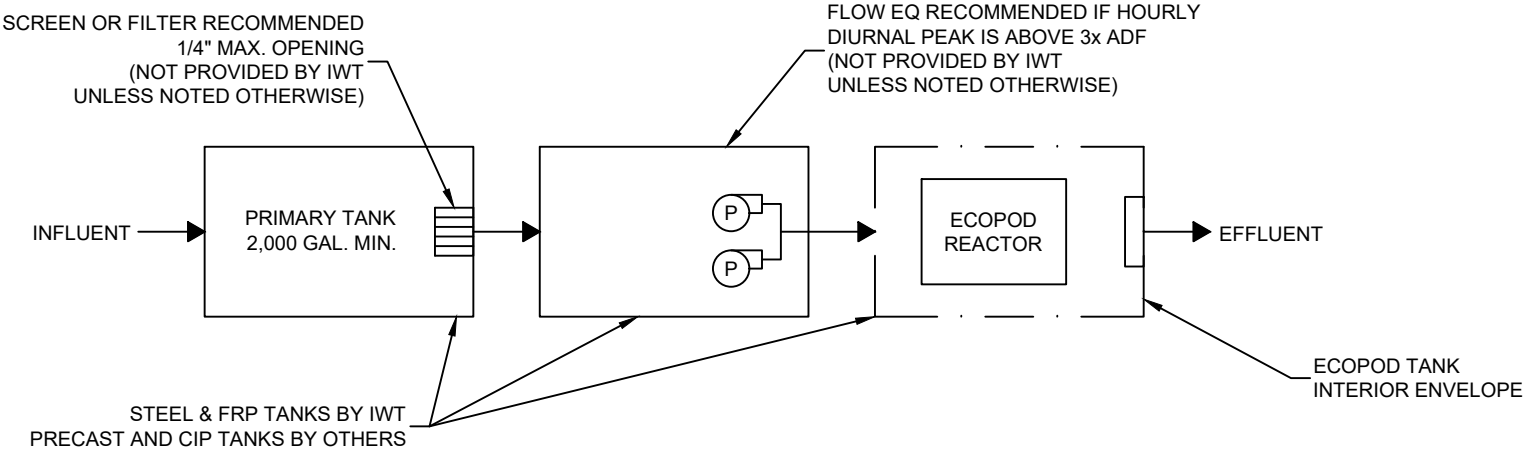


- GENERAL NOTES
- THE DRAWINGS DEPICTED HEREIN REPRESENT PRELIMINARY LAYOUTS OF A WASTEWATER TREATMENT SYSTEM CAPABLE OF TREATING THE DOMESTIC WASTE CONSTITUENTS NOTED IN TABLE 1.
  - ECOPOD REACTOR BOX SHALL BE CONSTRUCTED OF AISI 304/304L STAINLESS STEEL.
  - TANK MATERIAL OPTIONS:
    - CARBON STEEL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

