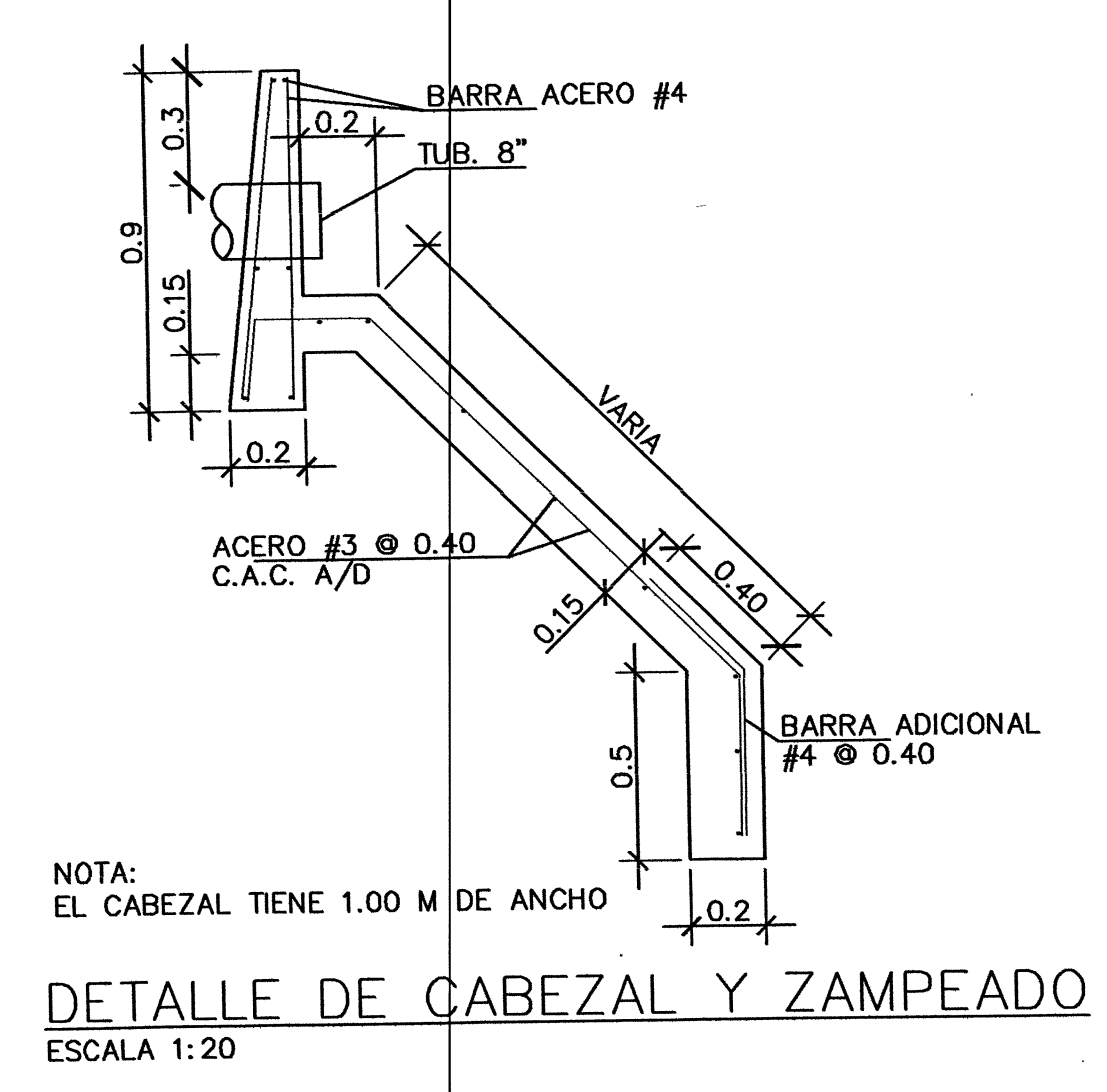
