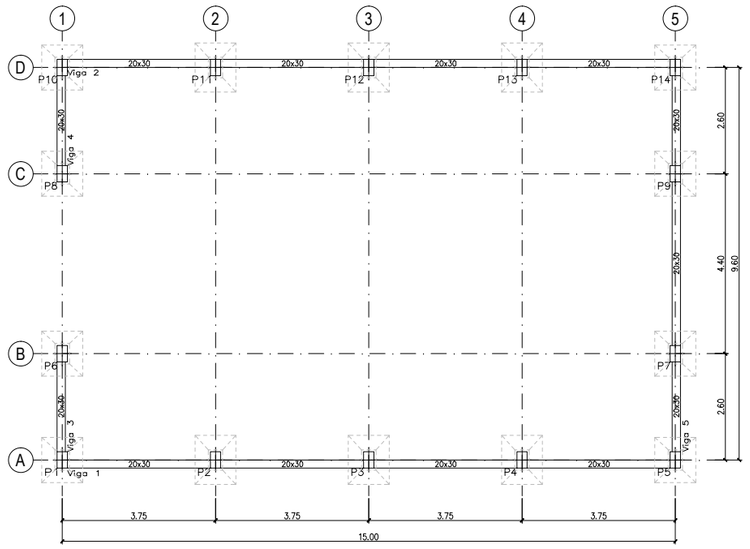
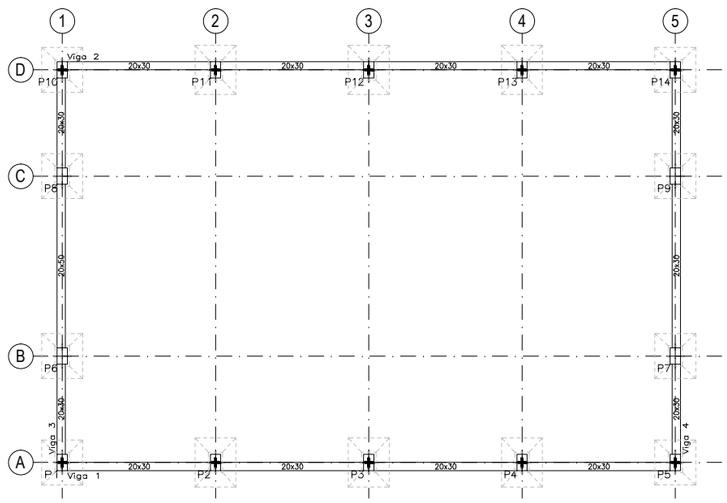
NIVEL +2.42 VIGAS INTERMEDIAS
Replanteo
Hormigón: H-21 , Control Normal
Escala: 1:75

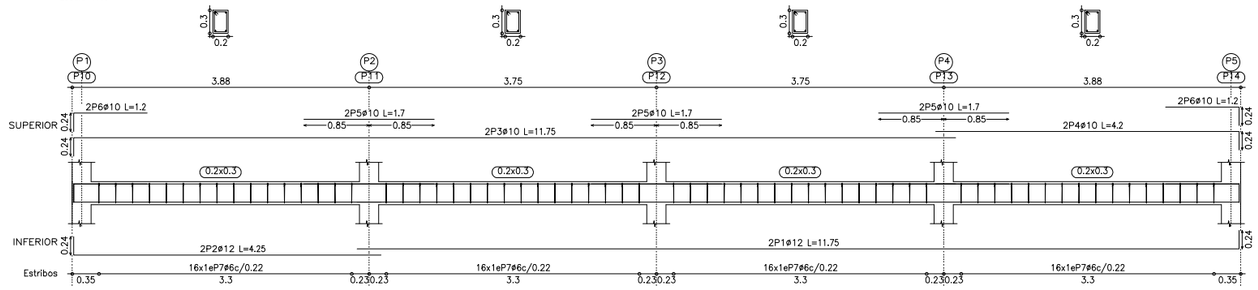



NIVEL +4.67 VIGAS DE CUBIERTA
Replanteo
Hormigón: H-21 , Control Normal
Escala: 1:75

