

2014

MEMORIAS DE DISEÑO ESTRUCTURAL

CONSULTORÍA PARA LA OPTIMIZACIÓN DE LA BOCATOMA DEL ACUEDUCTO
MUNICIPAL DE FUNES Y EL DISEÑO DEL TANQUE PRINCIPAL DE ALMACENAMIENTO
DE AGUA POTABLE.



**MEMORIA DESCRIPTIVA
CALCULO ESTRUCTURAL**

PROYECTO

**DISEÑO ESTRUCTURAL
TANQUE DE ALMACENAMIENTO PARA LA CABECERA MUNICIPAL DE
FUNES - DEPARTAMENTO DE NARIÑO**

CALCULO ESTRUCTURAL

**TANQUE DE
ALMACENAMIENTO**

DISEÑO ESTRUCTURAL:

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FUNES, JULIO DE 2014

Proyecto:

**TANQUE DE ALMACENAMIENTO PARA LA
CABECERA MUNICIPAL DE FUNES -
DEPARTAMENTO DE NARIÑO**

DISEÑO ESTRUCTURAL

Norma:

NSR-10 - Ley 400 de 1997 (Modificada ley 1229 de
2008)
Decreto 926 del 19 de Marzo de 2010

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No	Descripción
1.	Descripción general
2.	Descripción del estudio
3.	Diseño y análisis
4.	Evaluación de cargas
5.	Estado dinámico y estático de la estructura:
	Características de la estructura y material
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6.	Materiales
7.	Diseño

DISEÑO ESTRUCTURAL

1. DESCRIPCIÓN GENERAL DEL PROYECTO

El presente trabajo tiene como finalidad, realizar el cálculo estructural de la obra en referencia para el municipio de FUNE, Departamento de Nariño.

El sistema constructivo concebido se diseña para resistir cargas de tipo vertical y horizontal, cuyo uso está definido por el Código Colombiano Sismo Resistente (Decreto 926 del 19 de Marzo de 2010), para riesgo sísmico alto.

Dentro de los alcances del trabajo, se considera también la calidad de los materiales empleados y el control técnico por personal capacitado durante su aplicación.

2. DESCRIPCIÓN DEL ESTUDIO

ALCANCE

- El presente diseño cubre todas las necesidades hidráulicas del proyecto en mención.
- Los requisitos dados en el presente diseño cubren estructuras construidas con concreto reforzado vaciado en sitio.

PROPOSITO (NSR10 - C.23-C.1.1.2)

El propósito de los presentes requisitos es el de establecer los métodos de diseño y construcción que permitan cumplir con los objetivos de seguridad estructural y además permitan que el concreto producido para estructuras ambientales:

- a) cuente con un diseño tal que controle el agrietamiento y la fisuración para impedir el flujo de líquidos entre el interior del tanque y su exterior,
- b) sea lo suficientemente denso e impermeable para impedir la contaminación de los líquidos contenidos o que estos contaminen,
- c) provea la máxima resistencia a los elementos químicos contenidos en el líquido, y
- d) tenga superficies poco rugosas que minimicen la resistencia al flujo y permitan cumplir los objetivos de sanidad.

Debe tenerse especial cuidado en la construcción de este tipo de estructuras con el fin de evitar la corrosión del refuerzo y obtener un concreto lo más impermeable posible.

DESCRIPCIÓN GENERAL

El diseño estructural de tanques y otros compartimentos estancos está regido por la Norma Colombiana de Construcción Sismo-resistente (NSR-10 – Ley 400 de 1997 (Modificada ley 1229 de 2008)) y se realiza para los estados límites de resistencia y funcionamiento, tal como los define los Capítulos C.8. y C.9.

El diseño tiene como objetivo particular minimizar el agrietamiento y la fisuración, lo que da lugar a los requisitos adicionales indicados a continuación.

o C.23-C.8.1 – MÉTODOS DE DISEÑO

El diseño estructural de tanques, otros compartimentos estancos y estructuras ambientales, debe realizarse para los estados límites de resistencia y funcionamiento, tal como los define el Título C del Reglamento NSR-10 utilizando los factores de carga y de reducción de resistencia ϕ dados en el Capítulo C.9. El diseño de estructuras ambientales tiene como objetivo particular minimizar el agrietamiento y la fisuración, lo que da lugar a requisitos adicionales.

- (a) el método de la resistencia, tal como lo define el Título B, y aplicando los principios enunciados en el Título C., y
- (b) el método de los esfuerzos de trabajo, tal como los define el Título B y siguiendo los principios enunciados en el Título C.

3. DISEÑO Y ANALISIS

Las fuerzas de diseño para este proyecto se determinan a partir de la profundidad y peso específico de los líquidos y/o sólidos contenidos, los empujes del suelo, los equipos que se instalen, las cargas vivas sobre sus tapas o cubiertas, y las cargas hidrodinámicas que adicionalmente se producen durante un sismo, tanto impulsivas como convectivas, asociadas a la inercia del líquido dentro del tanque.

Además, se contemplan los efectos de impacto y vibración producidos por los equipos instalados. Se identifican las zonas potenciales de fisuración en el concreto y se recomiendan las precauciones necesarias para evitar la corrosión del acero de refuerzo y la pérdida de impermeabilidad. Los métodos de diseño se fundamentan en la obtención de la resistencia adecuada de la estructura. No obstante, se realiza una verificación al nivel de esfuerzos de servicio con el fin de poder garantizar el funcionamiento adecuado de la estructura. Por último, se considera la condición de carga derivada de desagües obturados y tanque rebosando.

4. CONSIDERACIONES PARA EL DISEÑO ESTRUCTURAL

Las cargas y fuerzas de diseño son las indicadas en el Título B del Código. Los efectos de las presiones del agua freática son tenidos en cuenta en el diseño, especialmente las subpresiones sobre los tanques desocupados, para evitar la falla del tanque por efectos de flotación, disponiendo lastres adecuados. Igualmente, y de no contar con un drenaje adecuado, se consideran los efectos que eventuales fugas puedan tener en la evaluación del nivel freático.

En los tanques semienterrados a los que se les pruebe su estanqueidad antes de realizar su relleno exterior, se contempla esta condición en su diseño estructural.

C.23-C.7.7 — Protección de concreto para el refuerzo

Los requisitos de C.7.7.1, C.7.7.2 y C.7.7.3 se substituyen por la Tabla C.23-C.7.7.1 donde se presentan los recubrimientos a emplear en estructuras ambientales.

TABLA C.23-C.7.7.1 — PROTECCIÓN DE CONCRETO PARA EL REFUERZO EN ESTRUCTURAS AMBIENTALES

TABLA C.23-C.7.7.1 — PROTECCIÓN DE CONCRETO PARA EL REFUERZO EN ESTRUCTURAS AMBIENTALES

Tipo de estructura	Tipo de refuerzo	Espesor mínimo de concreto (mm)	
		En planta	En elevación
Estructuras de concreto armado	Refuerzo principal	20	20
	Refuerzo de distribución	10	10
	Refuerzo de confinamiento	10	10
	Refuerzo de control de fisuración	10	10
Estructuras de concreto pretensado	Refuerzo principal	20	20
	Refuerzo de distribución	10	10
	Refuerzo de confinamiento	10	10
	Refuerzo de control de fisuración	10	10
Estructuras de concreto reforzado	Refuerzo principal	20	20
	Refuerzo de distribución	10	10
	Refuerzo de confinamiento	10	10
	Refuerzo de control de fisuración	10	10

C.23-C.14.6 — Espesor mínimo de muros

El espesor de los muros que no sean de carga cuya estabilidad vertical no se derive de curvatura del muro en planta no debe ser menor de 150 mm, ni menor de 1/30 de la distancia mínima entre elementos que le proporcionen apoyo lateral.

El espesor mínimo de muros convencionales de concreto reforzado construídos en sitio que estén en contacto con líquidos y tengan más de 3 m de altura debe ser 300 mm.

C.23-C.14.3 — Refuerzo mínimo

C.23-C.14.3.1 — El refuerzo mínimo vertical y horizontal para temperatura y retracción de fraguado debe cumplir con las disposiciones de C.23-C.14.3.2 y C.23-C.14.3.3.

C.23-C.14.3.2 — La cuantía mínima para refuerzo vertical ρ_v es 0.0030.

C.23-C.14.3.3 — La cuantía mínima para refuerzo horizontal, ρ_h , es función de la distancia entre juntas para compensar movimiento y debe cumplir con C.23-C.7.12.2.1.

C.23-C.14.3.4 — Los muros con un espesor mayor que 250 mm deben tener el refuerzo en cada dirección colocado en dos capas paralelas a las caras del muro de acuerdo con:

(a) Una capa consistente en no menos de 1/2, y no más de 2/3 de el refuerzo total requerido para cada dirección debe colocarse a no menos del recubrimiento indicado en C.23-C.7.7 ni a más de 1/3 del espesor del muro a partir de la superficie exterior.

(b) La otra capa, consistente en el resto del refuerzo requerido en esa dirección, debe colocarse a no menos del recubrimiento indicado en C.23-C.7.7 ni a más de 1/3 del espesor del muro a partir de la superficie interior.

C.23-C.14.3.5 — El refuerzo vertical y horizontal debe espaciarse a no más de 300 mm.

C.23-C.14.3.6 — El refuerzo vertical no necesita estar confinado por estribos laterales cuando el refuerzo vertical no es mayor de 0.01 veces el área total de concreto, o cuando el refuerzo vertical no se requiere como refuerzo de compresión.

C.23-C.14.3.7 — Además del refuerzo mínimo especificado anteriormente, una cantidad de refuerzo equivalente al refuerzo interrumpido por cualquier abertura debe adicionarse a los lados de la abertura. Estas barras deben extenderse para desarrollar el fy en tracción en las esquinas de las aberturas rectangulares y más allá de la intersección con otras barras de reemplazo del refuerzo interrumpido en aberturas circulares, pero no menos de 600 mm.

5. JUNTAS

C.23-C.4.10 — Juntas

C.23-C.4.10.1 — General

Las juntas para compensar movimientos (expansión y contracción) y las juntas de construcción deben diseñarse para impedir la fisuración y la corrosión del refuerzo. El número, espaciamiento, y detalles de las juntas debe diseñarse teniendo en cuenta las propiedades físicas y capacidad de los rellenos, sellantes, y barreras impermeables para resistir ciclos de deformaciones.

C.23-C.4.10.2 — Barreras impermeables

Los materiales utilizados en las barreras impermeables para impedir el flujo de líquidos o gases deben ser capaces de aceptar movimientos y deformaciones de elongación y contracción sin deformación permanente o falla y deben resistir los ciclos de congelamiento y deshielo, variación de temperatura y los efectos de ataque químico.

