GENERAL NOTES

1. THE DRAWINGS DEPICTED HEREIN REPRESENT PRELIMINARY LAYOUTS OF A WASTEWATER TREATMENT SYSTEM CAPABLE OF TREATING THE DOMESTIC WASTE CONSTITUENTS NOTED IN TABLE 1.
2. ECOPOD REACTOR BOX SHALL BE CONSTRUCTED OF AISI 304/304L STAINLESS STEEL.
3. TANK MATERIAL OPTIONS:
    - 3.1. CARBON STEEL PER ASTM A36 w/COATING PER DELTA STANDARDS,
    - 3.2. FIBERGLASS REINFORCED PLASTIC (FRP) (NOT ALL MODELS),
    - 3.3. PRECAST CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS,
    - 3.4. CAST-IN-PLACE CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS.
4. BLOWERS, WEIRS, CONTROL PANELS, AND VARIOUS SMALL PARTS WILL BE SHIPPED UNASSEMBLED AND SECURELY PACKAGED, TO BE INSTALLED BY CONTRACTOR.
5. SEE INSTALLATION GUIDE FOR INSTALLATION DETAILS.
6. CONTACT AN IWT/DELTA REPRESENTATIVE REGARDING DEVIATIONS FROM THESE STANDARDS.

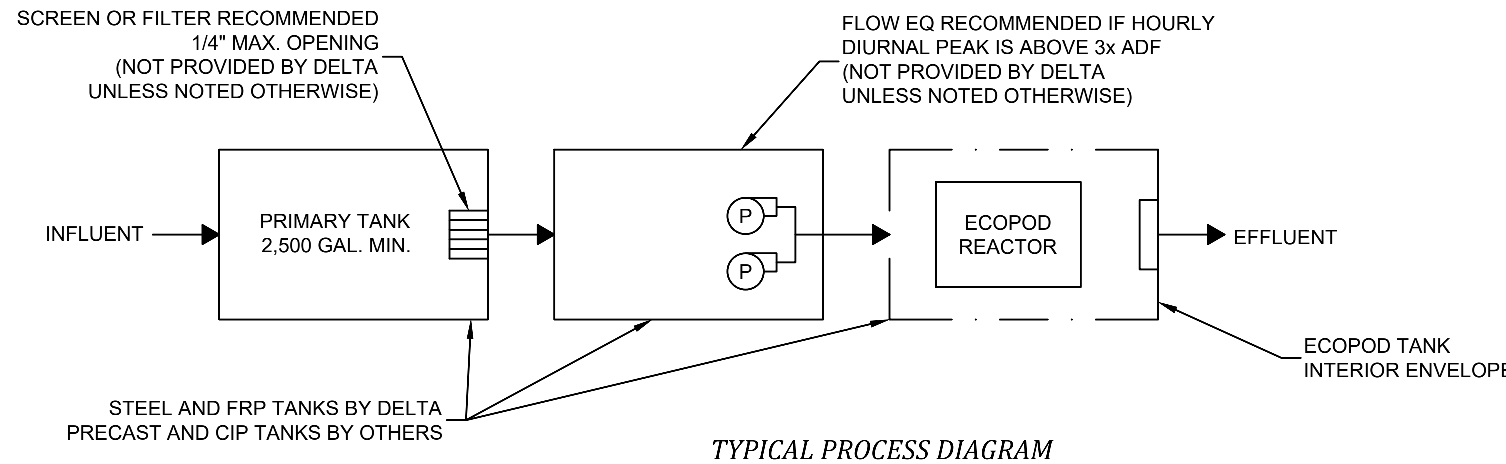
TABLE 1
PROCESS PARAMETERS
DELTA E500D BOD ONLY

PARAMETER	MINIMUM	MAXIMUM
AVERAGE DAILY FLOW	-	5,000 GPD
PEAK DAILY FLOW	-	7,500 GPD
INFLUENT BOD_5	-	12.5 LB/DAY
AIR TEMPERATURE	-	115 °F
WATER TEMPERATURE	68 °F	68 °F
RELATIVE HUMIDITY	10%	90%
SITE ELEVATION	0 FT AMSL	3,000 FT AMSL

