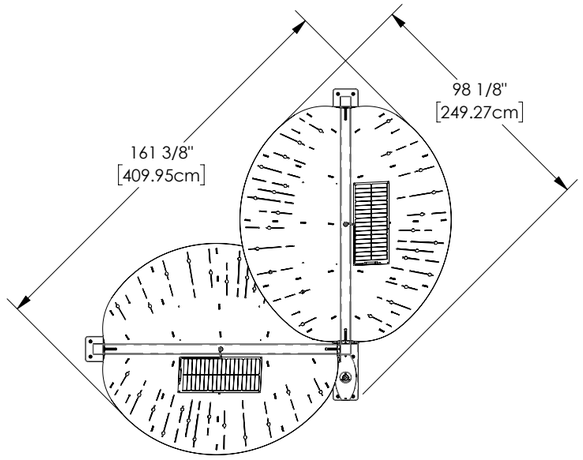


PLAN VIEW

GENERAL NOTES:
1) "BY OTHERS" MAY REFER TO SERVICE PROVIDERS OTHER THAN THE EQUIPMENT MANUFACTURER. PLEASE REFER TO PROJECT SPECIFICATION FOR DETAILS OF RESPONSIBILITY.
2) PIPE LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.
3) USE ANTI-SEIZE ON ALL THREADS.
4) DRAINAGE SOLUTIONS ARE OPTIONAL AND UNDER THE RESPONSABILITY OF THE INSTALLER.
5) ABRIO PRODUCTS ARE ASSEMBLED ON-SITE BY INSTALLER. REFER TO ASSEMBLY GUIDE FOR STEP-BY-STEP INSTRUCTIONS.

ELECTRICAL NOTES:
1) NO LIVE ELECTRICAL CONNECTION TO BE DONE. SOLAR BATTERY SYSTEM IN OPERATION.
2) FAILURE TO FOLLOW VORTEX APPLICATION GUIDELINES, DRAWINGS, WIRING DIAGRAM & CABLE SPECIFICATIONS WILL VOID PRODUCT WARRANTY.
3) IF YOU HAD SEVERAL DAYS WITHOUT SUN (3 OR MORE), THE SYSTEM WILL GO TO A SLEEP MODE, WHICH WILL SHUTDOWN THE SYSTEM TO PROTECT THE CONTROLLER AND THE BATTERY UNTIL IT'S RECHARGED TO 20% (3-5 SUNNY HOURS).

OPTIMAL SOLAR ORIENTATION (DONE BY OTHERS):
- SOUTH FACING FOR NORTH OF THE EQUATOR
- NORTH FACING FOR SOUTH OF THE EQUATOR
- AVOID SHADOW AREAS FOR INSTALLATION

ABRIO OPTIONS :
WATER FEATURE OPTIONS:
- **VOR3501 (WITH RIVER MAZE)**

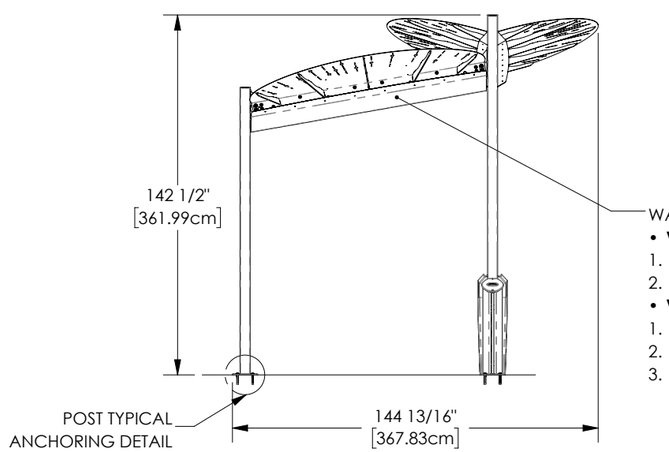
1. 1X SOFT RAIN + 2X RIVER MAZE
2. 1X MIST + 2X RIVER MAZE

- **VOR3501B (WITHOUT RIVER MAZE)**

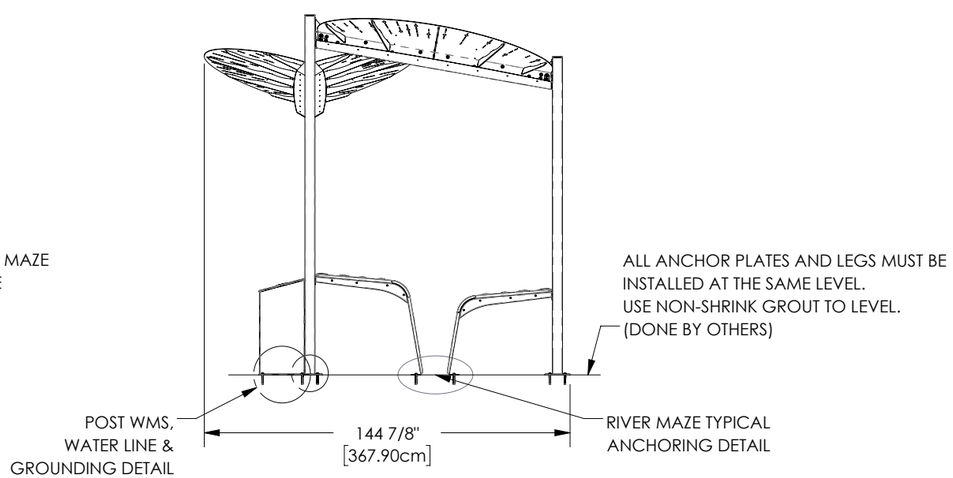
1. 2X SOFT RAIN
2. 2X MIST
3. 1X SOFT RAIN + 1X MIST

VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501 - VOR 3501B
INSTALLATION DRAWING



