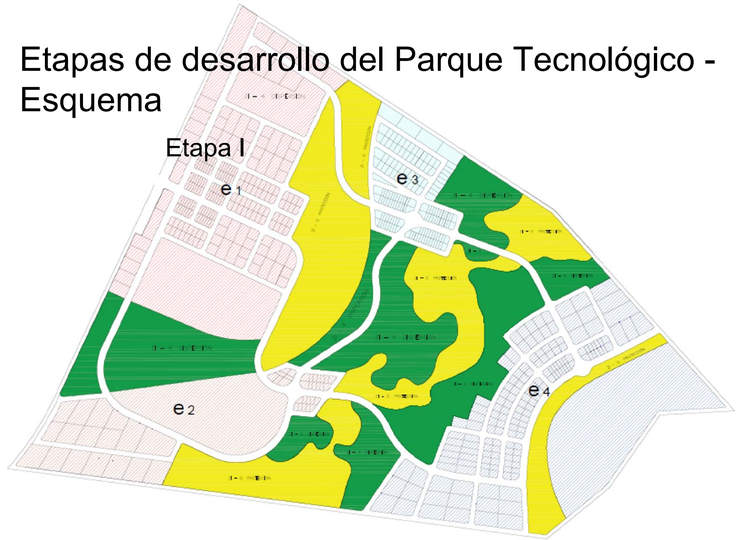
Ubicación Parque Tecnológico

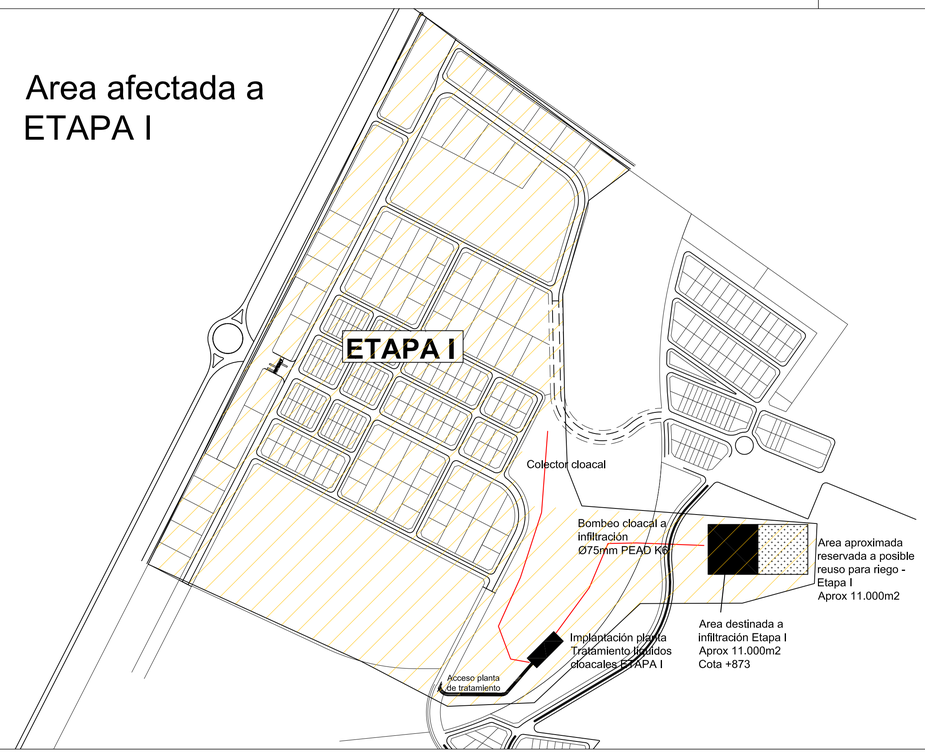
Etapas de desarrollo del Parque Tecnológico - Esquema