Las barreras pueden ser de caucho, de cloruro de polivinilo (PVC), acero, o de otro material. Las primeras se utilizan en juntas donde se esperan mayores movimientos. Para las barreras de caucho y de PVC, el espesor mínimo es de 9.5 mm y deben tener un ancho mínimo de 220 mm para juntas de expansión y de 150 mm para otras juntas, el cual se repartirá mitad y mitad entre los dos concretos al lado de la junta. Cuando sean de acero deben ser de platina de 6 mm (1/4") y deben estar embebidas a cada lado de la junta un mínimo de 75 mm y un dobléz central cuyo tamaño dependerá del movimiento esperado.

C.23-C.4.10.3 — Sellantes

Deben colocarse sellantes de junta a lo largo del perímetro expuesto de las juntas que impidan el paso de líquidos y gases; y para prevenir que sólidos entren en la junta y afecten su funcionamiento. Los sellantes deben diseñarse para que sean capaces de resistir las presiones, temperaturas, y movimientos y no deben perder su adherencia ni verse afectados bajo el ataque químico o de gases esperado, y además deben resistir las presiones, temperaturas y movimientos esperados.

Los sellantes preformados cumplen la función doble de servir como formaleta para el vaciado del concreto de segundo lado de la junta y de preservar el espacio donde pueda ocurrir la expansión. El elemento de relleno ideal debe ser capaz de resistir compresiones hasta de la mitad de su espesor y de expandirse posteriormente para llenar el espacio original cuando los elementos al lado de la junta se contraen. En general se utiliza corcho, neopreno, caucho, poliuretano (plástico espumoso o icopor), y otros materiales. La madera no puede utilizarse como relleno.

C.23-C.4.10.4 — Exposición al ozono

Los sellantes, rellenos preformados, y las barreras impermeables que se utilicen deben ensayarse para su compatibilidad con el ozono. Las juntas de contracción (juntas de control) que se diseñen en forma de cufa o se corten con disco de diamante deben llenarse con un sellante para proteger el acero de refuerzo.

C.23-C.4.10.5 — Llaves de cortante

Donde se utilicen llaves de cortante en juntas para compensar movimientos, la junta debe diseñarse para evitar el descascaramiento y hendidamiento del concreto que conduzca a fugas. Además, deben construirse cuidadosamente con el fin de que no interfieran con las barreras contra el paso del agua.

C.23-C.6.4 — Juntas de construcción

C.23-C.6.4.8 — Las juntas de construcción en elementos que deban ser impermeables en estructuras ambientales deben tener una barrera impermeable integral.

C.23-C.6.4.9 — En estructuras ambientales el tiempo que transcurra entre el vaciado de sectores adyacentes no puede ser menor de 48 horas.

C.23-C.6.5 — Juntas para compensar movimientos

C.23-C.6.5.1 — El diseño debe tener en cuenta todos los cambios volumétricos que puedan ocurrir y minimizar el daño a la estructura.

Deben cumplirse los siguientes requisitos en la definición de los tipos de junta a utilizar para compensar los cambios volumétricos y de geometría causados por la retracción de fraguado, el flujo plástico, las variaciones en la temperatura y en el contenido de humedad, y los asentamientos diferenciales:

C.23-C.6.5.2 — Las juntas de expansión, donde se utilicen, deben incluir un relleno preformado compresible, un sellante de junta, y cuando deban ser impermeables, una barrera impermeable.

C.23-C.6.5.3 — Las juntas de contracción, donde se utilicen, pueden ser parciales o totales, dependiendo del detalle del refuerzo, y deben incluir una muesca o receso en la superficie para la colocación del sellante de junta. La función principal de las juntas de contracción, o de disipación de retracción, es la de reducir los esfuerzos producidos por la retracción de fraguado del concreto. Los requisitos para juntas de contracción, de profundidad parcial o de profundidad total son los siguientes:

(a) Juntas de contracción de profundidad total — En las juntas de contracción de profundidad total el refuerzo se suspende a 50 mm de la junta. En la cara del concreto que se vacía en primera etapa de la junta se coloca un compuesto que evite la adherencia de este concreto con el de segunda etapa. La junta debe tener una barrera del tipo indicado en C.23-C.4.10.2. Cuando se deba transferir esfuerzos cortantes de una lado al otro de la junta, pueden utilizarse barras de transferencia (dowels) engrasadas. La separación entre estas juntas no debe ser mayor a la indicada en la tabla C.23-C.7.12.2.1 para todas las cuantías mínimas anotadas allí.

(b) Juntas de contracción de profundidad parcial — Las juntas de contracción de profundidad parcial se utilizan cuando se desea transferir parte de los esfuerzos de tracción a través de la junta para amarrar las dos partes de la estructura. El refuerzo que pasa no puede ser más del 50 por ciento del refuerzo perpendicular a la junta. Estas juntas se deben espaciar a distancia del orden de las 2/3 partes de las juntas de profundidad total.

6. MATERIALES

Para este tipo de estructuras propias de ingeniería ambiental y sanitaria la resistencia mínima especificada del concreto a la compresión f'_c no debe ser menor de 28 MPa. No se define una resistencia máxima especificada a la compresión, a menos que se indique explícitamente en alguna sección del Reglamento NSR-10.

Los materiales de diseño se detallan así:

Concreto: $f'_c = 4000$ psi

Acero : $f_y = 60000$ psi para rlas No. 3 y mayor
y perfil milimétrico.