FRONT ELEVATION VIEW



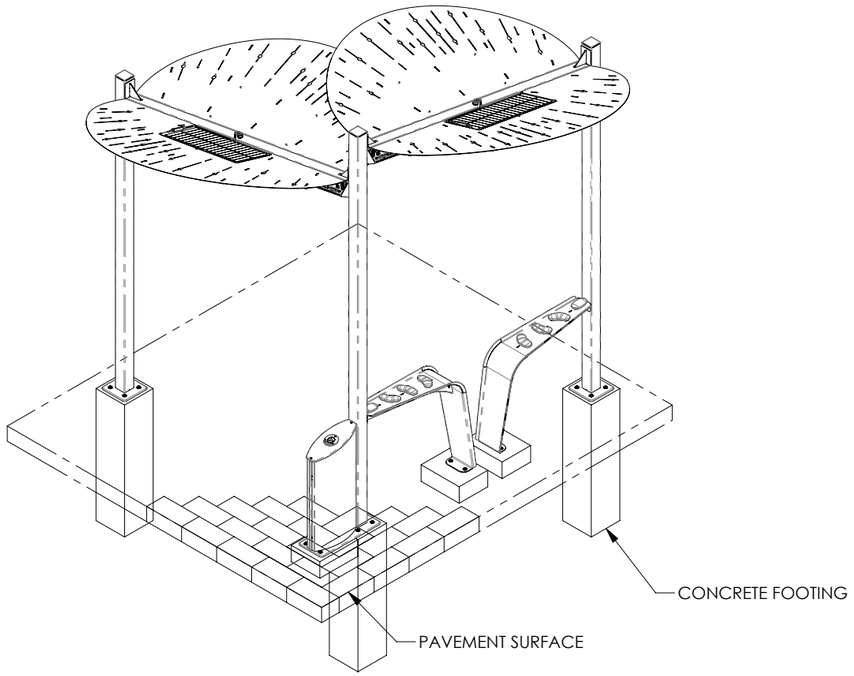
SIDE ELEVATION VIEW

Page#

INSTALLATION OPTIONS

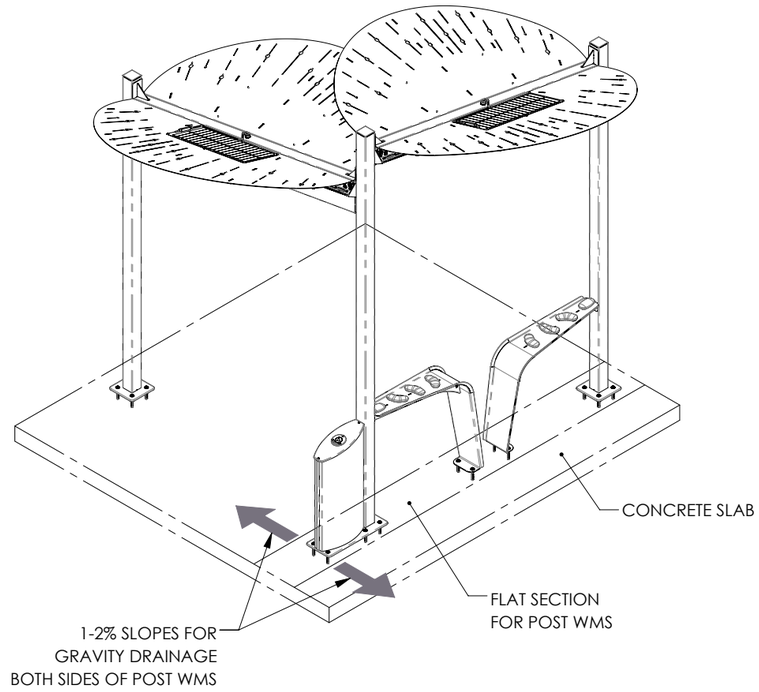
OPTION #1:

PAVEMENT SURFACE WITH CONCRETE FOOTINGS
(PERMEABLE OR ON A 1-2% SLOPE)



OPTION #2:

CONCRETE SLAB
(ON A 1-2% SLOPE)