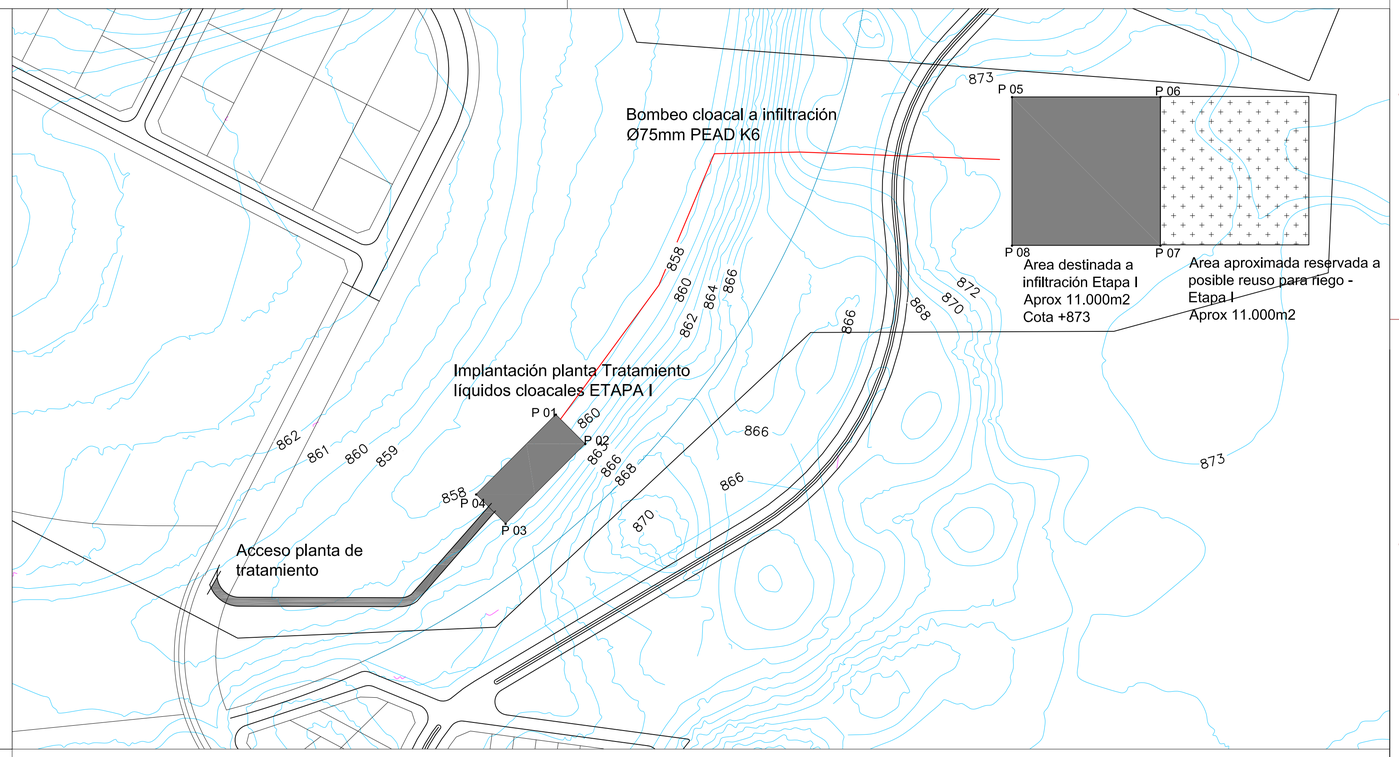


Implantación - Coordenadas Etapa I

	Planta de tratamiento	
P 01	71° 13' 14.9401" W	41° 08' 41.5263" S
P 02	71° 13' 14.0826" W	41° 08' 42.1616" S
P 03	71° 13' 16.3639" W	41° 08' 43.9208" S
P 04	71° 13' 17.2213" W	41° 08' 43.2855" S
	Campo de infiltración (aprox.)	
P 05	71° 13' 01.8428" W	41° 08' 34.5044" S
P 06	71° 12' 57.5551" W	41° 08' 34.4752" S
P 07	71° 12' 57.5165" W	41° 08' 37.7165" S
P 08	71° 13' 01.8043" W	41° 08' 37.7457" S

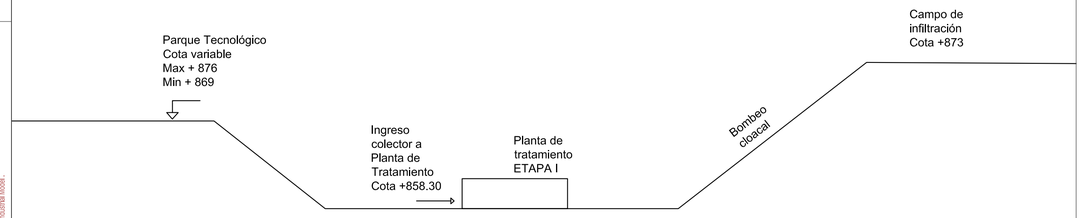
Area afectada a ETAPA I





Nivelación área de planta de tratamiento y campo de infiltración

Esquema básico de niveles



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OBRAS Y SERVICIOS PÚBLICOS
RIO NEGRO

REV.	FECHA	DESCRIPCION	EJECUTO	REVISO	APROBO

	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	25/10/17	
Revisó			
Revisó	L. GARCIA	25/10/17	
Aprobó	J. MONSERRAT	25/10/17	