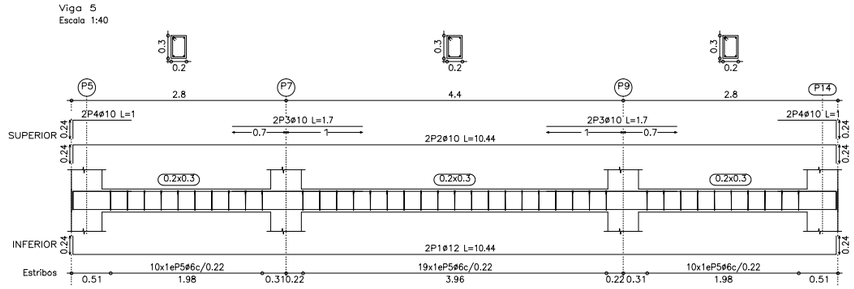



NIVEL +2.42 VIGAS INTERMEDIAS
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:40

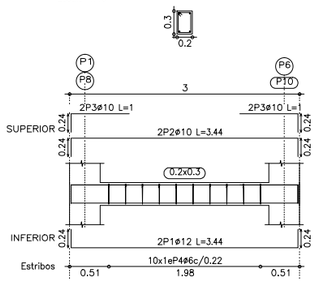
Viga 1
Viga 2
Escala 1:40




Viga 5
Escala 1:40

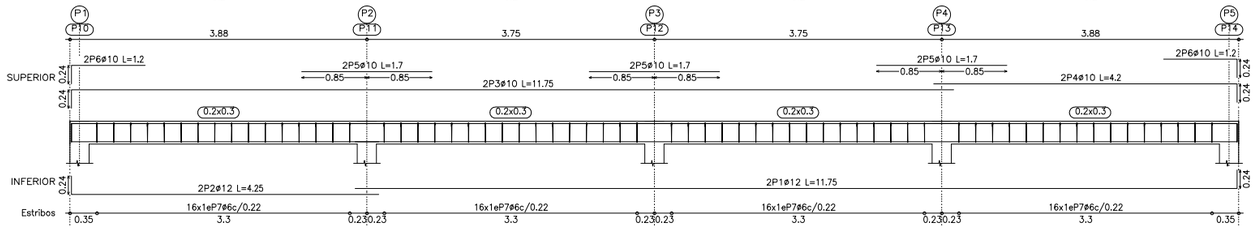



Viga 3
Viga 4
Escala 1:40

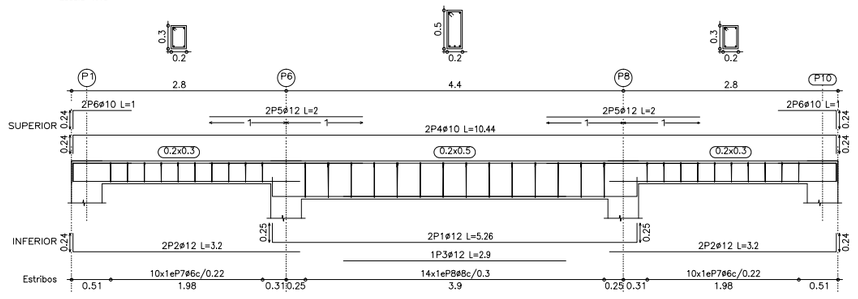



NIVEL +4.67 VIGAS DE CUBIERTA
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:40

