



**PROCESS PIPING SCHEDULE**

SYMBOL	DESCRIPTION	LOCATION	MATERIAL	JOINT SYSTEM
A	AIR	1. AERATION BLOWER SUCTION AND DISCHARGE	304L SCHEDULE 10S STAINLESS STEEL	WELD AND FLANGE STEEL
		2. DIFFUSED AIR AERATION SYSTEM DROP LEGS	304L SCHEDULE 10S STAINLESS STEEL	WELD AND FLANGE STEEL
		3. DIFFUSED AIR AERATION SYSTEM MANIFOLD AND AIR DISTRIBUTORS	PVC SDR SCHEDULE 21	SOLVENT WELD
		4. AIR COMPRESSOR TO AIR OPERATED DIAPHRAM PUMPS	SCHEDULE 40 STEEL	THREADED OR WELDED
SL	SOLIDS	1. SOLIDS AND OIL DISCHARGE PUMP SUCTION LINE	304L SCHEDULE 10S STAINLESS STEEL AND CLASS 63 DUCTILE IRON	WELD AND FLANGE STEEL
		2. SOLIDS AND OIL DISCHARGE PUMP SUCTION LINE	304L SCHEDULE 10S STAINLESS STEEL	WELD AND FLANGE STEEL
		3. SOLIDS STORAGE TANK SUCTION LINE	304L SCHEDULE 10S STAINLESS STEEL	WELD AND FLANGE STEEL
OG	OIL AND GREASE	1. SOLIDS AND OIL DISCHARGE PUMP SUCTION LINE	304L SCHEDULE 10S STAINLESS STEEL AND CLASS 63 DUCTILE IRON	WELD AND FLANGE STEEL
		2. OIL COLLECTION TANK SUCTION AND DISCHARGE LINES	304L SCHEDULE 10S	WELD AND FLANGE STEEL
		3. OIL STORAGE TANK SUCTION LINE	304L SCHEDULE 10S STAINLESS STEEL	WELD AND FLANGE STEEL
		4. GRAVITY DISCHARGE LINES FROM OIL SKIMMERS	PVC SCHEDULE 80	FLANGE AND SOLVENT WELD
WW	WASTEWATER	1. GRAVITY LINES	CPVC SCHEDULE 80	FLANGE AND SOLVENT WELD
		2. SPECIALTY FITTINGS AS SHOWN	304L SCHEDULE 10S STAINLESS STEEL	FLANGE
		3. SUCTION LINES FOR WASTEWATER PUMPS AND DISCHARGE PUMPS	304L SCHEDULE 10S STAINLESS STEEL AND CLASS 63 DUCTILE IRON	WELD AND FLANGE STEEL
		4. AERATED SKIM TANK NO. 1 AND 2 DRAIN LINES	CLASS 63 DUCTILE IRON	FLANGE
		5. TELESCOPING VALVE DRAIN LINES	CLASS 63 DUCTILE IRON	FLANGE
		6. FLOAT REMOVAL TANK WEIR THROUGH DISCHARGE	CLASS 63 DUCTILE IRON	FLANGE

