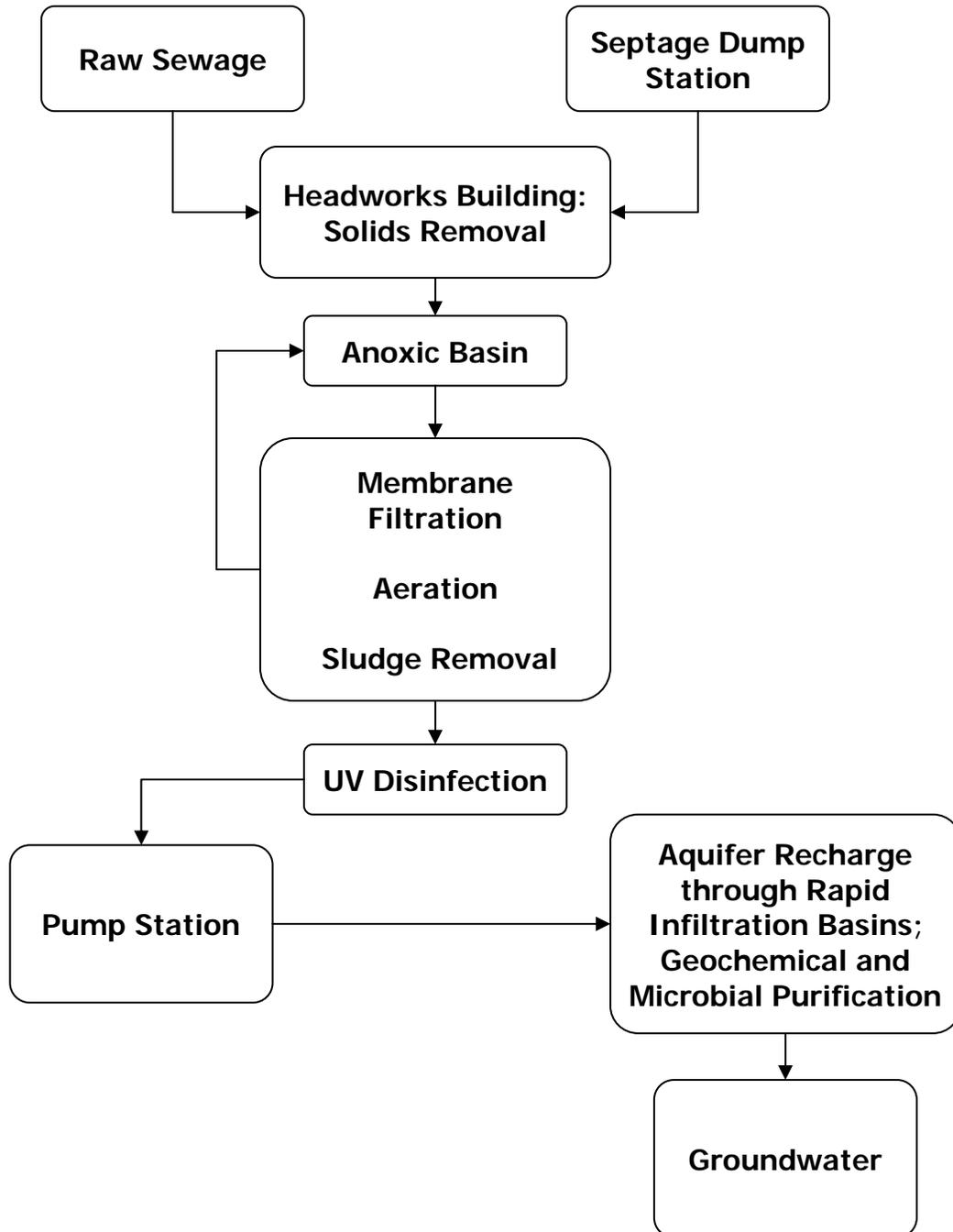


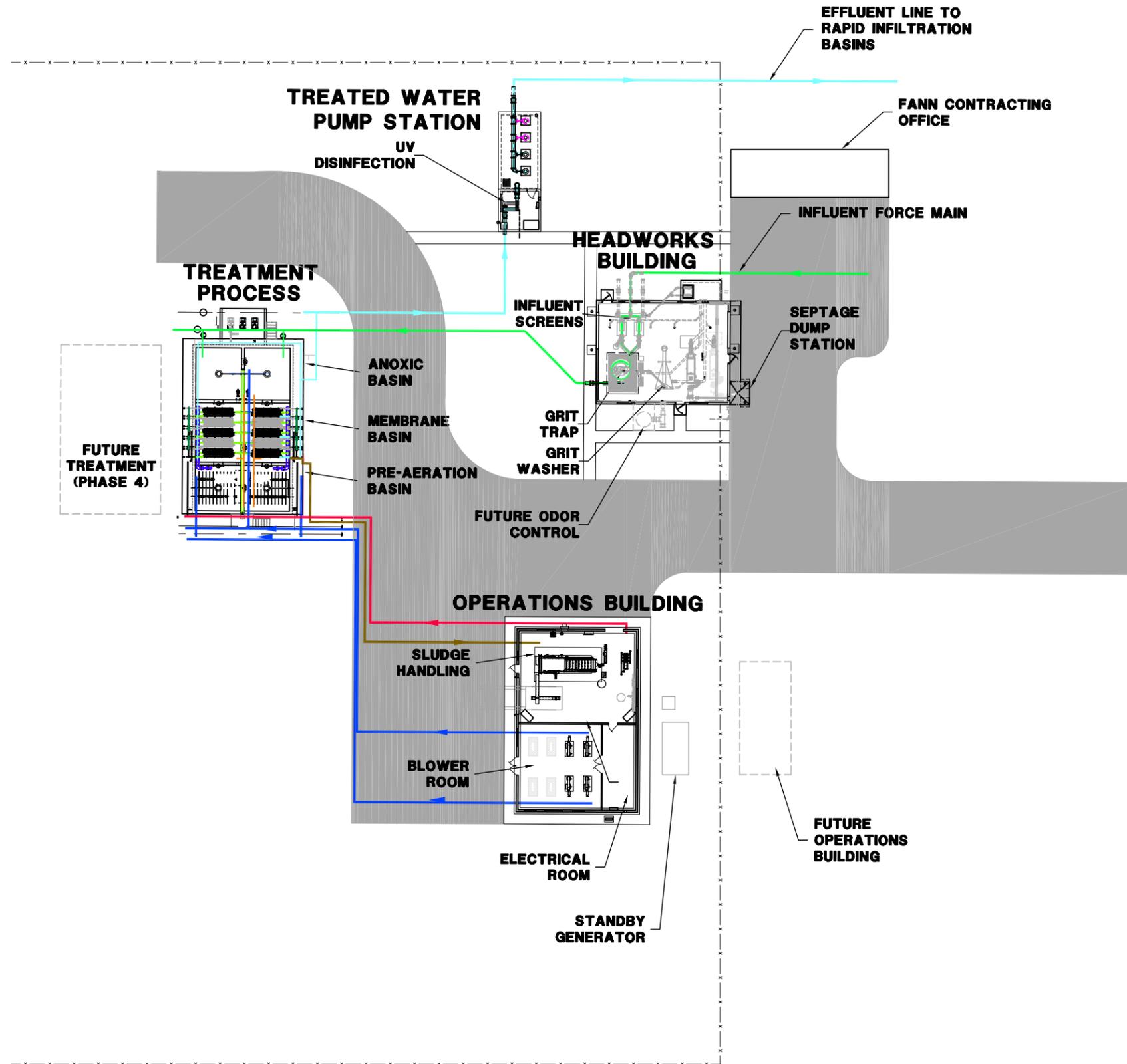


Wastewater Treatment and Aquifer Recharge Process Diagram



DESIGN CRITERIA

GENERAL	PHASE			
	1B	2	3	4
SYSTEM DESIGN				
AVERAGE DAILY FLOW (TOTAL GPD)	150,000	250,000	500,000	1,000,000
INFLUENT BOD ₅ (MG/L)	300	250	250	250
INFLUENT TSS (MG/L)	250	220	220	220
INFLUENT TKN (MG/L)	50	50	50	50
EFFLUENT BOD ₅ (MG/L)	<5	<5	<5	<5
EFFLUENT TSS (MG/L)	<5	<5	<5	<5
EFFLUENT TN (MG/L)	<8	<8	<8	<8
DESIGN HRT (HOURS)	30	15	7.4	7.4
DESIGN OPERATING MLSS (MG/L)	12,000	12,000	12,000	12,000
DESIGN WASTING MLSS (MG/L)	16,000	16,000	16,000	16,000
SLUDGE WASTING 1.6% (GPD)	1,124	2,248	4,496	8,992
SLUDGE AGE (DAYS)	82	41	20	20
VOLUME (20%) PER DAY YD ³	0.5	1.0	2.0	4.0
CHINO VALLEY SEPTAGE (GPD)	2,000	2,000	2,000	2,000
HEADWORKS				