INVAP

Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 001 C

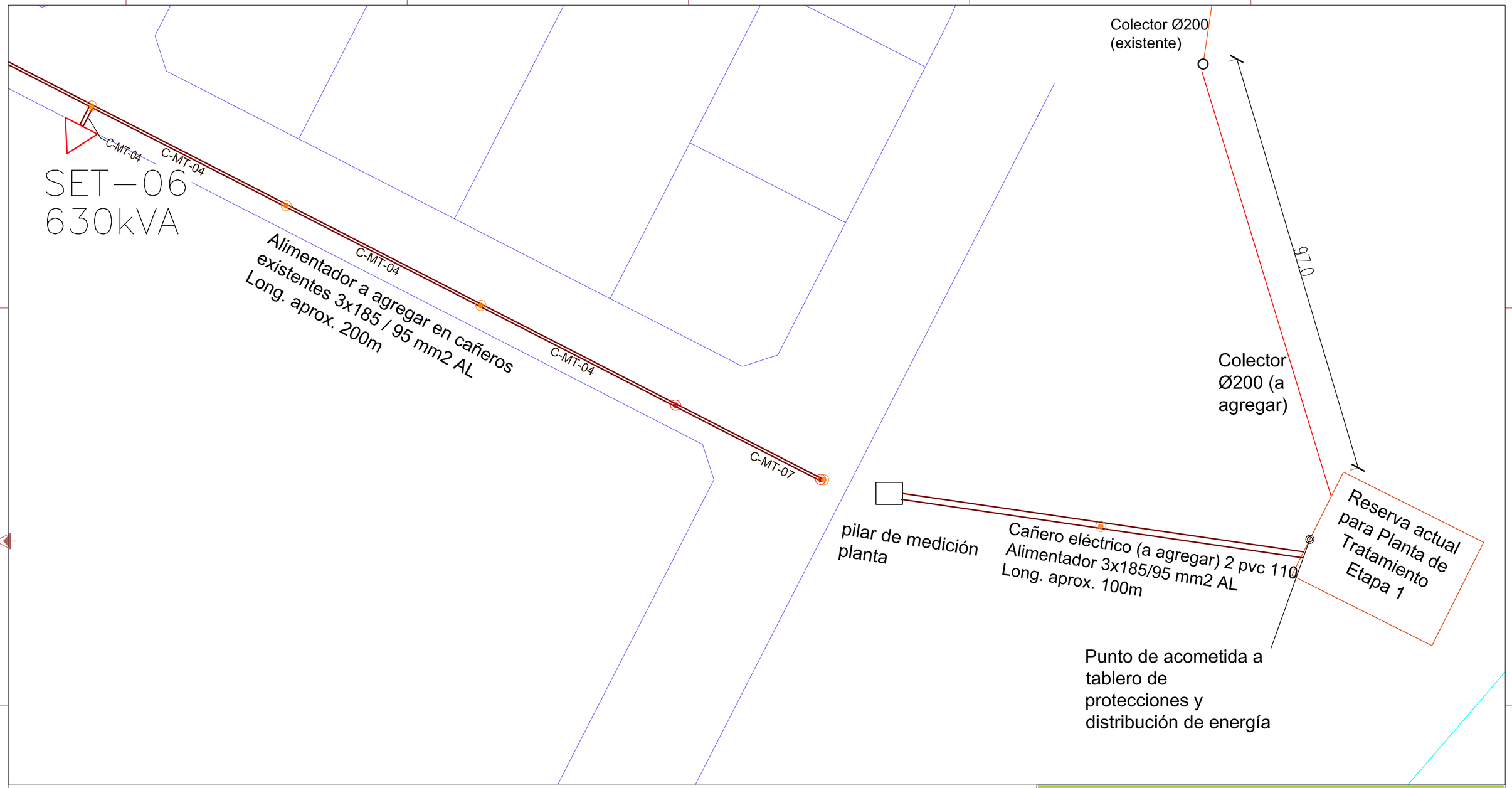
Esc. –

A1

TITULO:
PITBA ETAPA 1
PLANTA DEPURADORA
IMPLANTACION
CERCO PERIMETRAL E ILUMINACION, PLANTA Y DETALLES

Docum. Base
Reempl. a
Reempl. por

Archivo Electronico: 0989-0107-2ACOC-001-C. dwg



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RN RIO NEGRO — OBRAS Y SERVICIOS PÚBLICOS

REV.	FECHA	DESCRIPCION	EJECUTO	REVISO	APROBO

	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	27/05/20	
Revisó			
Revisó	J. MONSERRAT	27/05/20	
Aprobó	J. MONSERRAT	27/05/20	

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Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 002 A

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A2

TITULO:

PITBA ETAPA 1

PLANTA DEPURADORA

OBRAS EXTERIORES

Alimentador eléctrico - Extensión colector cloacal

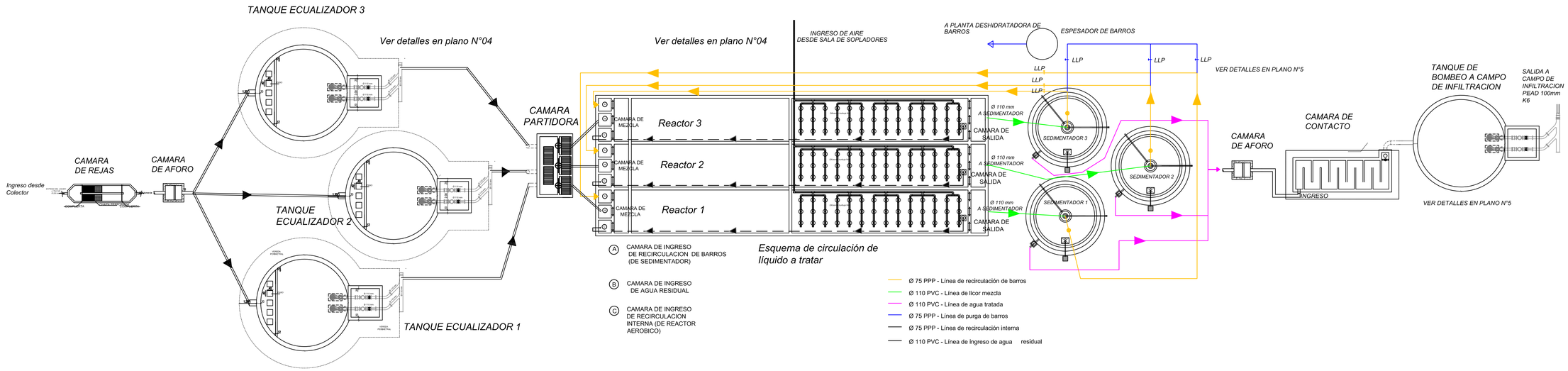
Docum. Base

Reempl. a

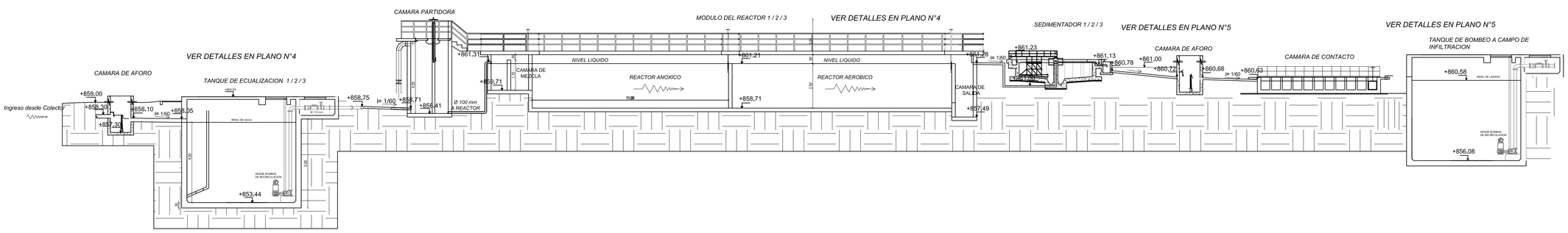
Reempl. por

Archivo Electronico: 0989-0107-2ACOC-002-A. dwg

Vista en planta



Perfil hidráulico



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OBRAS Y SERVICIOS PUBLICOS
RIO NEGRO

REV.	FECHA	DESCRIPCION	EJECUTO	REVISO	APROBO

	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	25/10/17	
Revisó			
Revisó	L. GARCIA	25/10/17	
Aprobó	J. MONSERRAT	25/10/17	

INVAP
Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 001 C

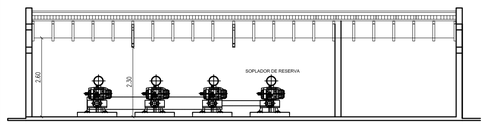
Esc. –

A1

TITULO:
PITBA ETAPA 1
PLANTA DEPURADORA
Esquemas funcionales - Perfil hidráulico

Docum. Base
Reempl. a
Reempl. por
Archivo Electronico: 0989-0107-2ACOC-001-C. dwg