LAS CARGAS Y FUERZAS DE DISEÑO SON LAS INDICADAS EN EL TÍTULO B DEL CÓDIGO

1. EMPUJE DEL TERRENO (P_t)

$$P_t = K_A \cdot \gamma \cdot h$$

2. EMPUJE DE SISMO EN RELLENO P_{st}

$$P_{st} = \frac{3}{4} A_a \cdot P_t$$

A_a = aceleración pico efectiva

3. EMPUJE POR SOBRECARGA P_{st}

$$P_{st} = K_a \cdot W$$

K_a = coeficiente de presión de tierras estado activo

4. EMPUJE HIDROSTÁTICO (P_w)

$$P_w = \gamma_w \cdot h$$

5. EMPUJE HIDRODINÁMICO (P_{wd})

$$P_{wd} = \frac{2}{8} A_h P_w$$

6. EMPUJE POR NIVEL FREÁTICO (P_w)

$$P_w = \gamma_w \cdot h$$

7. EMPUJE POR SOBRE ESFUERZO SÍSMICO EN EL NIVEL FREÁTICO (P_{wt})

$$P_{wt} = 0.7 \left(\frac{2}{8} A_h P_w \right)$$

8. PESO PROPIO (W_0)

COMBINACIONES DE CARGA

1. EMPUJE DEL TERRENO

$$U = 1.3(1.7(P_t + P_{st}) + 1.4 \cdot P_w + 1.3(P_{wd} + P_{wt}))$$

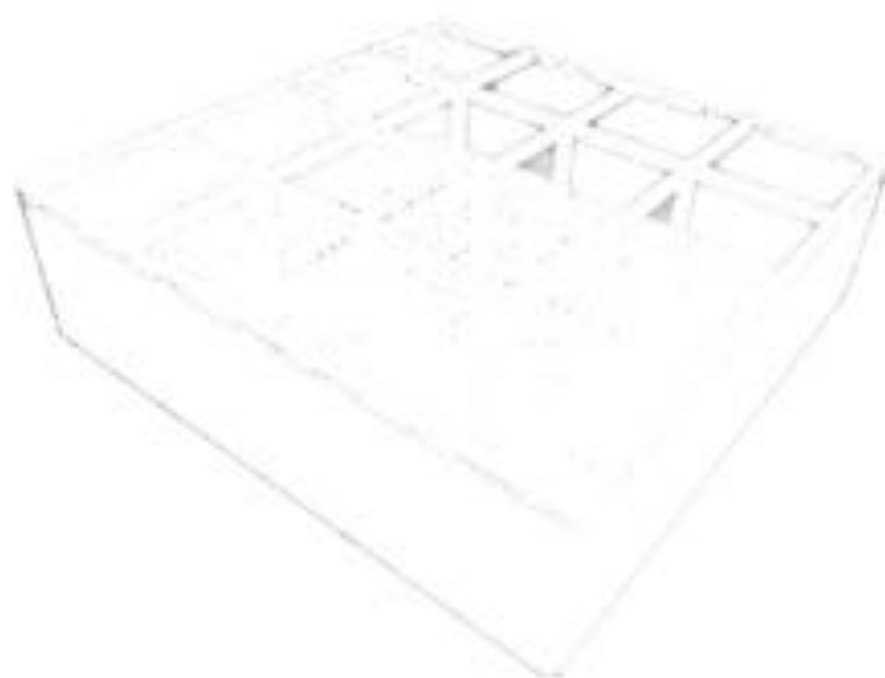
2. EMPUJE DEL LIQUIDO

$$U = 1.3(1.7(P_w) + 1.3(P_{wd}))$$

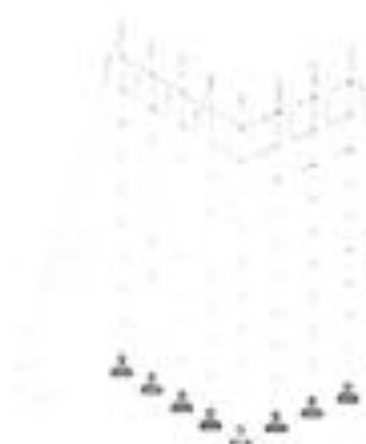
3. EMPUJE SOBRE LA LOSA DE PISO

$$U = 1.5(W_0)$$

DISEÑO ESTRUCTURAL TANQUE DE CONTACTO
GEOMETRIA GENERAL TANQUE



DISEÑO ESTRUCTURAL TANQUE DE CONTACTO EMPUJE DEL TERRENO



0.000 m

0.000 m
-0.227 m

4.227 m
-0.454 m

4.454 m
-0.681 m

4.681 m
-0.908 m

4.908 m
-1.135 m

5.135 m
-1.362 m

5.362 m
-1.589 m

5.589 m
-1.816 m

5.816 m
-2.043 m

6.043 m
-2.270 m

6.270 m
-2.497 m

6.497 m
-2.724 m

6.724 m
-2.951 m

6.951 m
-3.178 m

7.178 m
-3.405 m

7.405 m
-3.632 m

7.632 m
-3.859 m

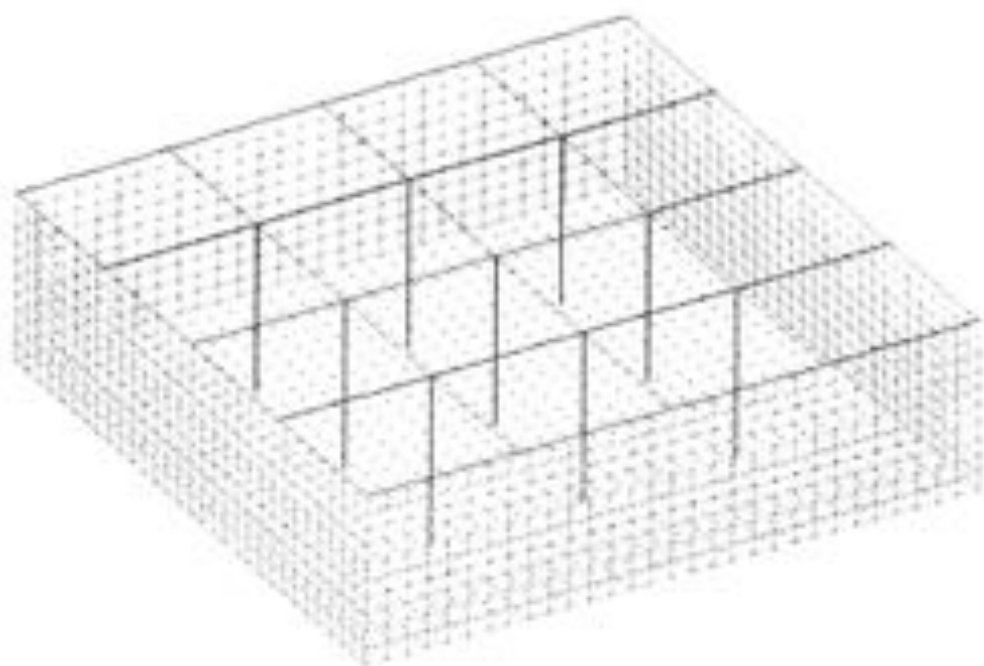
7.859 m
-4.086 m

8.086 m
-4.313 m

8.313 m
-4.540 m

8.540 m
-4.767 m

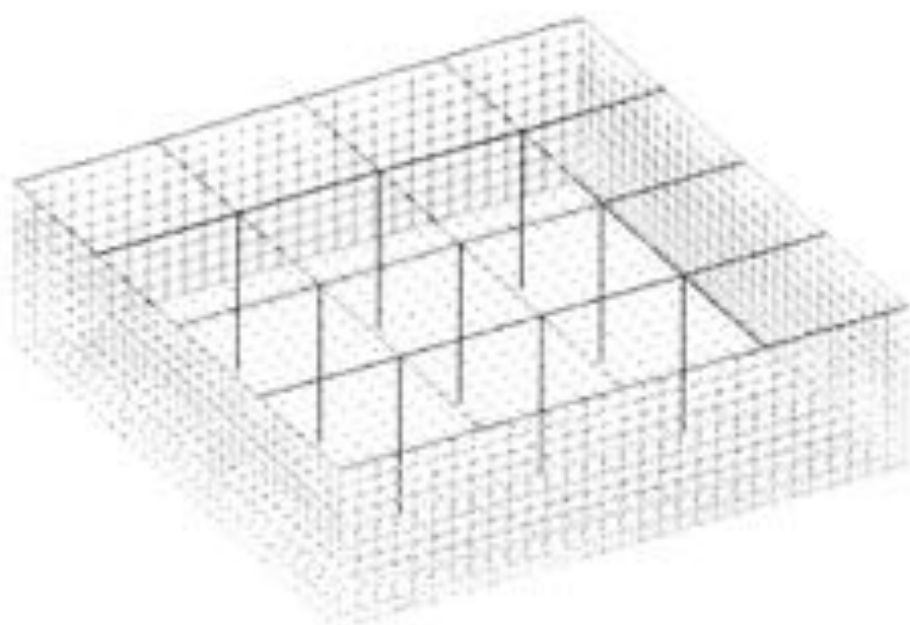
DISEÑO ESTRUCTURAL TANQUE DE CONTACTO
EMPUJE DEL SISMO EN RELLENO



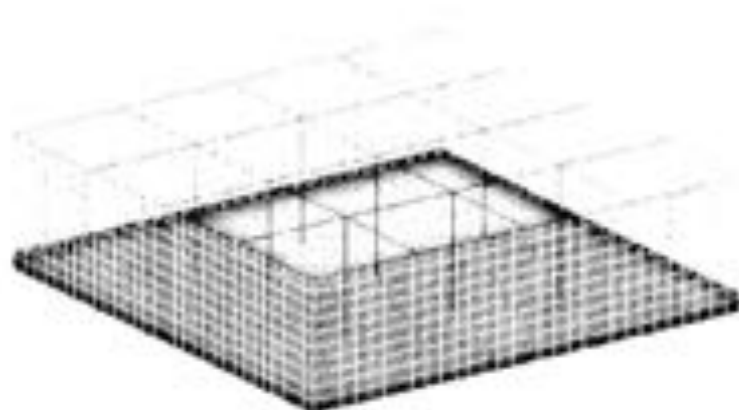
DISEÑO ESTRUCTURAL TANQUE DE CONTACTO EMPUJE HIDROSTATICO



DISEÑO ESTRUCTURAL TANQUE DE CONTACTO
EMPUJE HIDRODINAMICO



DISEÑO ESTRUCTURAL TANQUE DE CONTACTO
PESO LOSA



ACERO.txt

ELEMENT DESIGN SUMMARY

ELEMENT	LONG. REINF (SQ.MM/MM)	NON-X /LOAD (KN-MM/MM)	TRANS. REINF (SQ.MM/MM)	NON-Y /LOAD (KN-MM/MM)
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
697 TOP: Longitudinal direction - Only minimum steel required.				
697 BOT: Longitudinal direction - Only minimum steel required.				
697 TOP: Transverse direction - Only minimum steel required.				
697 BOT: Transverse direction - Only minimum steel required.				
697 TOP: 0.600 7.68 / 8 0.600 8.24 / 8				
697 BOT: 0.600 6.27 / 7 0.600 10.85 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
699 TOP: Longitudinal direction - Only minimum steel required.				
699 BOT: Longitudinal direction - Only minimum steel required.				
699 TOP: Transverse direction - Only minimum steel required.				
699 BOT: Transverse direction - Only minimum steel required.				
699 TOP: 0.600 3.91 / 8 0.600 15.93 / 8				
699 BOT: 0.600 3.87 / 7 0.600 22.07 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
701 TOP: Longitudinal direction - Only minimum steel required.				
701 BOT: Longitudinal direction - Only minimum steel required.				
701 TOP: Transverse direction - Only minimum steel required.				
701 BOT: Transverse direction - Only minimum steel required.				
701 TOP: 0.600 4.01 / 8 0.600 28.67 / 8				
701 BOT: 0.600 5.22 / 7 0.600 37.39 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
703 TOP: Longitudinal direction - Only minimum steel required.				
703 BOT: Longitudinal direction - Only minimum steel required.				
703 TOP: Transverse direction - Only minimum steel required.				
703 BOT: Transverse direction - Only minimum steel required.				
703 TOP: 0.600 5.54 / 8 0.600 40.81 / 8				
703 BOT: 0.600 7.34 / 7 0.600 51.55 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
705 TOP: Longitudinal direction - Only minimum steel required.				
705 BOT: Longitudinal direction - Only minimum steel required.				
705 TOP: Transverse direction - Only minimum steel required.				
705 BOT: Transverse direction - Only minimum steel required.				
705 TOP: 0.600 7.36 / 8 0.600 51.13 / 8				
705 BOT: 0.600 9.51 / 7 0.670 63.60 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
707 TOP: Longitudinal direction - Only minimum steel required.				
707 BOT: Longitudinal direction - Only minimum steel required.				
707 TOP: 0.600 8.58 / 8 0.622 29.16 / 8				
707 BOT: 0.600 12.60 / 7 0.776 29.88 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
709 TOP: Longitudinal direction - Only minimum steel required.				
709 BOT: Longitudinal direction - Only minimum steel required.				
709 TOP: 0.600 10.28 / 8 0.687 65.18 / 8				
709 BOT: 0.600 12.94 / 7 0.659 80.99 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
711 TOP: Longitudinal direction - Only minimum steel required.				
711 BOT: Longitudinal direction - Only minimum steel required.				
711 TOP: 0.600 12.21 / 8 0.681 69.60 / 8				
711 BOT: 0.600 14.15 / 7 0.674 86.95 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
713 TOP: Longitudinal direction - Only minimum steel required.				
713 BOT: Longitudinal direction - Only minimum steel required.				
713 TOP: 0.600 11.93 / 8 0.678 72.80 / 8				
713 BOT: 0.600 15.07 / 7 0.671 91.27 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
714 TOP: Longitudinal direction - Only minimum steel required.				
714 BOT: Longitudinal direction - Only minimum steel required.				
714 TOP: 0.600 12.40 / 8 0.794 71.05 / 8				
714 BOT: 0.600 15.75 / 7 1.024 95.30 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				
716 TOP: Longitudinal direction - Only minimum steel required.				
716 BOT: Longitudinal direction - Only minimum steel required.				
716 TOP: Transverse direction - Only minimum steel required.				
716 BOT: Transverse direction - Only minimum steel required.				
716 TOP: 0.600 17.21 / 8 0.600 7.92 / 8				
716 BOT: 0.600 11.86 / 7 0.600 3.49 / 7				
FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM				

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                                ACINO-TAT
717 TOP : Longitudinal direction - Only minimum steel required.
717 BOT : Longitudinal direction - Only minimum steel required.
717 TOP : Transverse direction - Only minimum steel required.
717 BOT : Transverse direction - Only minimum steel required.
717 TOP : 0.400      1.88 / 8      0.400      1.95 / 8
717 BOT : 0.400      2.41 / 7      0.400      1.39 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
718 TOP : Longitudinal direction - Only minimum steel required.
718 BOT : Longitudinal direction - Only minimum steel required.
718 TOP : Transverse direction - Only minimum steel required.
718 BOT : Transverse direction - Only minimum steel required.
718 TOP : 0.400      1.67 / 8      0.400      1.67 / 8
718 BOT : 0.400      1.29 / 8      0.400      0.89 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
719 TOP : Longitudinal direction - Only minimum steel required.
719 BOT : Longitudinal direction - Only minimum steel required.
719 TOP : Transverse direction - Only minimum steel required.
719 BOT : Transverse direction - Only minimum steel required.
719 TOP : 0.400      1.67 / 8      0.400      6.92 / 8
719 BOT : 0.400      2.39 / 8      0.400      11.56 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
720 TOP : Longitudinal direction - Only minimum steel required.
720 BOT : Longitudinal direction - Only minimum steel required.
DIF IMPORT OF 3D TRAMPA GRAL.DIF -- PAGE NO. 117
720 TOP : Transverse direction - Only minimum steel required.
720 BOT : Transverse direction - Only minimum steel required.
720 TOP : 0.400      0.28 / 8      0.400      10.44 / 8
720 BOT : 0.400      1.26 / 8      0.400      21.44 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
721 TOP : Longitudinal direction - Only minimum steel required.
721 BOT : Longitudinal direction - Only minimum steel required.
721 TOP : Transverse direction - Only minimum steel required.
721 BOT : Transverse direction - Only minimum steel required.
721 TOP : 0.400      0.68 / 8      0.400      14.13 / 8
721 BOT : 0.400      1.54 / 7      0.400      26.85 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
722 TOP : Longitudinal direction - Only minimum steel required.
722 BOT : Longitudinal direction - Only minimum steel required.
722 TOP : Transverse direction - Only minimum steel required.
722 BOT : Transverse direction - Only minimum steel required.
722 TOP : 0.400      0.44 / 8      0.400      17.11 / 8
722 BOT : 0.400      1.01 / 7      0.400      11.14 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
723 TOP : Longitudinal direction - Only minimum steel required.
723 BOT : Longitudinal direction - Only minimum steel required.
723 TOP : Transverse direction - Only minimum steel required.
723 BOT : Transverse direction - Only minimum steel required.
723 TOP : 0.400      1.67 / 8      0.400      19.14 / 8
723 BOT : 0.400      4.21 / 7      0.400      25.14 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
724 TOP : Longitudinal direction - Only minimum steel required.
724 BOT : Longitudinal direction - Only minimum steel required.
724 TOP : Transverse direction - Only minimum steel required.
724 BOT : Transverse direction - Only minimum steel required.
724 TOP : 0.400      2.38 / 8      0.400      21.14 / 8
724 BOT : 0.400      5.14 / 7      0.400      26.83 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
725 TOP : Longitudinal direction - Only minimum steel required.
725 BOT : Longitudinal direction - Only minimum steel required.
725 TOP : Transverse direction - Only minimum steel required.
725 BOT : Transverse direction - Only minimum steel required.
725 TOP : 0.400      2.86 / 8      0.400      21.05 / 8
725 BOT : 0.400      5.82 / 7      0.400      41.50 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
727 TOP : Longitudinal direction - Only minimum steel required.
727 BOT : Longitudinal direction - Only minimum steel required.
727 TOP : Transverse direction - Only minimum steel required.
727 BOT : Transverse direction - Only minimum steel required.
727 TOP : 0.400      29.77 / 8      0.400      2.11 / 8
727 BOT : 0.400      20.25 / 7      0.400      1.19 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
728 TOP : Longitudinal direction - Only minimum steel required.
728 BOT : Longitudinal direction - Only minimum steel required.
DIF IMPORT OF 3D TRAMPA GRAL.DIF -- PAGE NO. 118