TABLE 2
AIR DEMAND

PARAMETER	UP TO 1,000 FT AMSL	1,000 TO 3,000 FT AMSL
STANDARD AIRFLOW	61 SCFM	71 SCFM
SITE AIR REQUIREMENT	68 ICFM	85 ICFM
BLOWER INLET AIR	67 ICFM	116 ICFM
AIR HEADER SIZE	3 IN	3 IN
MIN. TANK VENT X-SECT. AREA	27.6 IN^2 1 EA 6"	47.7 IN^2 2 EA 6" OR 1 EA 8"
BLOWER SELECTION	FPZ SCL K04-MS	FPZ SCL K05-MS[3]
NOISE LEVEL	65.0 dB(A)	70.8 dB(A)
AIR TEMPERATURE RISE[1]	41 F (22.8 C)	33 F (18.3 C)
BLOWER INLET DIAMETER	1.5 IN NPT	2 IN NPT
BLOWER OUTLET DIAMETER	1.5 IN NPT	2 IN NPT
MOTOR POWER RATING[2]	2 HP	3 HP
OPERATING POWER	1.1 KW	1.7 KW

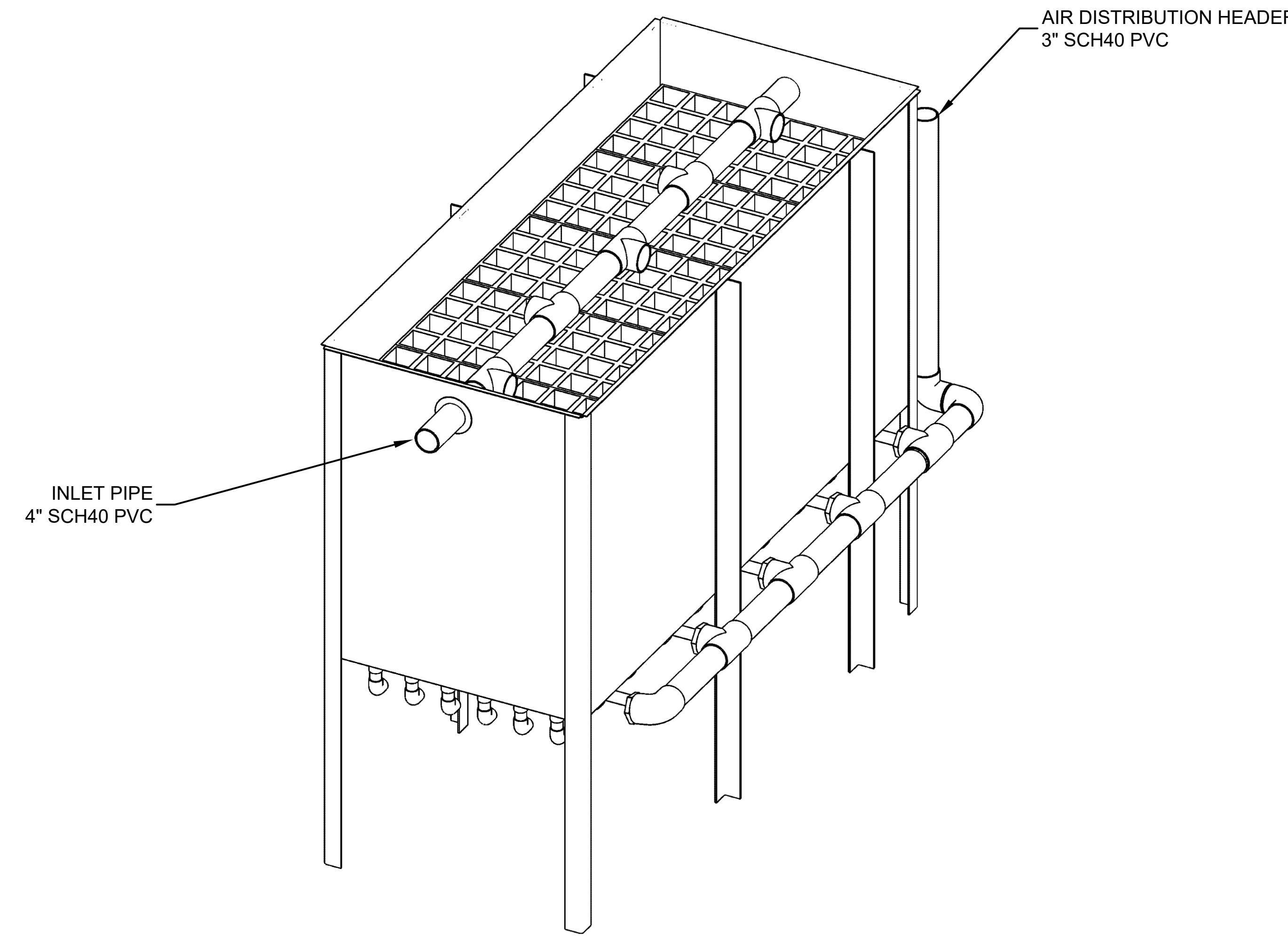
1. REVIEW BLOWER DISCHARGE AIR TEMPERATURE WHEN SPECIFYING AIR MAIN PIPING MATERIAL.
2. REVIEW BLOWER MANUFACTURER CUTSHEETS FOR ADDITIONAL ELECTRICAL INFORMATION.
3. USE ALTERNATIVE BLOWER GARDNER DENVER 2L ON HIGH ELEVATION RANGE IF REQUIRED. SEE CALCULATIONS FOR DETAILS.