GALPON DE SOPLADORES



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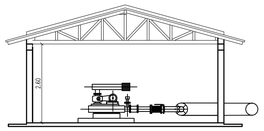
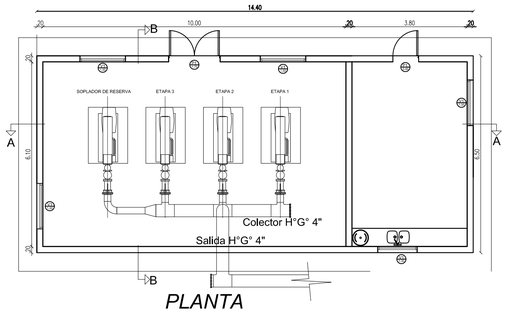
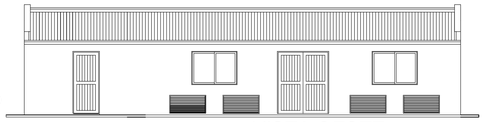


CORTE B-B

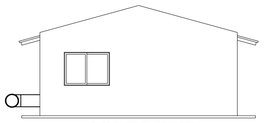


PLANTA

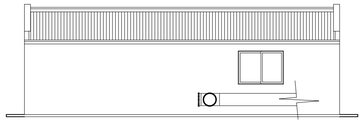
VISTA NORTE



VISTA OESTE



VISTA SUR

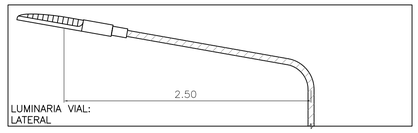


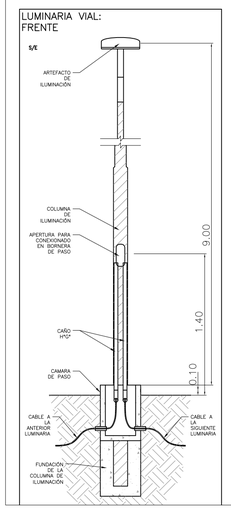
VISTA ESTE

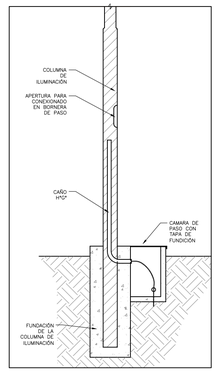
PLANTA DE TECHOS

Sopladores
Marca: Repicky o similar
Modelo: R 0.2L
Caudal de aire unitario: 173m3 de aire / hora
Delta de presión: aprox. 700mb (manométrica)