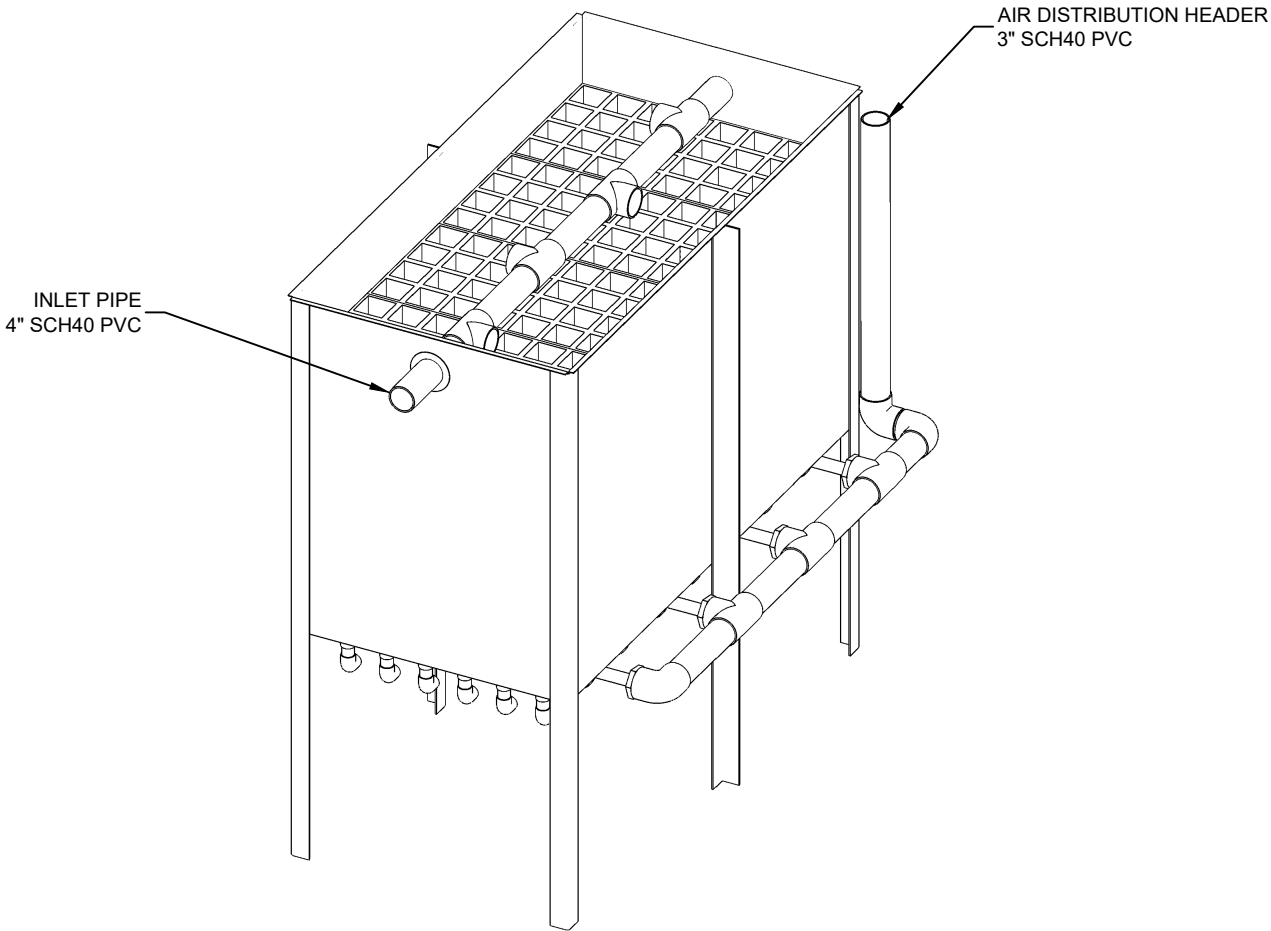
TABLE 1 PROCESS PARAMETERS IWT E400D BOD ONLY		
PARAMETER	MINIMUM	MAXIMUM
AVERAGE DAILY FLOW	-	4,000 GPD
PEAK DAILY FLOW	-	6,000 GPD
INFLUENT BOD <sub>5</sub>	-	10 LB/DAY
AIR TEMPERATURE	-	115 °F
WATER TEMPERATURE	68 °F	68 °F
RELATIVE HUMIDITY	10%	90%
SITE ELEVATION	0 FT AMSL	3,000 FT AMSL

TABLE 2 AIR DEMAND		
PARAMETER	UP TO 1,000 FT AMSL	1,000 TO 3,000 FT AMSL
STANDARD AIRFLOW	49 SCFM	56 SCFM
SITE AIR REQUIREMENT	55 ICFM	68 ICFM
BLOWER INLET AIR	67 ICFM	67 ICFM
AIR HEADER SIZE	3 IN	3 IN
MIN. TANK VENT X-SECT. AREA	27.6 IN <sup>2</sup> 1 EA 6"	27.6 IN <sup>2</sup> 1 EA 6"
BLOWER SELECTION	FPZ SCL K04-MS	FPZ SCL K04-MS <sup>3</sup>
NOISE LEVEL	65.0 dB(A)	65.0 dB(A)
AIR TEMPERATURE RISE <sup>1</sup>	41 F (22.8 C)	41 F (22.8 C)
BLOWER INLET DIAMETER	1.5 IN NPT	1.5 IN NPT
BLOWER OUTLET DIAMETER	1.5 IN NPT	1.5 IN NPT
MOTOR POWER RATING <sup>2</sup>	2 HP	2 HP
OPERATING POWER	1.1 KW	1.1 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.		