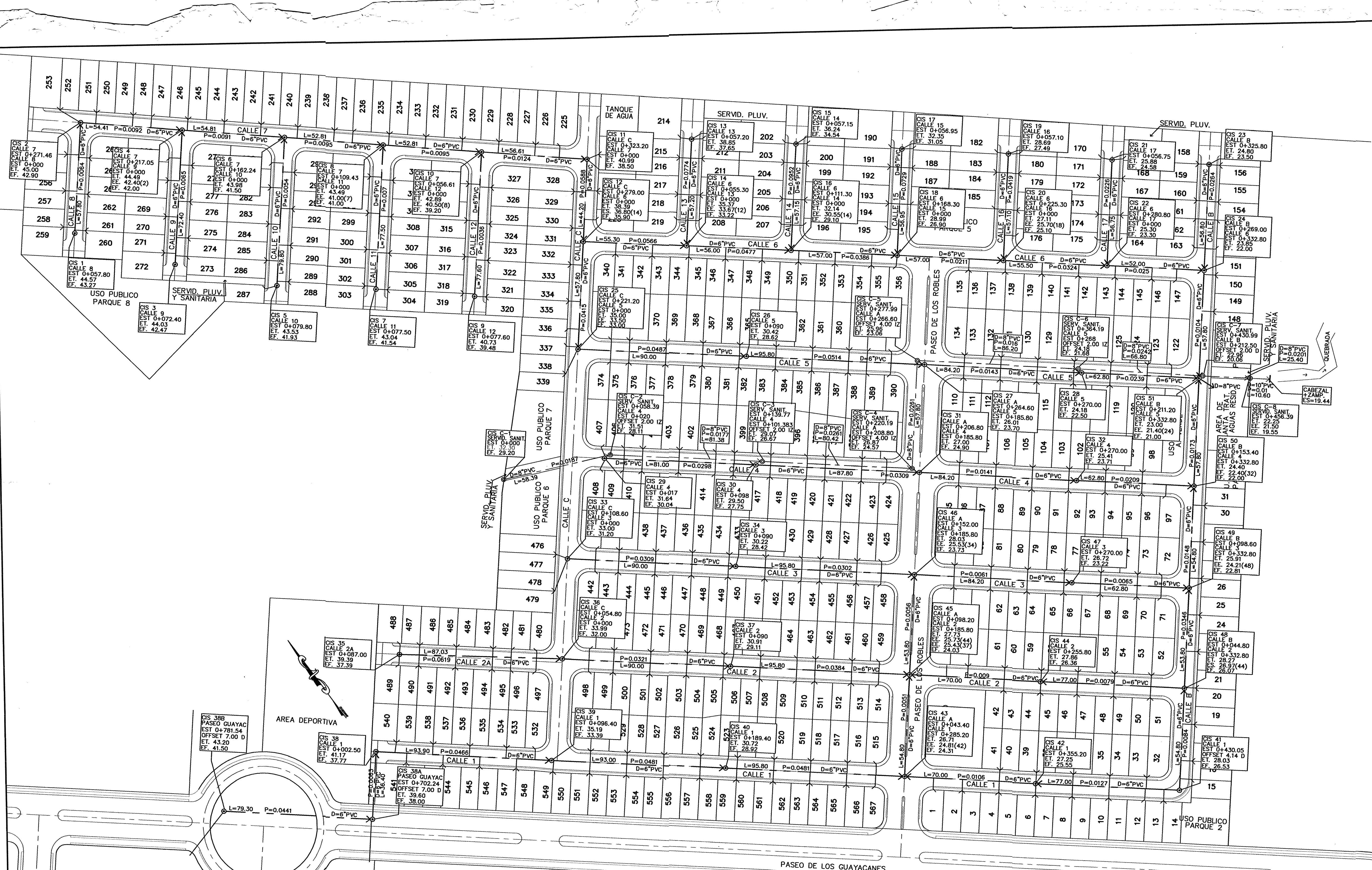