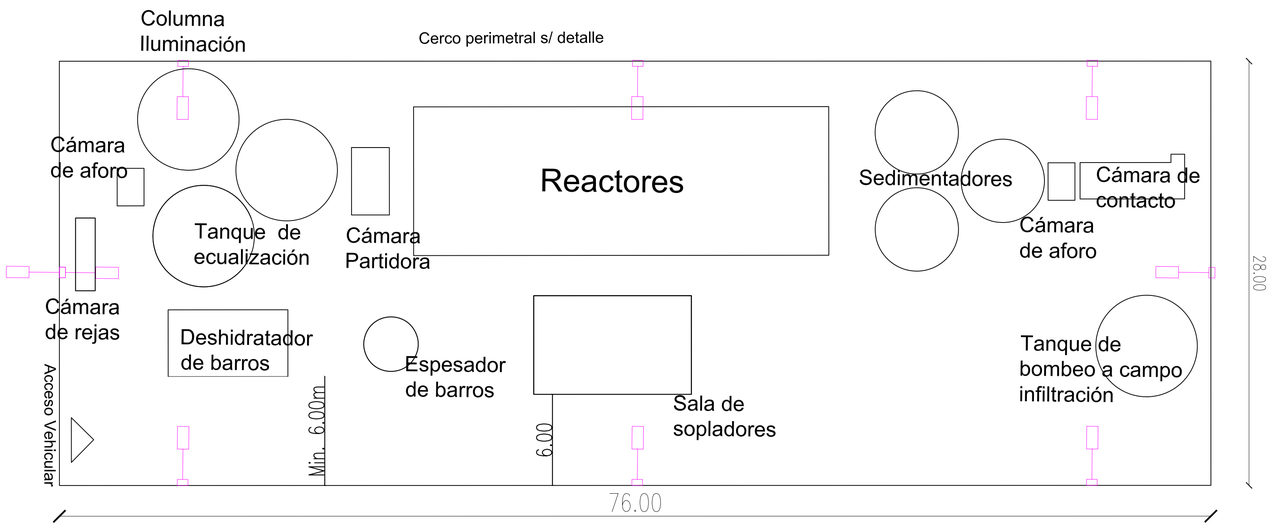
COLUMNA ILUMINACION



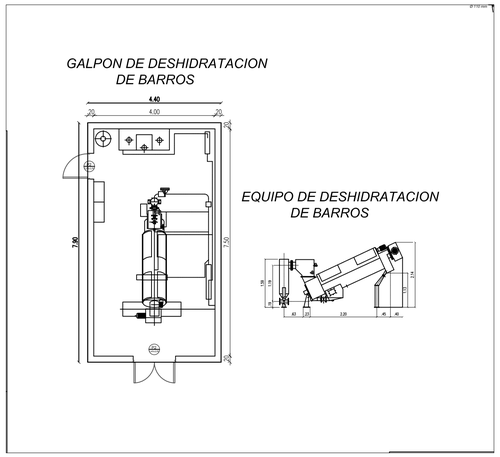




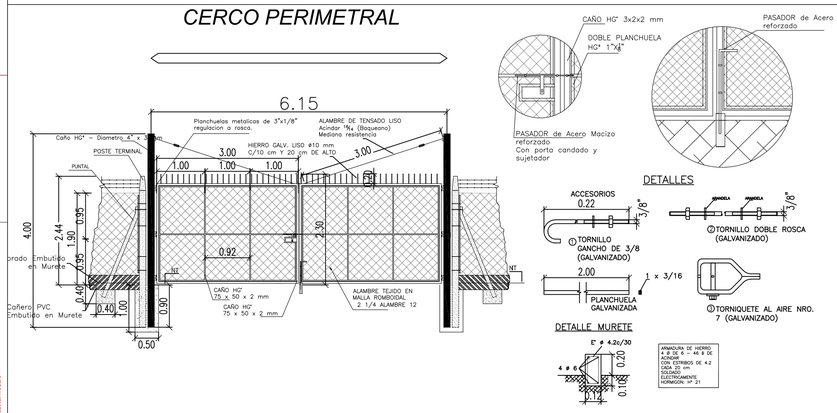
ESQUEMA GENERAL PLANTA DE TRATAMIENTO
INSTALACIONES ANEXAS



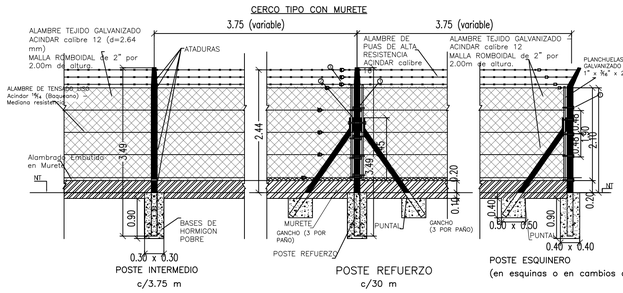
DESHIDRATADOR DE BARROS

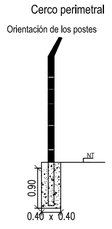


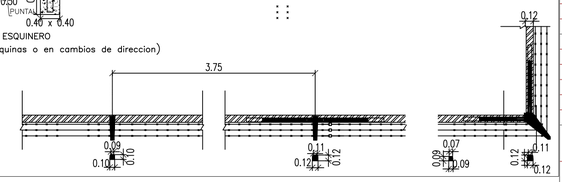
CERCO PERIMETRAL



DETALLES







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RIO NEGRO OBRAS Y SERVICIOS PÚBLICOS

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	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	25/10/17	
Revisó			
Revisó	L. GARCIA	25/10/17	
Aprobó	J. MONSERRAT	25/10/17	
Esc. –			

INVAP — Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 001 C

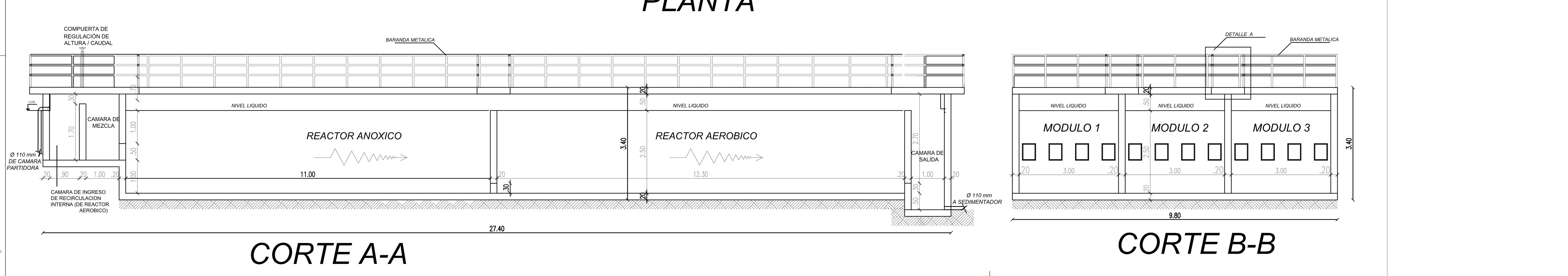
TITULO: PITBA ETAPA 1
PLANTA DEPURADORA
LAY OUT - ARQUITECTURA - DETALLES

Docum. Base
Reempl. a
Reempl. por
Archivo Electronico: 0989-0107-2ACOC-001-C. dwg

A1

TABLA DE CAUDALES

h (m)	Q(m3/h)
0.05	3
0.06	5
0.07	7
0.08	9
0.09	13
0.10	16
0.11	21
0.12	26
0.13	31
0.14	37
0.15	45
0.16	52
0.17	61
0.18	70
0.19	80
0.20	90



OBRAS Y SERVICIOS PÚBLICOS — RÍO NEGRO

REV.	FECHA	DESCRIPCION	EJECUTO	REVISO	APROBO

	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	25/10/17	
Reviso			
Reviso	L. GARCIA	25/10/17	
Aprobo	J. MONSERRAT	25/10/17	

INVAP — Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 001 C

Esc. --

TITULO : PITBA ETAPA 1
PLANTA DEPURADORA
DETALLES EQUIPAMIENTO (1)

A1

Docum. Base

Reempl. a

Reempl. por

Archivo Electronico : 0989-0107-2ACOC-001-C. dwg

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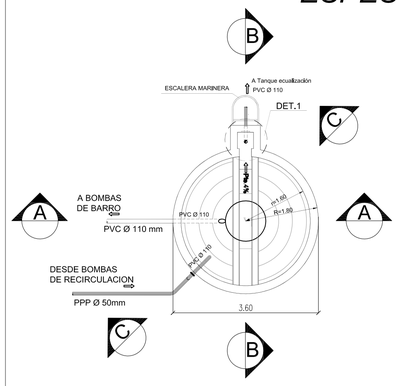
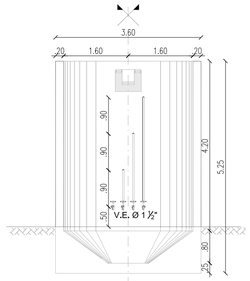
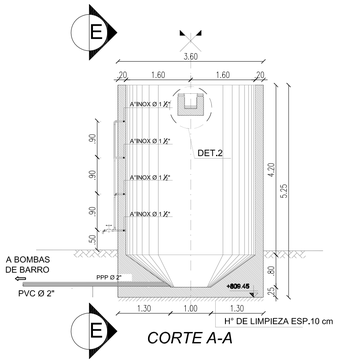
ESPESADOR DE BARROS

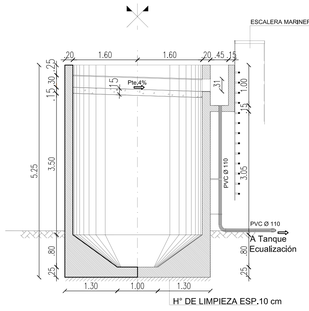




CORTE E-E



CORTE A-A



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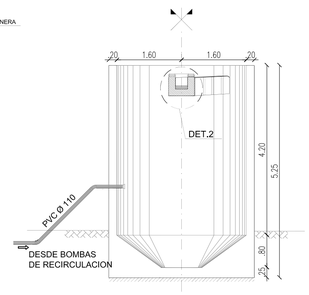
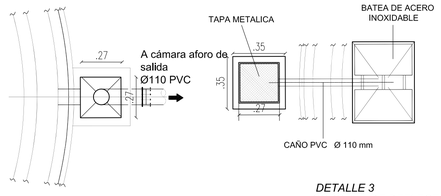