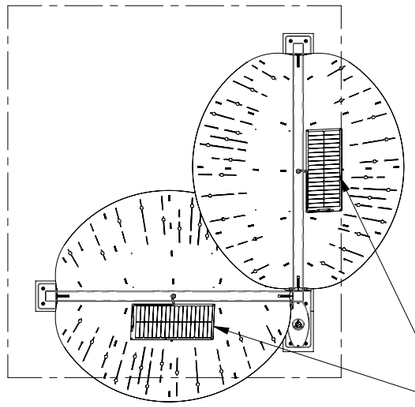


VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

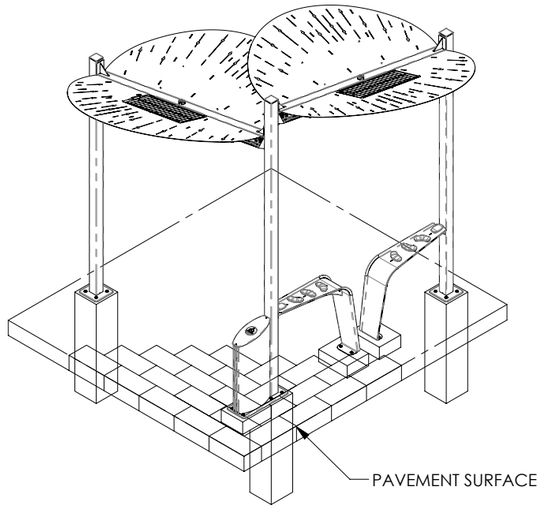
INSTALLATION OPTION #1: PAVEMENT SURFACE WITH CONCRETE FOOTINGS

REFER TO TYPICAL ANCHORING DETAILS

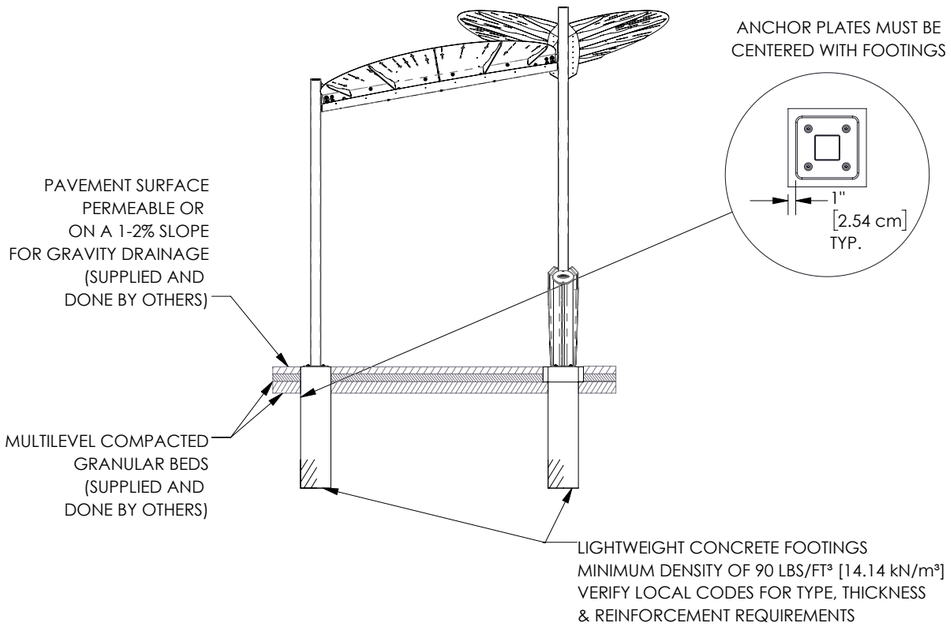


PLAN VIEW

SOUTH FACING SOLAR PANEL (MANDATORY)
ACCORDING TO NORTHERN HEMISPHERE LOCATION
(PLEASE CONSIDER HEMISPHERE LOCATION)
AVOID SHADOW OR OBSTRUCTED AREAS



PAVEMENT SURFACE



ANCHOR PLATES MUST BE
CENTERED WITH FOOTINGS

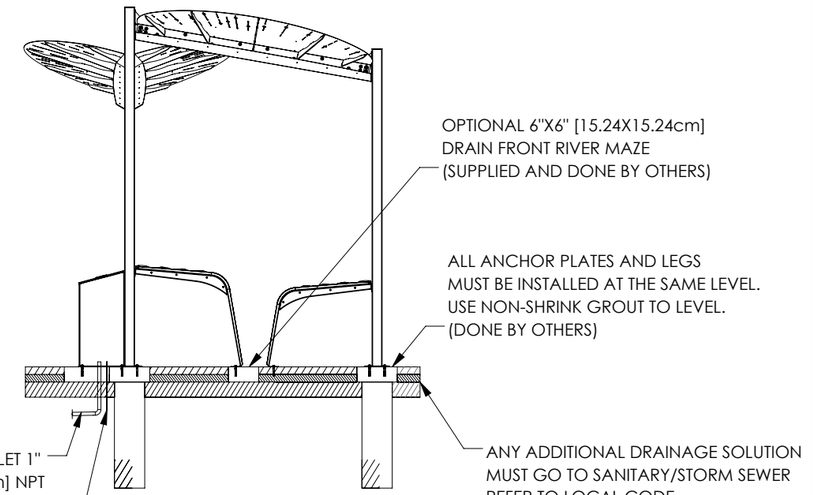
1"
[2.54 cm]
TYP.

PAVEMENT SURFACE
PERMEABLE OR
ON A 1-2% SLOPE
FOR GRAVITY DRAINAGE
(SUPPLIED AND
DONE BY OTHERS)

MULTILEVEL COMPACTED
GRANULAR BEDS
(SUPPLIED AND
DONE BY OTHERS)

LIGHTWEIGHT CONCRETE FOOTINGS
MINIMUM DENSITY OF 90 LBS/FT³ [14.14 kN/m³]
VERIFY LOCAL CODES FOR TYPE, THICKNESS
& REINFORCEMENT REQUIREMENTS

FRONT ELEVATION VIEW



OPTIONAL 6"X6" [15.24X15.24cm]
DRAIN FRONT RIVER MAZE
(SUPPLIED AND DONE BY OTHERS)

ALL ANCHOR PLATES AND LEGS
MUST BE INSTALLED AT THE SAME LEVEL.
USE NON-SHRINK GROUT TO LEVEL.
(DONE BY OTHERS)

DRINKING WATER LINE INLET 1"
TO 1 1/2" [25.4 TO 38.1mm] NPT
1-2% SLOPE BACK TO WATER SUPPLY.
REFER TO CONSTRUCTION DOCUMENTS
FOR LINE SIZE DETAILS.
(LINE CONNECTION SUPPLIED
AND DONE BY OTHERS)

#8 AWG BARE COPPER
GROUNDING/BONDING WIRE
(SUPPLIED AND DONE BY OTHERS)

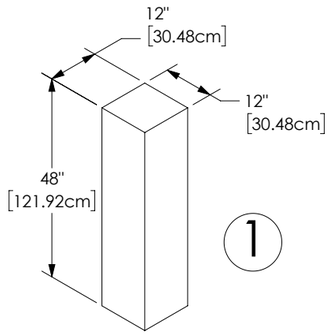
ANY ADDITIONAL DRAINAGE SOLUTION
MUST GO TO SANITARY/STORM SEWER
REFER TO LOCAL CODE.
(SUPPLIED AND DONE BY OTHERS)

SIDE ELEVATION VIEW

VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

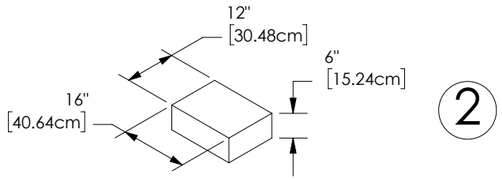
ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