**PROCESS PIPING SCHEDULE**

VALVE SCHEDULE (4-INCHS AND GREATER)				
NO.	LOCATION	TYPE	SIZE	TYPE OF OPERATION
P-1	DEBRIS TANK INLET	PVC GATE	8-INCH	MANUAL-CHAINWHEEL
P-2	DEBRIS TANK BYPASS	PVC GATE	8-INCH	MANUAL-CHAINWHEEL L
P-3	DEBRIS TANK DRAIN	CI KNIFE GATE	6-INCH	MANUAL-LEVER
P-4	DEBRIS TANK DRAIN	CI KNIFE GATE	6-INCH	MANUAL-LEVER
P-5	DEBRIS TANK OUTLET	PVC GATE	8-INCH	MANUAL-CHAINWHEEL
P-6	DEBRIS TANK OUTLET	PVC GATE	8-INCH	MANUAL-CHAINWHEEL
P-7	DEBRIS TANK OUTLET TO AERATED SKIM TANK NO.2	PVC GATE	8-INCH	MANUAL-HANDWHEEL
P-8	INFLUENT SCREEN INLET	PVC GATE	8-INCH	MANUAL-CHAINWHEEL
P-9	INFLUENT SCREEN OUTLET TO FLOAT REMOVAL TANK	PVC GATE	8-INCH	MANUAL-HANDWHEEL
P-10	INFLUENT SCREEN OUTLET TO AERATED SKIM TANK NO.1	PVC GATE	8-INCH	MANUAL-HANDWHEEL
P-11	SOLIDS SCREEN NO.1 OUTLET TO AERATED SKIM TANK NO.1	PVC GATE	8-INCH	MANUAL-HANDWHEEL
P-12	SOLIDS SCREEN NO.1 OUTLET TO AERATED SKIM TANK NO.2	PVC GATE	8-INCH	MANUAL-HANDWHEEL
P-13	FLOAT REMOVAL TANK WEIR TROUGH OUTLET TO AERATED SKIM TANK NO.1	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
P-14	FLOAT REMOVAL TANK WEIR TROUGH OUTLET TO AERATED SKIM TANK NO.2	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
P-15	TELESCOPING VALVE NO.1 OUTLET TO AERATED SKIM TANK NO.2	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
P-16	TELESCOPING VALVE NO.1 OUTLET TO DISCHARGE TANK	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
P-17	TELESCOPING VALVE NO.2 OUTLET TO DISCHARGE TANK	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
P-18	TELESCOPING VALVE NO.2 OUTLET TO TELESCOPING VALVE NO.3	CI GATE	8-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX

**PROCESS PIPING SCHEDULE**

VALVE SCHEDULE (4-INCHS AND GREATER)				
NO.	LOCATION	TYPE	SIZE	TYPE OF OPERATION
DR-1	DRAIN VALVE NO.1 FROM AERATED SKIM TANK NO.1	CI GATE	6-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
DR-2	DRAIN VALVE NO.2 FROM AERATED SKIM TANK NO.2	CI GATE	6-INCH	MANUAL 2-INCH OPERATION NUT IN FLOOR BOX
A-1	AERATION BLOWER NO.1-DISCHARGE	DOUBLE DOOR CHECK	4-INCH	SPRING
A-2	AERATION BLOWER NO.1-DISCHARGE	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-3	AERATION BLOWER NO.2-DISCHARGE	DOUBLE DOOR CHECK	4-INCH	MANUAL LEVER
A-4	AERATION BLOWER NO.2-DISCHARGE	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-5	AERATION BLOWER NO.3-DISCHARGE	DOUBLE DOOR CHECK	4-INCH	SPRING
A-6	AERATION BLOWER NO.3-DISCHARGE	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-7	FLOAT REMOVAL TANK SHUTOFF	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-8	AERATED SKIM TANK NO.1 SHUTOFF	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-9	AERATED SKIM TANK NO.2 SHUTOFF	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-10	AERATION BLOWER NO.2 TO NO.3	CI BUTTERFLY	4-INCH	MANUAL LEVER
A-11	AERATION BLOWER NO.1 TO NOS. 2 & 3	CI BUTTERFLY	4-INCH	MANUAL LEVER
W-1	WASTEWATER PUMP NO.1-DISCHARGE	CI CHECK	4-INCH	LEVER & WEIGHT
W-2	WASTEWATER PUMP NO.2-DISCHARGE	CI CHECK	4-INCH	LEVER & WEIGHT
W-3	WASTEWATER PUMP NO.1&2-DISCHARGE	CI 3-WAY PLUG	4-INCH	MANUAL LEVER
W-4	WASTEWATER PUMP NO.3-SUCTION FROM AERATED SKIM TANK NO.1	CI GATE	6-INCH	MANUAL HANDWHEEL
W-5	WASTEWATER PUMP NO.3-SUCTION FROM AERATED SKIM TANK NO.2	CI GATE	6-INCH	MANUAL HANDWHEEL
W-6	WASTEWATER PUMP NO.3-DISCHARGE	CI CHECK	4-INCH	LEVER & WEIGHT
W-7	WASTEWATER PUMP NO.3-DISCHARGE	PLUG	4-INCH	MANUAL LEVER
W-8	SOLIDS STORAGE TANK SUCTION	CI GATE	6-INCH	MANUAL HANDWHEEL
W-9	OIL STORAGE TANK SUCTION	CI GATE	6-INCH	MANUAL HANDWHEEL
W-10	OIL STORAGE TANK SUCTION-EXTERIOR	CI BALL	4-INCH	MANUAL LEVER
W-11	SOLIDS STORAGE TANK SUCTION-EXTERIOR	CI BALL	4-INCH	MANUAL LEVER
W-12	SOLIDS & OIL DISCHARGE PUMP DISCHARGE-EXTERIOR	CI BALL	4-INCH	MANUAL LEVER
W-13	DISCHARGE PUMP-DISCHARGE	PLUG	4-INCH	MANUAL LEVER