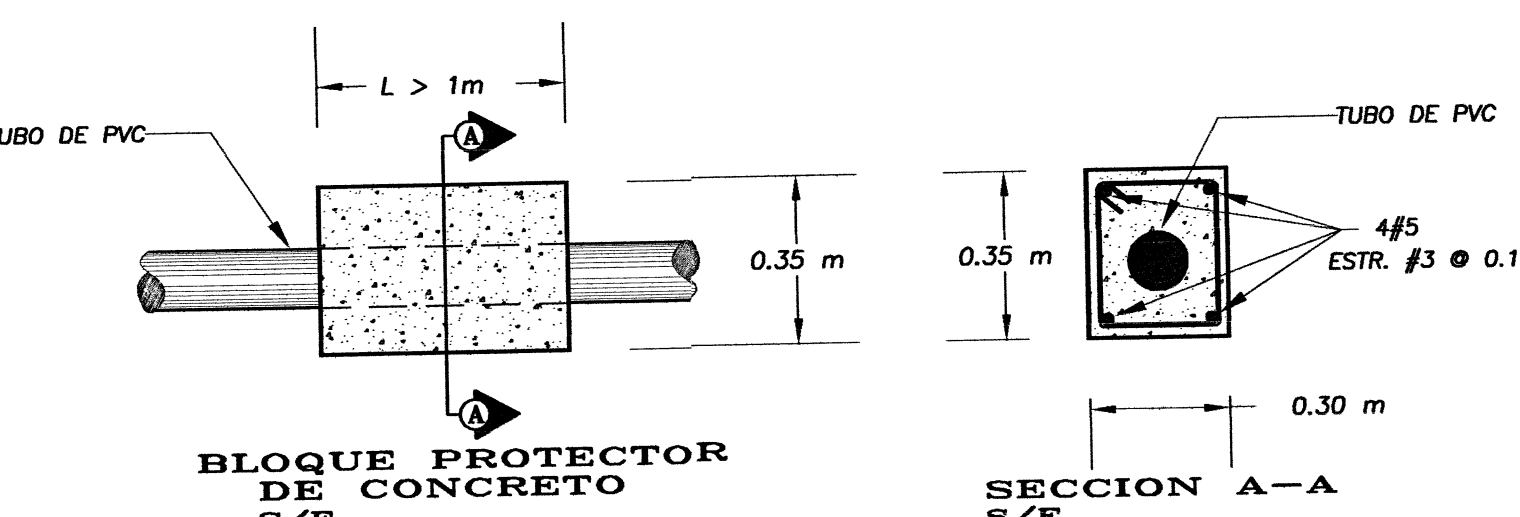




PLANTA SANITARIA

ESCALA = 1 : 1000

NOTA:  
LOS Q'S DEL C-1 AL C-8 CORRESPONDEN A UN SISTEMA DE ALCANTARILLADO  
QUE TRANSPORTA AGUAS TRATADAS DE PLANTAS DE TRATAMIENTO DE AGUAS  
RESIDUALES DE OTROS PROYECTOS.



NOTA:  
Todas las tuberías del Sistema de Alcantarillado Sanitario serán de PVC SDR-41 C/G  
de acuerdo a la norma ASTM-D-3034.  
Se colocará bloque protector de concreto en los cruces cuya separación  
entre las tuberías sea menor de 0.30 m.

INSTITUTO DE ACUEDUCTOS Y  
ALCANTARILLADOS NACIONALES  
ID.A.A.N.  
VENTANILLA ÚNICA  
CERTIFICADA  
ESTE PLANO ASESORADO CONIERTO A LOS  
SIGUIENTES CAMBIOS:  
V.B.  
PARA CERTIFICACIÓN TIENE UNA VIGENCIA DE  
TRES AÑOS  
FECHA: 01-04-2014  
FIRMA: [Signature]

INSTITUTO DE ACUEDUCTOS Y  
ALCANTARILLADOS NACIONALES  
VENTANILLA ÚNICA DEL MIVI  
CUALQUIER OMISIÓN, FALSEAD O ERROR  
EN LA INFORMACIÓN SUMINISTRADA EN  
ESTOS PLANOS ANULA TODAS LAS  
CERTIFICACIONES  
FECHA: 02/02/14

REPUBLICA DE PANAMÁ  
MINISTERIO DE SALUD  
SECRETARÍA DE SALUD  
REVISADO  
FECHA: 19-05-14

MINISTERIO DE SALUD  
COORDINACIÓN GENERAL DE SALUD AMBIENTAL  
DEPARTAMENTO DE CALIDAD SANITARIA  
DEL ASESORADO  
VENTANILLA ÚNICA  
CERTIFICADA  
CUALQUIER OMISIÓN, FALSEAD O ERROR EN  
LA INFORMACIÓN SUMINISTRADA EN ESTOS  
PLANOS ANULA TODAS LAS CERTIFICACIONES  
FECHA: 24 JUL 2014  
FIRMA: [Signature]  
NÚMERO: 047

CARLOS A. CAMARENA V.  
ARQUITECTO  
LICENCIADO 44-2010-001-873  
LEY 15 DE 2013 DE 15 DE ENERO DE 1999  
Junta Técnica de Ingeniería y Arquitectura

PROPIETARIO  
ING. GUILLERMO E. QUIJANO  
CED. 8 - 92 - 171  
PRESIDENTE

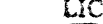
DISEÑO:  
CALCULO:  
ING. G. CALCAGNO  
DIBUJO:  
ESCALA:  
INDICADAS  
FECHA:  
MARZO DE 2014  
HOJA N°:  
7  
DE

PROYECTO  
RESIDENCIAL PALO ALTO  
EN  
PRADERA AZUL  
CONTENIDO  
PLANTA DE SANITARIO  
PROPIEDAD DE:  
S.U.C.A.S.A.  
UBICADO EN EL CORREGIMIENTO 24 DE DICIEMBRE,  
DISTRITO DE PANAMA, PROVINCIA DE PANAMA  
DIRECTOR DE OBRAS Y CONSTRUCCIONES MUNICIPALES

DISEÑOS  
SUCASA

NOTA:  
LOS CIS'S DEL C-8 AL EX-1 CORRESPONDEN A UN SISTEMA DE ALCANTARILLADO  
QUE TRANSPORTA AGUAS TRATADAS DE PLANTAS DE TRATAMIENTO DE AGUAS  
RESIDUALES DE OTROS PROYECTOS.