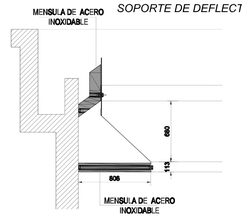
CORTE C-C

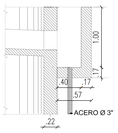


DETALLES Y CORTES SEDIMENTADOR

DETALLE VERTEDERO TRIANGULAR

DETALLE 3
SOPORTE DE DEFLECTOR





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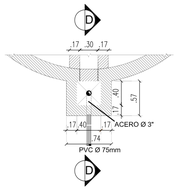
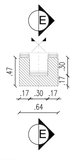
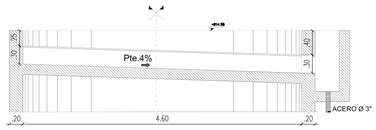


DETALLE 1- PLANTA



DETALLE 2- VISTA

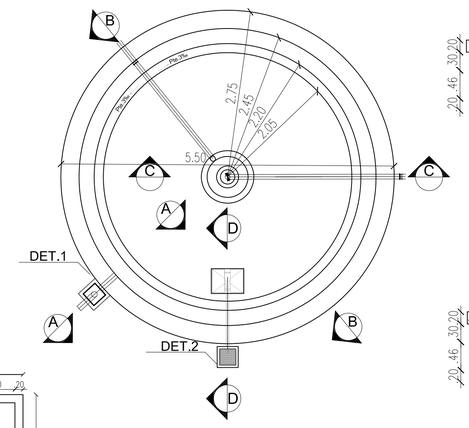
DETALLES Y CORTES ESPESADOR DE BARROS

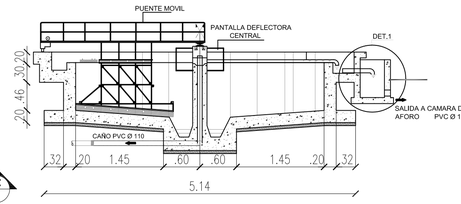


CORTE E-E

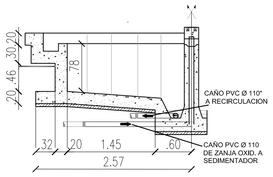
SEDIMENTADOR

PLANTA

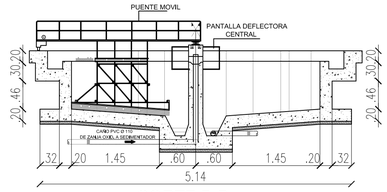




CORTE A-A



CORTE C-C



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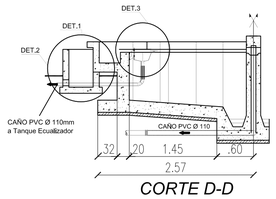
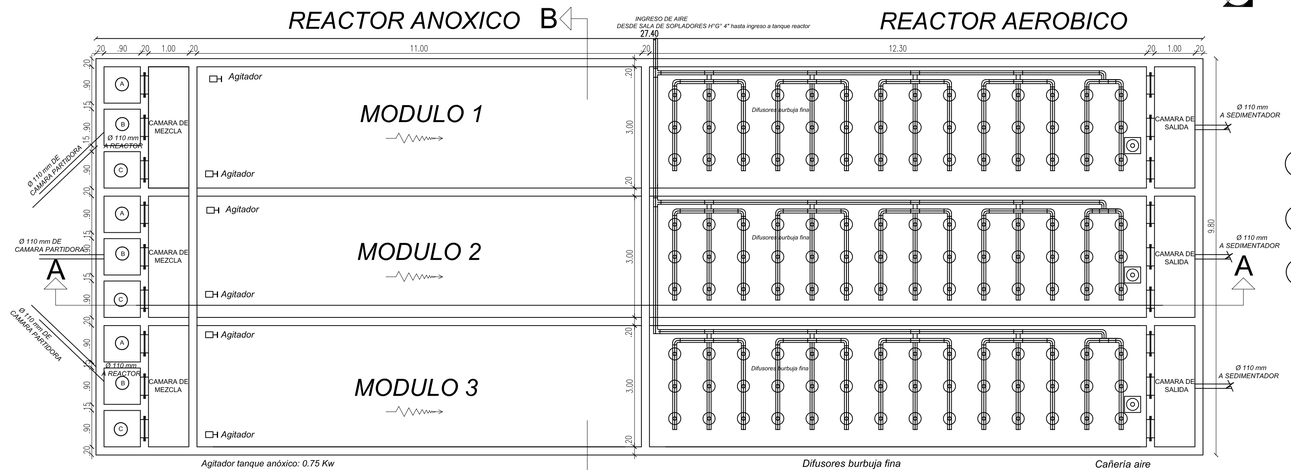


CORTE D-D

REACTOR EQUIPAMIENTO HIDROMECANICO

REACTOR ANOXICO — REACTOR AEROBICO



Agitador tanque anóxico: 0.75 Kw

Difusores burbuja fina
- Tipo: membrana alástica
- Diámetro: 300mm
- Caudal de aire de trabajo: 2 a 8 m3/h de aire por difusor
- Material aro exterior y base: polipropileno
- Rosca: BSP ¾"
- Cantidad: 42 difusores por tanque

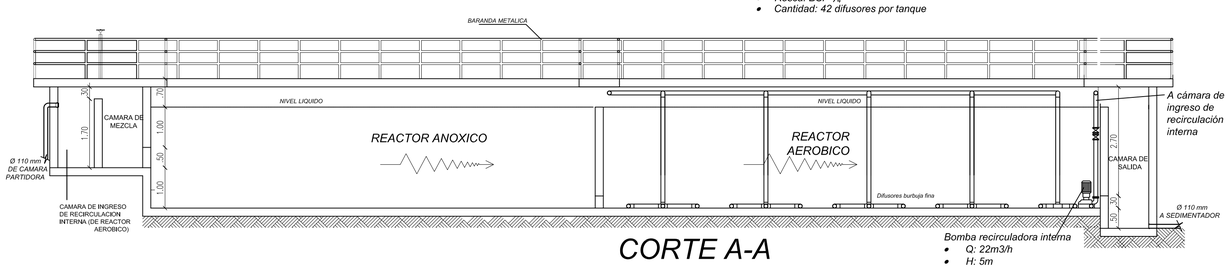
Cañeria aire
Material: polipropileno
Diámetro: 38 mm a verificar s/ cálculo de caudales de aire