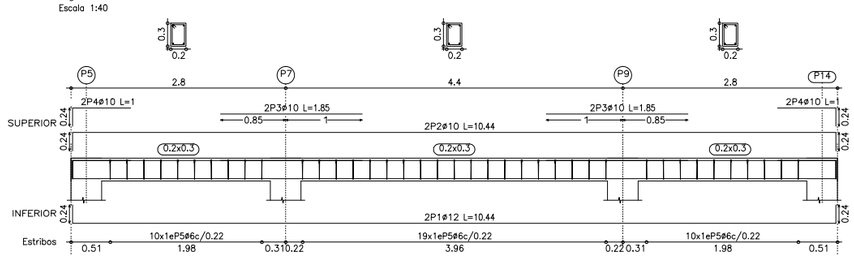
Viga 1
Viga 2
Escala 1:40




Viga 3
Escala 1:40




Viga 4
Escala 1:40



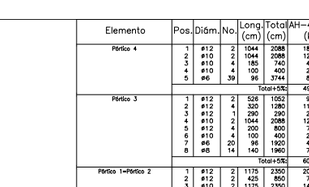

| Elemento | Pos. | Diám. | No. | Long. (cm) | Total (cm) | AH-400CN (kg) |
|---|---|---|---|---|---|---|
| Pórtico 4 | 1 | #12 | 2 | 1044 | 2088 | 18.5 |
| | 2 | #10 | 2 | 1044 | 2088 | 12.9 |
| | 3 | #10 | 4 | 185 | 740 | 4.6 |
| | 4 | #10 | 4 | 100 | 400 | 2.5 |
| | 5 | #6 | 39 | 96 | 3744 | 8.3 |
| | | | | | Total+5%: | 49.1 |
| Pórtico 3 | 1 | #12 | 2 | 526 | 1052 | 9.3 |
| | 2 | #12 | 4 | 320 | 1280 | 11.4 |
| | 3 | #12 | 1 | 290 | 290 | 2.6 |
| | 4 | #10 | 2 | 1044 | 2088 | 12.9 |
| | 5 | #12 | 4 | 200 | 800 | 7.1 |
| | 6 | #10 | 4 | 100 | 400 | 2.5 |
| | 7 | #6 | 20 | 96 | 1920 | 4.3 |
| | 8 | #8 | 14 | 140 | 1960 | 7.7 |
| | | | | | Total+5%: | 60.7 |
| Pórtico 1=Pórtico 2 | 1 | #12 | 2 | 1175 | 2350 | 20.9 |
| | 2 | #12 | 2 | 425 | 850 | 7.5 |
| | 3 | #10 | 2 | 1175 | 2350 | 14.5 |
| | 4 | #10 | 2 | 400 | 840 | 5.2 |
| | 5 | #10 | 6 | 170 | 1020 | 6.3 |
| | 6 | #10 | 4 | 120 | 480 | 3.0 |
| | 7 | #6 | 64 | 96 | 6144 | 13.6 |
| | | | | | Total+5%: (x12): | 74.6 148.2 |
| P6=P8 | 1 | #12 | 6 | 447 | 2682 | 23.8 |
| | 2 | #6 | 32 | 126 | 4032 | 8.9 |
| | 3 | #6 | 32 | 36 | 1152 | 2.6 |
| | | | | | Total+5%: (x2): | 37.1 74.2 |
| P1=P2=P3=P4=P5=P7=P9=P10 P11=P12=P13=P14 | 1 | #12 | 6 | 223 | 1338 | 11.9 |
| | 2 | #6 | 16 | 126 | 2016 | 4.5 |
| | 3 | #6 | 16 | 36 | 576 | 1.3 |
| | | | | | Total+5%: (x12): | 18.6 223.2 |
| | | | | | #6: | 139.2 |
| | | | | | #10: | 98.2 |
| | | | | | #12: | 310.9 |
| | | | | | Total: | 556.4 |

| Elemento | Pos. | Diám. | No. | Long. (cm) | Total (cm) | AH-400CN (kg) |
|---|---|---|---|---|---|---|
| P1=P2=P3=P4=P5=P7=P9=P10 P11=P12=P13=P14 | 1 | #12 | 6 | 250 | 1500 | 13.3 |
| | 2 | #6 | 16 | 126 | 2016 | 4.5 |
| | 3 | #6 | 16 | 36 | 576 | 1.3 |
| | | | | | Total+5%: (x12): | 20.1 241.2 |
| Pórtico 1=Pórtico 2 | 1 | #12 | 2 | 1175 | 2350 | 20.9 |
| | 2 | #12 | 2 | 425 | 850 | 7.5 |
| | 3 | #10 | 2 | 1175 | 2350 | 14.5 |
| | 4 | #10 | 2 | 400 | 840 | 5.2 |
| | 5 | #10 | 6 | 170 | 1020 | 6.3 |
| | 6 | #10 | 4 | 120 | 480 | 3.0 |
| | 7 | #6 | 64 | 96 | 6144 | 13.6 |
| | | | | | Total+5%: (x2): | 74.6 149.2 |
| Pórtico 3=Pórtico 4 | 1 | #12 | 2 | 344 | 688 | 6.1 |
| | 2 | #10 | 2 | 344 | 688 | 4.2 |
| | 3 | #10 | 4 | 100 | 400 | 2.5 |
| | 4 | #6 | 10 | 96 | 960 | 2.1 |
| | | | | | Total+5%: (x2): | 15.6 31.2 |
| Pórtico 5 | 1 | #12 | 2 | 1044 | 2088 | 18.5 |
| | 2 | #10 | 2 | 1044 | 2088 | 12.9 |
| | 3 | #10 | 4 | 170 | 680 | 4.2 |
| | 4 | #10 | 4 | 100 | 400 | 2.5 |
| | 5 | #6 | 39 | 96 | 3744 | 8.3 |
| | | | | | Total+5%: | 48.7 |
| | | | | | #6: | 114.9 |
| | | | | | #8: | 0.0 |
| | | | | | #10: | 95.6 |
| | | | | | #12: | 259.8 |
| | | | | | Total: | 470.3 |