INSTALLATION OPTION #1: CONCRETE FOOTINGS, WATER INLET AND GROUNDING WIRE POSITIONING



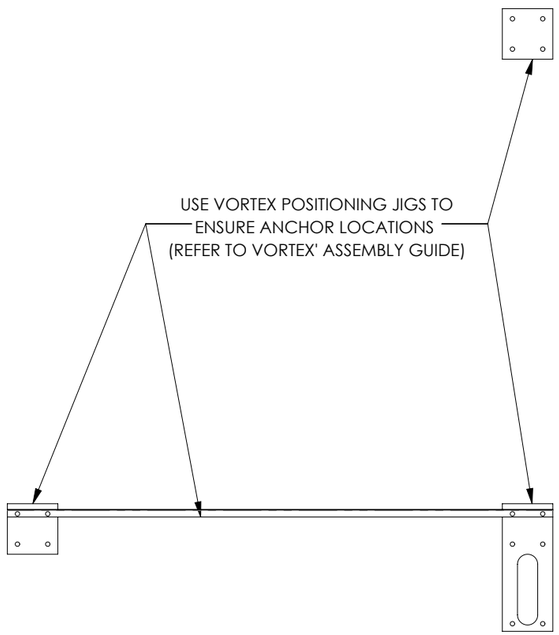
POST FOOTING DIMENSIONS & DETAILS

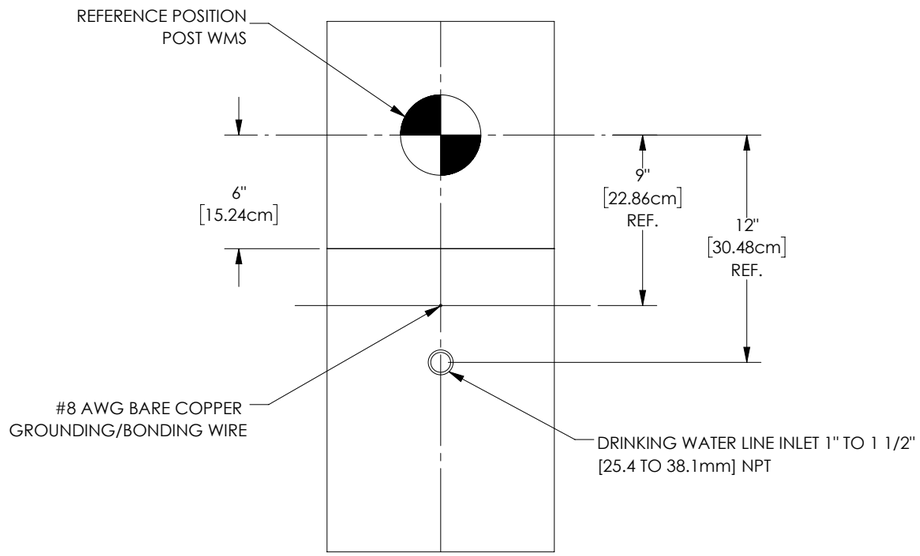
DIMENSIONS MAY VARY, BUT CONCRETE VOLUME
MUST BE MINIMUM 5500 IN³ (3.183 FT³) [0.09 m³]
LIGHTWEIGHT CONCRETE OF MINIMUM DENSITY = 90 LBS/FT³ [14.14 kN/m³]



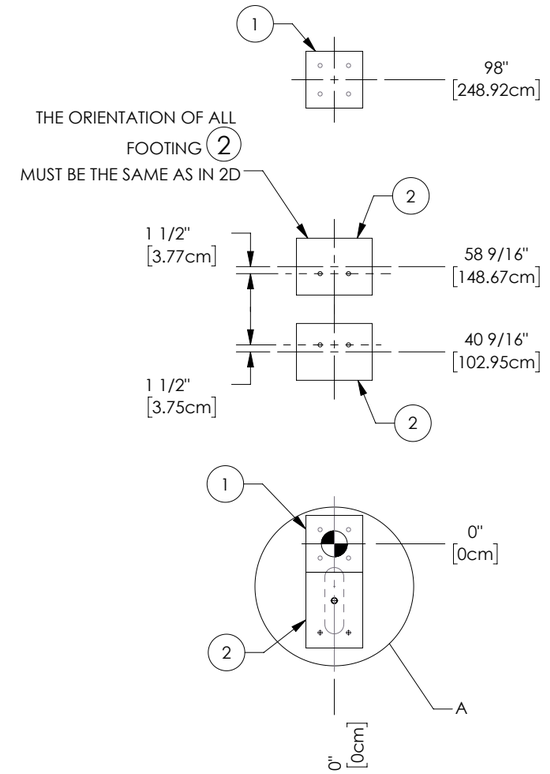
BENCH, RIVER MAZE AND WMS FOOTING DIMENSIONS & DETAILS

*DIMENSIONS MAY VARY, BUT CONCRETE VOLUME
MUST BE MINIMUM 1005 IN³ (0.582 FT³) [0.165 m³]
LIGHTWEIGHT CONCRETE OF MINIMUM DENSITY = 90 LBS/FT³ [14.14 kN/m³]