NOTA:  
LOS CIS'S DEL C-8 AL EX-1 CORRESPONDEN A UN SISTEMA DE ALCANTARILLADO  
QUE TRANSPORTA AGUAS TRATADAS DE PLANTAS DE TRATAMIENTO DE AGUAS  
RESIDUALES DE OTROS PROYECTOS.

CARLOS A. CAMARENA V.  
ARQUITECTO  
LICENCIA No. 2010-001-075  
  
Ley 15 de 26 de Enero de 1959  
Junta Técnica de Ingeniería y Arquitectura

MINISTERIO DE SALUD  
SECRETARIA DE LA VIDA Y LA SALUD AMBIENTAL  
DIRECCION GENERAL DE OCEANOS Y COSTAS  
SALUD  
AV. BOLIVAR 1000  
BOGOTA, D.C. 110010  
TEL: 280 0000 FAX: 280 0000  
CORREO ELECTRONICO: [dgco@minsa.gov.co](mailto:dgco@minsa.gov.co)  
PAGINA WEB: [www.dgco.gov.co](http://www.dgco.gov.co)  
CUALQUIER TIPO DE MALAS VIBRACIONES  
PUEDE SER EL SIGUIENTE:  
PLAYAS DE LA COSTA OCEANICA  
FOLIO 05 ABR 2016  
FUNCIONARIO NUMERO 013

GIOVANNI FANGIO CALCAGNO L.  
 INGENIERO CIVIL  
 Licencia N° 97-65-017  
 FAVIA  
 Ley 15 del 22 de Mayo de 1959  
 Junta Técnica de Ingeniería y Arquitectura  
 PROPIETARIO  
 ING. GUILLERMO E. QUIJANO  
 CED. 8 - 92 - 171  
 PRESIDENTE

|                                             |
|---------------------------------------------|
| <b>DISEÑO:</b><br><b>ING. V. RODRÍGUEZ</b>  |
| <b>CÁLCULO:</b><br><b>ING. V. RODRÍGUEZ</b> |
| <b>DIBUJO:</b><br><b>ING. V. RODRÍGUEZ</b>  |
| <b>ESCALA:</b><br><b>INDICADAS</b>          |
| <b>FECHA:</b><br><b>JUNIO DE 2014</b>       |
| <b>HOJA N°:</b><br><b>05</b>                |

|                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|
| <p>PROYECTO<br/>RESIDENCIAL VERONA<br/>EN<br/>PRADERA AZUL</p>                                                                     |
| <p>CONTENIDO</p> <p>PLANTA DE SANITARIO</p>                                                                                        |
| <p>PROPIEDAD DE :<br/>S.U.C.A.S.A.<br/>UBICADO EN EL CORREGIMIENTO 24 DE DICIEMBRE,<br/>DISTRITO DE PANAMA, PROVINGA DE PANAMA</p> |
| <p>DIRECTOR DE OBRAS Y CONSTRUCCIONES MUNICIPALES</p>                                                                              |

**DISEÑOS**



**SUCASA**

DISEÑO SANITARIO (TUBERIA DE DESCARGA DE AGUA TRATADA P.H. FRESNO)

|                              |            |
|------------------------------|------------|
| NUMERO DE LOTES              | 1642       |
| DENSIDAD                     | 5 HAB/LOTE |
| TOTAL DE HAB.                | 8210       |
| TOTAL DE HA.                 |            |
| GENERACION DE AGUAS SERVIDAS | 80 GPPD    |
| TUBERIA DE PVC               | N= 0.010   |
| INFILTRACION                 | 0.01       |