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728 TOP : Transverse direction - Only minimum steel required.
 728 BOT : Transverse direction - Only minimum steel required.
 728 TOP : 0.600 8.34 / 8 0.600 3.32 / 7
 728 BOT : 0.600 2.59 / 7 0.600 4.72 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

729 TOP : Longitudinal direction - Only minimum steel required.
 729 BOT : Longitudinal direction - Only minimum steel required.
 729 TOP : Transverse direction - Only minimum steel required.
 729 BOT : Transverse direction - Only minimum steel required.
 729 TOP : 0.600 3.05 / 7 0.600 5.99 / 7
 729 BOT : 0.600 4.37 / 8 0.600 10.08 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

730 TOP : Longitudinal direction - Only minimum steel required.
 730 BOT : Longitudinal direction - Only minimum steel required.
 730 TOP : Transverse direction - Only minimum steel required.
 730 BOT : Transverse direction - Only minimum steel required.
 730 TOP : 0.600 7.48 / 7 0.600 6.18 / 7
 730 BOT : 0.600 8.79 / 8 0.600 11.74 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

731 TOP : Longitudinal direction - Only minimum steel required.
 731 BOT : Longitudinal direction - Only minimum steel required.
 731 TOP : Transverse direction - Only minimum steel required.
 731 BOT : Transverse direction - Only minimum steel required.
 731 TOP : 0.600 7.46 / 7 0.600 5.83 / 7
 731 BOT : 0.600 8.91 / 8 0.600 14.81 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

732 TOP : Longitudinal direction - Only minimum steel required.
 732 BOT : Longitudinal direction - Only minimum steel required.
 732 TOP : Transverse direction - Only minimum steel required.
 732 BOT : Transverse direction - Only minimum steel required.
 732 TOP : 0.600 6.36 / 7 0.600 4.33 / 7
 732 BOT : 0.600 8.07 / 8 0.600 15.36 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

733 TOP : Longitudinal direction - Only minimum steel required.
 733 BOT : Longitudinal direction - Only minimum steel required.
 733 TOP : Transverse direction - Only minimum steel required.
 733 BOT : Transverse direction - Only minimum steel required.
 733 TOP : 0.600 4.96 / 7 0.600 2.65 / 9
 733 BOT : 0.600 6.80 / 8 0.600 15.30 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

734 TOP : Longitudinal direction - Only minimum steel required.
 734 BOT : Longitudinal direction - Only minimum steel required.
 734 TOP : Transverse direction - Only minimum steel required.
 734 BOT : Transverse direction - Only minimum steel required.
 734 TOP : 0.600 3.67 / 7 0.600 2.99 / 9
 734 BOT : 0.600 5.67 / 8 0.600 14.86 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

735 TOP : Longitudinal direction - Only minimum steel required.
 735 BOT : Longitudinal direction - Only minimum steel required.
 735 TOP : Transverse direction - Only minimum steel required.
 735 BOT : Transverse direction - Only minimum steel required.
 735 TOP : 0.600 2.70 / 7 0.600 1.11 / 9
 735 BOT : 0.600 4.90 / 8 0.600 14.20 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

736 TOP : Longitudinal direction - Only minimum steel required.
 736 BOT : Longitudinal direction - Only minimum steel required.
 736 TOP : Transverse direction - Only minimum steel required.
 736 BOT : Transverse direction - Only minimum steel required.
 736 TOP : 0.600 2.01 / 7 0.600 1.09 / 9
 736 BOT : 0.600 4.42 / 8 0.600 13.50 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

738 TOP : Longitudinal direction - Only minimum steel required.
 738 BOT : Longitudinal direction - Only minimum steel required.
 738 TOP : Transverse direction - Only minimum steel required.
 738 BOT : Transverse direction - Only minimum steel required.
 738 TOP : 0.600 40.10 / 8 0.600 1.12 / 8
 738 BOT : 0.600 27.85 / 7 0.600 1.46 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 mm TH: 300.000 mm

739 TOP : Longitudinal direction - Only minimum steel required.
 739 BOT : Longitudinal direction - Only minimum steel required.
 739 TOP : Transverse direction - Only minimum steel required.
 739 BOT : Transverse direction - Only minimum steel required.
 739 TOP : 0.600 9.65 / 8 0.600 7.00 / 7
 739 BOT : 0.600 4.53 / 7 0.600 6.95 / 8

ACERO.TXT

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FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
740 TOP : Longitudinal direction - Only minimum steel required.
740 BOT: Longitudinal direction - Only minimum steel required.
740 TOP : Transverse direction - Only minimum steel required.
740 BOT: Transverse direction - Only minimum steel required.
740 TOP : 0.600 6.88 / 7 0.600 13.97 / 7
740 BOT: 0.600 5.38 / 8 0.600 18.36 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
741 TOP : Longitudinal direction - Only minimum steel required.
741 BOT: Longitudinal direction - Only minimum steel required.
741 TOP : Transverse direction - Only minimum steel required.
741 BOT: Transverse direction - Only minimum steel required.
741 TOP : 0.600 11.62 / 7 0.600 18.73 / 7
741 BOT: 0.600 11.83 / 8 0.600 23.65 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
742 TOP : Longitudinal direction - Only minimum steel required.
742 BOT: Longitudinal direction - Only minimum steel required.
742 TOP : Transverse direction - Only minimum steel required.
742 BOT: Transverse direction - Only minimum steel required.
742 TOP : 0.600 12.75 / 7 0.600 21.70 / 7
742 BOT: 0.600 13.63 / 8 0.600 28.94 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
743 TOP : Longitudinal direction - Only minimum steel required.
743 BOT: Longitudinal direction - Only minimum steel required.
000 IMPORT OF 3D TRAMPA GRAS.200F -- PAGE NO. 140
743 TOP : Transverse direction - Only minimum steel required.
743 BOT: Transverse direction - Only minimum steel required.
743 TOP : 0.600 17.06 / 7 0.600 21.11 / 7
743 BOT: 0.600 13.14 / 8 0.600 31.60 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
744 TOP : Longitudinal direction - Only minimum steel required.
744 BOT: Longitudinal direction - Only minimum steel required.
744 TOP : Transverse direction - Only minimum steel required.
744 BOT: Transverse direction - Only minimum steel required.
744 TOP : 0.600 10.69 / 7 0.600 21.94 / 7
744 BOT: 0.600 11.82 / 8 0.600 34.96 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
745 TOP : Longitudinal direction - Only minimum steel required.
745 BOT: Longitudinal direction - Only minimum steel required.
745 TOP : Transverse direction - Only minimum steel required.
745 BOT: Transverse direction - Only minimum steel required.
745 TOP : 0.600 9.35 / 7 0.600 21.84 / 7
745 BOT: 0.600 10.59 / 8 0.600 36.26 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
746 TOP : Longitudinal direction - Only minimum steel required.
746 BOT: Longitudinal direction - Only minimum steel required.
746 TOP : Transverse direction - Only minimum steel required.
746 BOT: Transverse direction - Only minimum steel required.
746 TOP : 0.600 8.39 / 7 0.600 21.20 / 7
746 BOT: 0.600 9.86 / 8 0.600 36.71 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
747 TOP : Longitudinal direction - Only minimum steel required.
747 BOT: Longitudinal direction - Only minimum steel required.
747 TOP : Transverse direction - Only minimum steel required.
747 BOT: Transverse direction - Only minimum steel required.
747 TOP : 0.600 7.81 / 7 0.600 22.30 / 7
747 BOT: 0.600 9.13 / 8 0.600 36.71 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
749 TOP : Longitudinal direction - Only minimum steel required.
749 BOT: Longitudinal direction - Only minimum steel required.
749 TOP : Transverse direction - Only minimum steel required.
749 BOT: Transverse direction - Only minimum steel required.
749 TOP : 0.600 46.47 / 8 0.600 4.47 / 8
749 BOT: 0.600 33.45 / 7 0.600 2.12 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
750 TOP : Longitudinal direction - Only minimum steel required.
750 BOT: Longitudinal direction - Only minimum steel required.
750 TOP : Transverse direction - Only minimum steel required.
750 BOT: Transverse direction - Only minimum steel required.
750 TOP : 0.600 12.74 / 8 0.600 7.70 / 7
750 BOT: 0.600 7.05 / 7 0.600 6.81 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
751 TOP : Longitudinal direction - Only minimum steel required.
751 BOT: Longitudinal direction - Only minimum steel required.