DETAIL A
SCALE 1 : 8



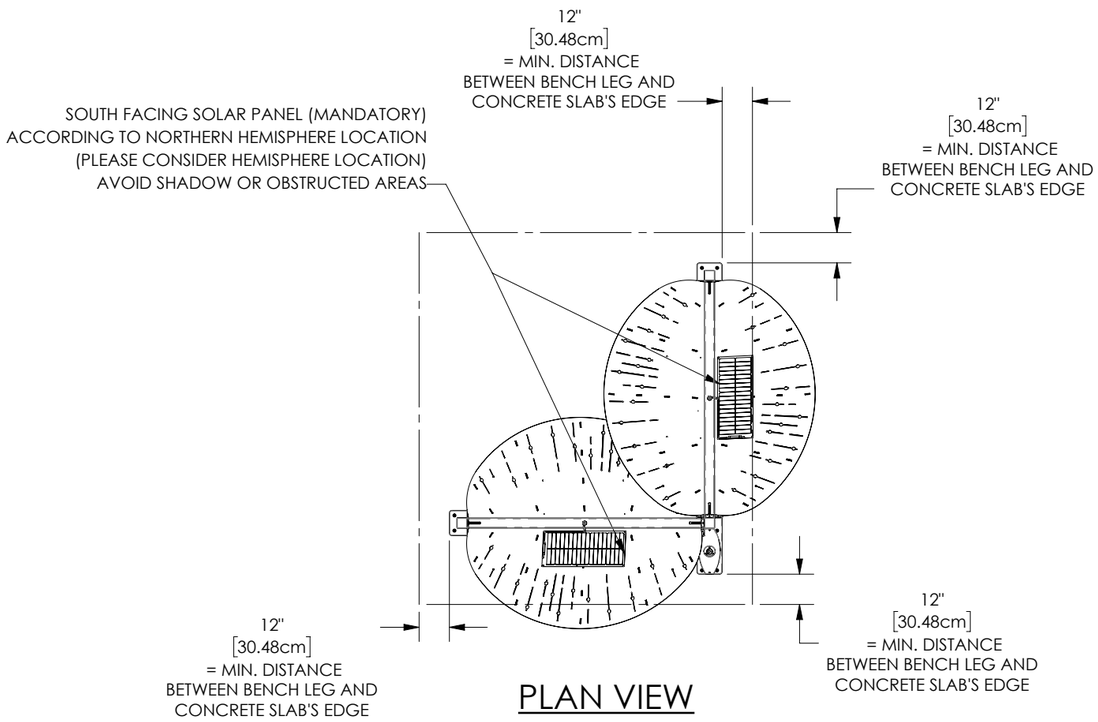
PLAN VIEW

VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

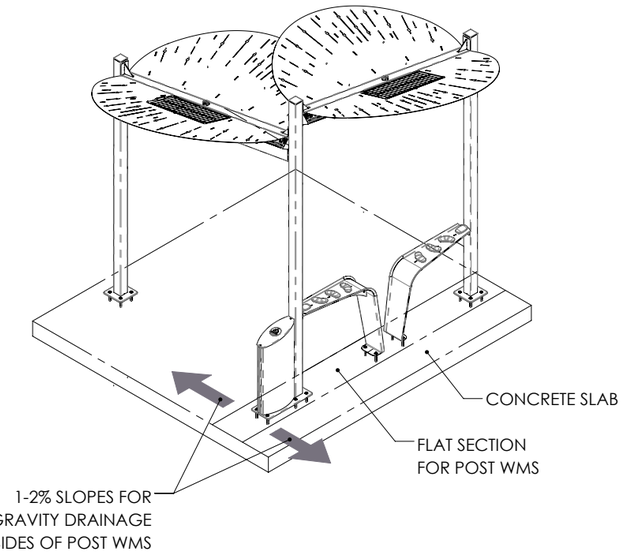
ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

INSTALLATION OPTION #2: CONCRETE SLAB

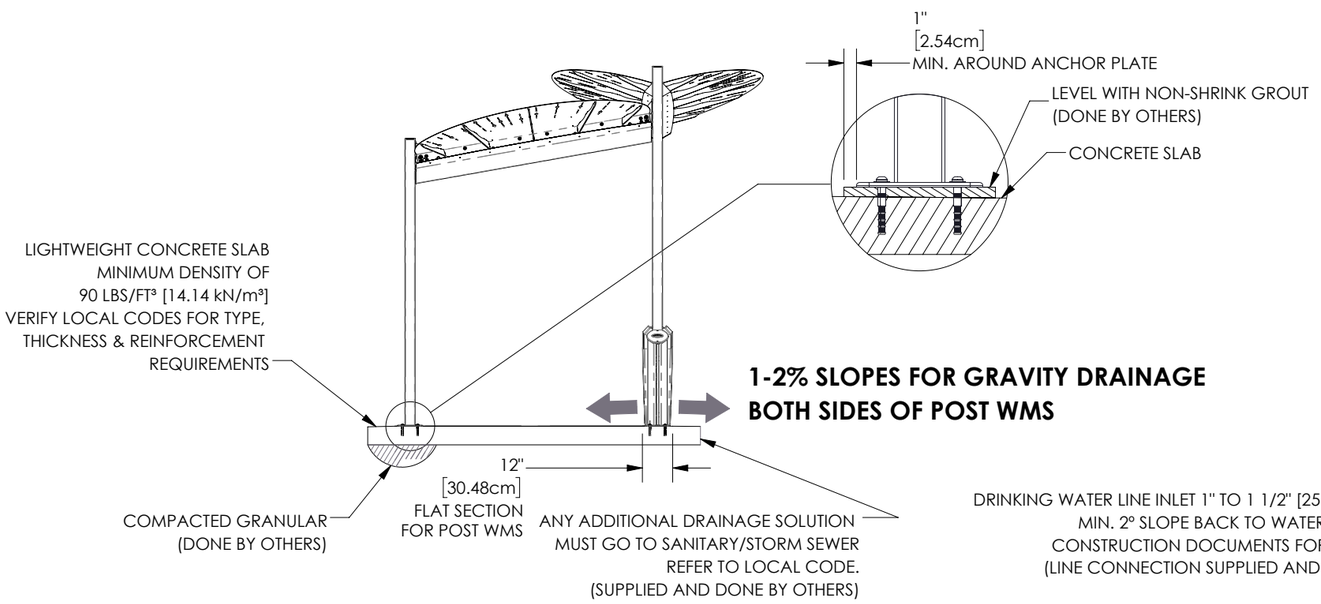
REFER TO TYPICAL ANCHORING DETAILS



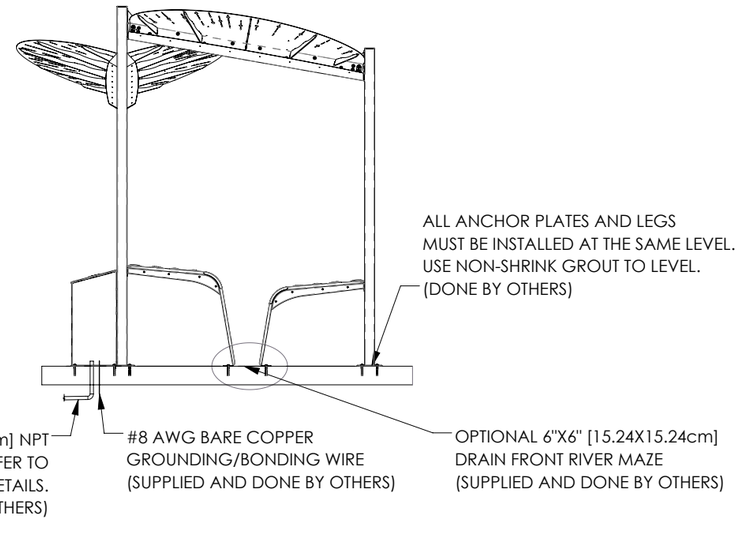
PLAN VIEW



OPTIONAL 6"X6" [15.24X15.24cm] DRAIN
BETWEEN RIVER MAZES
(SUPPLIED AND DONE BY OTHERS)