| DEL<br>C.I.<br>No. | AL<br>C.I.<br>No. | CANT.<br>LOTES<br>SERV. | CALLE       | AREA<br>HA. | POBLACION    |           | AGUAS SERVIDAS           |                     |                        |                         | INFILTRACIÓN                |                           |                     | Q=<br>Q1+Q2<br>PIE3/SEG | D > 12"<br>1.25*Q<br>PIE3/SEG | S<br>o/oo | V<br>PIES/SEG | D<br>PLG | CONDICIONES DE FLUJO    |                         |          |          |                       |               | DIST<br>METROS | DIFER<br>DE<br>ELEV.<br>METROS | ELEV. FONDO |        |  |  |  |  |  |
|--------------------|-------------------|-------------------------|-------------|-------------|--------------|-----------|--------------------------|---------------------|------------------------|-------------------------|-----------------------------|---------------------------|---------------------|-------------------------|-------------------------------|-----------|---------------|----------|-------------------------|-------------------------|----------|----------|-----------------------|---------------|----------------|--------------------------------|-------------|--------|--|--|--|--|--|
|                    |                   |                         |             |             | POR<br>LINEA | ACU<br>M. | Q1 UNIT<br>PIES3/<br>SEG | Q1<br>PIES3/<br>SEG | FACTOR<br>DE<br>Q1 MAX | Q1 MAX<br>PIES3/<br>SEG | Q2 UNIT<br>PIES3/<br>SEG/HA | Q2 TOTAL<br>PIES3/<br>SEG | Q2<br>PIES3/<br>SEG |                         |                               |           |               |          | Q LLENO<br>PIES3<br>SEG | Q DIS /<br>Q LLENO<br>% | d/D<br>% | v/V<br>% | PROF.<br>FLUJO<br>PLG | V<br>PIES/SEG |                |                                | SUP.        | INF.   |  |  |  |  |  |
|                    |                   |                         |             |             |              |           |                          |                     |                        |                         |                             |                           |                     |                         |                               |           |               |          |                         |                         |          |          |                       |               |                |                                |             |        |  |  |  |  |  |
| X512               | X513              | 341                     | SERVIDUMBRE | 0.0313      | 1705.00      | 1705      | 0.2110                   | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0003                    | 0.0003              | 0.4273                  |                               | 7.29      | 3.18          | 6        | 0.6244                  | 68.44%                  | 60.73%   | 107.67%  | 3.6439                | 3.4241        | 26.07          | 0.19                           | 51.15       | 50.96  |  |  |  |  |  |
| X513               | X514              |                         | SERVIDUMBRE | 0.0245      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0002                    | 0.0006              | 0.4276                  |                               | 5.38      | 2.73          | 6        | 0.5364                  | 79.71%                  | 67.48%   | 111.03%  | 4.0486                | 3.0332        | 20.45          | 0.11                           | 50.96       | 50.85  |  |  |  |  |  |
| X514               | X515              |                         | SERVIDUMBRE | 0.0287      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0003                    | 0.0008              | 0.4278                  |                               | 5.01      | 2.64          | 6        | 0.5179                  | 82.61%                  | 69.29%   | 111.73%  | 4.1573                | 2.9471        | 23.93          | 0.12                           | 50.85       | 50.73  |  |  |  |  |  |
| X515               | X1                |                         | SERVIDUMBRE | 0.0102      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0001                    | 0.0009              | 0.4279                  |                               | 5.86      | 2.85          | 6        | 0.5600                  | 76.42%                  | 65.47%   | 110.15%  | 3.9283                | 3.1414        | 8.53           | 0.05                           | 50.73       | 50.68  |  |  |  |  |  |
| X1                 | X2                |                         | CALLE 1     | 0.0411      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0004                    | 0.0014              | 0.4284                  |                               | 8.17      | 3.37          | 6        | 0.6611                  | 64.79%                  | 58.61%   | 106.38%  | 3.5165                | 3.5819        | 34.27          | 0.28                           | 50.680      | 50.400 |  |  |  |  |  |
| X2                 | X3                |                         | CALLE 5     | 0.1008      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0010                    | 0.0024              | 0.4294                  |                               | 16.79     | 4.83          | 6        | 0.9476                  | 45.31%                  | 47.21%   | 97.54%   | 2.8329                | 4.7072        | 84.00          | 1.41                           | 50.400      | 48.990 |  |  |  |  |  |
| X3                 | X4                |                         | CALLE 5     | 0.0840      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0008                    | 0.0032              | 0.4302                  |                               | 16.57     | 4.80          | 6        | 0.9415                  | 45.69%                  | 47.44%   | 97.75%   | 2.8466                | 4.6871        | 70.00          | 1.16                           | 48.990      | 47.830 |  |  |  |  |  |
| X4                 | X5                |                         | CALLE 5     | 0.0408      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0004                    | 0.0036              | 0.4306                  |                               | 16.76     | 4.82          | 6        | 0.9470                  | 45.47%                  | 47.31%   | 97.63%   | 2.8386                | 4.7085        | 34.00          | 0.57                           | 47.830      | 47.260 |  |  |  |  |  |
| X5                 | X6                |                         | CALLE 5     | 0.0477      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0005                    | 0.0041              | 0.4311                  |                               | 14.34     | 4.46          | 6        | 0.8757                  | 49.23%                  | 49.54%   | 99.61%   | 2.9726                | 4.4427        | 39.76          | 0.57                           | 47.260      | 46.690 |  |  |  |  |  |
