9. CONSTRUCTION JOINTS ARE NOT ALLOWED ON ROAD GRADE SURFACE. IF JOINTS ARE USED ELSEWHERE, THEY SHALL BE APPROVED AND CLEANED OF SURFACE LANTANCE, CURING COMPOUND, AND OTHER FOREIGN MATERIALS BEFORE FRESH CONCRETE IS PLACED AGAINST THE SURFACE OF THE JOINT.
10. AGGREGATES SHALL CONFORM TO ASTM C33. MAXIMUM AGGREGATE SIZE SHOULD BE 1.5".
12. CONCRETE SHALL BE CONVEYED FROM THE MIXER TO FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION OR LOSS OF MATERIAL.
12. CONCRETE SHALL BE MAINTAINED ABOVE 50°F, AND ADEQUATE EQUIPMENT SHALL BE PROVIDED.
13. CONCRETE SHALL BE TESTED PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE I.
14. CONCRETE SHALL HAVE AT LEAST 5000 PSI AT 28 DAYS. ENSURE THAT ALL AREAS HAVE BEEN FILLED AND VIBRATED TO FILL ALL VOIDS.
15. BACKFILLING SHALL BE DONE BY LAYERING AND TAMPING INTO PLACE CRUSHED LIMESTONE BASE MATERIAL TO 95% COMPACTION.

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 GB Patent Application Number GB1006439.2
 European Patent Application Number EP11716612.4
 US Patent Application Number US13/641, 831
 US Patent No D715, 174

SUMMARY OF PROVIDED MATERIAL

Item	DESCRIPTION	QTY
1	XT-2200-RB HEALD "RAPTOR" SHALLOW MOUNT BOLLARD M50P1 CRASH RATING	1
2	xx	
3	xx	
4	xx	
5	xx	
6	xx	
7	xx	
8	xx	
9	xx	
10	xx	

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SITE MATERIAL REQUIRED BY BUILDER

Item	DESCRIPTION	QTY
A	#10 REBAR, SIDE OF BARRIER	8
B	#10 REBAR, FRONT OF BARRIER	3
C	5000 PSI CONCRETE	9 CY
D	xx	
E	xx	
F	xx	
G	xx	
H	xx	
i	xx	
J	xx	

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DIMENSIONS IN [] ARE IN MILLIMETERS