TYPICAL PROCESS DIAGRAM

TABLE 3
STANDARD EQUIPMENT LIST

DESCRIPTION	QTY	MAKE	MODEL
ECOPOD REACTOR	1	DELTA	E500D
BLOWER	1	FPZ	PER TABLE 2
CONTROL PANEL	1	DELTA	PER DESIGN
24" S.S. EFFLUENT WEIR	1	DELTA	TROUGH-3.0



ECOPOD REACTOR
LAYOUT 1

NO.	DATE	INITIALS	DESCRIPTION
A	10/12/21	AOB	ADDED TRIMETRIC VIEW

Delta Treatment Systems, LLC

DELTA ECOPOD E500D
STANDARD DESIGN FOR BOD REDUCTION

GENERAL ARRANGEMENT
DESIGN OVERVIEW

HORIZ. SCALE N/A	PROJECT NO. N/A
VERT. SCALE N/A	DATE 02/11/2021
DRAWN BY CGK	DESIGNED BY AOB
DRAWING NO. C1.0	SHEET NO. 01 of 02

GENERAL NOTES
1. ECOPOD REACTOR BOX SHALL BE CONSTRUCTED OF AISI 304/304L STAINLESS STEEL.
2. TANK MATERIAL OPTIONS:
   2.1. CARBON STEEL PER ASTM A36 w/COATING PER DELTA STANDARDS,
   2.2. FIBERGLASS REINFORCED PLASTIC (FRP) (NOT ALL MODELS),
   2.3. PRECAST CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS,
   2.4. CAST-IN-PLACE CONCRETE PER ENGINEER OF RECORD REQUIREMENTS, BY OTHERS.
3. SEE INSTALLATION GUIDE FOR INSTALLATION DETAILS.
4. CONTACT AN IWT/DELTA REPRESENTATIVE REGARDING DEVIATIONS FROM THESE STANDARDS.

TABLE 4
MINIMUM ECOPOD REACTOR DIMENSIONS

SITE ELEVATION		LAYOUT ID	REACTOR WEIGHT		A OVERALL LENGTH		B OVERALL WIDTH		B1 AIR HEADER CL DIM	
FT	M		LB	KG	IN	CM	IN	CM	IN	CM
0-1,000	0-305	1	1,400	636	130	331	59	150	32	82
0-1,000	0-305	2	1,420	645	93	237	107	272	56	143
0-1,000	0-305	3	1,450	658	106	270	83	211	44	112