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ACERO.TXT
 -- PAGE NO. 141

ONF IMPORT OF 3D TRAMPA GRAS.ONF

711 TOP : Transverse direction - Only minimum steel required.
 711 BOT : Transverse direction - Only minimum steel required.
 711 TOP : 0.600 7.08 / 7 0.600 18.46 / 7
 711 BOT : 0.600 1.40 / 8 0.600 17.88 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

712 TOP : Longitudinal direction - Only minimum steel required.
 712 BOT : Longitudinal direction - Only minimum steel required.
 712 TOP : Transverse direction - Only minimum steel required.
 712 BOT : Transverse direction - Only minimum steel required.
 712 TOP : 0.600 13.71 / 7 0.600 23.71 / 7
 712 BOT : 0.600 13.38 / 8 0.600 27.22 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

713 TOP : Longitudinal direction - Only minimum steel required.
 713 BOT : Longitudinal direction - Only minimum steel required.
 713 TOP : Transverse direction - Only minimum steel required.
 713 BOT : Transverse direction - Only minimum steel required.
 713 TOP : 0.600 15.95 / 7 0.600 28.98 / 7
 713 BOT : 0.600 18.12 / 8 0.600 34.61 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

714 TOP : Longitudinal direction - Only minimum steel required.
 714 BOT : Longitudinal direction - Only minimum steel required.
 714 TOP : Transverse direction - Only minimum steel required.
 714 BOT : Transverse direction - Only minimum steel required.
 714 TOP : 0.600 15.38 / 7 0.600 32.71 / 7
 714 BOT : 0.600 15.84 / 8 0.600 40.34 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

715 TOP : Longitudinal direction - Only minimum steel required.
 715 BOT : Longitudinal direction - Only minimum steel required.
 715 TOP : Transverse direction - Only minimum steel required.
 715 BOT : Transverse direction - Only minimum steel required.
 715 TOP : 0.600 14.20 / 7 0.600 35.21 / 7
 715 BOT : 0.600 14.17 / 8 0.600 44.41 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

716 TOP : Longitudinal direction - Only minimum steel required.
 716 BOT : Longitudinal direction - Only minimum steel required.
 716 TOP : Transverse direction - Only minimum steel required.
 716 BOT : Transverse direction - Only minimum steel required.
 716 TOP : 0.600 12.41 / 7 0.600 36.54 / 7
 716 BOT : 0.600 13.06 / 8 0.600 47.01 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

717 TOP : Longitudinal direction - Only minimum steel required.
 717 BOT : Longitudinal direction - Only minimum steel required.
 717 TOP : Transverse direction - Only minimum steel required.
 717 BOT : Transverse direction - Only minimum steel required.
 717 TOP : 0.600 12.01 / 7 0.600 36.87 / 7
 717 BOT : 0.600 12.56 / 8 0.600 48.27 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

718 TOP : Longitudinal direction - Only minimum steel required.
 718 BOT : Longitudinal direction - Only minimum steel required.

ONF IMPORT OF 3D TRAMPA GRAS.ONF
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719 TOP : Transverse direction - Only minimum steel required.
 719 BOT : Transverse direction - Only minimum steel required.
 719 TOP : 0.600 11.73 / 7 0.600 36.18 / 7
 719 BOT : 0.600 12.47 / 8 0.600 48.66 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

720 TOP : Longitudinal direction - Only minimum steel required.
 720 BOT : Longitudinal direction - Only minimum steel required.
 720 TOP : Transverse direction - Only minimum steel required.
 720 BOT : Transverse direction - Only minimum steel required.
 720 TOP : 0.600 48.42 / 8 0.600 5.46 / 8
 720 BOT : 0.600 36.64 / 7 0.600 3.82 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

721 TOP : Longitudinal direction - Only minimum steel required.
 721 BOT : Longitudinal direction - Only minimum steel required.
 721 TOP : Transverse direction - Only minimum steel required.
 721 BOT : Transverse direction - Only minimum steel required.
 721 TOP : 0.600 14.80 / 8 0.600 6.64 / 7
 721 BOT : 0.600 9.47 / 7 0.600 3.11 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

722 TOP : Longitudinal direction - Only minimum steel required.
 722 BOT : Longitudinal direction - Only minimum steel required.
 722 TOP : Transverse direction - Only minimum steel required.
 722 BOT : Transverse direction - Only minimum steel required.

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ACERO.TXT
762 TOP : 0.600 6.22 / 7 0.600 15.88 / 7
      BOTT: 0.600 4.95 / 8 0.600 16.44 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
763 TOP : Longitudinal direction - Only minimum steel required.
763 BOTT: Longitudinal direction - Only minimum steel required.
763 TOP : Transverse direction - Only minimum steel required.
763 BOTT: Transverse direction - Only minimum steel required.
763 TOP : 0.600 14.25 / 7 0.600 21.82 / 7
      BOTT: 0.600 11.43 / 8 0.600 26.09 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
764 TOP : Longitudinal direction - Only minimum steel required.
764 BOTT: Longitudinal direction - Only minimum steel required.
764 TOP : Transverse direction - Only minimum steel required.
764 BOTT: Transverse direction - Only minimum steel required.
764 TOP : 0.600 17.28 / 7 0.600 29.89 / 7
      BOTT: 0.600 16.75 / 8 0.600 34.70 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
765 TOP : Longitudinal direction - Only minimum steel required.
765 BOTT: Longitudinal direction - Only minimum steel required.
765 TOP : Transverse direction - Only minimum steel required.
765 BOTT: Transverse direction - Only minimum steel required.
765 TOP : 0.600 17.16 / 7 0.600 34.84 / 7
      BOTT: 0.600 16.39 / 8 0.600 40.84 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
766 TOP : Longitudinal direction - Only minimum steel required.
766 BOTT: Longitudinal direction - Only minimum steel required.
END IMPORT OF 3D TRAMPA GRAS.DWG -- PAGE NO. 143

766 TOP : Transverse direction - Only minimum steel required.
766 BOTT: Transverse direction - Only minimum steel required.
766 TOP : 0.600 15.56 / 7 0.600 38.12 / 7
      BOTT: 0.600 14.50 / 8 0.600 41.95 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
767 TOP : Longitudinal direction - Only minimum steel required.
767 BOTT: Longitudinal direction - Only minimum steel required.
767 TOP : Transverse direction - Only minimum steel required.
767 BOTT: Transverse direction - Only minimum steel required.
767 TOP : 0.600 14.06 / 7 0.600 40.82 / 7
      BOTT: 0.600 13.04 / 8 0.600 49.33 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
768 TOP : Longitudinal direction - Only minimum steel required.
768 BOTT: Longitudinal direction - Only minimum steel required.
768 TOP : Transverse direction - Only minimum steel required.
768 BOTT: Transverse direction - Only minimum steel required.
768 TOP : 0.600 11.61 / 7 0.600 41.74 / 7
      BOTT: 0.600 11.07 / 8 0.600 50.91 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
769 TOP : Longitudinal direction - Only minimum steel required.
769 BOTT: Longitudinal direction - Only minimum steel required.
769 TOP : Transverse direction - Only minimum steel required.
769 BOTT: Transverse direction - Only minimum steel required.
769 TOP : 0.600 14.01 / 7 0.600 41.72 / 7
      BOTT: 0.600 14.08 / 8 0.600 51.34 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
771 TOP : Longitudinal direction - Only minimum steel required.
771 BOTT: Longitudinal direction - Only minimum steel required.
771 TOP : Transverse direction - Only minimum steel required.
771 BOTT: Transverse direction - Only minimum steel required.
771 TOP : 0.600 46.32 / 8 0.600 5.69 / 8
      BOTT: 0.600 37.57 / 7 0.600 3.90 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
772 TOP : Longitudinal direction - Only minimum steel required.
772 BOTT: Longitudinal direction - Only minimum steel required.
772 TOP : Transverse direction - Only minimum steel required.
772 BOTT: Transverse direction - Only minimum steel required.
772 TOP : 0.600 11.48 / 8 0.600 4.53 / 7
      BOTT: 0.600 11.38 / 7 0.600 3.79 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
773 TOP : Longitudinal direction - Only minimum steel required.
773 BOTT: Longitudinal direction - Only minimum steel required.
773 TOP : Transverse direction - Only minimum steel required.
773 BOTT: Transverse direction - Only minimum steel required.
773 TOP : 0.600 4.80 / 7 0.600 12.92 / 7
      BOTT: 0.600 2.84 / 8 0.600 13.79 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

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ACERO.TXT
774 TOP : Longitudinal direction - Only minimum steel required.
774 BOT : Longitudinal direction - Only minimum steel required.
END EXPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 144

774 TOP : Transverse direction - Only minimum steel required.
774 BOT : Transverse direction - Only minimum steel required.
774 TOP : 0.600 13.73 / 7 0.600 20.12 / 7
774 BOT : 0.600 12.56 / 8 0.600 21.86 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
775 TOP : Longitudinal direction - Only minimum steel required.
775 BOT : Longitudinal direction - Only minimum steel required.
775 TOP : Transverse direction - Only minimum steel required.
775 BOT : Transverse direction - Only minimum steel required.
775 TOP : 0.600 17.37 / 7 0.600 26.25 / 7
775 BOT : 0.600 16.09 / 8 0.600 29.36 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
776 TOP : Longitudinal direction - Only minimum steel required.
776 BOT : Longitudinal direction - Only minimum steel required.
776 TOP : Transverse direction - Only minimum steel required.
776 BOT : Transverse direction - Only minimum steel required.
776 TOP : 0.600 17.18 / 7 0.600 31.48 / 7
776 BOT : 0.600 15.25 / 8 0.600 35.95 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
777 TOP : Longitudinal direction - Only minimum steel required.
777 BOT : Longitudinal direction - Only minimum steel required.
777 TOP : Transverse direction - Only minimum steel required.
777 BOT : Transverse direction - Only minimum steel required.
777 TOP : 0.600 24.93 / 7 0.600 37.78 / 7
777 BOT : 0.600 22.31 / 8 0.600 41.44 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
778 TOP : Longitudinal direction - Only minimum steel required.
778 BOT : Longitudinal direction - Only minimum steel required.
778 TOP : Transverse direction - Only minimum steel required.
778 BOT : Transverse direction - Only minimum steel required.
778 TOP : 0.600 13.03 / 7 0.600 38.63 / 7
778 BOT : 0.600 10.92 / 8 0.600 43.10 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
779 TOP : Longitudinal direction - Only minimum steel required.
779 BOT : Longitudinal direction - Only minimum steel required.
779 TOP : Transverse direction - Only minimum steel required.
779 BOT : Transverse direction - Only minimum steel required.
779 TOP : 0.600 11.23 / 7 0.600 39.71 / 7
779 BOT : 0.600 11.41 / 8 0.600 46.57 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
780 TOP : Longitudinal direction - Only minimum steel required.
780 BOT : Longitudinal direction - Only minimum steel required.
780 TOP : Transverse direction - Only minimum steel required.
780 BOT : Transverse direction - Only minimum steel required.
780 TOP : 0.600 14.94 / 7 0.600 39.57 / 7
780 BOT : 0.600 14.15 / 8 0.600 46.61 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
781 TOP : Longitudinal direction - Only minimum steel required.
781 BOT : Longitudinal direction - Only minimum steel required.
END EXPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 145

782 TOP : Transverse direction - Only minimum steel required.
782 BOT : Transverse direction - Only minimum steel required.
782 TOP : 0.600 40.91 / 8 0.600 5.24 / 8
782 BOT : 0.600 36.63 / 7 0.600 4.54 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
783 TOP : Longitudinal direction - Only minimum steel required.
783 BOT : Longitudinal direction - Only minimum steel required.
783 TOP : Transverse direction - Only minimum steel required.
783 BOT : Transverse direction - Only minimum steel required.
783 TOP : 0.600 14.89 / 8 0.600 7.31 / 7
783 BOT : 0.600 12.63 / 7 0.600 7.53 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
784 TOP : Longitudinal direction - Only minimum steel required.
784 BOT : Longitudinal direction - Only minimum steel required.
784 TOP : Transverse direction - Only minimum steel required.
784 BOT : Transverse direction - Only minimum steel required.
784 TOP : 0.600 1.24 / 7 0.600 8.86 / 7
784 BOT : 0.600 1.74 / 8 0.600 9.18 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
785 TOP : Longitudinal direction - Only minimum steel required.
785 BOT : Longitudinal direction - Only minimum steel required.