TABLE 3 STANDARD EQUIPMENT LIST			
DESCRIPTION	QTY	MAKE	MODEL
ECOPOD REACTOR	1	IWT	E400D
BLOWER	1	FPZ	PER TABLE 2
CONTROL PANEL	1	IWT	PER DESIGN
24" S.S. EFFLUENT WEIR	1	IWT	TROUGH-3.0




TYPICAL PROCESS DIAGRAM



ECOPOD REACTOR  
LAYOUT 1

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



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ECOPOD E400D  
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 IWT 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 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
0-3,000	0-914	1	1,150	522	106	270	59	150	32	82
0-3,000	0-914	2	1,050	477	69	176	107	272	56	143
0-3,000	0-914	3	1,210	549	82	209	83	211	44	112

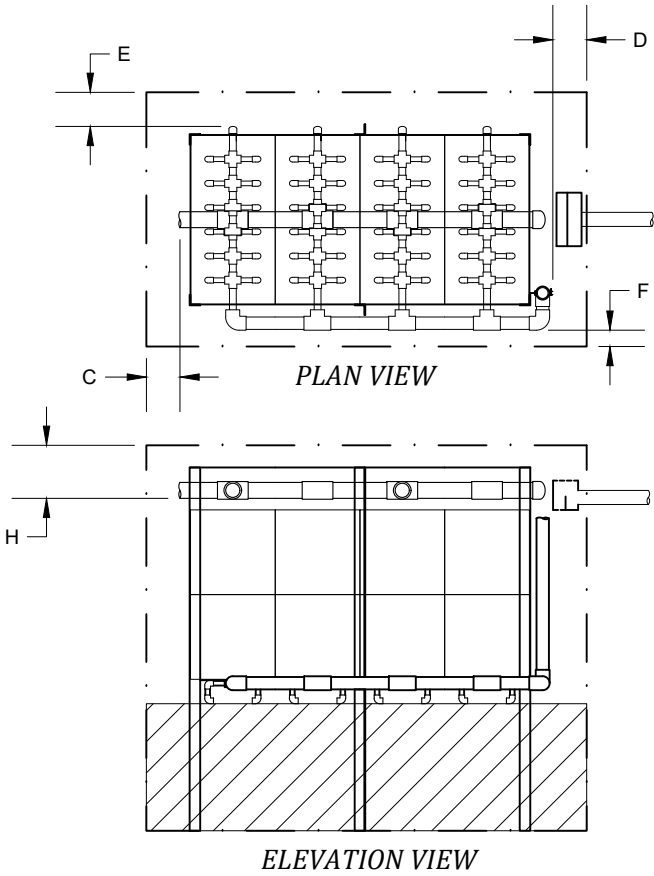
1. SOME REACTOR LAYOUTS NOT AVAILABLE IN FIBERGLASS TANKS. CONTACT AN IWT REPRESENTATIVE FOR DETAILS.

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

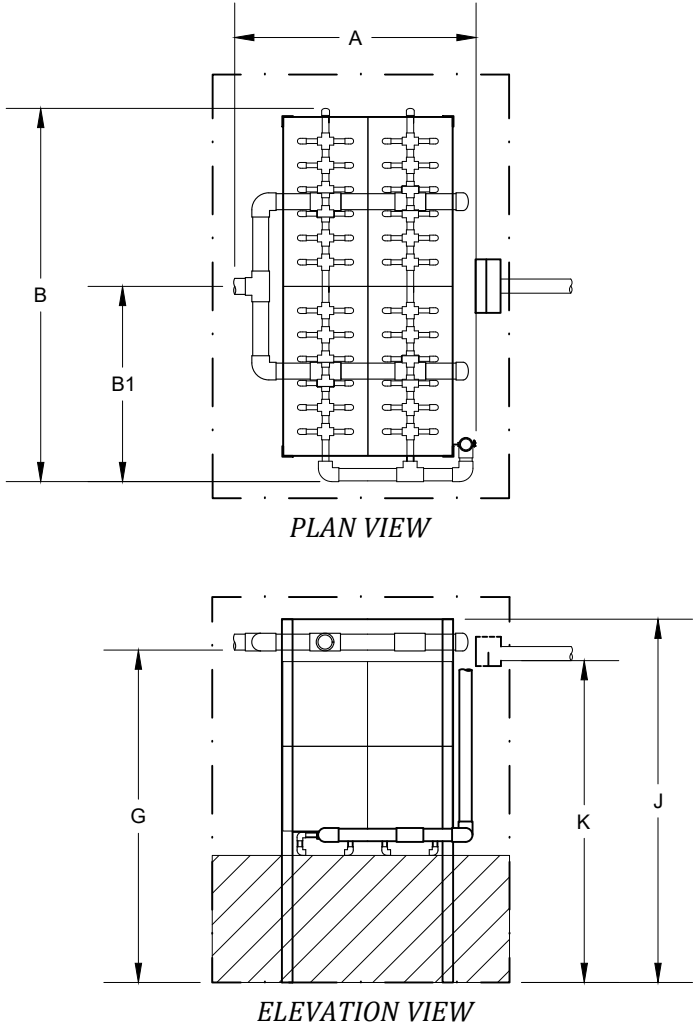
1: ADDITIONAL ACCESS HATCHES RECOMMENDED FOR SOLIDS REMOVAL ALONG VESSEL SIDES.