FRONT ELEVATION VIEW

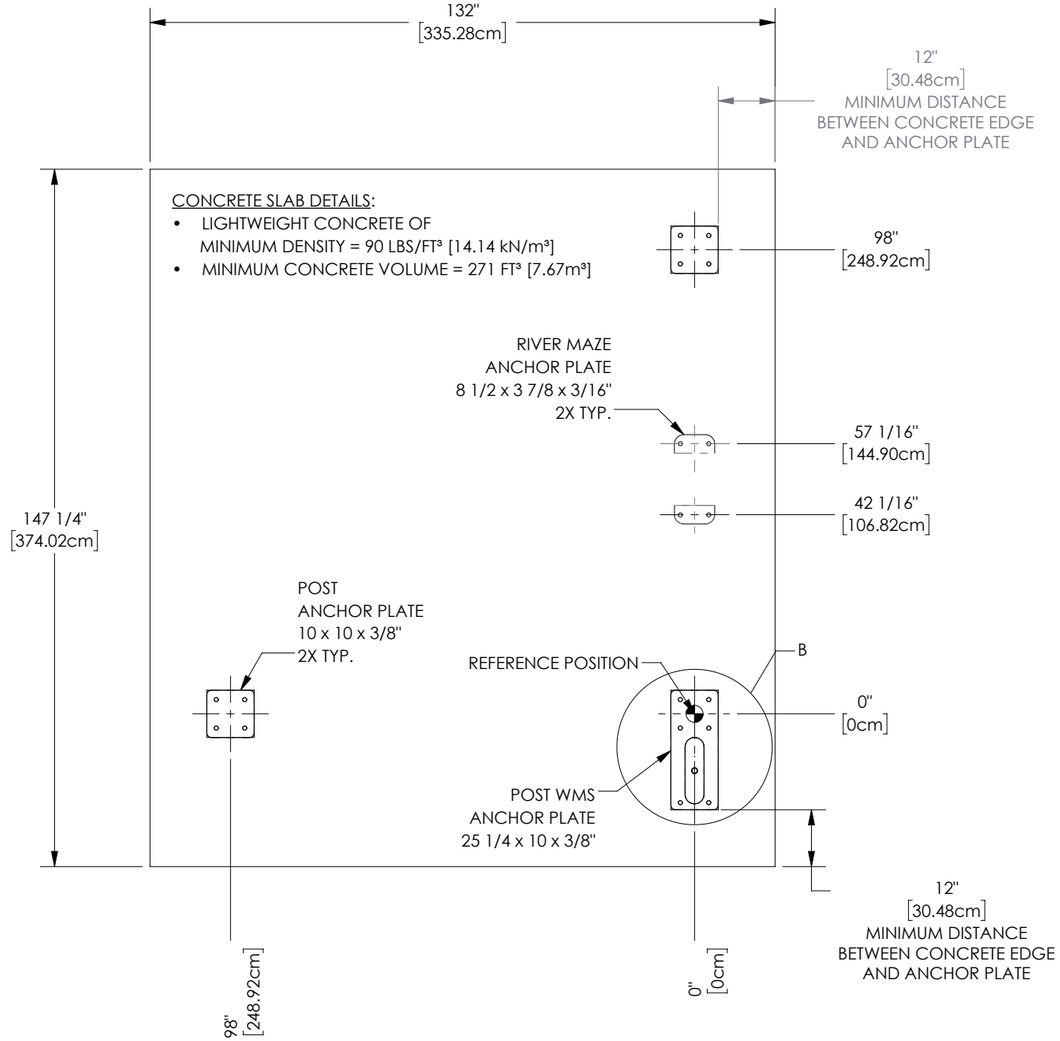


SIDE ELEVATION VIEW

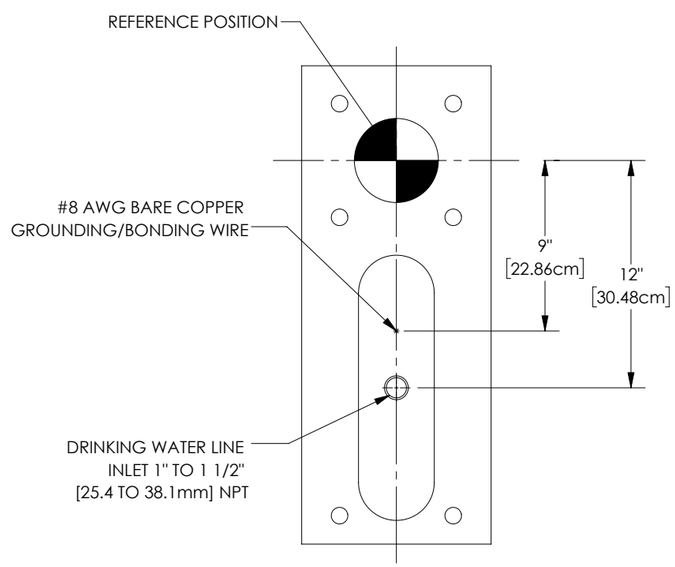
VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