1. SOME REACTOR LAYOUTS NOT AVAILABLE IN FIBERGLASS TANKS. CONTACT AN IWT/DELTA REPRESENTATIVE FOR DETAILS.

TABLE 5
RECOMMENDED ECOPOD TANK INTERIOR ENVELOPE DIMENSIONS

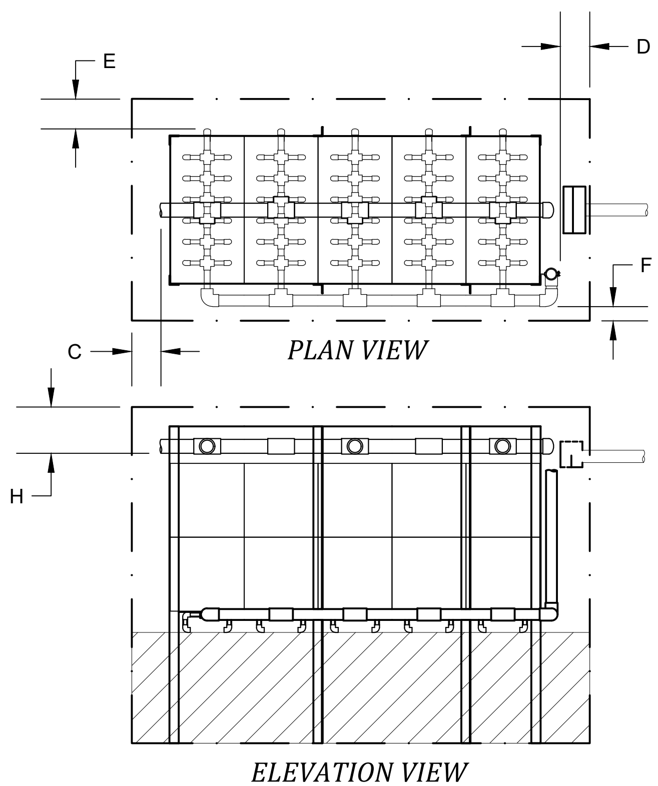
DIMENSION	IN	CM
C VESSEL FRONT SPACE	12	30
D VESSEL REAR SPACE	18	46
E AIR HEADER SIDE INSIDE SPACE	6	15
F NO HEADER SIDE INSIDE SPACE	6	15

1: ADDITIONAL ACCESS HATCHES RECOMMENDED FOR SOLIDS REMOVAL ALONG VESSEL SIDES.

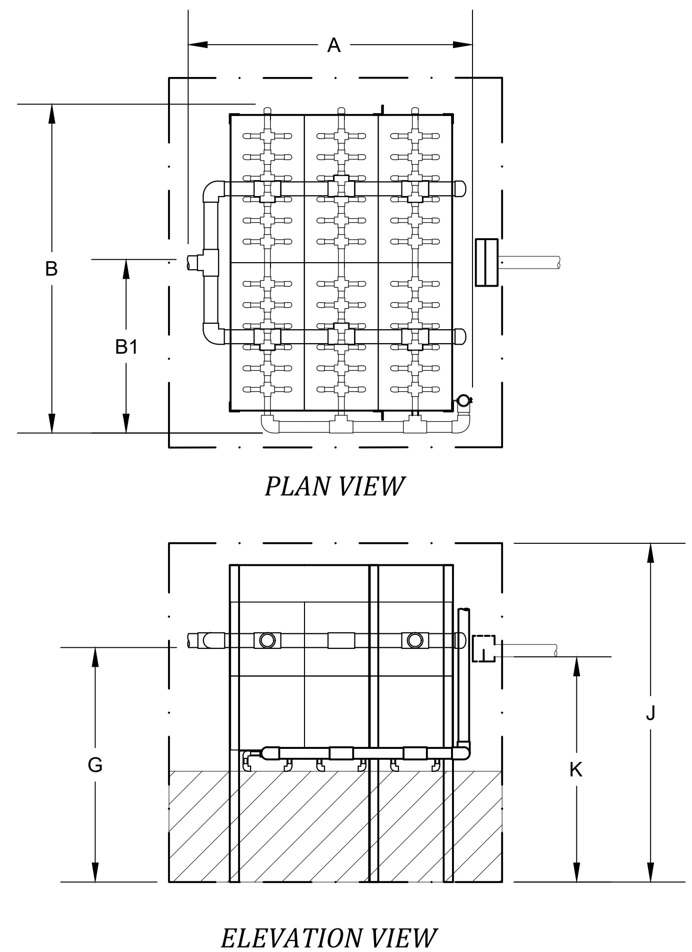
TABLE 6
REQUIRED ECOPOD TANK INTERIOR ENVELOPE MINIMUM DIMENSIONS

DIMENSION	IN	CM
G INLET INVERT	92	234
H PLENUM SPACE ABOVE INLET INVERT	10	25
J MEDIA REACTOR HEIGHT	101	257
K OUTLET INVERT	89	226