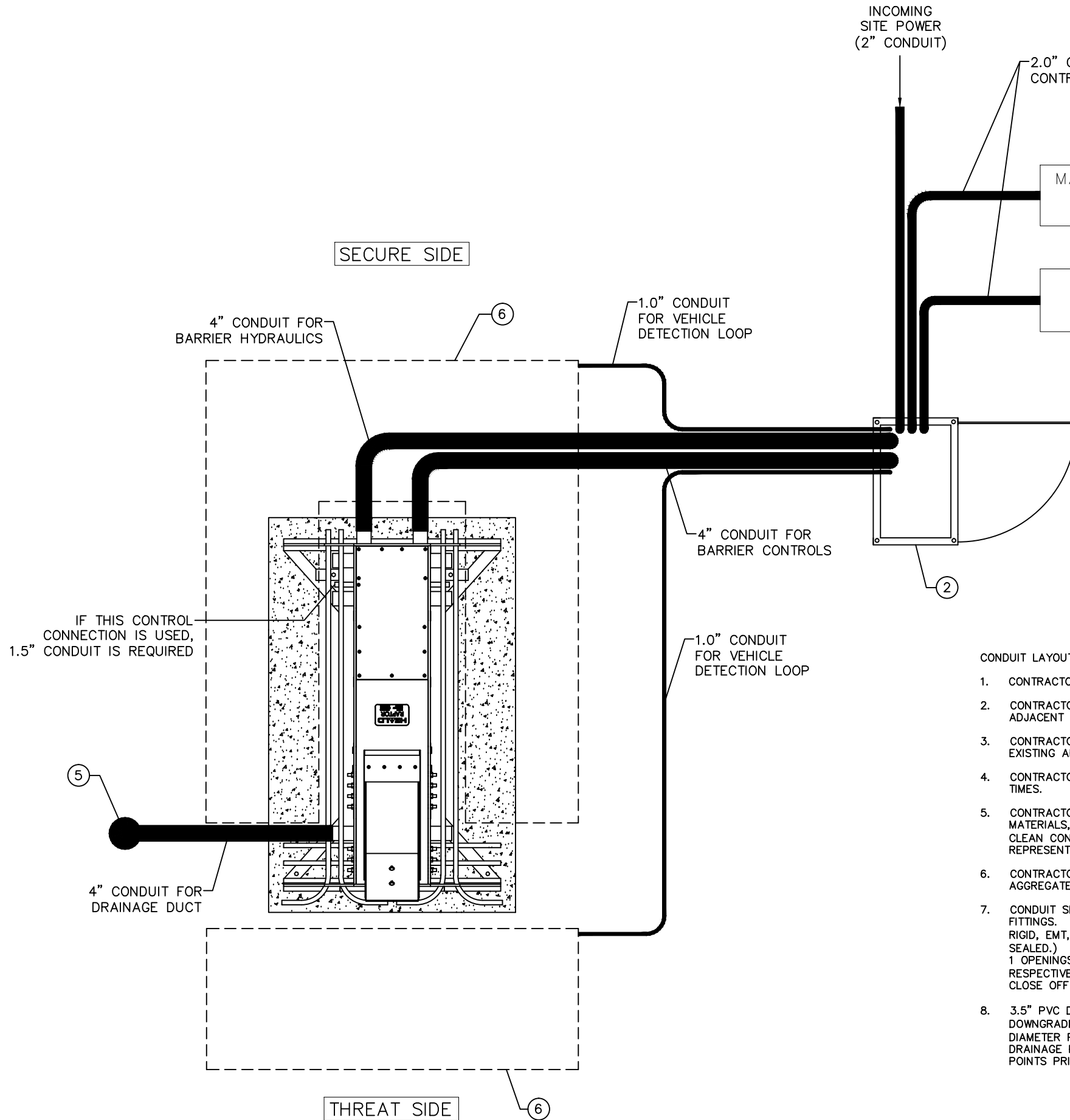
ROSS Technology Corp.
 Leola, PA USA

Title RAPTOR HYDRAULIC BOLLARD SET OF 3 INSTALLATION PLAN

Project Number

Drawn	Checked	Date	Scale
TJM	TJM	1/24/2014	NTS

Dwg no. XT-2200-RB Sheet 3 of 5



CONDUIT LAYOUT NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE JOB SITE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT AREAS AGAINST DAMAGE.
3. CONTRACTOR SHALL REPAIR OR PATCH DAMAGED AREAS TO MATCH EXISTING AREA.
4. CONTRACTOR SHALL KEEP THE CONSTRUCTION AREA CLEAN AT ALL TIMES.
5. CONTRACTOR SHALL AT COMPLETION OF WORK, REMOVE ALL SURPLUS MATERIALS, EQUIPMENT AND DEBRIS AND LEAVE THE PREMISES IN A CLEAN CONDITION ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE.
6. CONTRACTOR WILL PROVIDE THE INSTALLATION MATERIAL SUCH AS PVC, AGGREGATE, REBAR, TIES, FRAMING, CONCRETE, CHAIRS, OFFSETS, ETC.
7. CONDUIT SHALL BE INSTALLED USING WIDE ELBOW SWEEPS AND STRAIGHT FITTINGS. OPENINGS AT ACCESSORY BOX HAVE BEEN PROVIDED FOR RIGID, EMT, OR IMC PIPING. (SOME CLEARANCE GAPS MAY NEED TO BE SEALED.) OBSERVE MFG SPECS ON BEND RADIUS FOR HYDRAULIC LINES. 1 OPENINGS ARE PROVIDED ON EACH SIDE FOR HYDRO AND CONTROLS RESPECTIVELY, 2 OPENING IN THE BACK FOR THE HYDRO/CONTROLS. CLOSE OFF UNUSED POINTS PRIOR TO CONCRETE POUR.
8. 3.5" PVC DRAINAGE PIPES SHALL BE SET AND SHIMMED ON A 1% DOWNGRADE TO SUMP PUMP OR DESIGNATED DRAINAGE POINT. 2" OUTER DIAMETER PIPE HAS BEEN PROVIDED TO SECURE 3.5" PVC CONDUIT. 4 DRAINAGE POINTS ARE PROVIDED ON EACH BARRIER, CLOSE OFF UNUSED POINTS PRIOR TO CONCRETE POUR.

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 GB Patent Application Number GB1006439.2
 European Patent Application Number EP11716612.4
 US Patent Application Number US13/641, 831
 US Patent No D715, 174

SUMMARY OF PROVIDED MATERIAL		
Item	DESCRIPTION	QTY
1	XT-2200-RB HEALD "RAPTOR" SHALLOW MOUNT BOLLARD M50P1 CRASH RATING	1
2	CONTROL CABINET/HPU	1
3	MASTER CONTROL CONSOLE	1
4	REMOTE CONTROL CONSOLE	1
5	SUMP PUMP	1
6	VEHICLE DETECTION LOOP	2
7	xx	
8	xx	
9	xx	
10	xx	

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SITE MATERIAL REQUIRED BY BUILDER

Item	DESCRIPTION	QTY
A	3.0" CONDUIT	TBD
B	1.0" CONDUIT	TBD
C	xx	
D	xx	
E	xx	
F	xx	
G	xx	
H	xx	
i	xx	
J	xx	

PLEASE NOTE REFER TO DATA SHEET(S) FOR FULL EQUIPMENT SPECIFICATION DETAILS.

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ROSS Technology Corp.
 Leola, PA USA

Title RAPTOR HYDRAULIC BOLLARD CONDUIT LAYOUT

Project Number -

Drawn TJM	Checked TJM	Date 1/24/2014	Scale NTS
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Dwg no. XT-2200-RB Sheet 4 of 5