Pilares que terminan en
NIVEL +2.42 VIGAS INTERMEDIAS
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:50

P1=P2=P3=P4=P5=P7
P9=P10=P11=P12
P13=P14

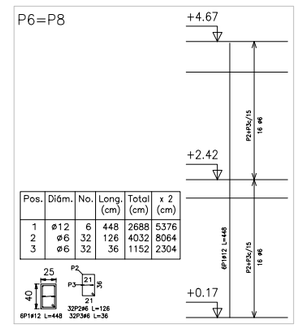
| Pos. | Diám. | No. | Long. (cm) | Total (cm) | x 12 (cm) |
|---|---|---|---|---|---|
| 1 | ø12 | 6 | 250 | 1500 | 18000 |
| 2 | ø6 | 16 | 126 | 2016 | 24192 |
| 3 | ø6 | 16 | 36 | 576 | 6912 |




Pilares que terminan en
NIVEL +4.67 VIGAS DE CUBIERTA
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:50

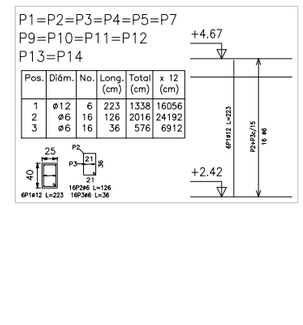
P6=P8

| Pos. | Diám. | No. | Long. (cm) | Total (cm) | x 2 (cm) |
|---|---|---|---|---|---|
| 1 | ø12 | 6 | 448 | 2688 | 5376 |
| 2 | ø6 | 32 | 126 | 4032 | 8064 |
| 3 | ø6 | 32 | 36 | 1152 | 2304 |




P1=P2=P3=P4=P5=P7
P9=P10=P11=P12
P13=P14

| Pos. | Diám. | No. | Long. (cm) | Total (cm) | x 12 (cm) |
|---|---|---|---|---|---|
| 1 | ø12 | 6 | 223 | 1338 | 16056 |
| 2 | ø6 | 16 | 126 | 2016 | 24192 |
| 3 | ø6 | 16 | 36 | 576 | 6912 |




CONSULTOR DE LINEA:

UBICACION:

| | |
|---|---|
| DEPARTAMENTO | POTOSI |
| PROVINCIA | RAFAEL BUSTILLO |
| MUNICIPIO | LLALLAGUA |

PROPIETARIO:
YACIMIENTOS PETROLIFEROS FISCALES BOLIVIANOS
GERENCIA NACIONAL DE REDES DE GAS Y DUCTOS
DIRECCION GAS VIRTUAL

OBRA:
PROYECTO CONSTRUCCION DE OBRAS CIVILES COMPLEMENTARIAS DE ESR LLALLAGUA - PROYECTO GNL

DESCRIPCIÓN:
PLANTA EJES Y VIGAS DE GALPON

| ESPECIALIDAD: | FECHA: | ESCALA: | LÁMINA: |
|---|---|---|---|
| ESTRUCTURAS | AGOSTO 2015 | INDICADAS | 5/6 |