| X6                 | X7                |                         | CALLE 8     | 0.0743      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0007                    | 0.0048              | 0.4318                  |                               | 31.83     | 6.65          | 6        | 1.3048                  | 33.10%                  | 39.61%   | 89.78%   | 2.3764                | 5.9660        | 61.90          | 1.97                           | 46.690      | 44.720 |  |  |  |  |  |
| X7                 | X8                |                         | SERVIDUMBRE | 0.0293      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0003                    | 0.0051              | 0.4321                  |                               | 20.10     | 5.28          | 6        | 1.0369                  | 41.67%                  | 45.01%   | 95.45%   | 2.7008                | 5.0406        | 24.38          | 0.49                           | 44.720      | 44.230 |  |  |  |  |  |
| X8                 | X9                |                         | SERVIDUMBRE | 0.0301      |              | 1705      |                          | 0.2110              | 2.02                   | 0.4270                  | 0.01                        | 0.0003                    | 0.0054              | 0.4324                  |                               | 22.70     | 6.80          | 8        | 2.3732                  | 18.22%                  | 28.91%   | 76.04%   | 2.3125                | 5.1699        | 25.11          | 0.57                           | 42.570      | 42.000 |  |  |  |  |  |
| X9                 | X10               | 328                     | SERVIDUMBRE | 0.0864      | 1640.00      | 3345      | 0.2030                   | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0009                    | 0.0063              | 0.7604                  |                               | 10.55     | 4.64          | 8        | 1.6181                  | 46.99%                  | 48.22%   | 98.45%   | 3.8576                | 4.5636        | 72.02          | 0.76                           | 42.000      | 41.240 |  |  |  |  |  |
| X10                | X12               |                         | SERVIDUMBRE | 0.1143      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0011                    | 0.0074              | 0.7616                  |                               | 10.92     | 4.72          | 8        | 1.6459                  | 46.27%                  | 47.79%   | 98.06%   | 3.8230                | 4.6238        | 95.25          | 1.04                           | 41.240      | 40.200 |  |  |  |  |  |
| X12                | X13               |                         | SERVIDUMBRE | 0.0600      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0006                    | 0.0080              | 0.7622                  |                               | 10.00     | 4.51          | 8        | 1.5750                  | 48.39%                  | 49.05%   | 99.18%   | 3.9240                | 4.4751        | 50.01          | 0.50                           | 40.200      | 39.700 |  |  |  |  |  |
| X13                | X14               |                         | SERVIDUMBRE | 0.0581      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0006                    | 0.0086              | 0.7627                  |                               | 10.32     | 4.58          | 8        | 1.6002                  | 47.67%                  | 48.62%   | 98.80%   | 3.8896                | 4.5293        | 48.45          | 0.50                           | 39.700      | 39.200 |  |  |  |  |  |
| X14                | X15               |                         | SERVIDUMBRE | 0.0934      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0009                    | 0.0096              | 0.7637                  |                               | 11.56     | 4.85          | 8        | 1.6936                  | 45.09%                  | 47.08%   | 97.42%   | 3.7666                | 4.7265        | 77.85          | 0.90                           | 39.200      | 38.300 |  |  |  |  |  |
| X15                | X16               |                         | SERVIDUMBRE | 0.1080      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0011                    | 0.0106              | 0.7647                  |                               | 7.78      | 3.98          | 8        | 1.3892                  | 55.05%                  | 52.96%   | 102.40%  | 4.2365                | 4.0751        | 90.00          | 0.70                           | 36.100      | 35.400 |  |  |  |  |  |
| X16                | X17               |                         | SERVIDUMBRE | 0.0348      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0003                    | 0.0110              | 0.7651                  |                               | 14.81     | 5.49          | 8        | 1.9171                  | 39.91%                  | 43.93%   | 94.37%   | 3.5143                | 5.1831        | 29.03          | 0.43                           | 35.400      | 34.970 |  |  |  |  |  |
| X17                | X18               |                         | SERVIDUMBRE | 0.0302      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0003                    | 0.0113              | 0.7654                  |                               | 34.58     | 8.39          | 8        | 2.9291                  | 26.13%                  | 34.88%   | 84.15%   | 2.7908                | 7.0614        | 25.16          | 0.87                           | 34.970      | 34.100 |  |  |  |  |  |
| X18                | X19               |                         | SERVIDUMBRE | 0.0432      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0004                    | 0.0117              | 0.7658                  |                               | 87.70     | 13.36         | 8        | 4.6648                  | 16.42%                  | 27.40%   | 73.81%   | 2.1923                | 9.8640        | 36.03          | 3.16                           | 33.280      | 30.120 |  |  |  |  |  |
| X19                | C-1               |                         | SERVIDUMBRE | 0.0089      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0001                    | 0.0118              | 0.7659                  |                               | 24.29     | 7.03          | 8        | 2.4550                  | 31.20%                  | 38.36%   | 88.35%   | 3.0686                | 6.2139        | 7.41           | 0.18                           | 30.120      | 29.940 |  |  |  |  |  |
| C-1                | C-2               |                         | SERVIDUMBRE | 0.0701      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0007                    | 0.0007              | 0.7548                  |                               | 18.67     | 6.17          | 8        | 2.1521                  | 35.07%                  | 40.89%   | 91.19%   | 3.2709                | 5.6224        | 58.39          | 1.09                           | 29.20       | 28.11  |  |  |  |  |  |