FINE SCREENS				
NUMBER OF UNITS	1	1	2	2
CAPACITY (TOTAL MGD)	1	1	2	2
SPACING (MM)	3	3	3	3
SEPTAGE DUMP STATION				
NUMBER OF UNITS	1	1	2	2
CAPACITY (GPM)	400	400	800	800
SCREEN SPACING (MM)	6	6	6	6
TREATMENT PROCESS				
ANOXIC BASIN				
QUANTITY	2	2	2	4
WATER LEVEL (FT)	8'-13'	8'-13'	8'-13'	8'-13'
CAPACITY (TOTAL GAL)	49,500	49,500	49,500	99,000
# OF MIXERS (1 PER BASIN)	2	2	2	4
PRE-AERATION BASIN				
QUANTITY	2	2	2	4
MAXIMUM WATER LEVEL (FT)	14'	14'	14'	14'
CAPACITY (TOTAL GAL)	47,000	47,000	47,000	94,000
# OF MIXERS (1 PER BASIN)	2	2	2	4
DIFFUSER CAPACITY (TOTAL SCFM)	1,150	1,150	1,150	2,300
MEMBRANE BASIN				
QUANTITY	2	2	2	4
MAXIMUM WATER LEVEL (FT)	14'	14'	14'	14'
CAPACITY (TOTAL GAL)	61,000	61,000	61,000	122,000
# MEMBRANE CARTRIDGES	1,200	2,000	4,000	8,000
MEMBRANE SCOUR (TOTAL SCFM)	1,400	1,400	1,400	2,800