PLANTA

(A) CAMARA DE INGRESO DE RECIRCULACION DE BARROS (DE SEDIMENTADOR)

(B) CAMARA DE INGRESO DE AGUA RESIDUAL

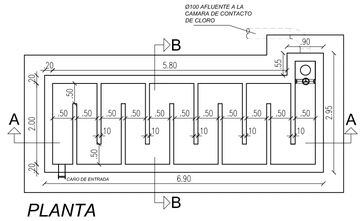
(C) CAMARA DE INGRESO DE RECIRCULACION INTERNA (DE REACTOR AEROBICO)



Bomba recirculadora interna
- Q: 22m3/h
- H: 5m

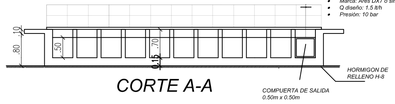
CORTE A-A

CAMARA DE CONTACTO

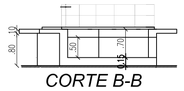


PLANTA

Bomba dosificadora Hipoclorito
- Marca: Aires DX7 o similar
- Q diseño: 1.5 l/h
- Presión: 10 bar



CORTE A-A



CORTE B-B

ESCALAS

TANQUE ECUALIZACION Y BOMBEO 1:75
REACTOR AEROBICO 1:75
GALPON Y EQUIPO DE DESHIDRATACION DE BARROS 1:50
CAMARA DE AFORO 1:25

REV.	FECHA	DESCRIPCION	EJECUTO	REVISO	APROBO

	Nombre	Fecha	Firma
Proyecto			
Dibujo	J. REMIRO	25/10/17	
Revisó			
Revisó	L. GARCIA	25/10/17	
Aprobó	J. MONSERRAT	25/10/17	

RN RIO NEGRO — OBRAS Y SERVICIOS PÚBLICOS

INVAP — Parque Productivo Tecnológico Industrial Bariloche

Nº 0989 0107 2ACOC 001 C

Esc. -

TITULO: PITBA ETAPA 1 — PLANTA DEPURADORA — DETALLES EQUIPAMIENTO (2)

Docum. Base

Reempl. a

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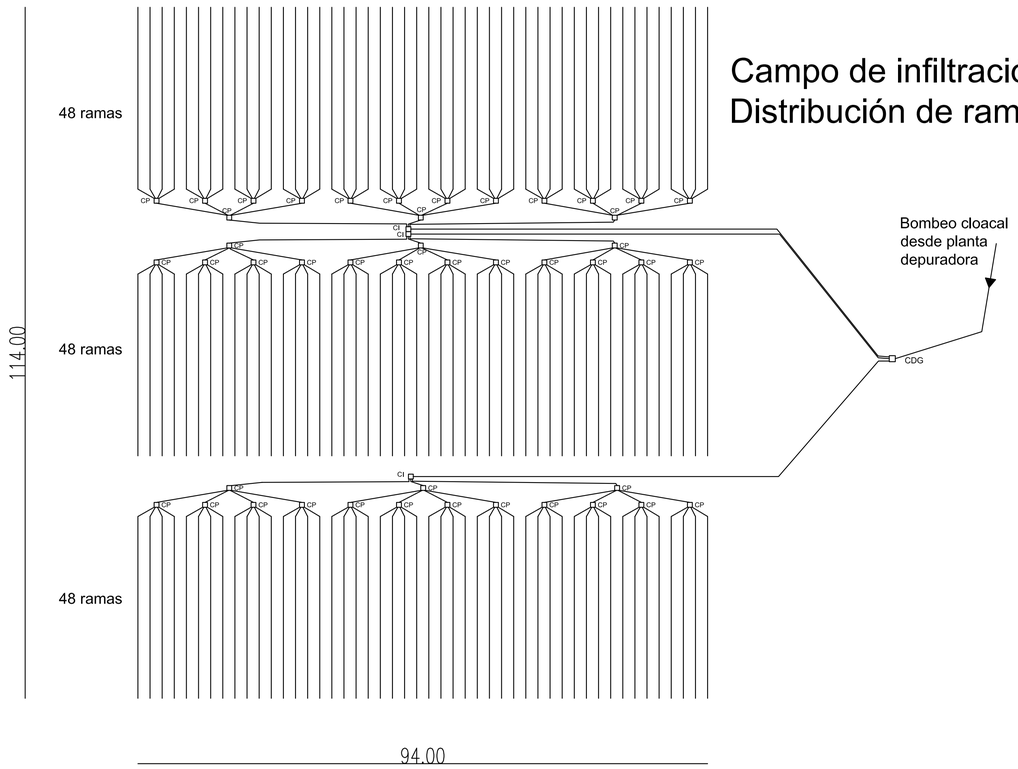
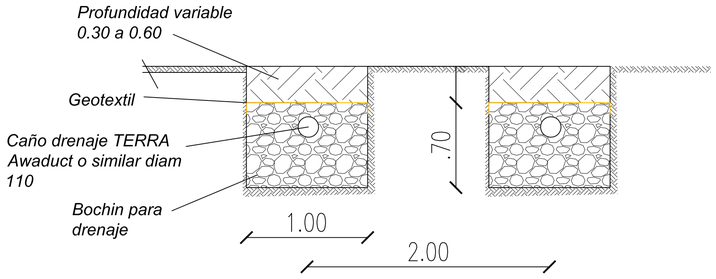
Campo de infiltración
Distribución de ramas