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785 TOP : Transverse direction - Only minimum steel required.
785 BOT : Transverse direction - Only minimum steel required.
785 TOP : 0.600 12.70 / 7 0.600 14.58 / 7
785 BOT : 0.600 11.31 / 8 0.600 15.80 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
786 TOP : Longitudinal direction - Only minimum steel required.
786 BOT : Longitudinal direction - Only minimum steel required.
786 TOP : Transverse direction - Only minimum steel required.
786 BOT : Transverse direction - Only minimum steel required.
786 TOP : 0.600 14.79 / 7 0.600 19.59 / 7
786 BOT : 0.600 14.86 / 8 0.600 21.58 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
787 TOP : Longitudinal direction - Only minimum steel required.
787 BOT : Longitudinal direction - Only minimum steel required.
787 TOP : Transverse direction - Only minimum steel required.
787 BOT : Transverse direction - Only minimum steel required.
787 TOP : 0.600 16.28 / 7 0.600 24.23 / 7
787 BOT : 0.600 15.11 / 8 0.600 27.13 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
788 TOP : Longitudinal direction - Only minimum steel required.
788 BOT : Longitudinal direction - Only minimum steel required.
788 TOP : Transverse direction - Only minimum steel required.
788 BOT : Transverse direction - Only minimum steel required.
788 TOP : 0.600 12.53 / 7 0.600 28.39 / 7
788 BOT : 0.600 10.82 / 9 0.600 32.41 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
789 TOP : Longitudinal direction - Only minimum steel required.
789 BOT : Longitudinal direction - Only minimum steel required.
789 TOP : Transverse direction - Only minimum steel required.
789 BOT : Transverse direction - Only minimum steel required.
789 TOP : 0.600 9.50 / 7 0.600 11.67 / 7
789 BOT : 0.600 15.07 / 9 0.600 36.03 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
790 TOP : Longitudinal direction - Only minimum steel required.
790 BOT : Longitudinal direction - Only minimum steel required.
790 TOP : Transverse direction - Only minimum steel required.
790 BOT : Transverse direction - Only minimum steel required.
790 TOP : 0.600 10.88 / 7 0.600 32.48 / 7
790 BOT : 0.600 10.81 / 9 0.600 36.92 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
791 TOP : Longitudinal direction - Only minimum steel required.
791 BOT : Longitudinal direction - Only minimum steel required.
791 TOP : Transverse direction - Only minimum steel required.
791 BOT : Transverse direction - Only minimum steel required.
791 TOP : 0.600 14.91 / 7 0.600 31.84 / 7
791 BOT : 0.600 13.45 / 8 0.600 36.28 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
792 TOP : Longitudinal direction - Only minimum steel required.
792 BOT : Longitudinal direction - Only minimum steel required.
792 TOP : Transverse direction - Only minimum steel required.
792 BOT : Transverse direction - Only minimum steel required.
792 TOP : 0.600 12.90 / 8 0.600 3.71 / 8
792 BOT : 0.600 14.19 / 7 0.600 4.51 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
793 TOP : Longitudinal direction - Only minimum steel required.
793 BOT : Longitudinal direction - Only minimum steel required.
793 TOP : Transverse direction - Only minimum steel required.
793 BOT : Transverse direction - Only minimum steel required.
793 TOP : 0.600 13.56 / 8 0.600 0.42 / 7
793 BOT : 0.600 13.17 / 7 0.600 2.46 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
794 TOP : Longitudinal direction - Only minimum steel required.
794 BOT : Longitudinal direction - Only minimum steel required.
794 TOP : Transverse direction - Only minimum steel required.
794 BOT : Transverse direction - Only minimum steel required.
794 TOP : 0.600 1.81 / 7 0.600 4.68 / 7
794 BOT : 0.600 0.93 / 8 0.600 5.41 / 8

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
795 TOP : Longitudinal direction - Only minimum steel required.
795 BOT : Longitudinal direction - Only minimum steel required.
795 TOP : Transverse direction - Only minimum steel required.
795 BOT : Transverse direction - Only minimum steel required.
795 TOP : 0.600 11.68 / 7 0.600 8.28 / 7
795 BOT : 0.600 10.22 / 8 0.600 9.06 / 8

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FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
797 TOP : Longitudinal direction - Only minimum steel required.
797 BOT: Longitudinal direction - Only minimum steel required.
END IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 147

797 TOP : Transverse direction - Only minimum steel required.
797 BOT: Transverse direction - Only minimum steel required.
797 TOP : 0.600 26.32 / 7 0.600 11.11 / 7
797 BOT: 0.600 19.78 / 8 0.600 13.62 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
798 TOP : Longitudinal direction - Only minimum steel required.
798 BOT: Longitudinal direction - Only minimum steel required.
798 TOP : Transverse direction - Only minimum steel required.
798 BOT: Transverse direction - Only minimum steel required.
798 TOP : 0.600 11.46 / 7 0.600 14.59 / 7
798 BOT: 0.600 11.23 / 8 0.600 28.93 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
799 TOP : Longitudinal direction - Only minimum steel required.
799 BOT: Longitudinal direction - Only minimum steel required.
799 TOP : Transverse direction - Only minimum steel required.
799 BOT: Transverse direction - Only minimum steel required.
799 TOP : 0.600 8.88 / 7 0.600 18.21 / 7
799 BOT: 0.600 20.95 / 9 0.600 48.35 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
800 TOP : Longitudinal direction - Only minimum steel required.
800 BOT: Longitudinal direction - Only minimum steel required.
800 TOP : Transverse direction - Only minimum steel required.
800 BOT: Transverse direction - Only minimum steel required.
800 TOP : 0.600 1.26 / 8 0.600 23.10 / 7
800 BOT: 0.600 18.40 / 9 0.600 15.50 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
801 TOP : Longitudinal direction - Only minimum steel required.
801 BOT: Longitudinal direction - Only minimum steel required.
801 TOP : Transverse direction - Only minimum steel required.
801 BOT: Transverse direction - Only minimum steel required.
801 TOP : 0.600 6.36 / 7 0.600 23.34 / 7
801 BOT: 0.600 11.42 / 9 0.600 48.66 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
802 TOP : Longitudinal direction - Only minimum steel required.
802 BOT: Longitudinal direction - Only minimum steel required.
802 TOP : Transverse direction - Only minimum steel required.
802 BOT: Transverse direction - Only minimum steel required.
802 TOP : 0.600 15.07 / 7 0.600 20.27 / 7
802 BOT: 0.600 13.09 / 8 0.600 13.99 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
804 TOP : Longitudinal direction - Only minimum steel required.
804 BOT: Longitudinal direction - Only minimum steel required.
804 TOP : Transverse direction - Only minimum steel required.
804 BOT: Transverse direction - Only minimum steel required.
804 TOP : 0.600 24.29 / 8 0.600 0.91 / 8
804 BOT: 0.600 30.76 / 7 0.600 2.71 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
806 TOP : Longitudinal direction - Only minimum steel required.
806 BOT: Longitudinal direction - Only minimum steel required.
END IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 148

806 TOP : Transverse direction - Only minimum steel required.
806 BOT: Transverse direction - Only minimum steel required.
806 TOP : 0.600 12.22 / 8 0.600 0.00 / 3
806 BOT: 0.600 13.86 / 7 0.600 1.67 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
808 TOP : Longitudinal direction - Only minimum steel required.
808 BOT: Longitudinal direction - Only minimum steel required.
808 TOP : Transverse direction - Only minimum steel required.
808 BOT: Transverse direction - Only minimum steel required.
808 TOP : 0.600 0.26 / 7 0.600 1.19 / 7
808 BOT: 0.600 0.42 / 8 0.600 2.57 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM
810 TOP : Longitudinal direction - Only minimum steel required.
810 BOT: Longitudinal direction - Only minimum steel required.
810 TOP : Transverse direction - Only minimum steel required.
810 BOT: Transverse direction - Only minimum steel required.
810 TOP : 0.600 10.95 / 7 0.600 2.52 / 7
810 BOT: 0.600 9.53 / 8 0.600 4.46 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

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812 TOP : Longitudinal direction - Only minimum steel required.
 812 BOT : Longitudinal direction - Only minimum steel required.
 812 TOP : Transverse direction - Only minimum steel required.
 812 BOT : Transverse direction - Only minimum steel required.
 812 TOP : 0.600 21.89 / 7 0.600 1.78 / 7
 812 BOT : 0.600 19.14 / 8 0.600 8.32 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

814 TOP : Longitudinal direction - Only minimum steel required.
 814 BOT : Longitudinal direction - Only minimum steel required.
 814 TOP : Transverse direction - Only minimum steel required.
 814 BOT : Transverse direction - Only minimum steel required.
 814 TOP : 0.600 21.06 / 7 0.600 4.84 / 7
 814 BOT : 0.600 20.02 / 8 0.600 17.75 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

816 TOP : Longitudinal direction - Only minimum steel required.
 816 BOT : Longitudinal direction - Only minimum steel required.
 816 TOP : Transverse direction - Only minimum steel required.
 816 BOT : 0.600 4.83 / 7 0.600 1.88 / 7
 816 BOT : 0.600 8.17 / 9 0.748 70.74 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

818 TOP : Longitudinal direction - Only minimum steel required.
 818 BOT : Longitudinal direction - Only minimum steel required.
 818 TOP : Transverse direction - Only minimum steel required.
 818 BOT : 0.600 22.18 / 7 0.600 1.64 / 7
 818 BOT : 0.600 17.94 / 9 1.268 117.85 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

820 TOP : Longitudinal direction - Only minimum steel required.
 820 BOT : Longitudinal direction - Only minimum steel required.
 820 TOP : Transverse direction - Only minimum steel required.
 DEF INPUT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 149

820 TOP : 0.600 1.20 / 8 0.600 7.03 / 7
 820 BOT : 0.600 9.15 / 9 0.760 71.85 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

821 TOP : Longitudinal direction - Only minimum steel required.
 821 BOT : Longitudinal direction - Only minimum steel required.
 821 TOP : Transverse direction - Only minimum steel required.
 821 BOT : Transverse direction - Only minimum steel required.
 821 TOP : 0.600 11.48 / 7 0.600 7.12 / 7
 821 BOT : 0.600 13.23 / 8 0.600 20.19 / 9