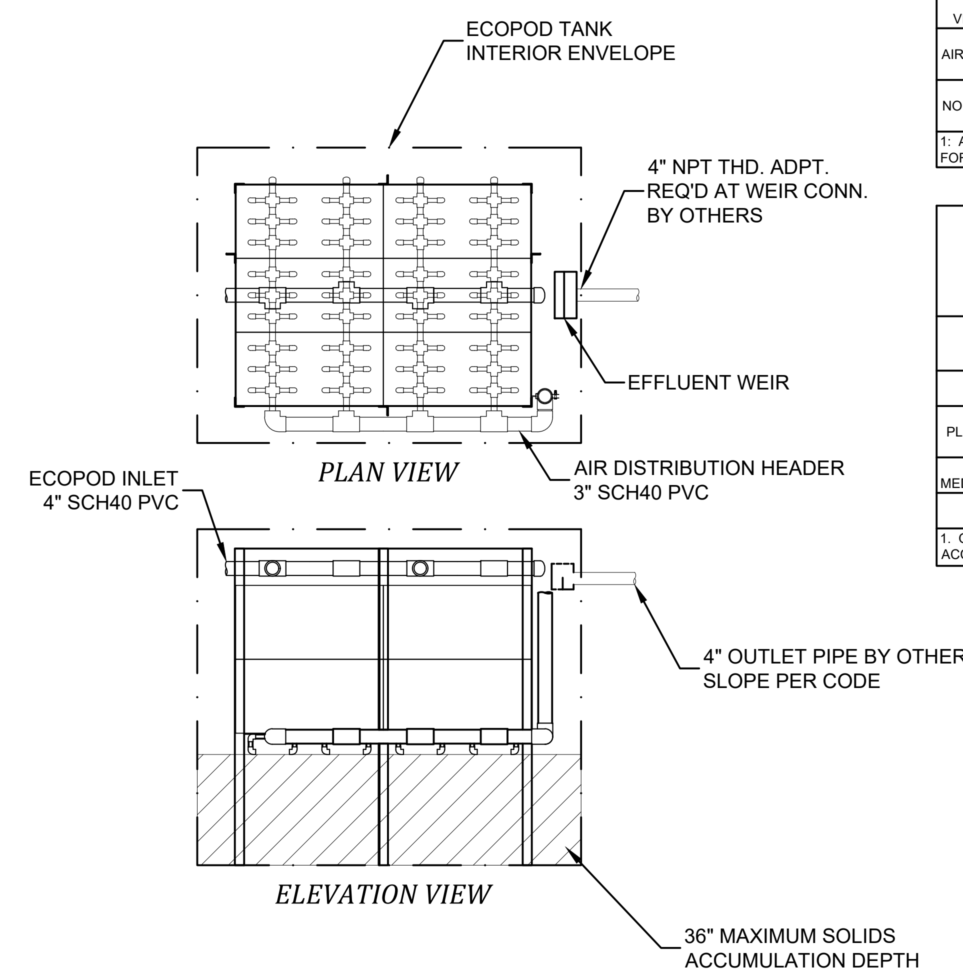
1. ONE (1 EA.) INLET AND ONE (1 EA.) OUTLET ACCESS HATCH REQUIRED, 24" DIA MINIMUM.



LAYOUT 1



LAYOUT 2



LAYOUT 3

NO.	DATE	INITIALS	DESCRIPTION

Delta Treatment Systems, LLC

DELTA ECOPOD E500D
STANDARD DESIGN FOR BOD REDUCTION

GENERAL ARRANGEMENT
LAYOUT DIMENSIONS

HORIZ. SCALE N/A	PROJECT NO. N/A
VERT. SCALE N/A	DATE 05/18/2021
DRAWN BY CGK	DESIGNED BY AOB
DRAWING NO. C1.1	SHEET NO. 02 of 02