**NOTES**

- UNDER CONDITION III DISCHARGE WILL BE PUMPED TO SAMPLING MANHOLE AND TSV #3 WILL NOT OVERFLOW.
- FREE FLOW CONDITIONS EXIST AT THIS LOCATION AT ALL FLOWS.
- UNDER CONDITION III WASTEWATER WILL BE PUMPED FROM FLOAT REMOVAL TANK TO SOLIDS SCREEN NO. 1 AND WEIR THROUGH WILL NOT OVERFLOW.
- UNDER CONDITION III WASTEWATER WILL BE PUMPED FROM AERATED SKIM TANK NO. 1 TO SOLIDS SCREEN NO. 2 AND TSV NO. 1 WILL NOT OVERFLOW.
- HYDRAULIC CONDITIONS IN CITY SEWER SYSTEM ARE UNKNOWN IT IS ASSUMED THAT SURCHARGING IN THE CITY SEWER SYSTEM CAN OCCUR TO A MAXIMUM ELEVATION OF 16.00.
- OIL DISCHARGE PIPING FROM SKIMMERS NOT SHOWN ON THIS DRAWING.

**HYDRAULIC PROFILE OPERATION CONDITIONS**

- CONDITION I - PEAK DESIGN FLOW = 600 GPM AND:**
- ALL PUMPS OUT OF SERVICE
  - GRAVITY FLOW FROM INFLUENT SCREEN, TO FLOAT REMOVAL TANK, TO AERATED SKIM TANK NO. 1 TO AERATED SKIM TANK NO. 2, TO DISCHARGE TANK, TO SAMPLING MANHOLE AND TO CITY CONNECTION MANHOLE.
- CONDITION II - AVERAGE DESIGN FLOW (PRODUCTION SHIFTS) = 170 GPM AND:**
- ALL PUMPS OUT OF SERVICE
  - GRAVITY FLOW FROM INFLUENT SCREEN, TO FLOAT REMOVAL TANK, TO AERATED SKIM TANK NO. 1 TO AERATED SKIM TANK NO. 2, TO DISCHARGE TANK, TO SAMPLING MANHOLE AND TO CITY CONNECTION MANHOLE.
- CONDITION III - PEAK DESIGN FLOW = 600 GPM AND:**
- ALL PUMPS IN SERVICE
  - ALL SCREENS AND TANKS IN SERVICE

**HYDRAULIC PROFILE**

SCALE: NOT TO SCALE (HORIZONTAL) 1/4" = 1'-0" (VERTICAL)

SEE LAYOUT PLAN FOR ACTUAL PIPING CONFIGURATIONS AND EQUIPMENT LOCATIONS

C	RCL	12/19/02	ISSUED FOR: BIDS	760_c_P-101
B	RCL	12/12/02	ISSUED FOR: CLIENT REVIEW	760_b_P-101
REV.	BY	DATE	STATUS	CAD NO.

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**BARBER FOODS WASTEWATER PRETREATMENT FACILITY**

**HYDRAULIC PROFILE**

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DESIGN BY:	RCL
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CHECKED BY:	SJD
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P-101	
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