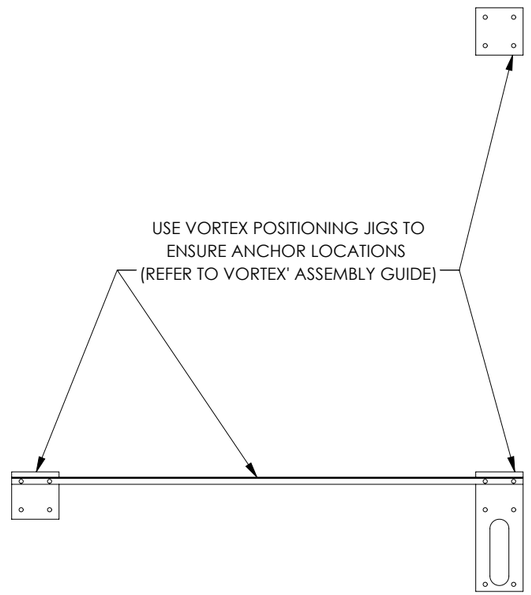
INSTALLATION OPTION #2: CONCRETE SLAB, WATER INLET AND GROUNDING WIRE POSITIONING



PLAN VIEW



DETAIL B
SCALE 1 : 8



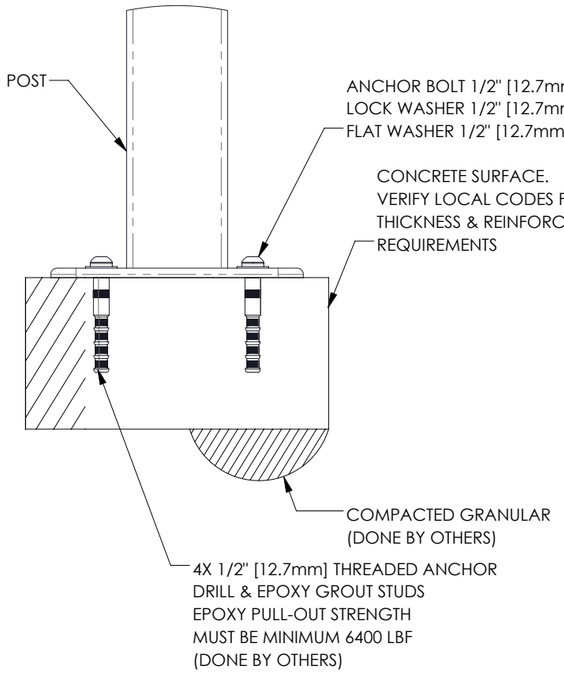
VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

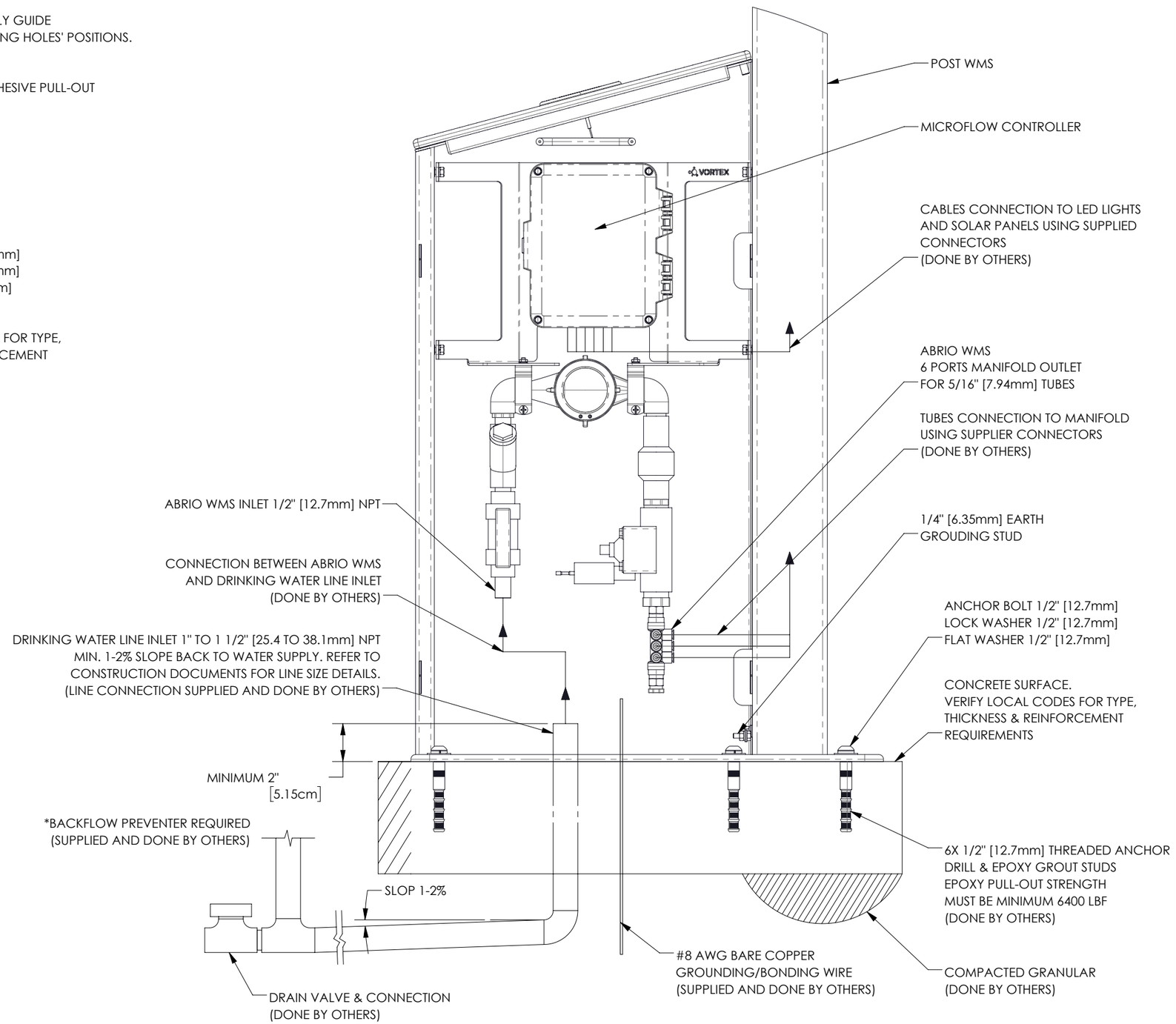
POSTS TYPICAL ANCHORING STEPS (DONE BY OTHERS)

REFER TO ANCHORING POSITIONS PAGE AND VORTEX' ASSEMBLY GUIDE

1. PLACE ANCHORING JIGS AS DETAILED IN THE VORTEX' ASSEMBLY GUIDE
2. MARK ON CONCRETE FOOTING OR SLAB, THE POST'S ANCHORING HOLES' POSITIONS.
3. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
4. CLEAN THE DRILLED HOLES.
5. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
6. WAIT FOR EPOXY'S CURING TIME
7. ASSEMBLE THE POSTS AS PER VORTEX' ASSEMBLY GUIDE.