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

823 TOP : Longitudinal direction - Only minimum steel required.
 823 BOT : Longitudinal direction - Only minimum steel required.
 823 TOP : 0.600 12.71 / 8 0.820 76.51 / 8
 823 BOT : 0.600 16.26 / 7 1.043 97.70 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

825 TOP : Longitudinal direction - Only minimum steel required.
 825 BOT : Longitudinal direction - Only minimum steel required.
 825 TOP : 0.600 12.93 / 8 0.820 77.93 / 8
 825 BOT : 0.600 16.63 / 7 1.063 99.51 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

827 TOP : Longitudinal direction - Only minimum steel required.
 827 BOT : Longitudinal direction - Only minimum steel required.
 827 TOP : 0.600 13.08 / 8 0.823 77.67 / 8
 827 BOT : 0.600 16.90 / 7 1.076 100.67 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

829 TOP : Longitudinal direction - Only minimum steel required.
 829 BOT : Longitudinal direction - Only minimum steel required.
 829 TOP : 0.600 13.19 / 8 0.823 77.73 / 8
 829 BOT : 0.600 17.08 / 7 1.083 101.52 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

831 TOP : Longitudinal direction - Only minimum steel required.
 831 BOT : Longitudinal direction - Only minimum steel required.
 831 TOP : 0.600 13.24 / 8 0.823 77.70 / 8
 831 BOT : 0.600 17.17 / 7 1.086 101.60 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

833 TOP : Longitudinal direction - Only minimum steel required.
 833 BOT : Longitudinal direction - Only minimum steel required.
 833 TOP : 0.600 13.24 / 8 0.823 77.70 / 8
 833 BOT : 0.600 17.17 / 7 1.086 101.60 / 7

FY: 411.876 MPA FC: 27.458 MPA COVER: 19.050 MM TH: 300.000 MM

835 TOP : Longitudinal direction - Only minimum steel required.
 835 BOT : Longitudinal direction - Only minimum steel required.
 835 TOP : 0.600 13.19 / 8 0.823 77.73 / 8

BOTT: 0.600 17.08 / 7 ACERO.TXT 101.32 / 7
 1.083

ELEMENT STRESSES FORCE,LENGTH UNITS= NTON METER

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SXX VONT TRESCA	SYY VOMB TRESCA	MX SX	MY SY	MXY SXY		
697	7	-8.56 88.09 89.52	-0.67 135.75 139.72	-0.64 4.38	-2.11 27.52	-0.78 7.70		
TOP :	SMAX=	7.23	SMIN=	-86.90	TMAX=	44.56	ANGLE=	-42.5
BOTT:	SMAX=	139.72	SMIN=	8.52	TMAX=	65.70	ANGLE=	13.7
8		1.68 50.37 55.75	0.19 125.74 125.14	0.78 -6.13	0.84 -12.57	0.50 -15.73		
TOP :	SMAX=	55.75	SMIN=	13.52	TMAX=	21.57	ANGLE=	29.0
BOTT:	SMAX=	-21.94	SMIN=	-125.14	TMAX=	51.60	ANGLE=	-16.5
699	7	-25.86 171.32 172.92	18.32 238.27 217.69	-0.39 -0.73	-2.25 19.63	-1.13 9.82		
TOP :	SMAX=	1.25	SMIN=	-169.67	TMAX=	86.46	ANGLE=	-24.7
BOTT:	SMAX=	201.96	SMIN=	-15.73	TMAX=	108.84	ANGLE=	64.2
8		11.78 157.08 120.65	-11.97 177.05 187.38	0.40 1.23	1.82 -7.98	0.94 -19.23		
TOP :	SMAX=	120.65	SMIN=	7.50	TMAX=	56.57	ANGLE=	64.9
BOTT:	SMAX=	27.89	SMIN=	-164.49	TMAX=	91.69	ANGLE=	-10.5
701	7	-26.22 256.87 266.63	29.78 279.06 281.29	-0.13 -1.24	-1.81 3.50	-1.05 9.64		
TOP :	SMAX=	-26.78	SMIN=	-266.63	TMAX=	122.92	ANGLE=	-14.8
BOTT:	SMAX=	281.29	SMIN=	8.66	TMAX=	157.31	ANGLE=	72.7
8		11.78 197.73 206.31	-77.36 232.25 236.24	0.41 2.69	2.92 -0.21	0.95 -18.29		
TOP :	SMAX=	206.31	SMIN=	18.51	TMAX=	91.90	ANGLE=	75.6
BOTT:	SMAX=	8.19	SMIN=	-228.05	TMAX=	118.12	ANGLE=	-23.9
703	7	-24.26 338.35 357.73	37.91 350.22 366.00	-0.75 -1.17	-5.26 1.09	-0.89 8.52		
TOP :	SMAX=	-42.86	SMIN=	-357.73	TMAX=	157.44	ANGLE=	-9.4
BOTT:	SMAX=	366.00	SMIN=	34.05	TMAX=	165.97	ANGLE=	77.9
8		17.49 269.36 285.07	-16.17 286.08 291.88	0.56 2.87	4.16 1.99	0.80 -15.95		
TOP :	SMAX=	285.07	SMIN=	34.82	TMAX=	125.13	ANGLE=	83.7
BOTT:	SMAX=	-16.30	SMIN=	-293.88	TMAX=	138.79	ANGLE=	-14.9
705	7	-21.63 409.41 436.75	41.06 411.30 440.20	-0.97 -1.17	-6.49 -0.08	-0.71 7.32		
TOP :	SMAX=	-61.70	SMIN=	-436.75	TMAX=	187.53	ANGLE=	-6.2
BOTT:	SMAX=	440.20	SMIN=	55.36	TMAX=	192.42	ANGLE=	81.7

DXF IMPORT OF 3D TRIANGULARS.DXF -- PAGE NO. 188

ELEMENT STRESSES FORCE,LENGTH UNITS= NTON METER

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SXX VONT TRESCA	SYY VOMB TRESCA	MX SX	MY SY	MXY SXY		
8		9.99 390.46 352.70	-41.87 337.50 354.70	0.75 2.77	5.21 2.58	0.62 -13.49		
TOP :	SMAX=	352.70	SMIN=	50.23	TMAX=	151.23	ANGLE=	84.7
BOTT:	SMAX=	-37.53	SMIN=	-354.70	TMAX=	138.58	ANGLE=	-10.1
707	7	-9.17 467.95 501.51	46.88 479.71 502.00	-1.16 -1.29	-7.48 -0.82	-0.55 6.00		
TOP :	SMAX=	-76.16	SMIN=	-501.51	TMAX=	212.48	ANGLE=	-4.1
BOTT:	SMAX=	502.00	SMIN=	71.85	TMAX=	215.07	ANGLE=	84.7
8		7.57	-45.31	0.92	6.03	0.46		

ACERO.TXT
 578.79 380.40 2.50 2.88 -11.25
 406.34 404.32
 TOP : SMAX= 406.34 SMIN= 62.46 TMAX= 171.84 ANGLE= 86.8
 BOTTL: SMAX= -53.51 SMIN= -404.32 TMAX= 175.40 ANGLE= -6.9
 709 7 -7.50 48.36 -1.32 -8.28 -0.42
 514.72 514.65 -1.20 -1.33 5.23
 553.05 551.62
 TOP : SMAX= -88.02 SMIN= -553.05 TMAX= 232.52 ANGLE= -2.8
 BOTTL: SMAX= 551.62 SMIN= 84.35 TMAX= 233.63 ANGLE= 85.9
 8 5.56 -47.37 3.01 6.65 0.33
 415.49 413.98 2.73 3.10 -9.29
 446.66 442.64
 TOP : SMAX= 446.66 SMIN= 71.66 TMAX= 187.50 ANGLE= 88.1
 BOTTL: SMAX= -61.01 SMIN= -442.64 TMAX= 188.81 ANGLE= -4.8
 711 7 -5.46 49.65 -1.44 -8.87 -0.33
 551.54 549.89 -1.12 -1.77 4.35
 589.30 590.72
 TOP : SMAX= -96.71 SMIN= -593.50 TMAX= 248.39 ANGLE= -2.0
 BOTTL: SMAX= 590.72 SMIN= 93.70 TMAX= 248.51 ANGLE= 87.0
 8 4.01 -48.60 1.15 7.10 0.24
 442.75 439.29 2.01 3.33 -7.63
 476.67 471.24
 TOP : SMAX= 476.67 SMIN= 78.30 TMAX= 199.19 ANGLE= 88.8
 BOTTL: SMAX= -73.06 SMIN= -471.24 TMAX= 199.09 ANGLE= -3.4
 713 7 -4.17 50.48 -1.54 -9.34 -0.25
 580.77 577.61 -1.07 -2.10 3.60
 624.94 621.20
 TOP : SMAX= -103.59 SMIN= -624.94 TMAX= 260.87 ANGLE= -1.4
 BOTTL: SMAX= 621.20 SMIN= 100.60 TMAX= 260.30 ANGLE= 87.8
 8 2.84 -49.35 1.72 7.42 0.17
 462.69 457.92 1.84 3.54 -6.22
 498.53 492.32
 TOP : SMAX= 498.53 SMIN= 82.90 TMAX= 207.82 ANGLE= 89.1
 BOTTL: SMAX= -78.55 SMIN= -492.32 TMAX= 206.78 ANGLE= -2.4
 DXF IMPORT OF 3D TRANS GRAS.DXF -- PAGE NO. 589

ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH
 ELEMENT LOAD SXX SYY MX MY MXX
 VORT VORB SX SY SXY
 TRESCAE TRESCAE
 714 7 -9.11 51.02 -1.61 -9.70 -0.19
 602.32 598.77 -1.03 -2.36 2.94
 649.00 644.55
 TOP : SMAX= -107.96 SMIN= -649.00 TMAX= 270.52 ANGLE= -1.0
 BOTTL: SMAX= 644.55 SMIN= 105.63 TMAX= 269.46 ANGLE= 88.4
 8 1.92 -49.80 1.76 7.65 0.11
 476.82 471.52 3.71 8.75 -5.00
 513.96 506.82
 TOP : SMAX= 513.96 SMIN= 85.99 TMAX= 213.98 ANGLE= 89.7
 BOTTL: SMAX= -82.71 SMIN= -506.82 TMAX= 212.30 ANGLE= -1.7
 716 7 8.88 -10.10 -1.71 -0.38 -1.32
 170.05 169.81 -9.80 16.02 3.37
 187.77 185.12
 TOP : SMAX= 44.15 SMIN= -143.62 TMAX= 93.88 ANGLE= -57.8
 BOTTL: SMAX= 148.51 SMIN= -38.61 TMAX= 97.56 ANGLE= 40.4
 8 -12.81 8.49 1.76 0.30 0.74
 145.96 138.42 15.97 -16.62 -12.36
 149.06 138.73
 TOP : SMAX= 142.64 SMIN= -6.42 TMAX= 74.53 ANGLE= 14.7
 BOTTL: SMAX= 0.61 SMIN= -138.12 TMAX= 69.36 ANGLE= -58.9
 717 7 2.70 10.41 -0.20 -0.51 -2.03
 215.05 213.12 -5.13 9.39 10.35
 246.88 290.59
 TOP : SMAX= 100.32 SMIN= -146.57 TMAX= 123.44 ANGLE= -44.0
 BOTTL: SMAX= 172.48 SMIN= -118.11 TMAX= 145.30 ANGLE= 48.7
 8 -5.79 -6.42 0.19 0.70 1.58
 150.80 218.70 10.35 -7.52 -20.47
 172.48 212.67
 TOP : SMAX= 107.18 SMIN= -65.25 TMAX= 86.27 ANGLE= 39.9
 BOTTL: SMAX= 107.71 SMIN= -143.96 TMAX= 125.83 ANGLE= -44.4
 718 7 -1.37 18.04 0.38 -1.01 -1.95
 218.10 214.95 -4.65 4.55 9.85
 249.40 262.32