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

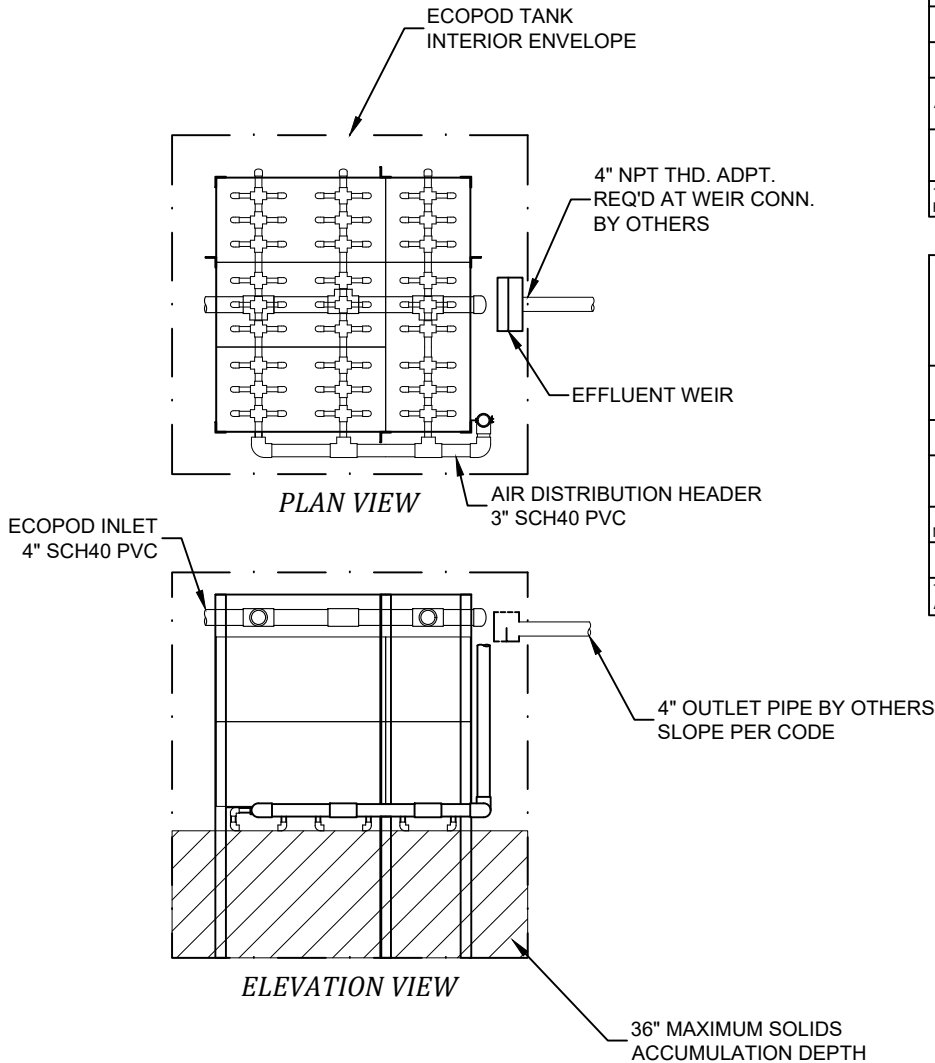
1. ONE (1 EA.) INLET AND ONE (1 EA.) OUTLET ACCESS HATCH REQUIRED, 24" DIA MINIMUM.



LAYOUT 1



LAYOUT 2



LAYOUT 3

NO.	DATE	INITIALS	DESCRIPTION



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ECOPOD E400D STANDARD DESIGN FOR BOD REDUCTION		HORIZ. SCALE N/A	PROJECT NO. N/A
GENERAL ARRANGEMENT LAYOUT DIMENSIONS		VERT. SCALE N/A	DATE 05/18/2021
		DRAWN BY CGK	DESIGNED BY AOB
		DRAWING NO. C1.1	SHEET NO. 02 of 02