POST TYPICAL ANCHORING DETAIL



POST WMS TYPICAL ANCHORING DETAIL

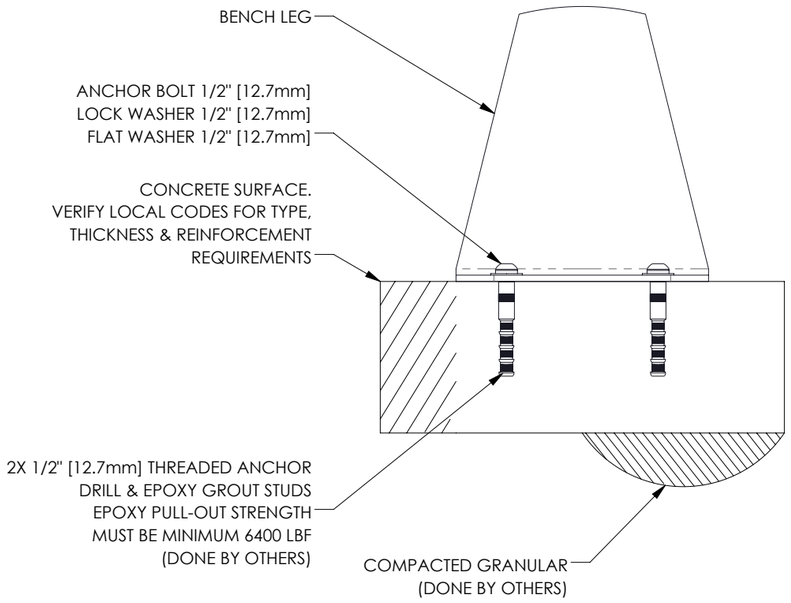
VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501B
INSTALLATION DRAWING

BENCH TYPICAL ANCHORING STEPS (DONE BY OTHERS):

1. PLACE BENCH ON POST BRACKET.
2. MARK ON CONCRETE FOOTING OR SLAB, THE BENCH LEG ANCHORING HOLES' POSITIONS.
3. REMOVE BENCH.
4. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
5. CLEAN THE DRILLED HOLES.
6. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
7. WAIT FOR EPOXY'S CURING TIME
8. ASSEMBLE THE BENCH AS PER VORTEX' ASSEMBLY GUIDE.

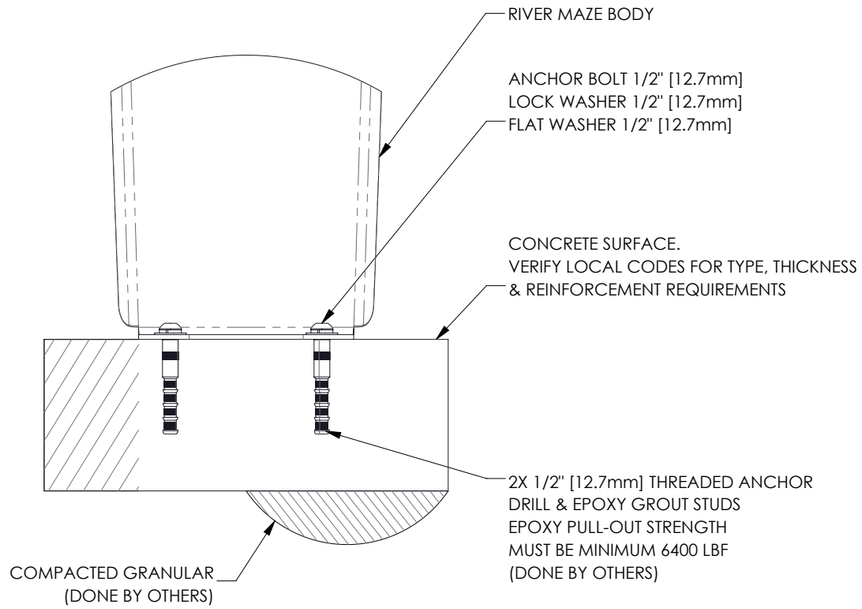
BENCH TYPICAL ANCHORING DETAIL



RIVER MAZE TYPICAL ANCHORING STEPS (DONE BY OTHERS):

1. ASSEMBLE RIVER MAZE ON POST, USING SUPPLIED HARDWARE.
2. MARK ON CONCRETE FOOTING OR SLAB, THE RIVER MAZE LEG ANCHORING HOLES' POSITIONS.
3. REMOVE RIVER MAZE.
4. DRILL ON HOLES' MARKINGS WITH 3/4" DRILL BIT SIZE.
5. CLEAN THE DRILLED HOLES.
6. PUT ANCHORS IN HOLES WITH EPOXY (EPOXY ANCHORING ADHESIVE PULL-OUT STRENGTH MUST BE MINIMUM 6400 LBF)
7. WAIT FOR EPOXY'S CURING TIME
8. ASSEMBLE THE RIVER MAZE AS PER VORTEX' ASSEMBLY GUIDE.

RIVER MAZE TYPICAL ANCHORING DETAIL



VORTEX
VORTEX AQUATIC STRUCTURES INTL
7800 Autoroute Trans Canadienne
Pointe Claire (Montreal)
Québec, Canada H9R 1C6
Toll-free:1.877.5VORTEX
www.vortex-intl.com

ABRIO 01 - VOR 3501B
INSTALLATION DRAWING