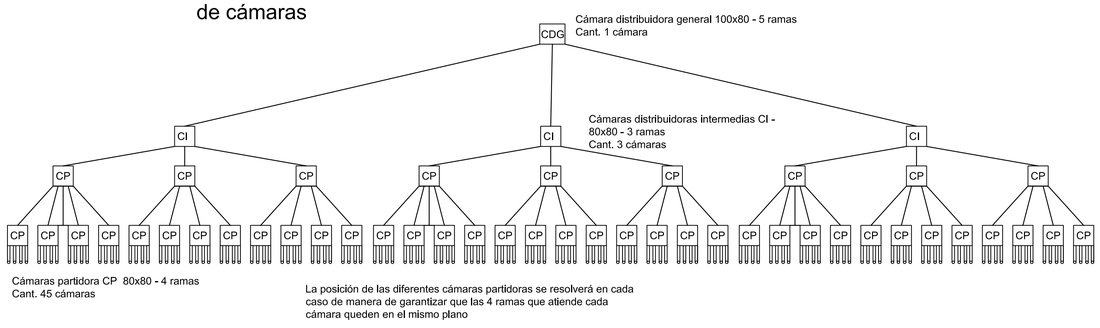


Detalle lecho infiltración

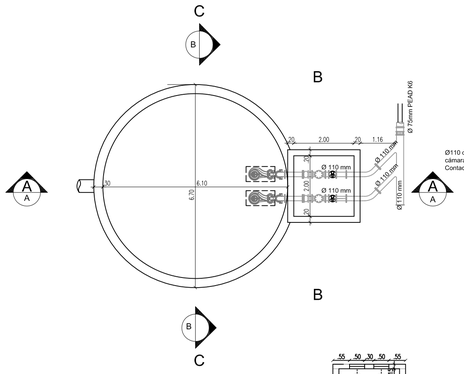


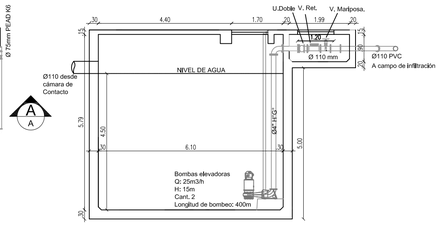
Caudal: 524 m3/dia
Tasa de infiltración: 122 lt/m2/día
Longitud de infiltración: 4.300 ml
Longitud rama: 30m
Cantidad ramas: 144
Cámaras partidoras: 45
Cámaras distribuidoras intermedias: 3
Cámara distribuidora general: 1
Area campo infiltración: 11.000m2

Esquema distribución de cámaras



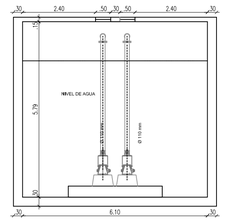
TANQUE DE BOMBEO A CAMPO INFILTRACIÓN





CORTE A-A

CORTE B-B

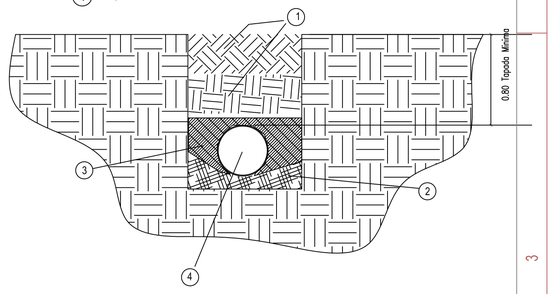


CORTE C-C

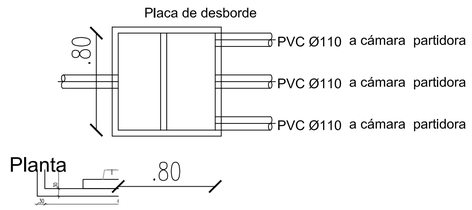
DETALLES DE EJECUCION DE BOMBEO CLOACAL

Tramo desde Tanque de Bombeo a Cámara Distribuidora General

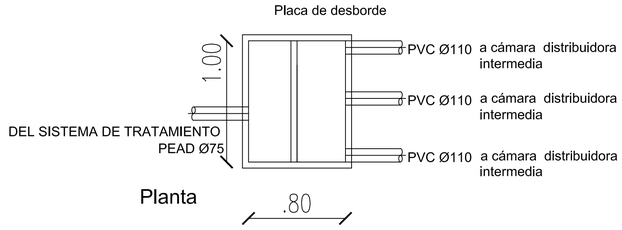
1. Capas de 0,20 m compactadas al 95 % de la densidad
2. Proctor Standard (98 % en calzada)
3. Capas de apoyo sin piedras altura 0,10 m. Compactación manual hasta superar caño en 10 cm
4. Manguera PEAD 75 mm K6



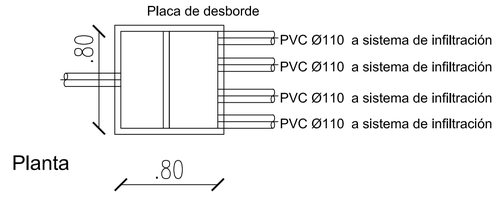
Cámaras partidora intermedia (CI)
80x80 - 3 ramas
Cant. 25 cámaras

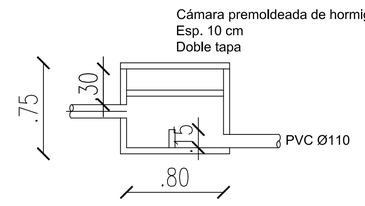


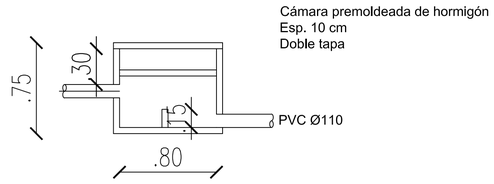
Cámaras distribuidora general (CDG)
100x80 - 3 ramas
Cant. 1 cámara



Cámaras distribuidora y partidora (CP)
80x80 - 4 ramas
Cant. 25 cámaras







OBRAS Y SERVICIOS PÚBLICOS — RIO NEGRO

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INVAP — Parque Productivo Tecnológico Industrial Bariloche

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TITULO: PITBA ETAPA 1 — PLANTA DEPURADORA — Area de infiltración

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Descripción	Nombre	Fecha
Autor	Remiro, Ricardo Julian	11-04-2019
Revisor	Sanchez Negrette, Jose Manuel	11-04-2019
Aprobador	Monserrat, Juan Esteban	11-04-2019

Solo para cotización