BLOWERS				
# BLOWERS	2	2	2	4
	+2 STAND-BY	+2 STAND-BY	+2 STAND-BY	+2 STAND-BY
RAS PUMPS				
# PUMPS	2	2	2	4
FLOW (TOTAL GPM)	2,600	2,600	2,600	5,200
PERMEATE PUMPS				
# PUMPS	1	1	2	4
	+1 STAND-BY	+1 STAND-BY	+1 STAND-BY	+2 STAND-BY
FLOW (TOTAL GPM)	400	400	800	1600
WAS PUMPS				
# PUMPS	1	1	1	1
FLOW (TOTAL GPM)	150	150	150	150
SLUDGE HANDLING				
5 METER BELT PRESS				
# OF UNITS	1	1	1	1
ULTRAVIOLET DISINFECTION				
# OF UNITS	1	1	1	1
	+1 STAND-BY	+1 STAND-BY	+1 STAND-BY	+1 STAND-BY
FLOW (TOTAL GPM)	1,400	1,400	1,400	1,400
TREATED WATER PUMPS				
# OF PUMPS	1	1	1	2
	+1 STAND-BY	+1 STAND-BY	+1 STAND-BY	+1 STAND-BY
FLOW (TOTAL GPM)	700	700	700	1,400



PLANT FLOW SCHEMATIC

LEGEND

- RAW WATER →
- TREATED WATER →
- WAS →
- AIR →
- CHEMICAL CLEAN →
- RECYCLE →
- FUTURE →