| C-2                | C-3               |                         | CALLE 4     | 0.0977      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0010                    | 0.0017              | 0.7558                  |                               | 17.69     | 6.00          | 8        | 2.0953                  | 36.07%                  | 41.52%   | 91.88%   | 3.3219                | 5.5152        | 81.38          | 1.44                           | 28.11       | 26.67  |  |  |  |  |  |
| C-3                | C-4               |                         | CALLE 4     | 0.0965      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0010                    | 0.0026              | 0.7568                  |                               | 26.11     | 7.29          | 8        | 2.5454                  | 29.73%                  | 37.37%   | 87.20%   | 2.9899                | 6.3585        | 80.42          | 2.10                           | 26.67       | 24.57  |  |  |  |  |  |
| C-4                | C-5               |                         | P. ROBLES   | 0.0694      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0007                    | 0.0033              | 0.7575                  |                               | 26.12     | 7.29          | 8        | 2.5460                  | 29.75%                  | 37.39%   | 87.21%   | 2.9910                | 6.3611        | 57.80          | 1.51                           | 24.57       | 23.06  |  |  |  |  |  |
| C-5                | C-6               |                         | CALLE 5     | 0.1034      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0010                    | 0.0044              | 0.7585                  |                               | 16.01     | 5.71          | 8        | 1.9930                  | 38.06%                  | 42.78%   | 93.20%   | 3.4221                | 5.3213        | 86.20          | 1.38                           | 23.06       | 21.68  |  |  |  |  |  |
| C-6                | C-7               |                         | CALLE 5     | 0.0802      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0008                    | 0.0052              | 0.7593                  |                               | 24.25     | 7.03          | 8        | 2.4530                  | 30.95%                  | 38.19%   | 88.16%   | 3.0556                | 6.1955        | 66.80          | 1.62                           | 21.68       | 20.06  |  |  |  |  |  |
| C-7                | C-8               |                         | SERVIDUMBRE | 0.0305      |              | 3345      |                          | 0.4140              | 1.82                   | 0.7541                  | 0.01                        | 0.0003                    | 0.0055              | 0.7596                  |                               | 20.08     | 6.39          | 8        | 2.2320                  | 34.03%                  | 40.22%   | 90.46%   | 3.2173                | 5.7840        | 25.40          | 0.51                           | 20.06       | 19.55  |  |  |  |  |  |
| C-8                | EX9               | 573                     | SERVIDUMBRE | 0.0342      | 2865.00      | 6210      | 0.3546                   | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0003                    | 0.0058              | 1.3893                  |                               | 9.82      | 5.19          | 10       | 2.8308                  | 49.08%                  | 49.46%   | 99.53%   | 4.9457                | 5.1660        | 28.50          | 0.28                           | 19.55       | 19.27  |  |  |  |  |  |
| EX9                | EX8               |                         | CALLE 4     | 0.0262      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0003                    | 0.0061              | 1.3896                  |                               | 6.24      | 4.14          | 10       | 2.2557                  | 61.60%                  | 56.76%   | 105.17%  | 5.6758                | 4.3493        | 21.80          | 0.14                           | 19.27       | 19.13  |  |  |  |  |  |
| EX8                | EX7               |                         | CALLE 4     | 0.0840      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0008                    | 0.0069              | 1.3904                  |                               | 6.00      | 4.06          | 10       | 2.2122                  | 62.85%                  | 57.48%   | 105.65%  | 5.7481                | 4.2853        | 70.00          | 0.42                           | 19.13       | 18.71  |  |  |  |  |  |
| EX7                | EX6               |                         | CALLE 4     | 0.1080      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0011                    | 0.0080              | 1.3915                  |                               | 6.00      | 4.06          | 10       | 2.2122                  | 62.90%                  | 57.51%   | 105.67%  | 5.7510                | 4.2860        | 90.00          | 0.54                           | 18.71       | 18.17  |  |  |  |  |  |
| EX6                | EX5               |                         | CALLE 4     | 0.1080      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0011                    | 0.0091              | 1.3926                  |                               | 6.00      | 4.06          | 10       | 2.2122                  | 62.95%                  | 57.54%   | 105.69%  | 5.7538                | 4.2868        | 90.00          | 0.54                           | 18.17       | 17.63  |  |  |  |  |  |
| EX5                | EX4               |                         | CALLE 4     | 0.1043      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0010                    | 0.0101              | 1.3936                  |                               | 6.00      | 4.05          | 10       | 2.2114                  | 63.02%                  | 57.58%   | 105.72%  | 5.7578                | 4.2863        | 86.90          | 0.52                           | 17.63       | 17.11  |  |  |  |  |  |
| EX4                | EX3               |                         | CALLE 1     | 0.0828      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0008                    | 0.0110              | 1.3945                  |                               | 6.00      | 4.06          | 10       | 2.2123                  | 63.03%                  | 57.59%   | 105.72%  | 5.7585                | 4.2883        | 68.99          | 0.41                           | 17.11       | 16.70  |  |  |  |  |  |
| EX3                | EX2               |                         | CALLE 1     | 0.0232      |              | 6210      |                          | 0.7686              | 1.80                   | 1.3835                  | 0.01                        | 0.0002                    | 0.0112              | 1.3947                  |                               | 5.99      |               |          |                         |                         |          |          |                       |               |                |                                |             |        |  |  |  |  |  |

FECHA 10/04/2021

P.H. FRESNO 341 VIVIENDAS  
P.H. VALLEJO 328 VIVIENDAS  
PALO ALTO 573 VIVIENDAS  
VERONA 400 VIVIENDAS



| COORDENADAS DE LINEA DE CONDUCCION DE AGUAS TRATADAS |            |             |
|------------------------------------------------------|------------|-------------|
| PUNTO                                                | ESTE       | NORTE       |
| 1                                                    | 681535.421 | 1007609.178 |
| 2                                                    | 681536.565 | 1007607.685 |
| 3                                                    | 681559.541 | 1007588.496 |
| 4                                                    | 681572.938 | 1007604.537 |
| 5                                                    | 681590.842 | 1007589.585 |
| 6                                                    | 681592.544 | 1007580.430 |
| 7                                                    | 681570.848 | 1007553.906 |
| 8                                                    | 681635.322 | 1007500.061 |
| 9                                                    | 681715.146 | 1007433.394 |
| 10                                                   | 681713.182 | 1007393.679 |
| 11                                                   | 681774.560 | 1007385.666 |
| 12                                                   | 681774.601 | 1007361.282 |
| 13                                                   | 681793.872 | 1007345.188 |
| 14                                                   | 681814.315 | 1007301.055 |
| 15                                                   | 681824.128 | 1007279.873 |
| 16                                                   | 681873.447 | 1007198.336 |
| 17                                                   | 681911.973 | 1007166.442 |
| 18                                                   | 681908.779 | 1007118.097 |
| 19                                                   | 681983.816 | 1007097.354 |
| 20                                                   | 682075.173 | 1007021.054 |
| 21                                                   | 682114.399 | 1007068.024 |
| 22                                                   | 682120.742 | 1007071.858 |
| 23                                                   | 682174.123 | 1007048.117 |
| 24                                                   | 682298.309 | 1006944.400 |
| 25                                                   | 682335.360 | 1006988.764 |
| 26                                                   | 682401.521 | 1006933.508 |
| 27                                                   | 682452.343 | 1006890.151 |
| 28                                                   | 682471.838 | 1006873.870 |
| 29                                                   | 682493.713 | 1006855.600 |
| 30                                                   | 682503.624 | 1006836.182 |
| 31                                                   | 682756.867 | 1006613.996 |
| 32                                                   | 682825.673 | 1006608.930 |
| 33                                                   | 682837.490 | 1006593.589 |
| 34                                                   | 682836.245 | 1006574.826 |
| 35                                                   | 682832.290 | 1006530.221 |

ESQUEMA DE DESCARGA DE LAS AGUAS TRATADAS DE LA PLANTA DE TRATAMIENTO  
ESC. 1: 2500  
DATUM WGS-84