ACERO.TXT

TOP :	SMAX=	94.36	SMIN=	-155.03	TMAX=	124.70	ANGLE=	-37.5
BOTT:	SMAX=	176.40	SMIN=	-115.52	TMAX=	146.36	ANGLE=	53.3
8		-0.94		-11.93		-0.13		1.67
		162.42		228.49		9.29		-2.32
		187.07		243.79				-28.52
TOP :	SMAX=	105.10	SMIN=	-82.97	TMAX=	93.54	ANGLE=	48.4
BOTT:	SMAX=	127.30	SMIN=	-136.49	TMAX=	131.89	ANGLE=	-40.0
719	7	-3.06		21.39		0.10		-1.71
		220.94		240.87		-4.19		8.46
		236.51		271.46				
TOP :	SMAX=	67.82	SMIN=	-168.69	TMAX=	118.25	ANGLE=	-31.6
BOTT:	SMAX=	184.64	SMIN=	-87.82	TMAX=	136.23	ANGLE=	58.0

OXF IMPORT OF 3D TRAMPA GRAS.OXF -- PAGE NO. 590

ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SOX		SOY		MX	MY	MOX
		VONT	TRESCAT	VOMB	TRESCAB			
8			1.36		-73.28		-0.74	
			110.85		206.02		8.34	
			172.73		237.53			
TOP :	SMAX=	105.80	SMIN=	-66.91	TMAX=	86.36	ANGLE=	54.2
BOTT:	SMAX=	187.40	SMIN=	-130.13	TMAX=	118.77	ANGLE=	-38.2
720	7		-3.52		29.78		-0.01	
			204.90		229.01		-3.72	
			217.81		251.11			
TOP :	SMAX=	36.73	SMIN=	-188.07	TMAX=	111.40	ANGLE=	-73.1
BOTT:	SMAX=	197.41	SMIN=	-53.70	TMAX=	121.55	ANGLE=	63.3
8			2.20		-28.29		-0.18	
			115.24		177.82		7.30	
			131.10		205.19			
TOP :	SMAX=	109.69	SMIN=	-42.42	TMAX=	71.55	ANGLE=	60.4
BOTT:	SMAX=	75.15	SMIN=	-127.81	TMAX=	101.60	ANGLE=	-31.7
721	7		-3.37		32.97		-0.16	
			212.17		226.93		-3.78	
			217.14		237.96			
TOP :	SMAX=	50.31	SMIN=	-206.83	TMAX=	108.57	ANGLE=	-19.6
BOTT:	SMAX=	224.01	SMIN=	-73.94	TMAX=	118.98	ANGLE=	68.7
8			2.21		-31.63		-0.06	
			117.33		157.33		6.90	
			119.29		174.71			
TOP :	SMAX=	117.50	SMIN=	-37.80	TMAX=	67.65	ANGLE=	67.2
BOTT:	SMAX=	44.95	SMIN=	-129.76	TMAX=	87.35	ANGLE=	-26.5
722	7		-2.96		31.09		-0.31	
			224.43		211.30		-2.90	
			229.01		233.90			
TOP :	SMAX=	-9.47	SMIN=	-279.01	TMAX=	109.77	ANGLE=	-14.6
BOTT:	SMAX=	232.79	SMIN=	-1.20	TMAX=	116.95	ANGLE=	73.5
8			1.98		-33.73		0.07	
			128.49		146.91		5.43	
			128.66		156.38			
TOP :	SMAX=	128.32	SMIN=	-0.54	TMAX=	64.33	ANGLE=	73.6
BOTT:	SMAX=	21.27	SMIN=	-135.11	TMAX=	78.19	ANGLE=	-23.1
723	7		-2.48		36.49		-0.43	
			229.69		244.34		-2.59	
			250.53		251.50			
TOP :	SMAX=	-23.39	SMIN=	-250.53	TMAX=	113.57	ANGLE=	-10.7
BOTT:	SMAX=	251.50	SMIN=	35.00	TMAX=	118.25	ANGLE=	77.5
8			1.60		-31.08		0.17	
			134.91		144.91		4.72	
			140.15		147.25			
TOP :	SMAX=	140.15	SMIN=	33.09	TMAX=	64.53	ANGLE=	78.7
BOTT:	SMAX=	4.81	SMIN=	-142.44	TMAX=	73.62	ANGLE=	-18.2

OXF IMPORT OF 3D TRAMPA GRAS.OXF -- PAGE NO. 591

ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SOX		SOY		MX	MY	MOX
		VONT	TRESCAT	VOMB	TRESCAB			

ACERO.txt

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714      7      -2.00      17.44      -0.52      -3.96      -0.53
           255.06      256.80      -2.35      -1.53      3.50
           269.90      268.88
TOP : SMAX= -17.90 SMIN= -269.90 TMAX= 118.51 ANGLE= -7.8
BOTT: SMAX= 268.88 SMIN= 26.58 TMAX= 121.36 ANGLE= 80.4
      8      1.72      -15.96      0.24      2.30      0.15
           143.03      147.28      4.16      2.48      -5.95
           151.72      150.13
TOP : SMAX= 151.72 SMIN= 18.08 TMAX= 66.57 ANGLE= 82.5
BOTT: SMAX= -5.88 SMIN= -150.13 TMAX= 72.12 ANGLE= -11.9

715      7      -1.17      18.07      -0.59      -4.23      -0.40
           268.79      268.55      -2.18      -1.85      2.87
           286.12      281.85
TOP : SMAX= -39.39 SMIN= -286.12 TMAX= 123.46 ANGLE= -5.4
BOTT: SMAX= 281.85 SMIN= 33.80 TMAX= 125.02 ANGLE= 83.1
      8      0.88      -16.51      0.29      2.35      0.24
           150.49      150.96      3.71      2.47      -4.81
           160.19      156.88
TOP : SMAX= 160.19 SMIN= 22.28 TMAX= 69.05 ANGLE= 85.4
BOTT: SMAX= -12.64 SMIN= -156.88 TMAX= 72.12 ANGLE= -8.3

727      7      18.25      -12.79      -2.06      -0.38      -1.33
           214.11      192.58      -13.86      6.00      0.87
           229.72      207.48
TOP : SMAX= 35.70 SMIN= -284.02 TMAX= 114.86 ANGLE= -65.2
BOTT: SMAX= 175.04 SMIN= -34.43 TMAX= 205.74 ANGLE= 29.8
      8      -24.01      9.53      3.04      0.24      0.67
           213.80      187.29      29.49      -2.78      -7.93
           217.85      189.09
TOP : SMAX= 237.85 SMIN= 8.32 TMAX= 114.76 ANGLE= 9.3
BOTT: SMAX= -5.66 SMIN= -189.09 TMAX= 92.72 ANGLE= -72.8

728      7      8.89      4.49      -0.76      0.34      -2.01
           210.31      250.68      -12.53      7.15      2.39
           285.93      289.39
TOP : SMAX= 137.75 SMIN= -133.39 TMAX= 137.97 ANGLE= -51.5
BOTT: SMAX= 139.54 SMIN= -149.86 TMAX= 144.70 ANGLE= 43.0
      8      -12.85      -0.92      0.65      -0.48      1.48
           169.40      202.58      23.15      -5.85      -18.08
           194.92      211.47
TOP : SMAX= 111.61 SMIN= -85.31 TMAX= 97.46 ANGLE= 28.8
BOTT: SMAX= 119.98 SMIN= -113.69 TMAX= 116.83 ANGLE= -50.7

729      7      1.40      0.71      0.51      0.61      -2.08
           229.34      258.80      -9.31      5.10      8.60
           262.61      295.57
TOP : SMAX= 166.79 SMIN= -95.34 TMAX= 130.82 ANGLE= -47.3
BOTT: SMAX= 108.07 SMIN= -167.75 TMAX= 147.66 ANGLE= 45.8
DEF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 592

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ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

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ELEMENT LOAD      SQX      SQY      MX      MY      MXY
                VONM      VONB      SX      SY      SXY
                TRESCA      TRESCA
      8      -6.20      -7.94      -0.41      -1.01      1.64
           174.23      224.90      17.73      -4.24      -16.39
           195.15      211.56
TOP : SMAX= 51.72 SMIN= -139.93 TMAX= 97.58 ANGLE= 35.9
BOTT: SMAX= 181.63 SMIN= -69.93 TMAX= 121.78 ANGLE= -46.9

730      7      0.37      15.32      0.76      0.67      -1.91
           211.84      219.26      -7.47      3.23      7.71
           238.86      270.19
TOP : SMAX= 165.12 SMIN= -73.74 TMAX= 119.43 ANGLE= -45.6
BOTT: SMAX= 85.16 SMIN= -185.03 TMAX= 185.09 ANGLE= 46.8
      8      -2.38      -13.56      -0.85      -2.35      1.50
           168.78      213.13      14.34      -2.52      -14.11
           178.74      228.53
TOP : SMAX= 22.10 SMIN= -136.64 TMAX= 89.37 ANGLE= 36.8
BOTT: SMAX= 193.36 SMIN= -35.17 TMAX= 114.26 ANGLE= -47.1

731      7      -1.17      19.15      0.76      0.59      -1.62
           181.72      204.96      -6.23      1.88      6.55
           205.19      230.28
TOP : SMAX= 144.62 SMIN= -58.67 TMAX= 101.64 ANGLE= -44.6
BOTT: SMAX= 67.81 SMIN= -162.47 TMAX= 115.14 ANGLE= 47.4
      8      -0.95      -17.55      -0.91      -1.51      1.24
           151.23      181.89      21.88      -1.38      -11.70

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ACERO.TXT						
TOP :	SMAX=	151.38	190.37			
BOTT:	SMAX=	0.31	SMIN=	-151.87	THAX=	75.69 ANGLE= 34.7
		181.06	SMIN=	-9.30	THAX=	95.18 ANGLE= -49.1
732	7	-1.81	21.91	0.45	0.44	-2.31
		148.38	168.74	-5.29	0.89	5.52
		166.74	189.69			
TOP :	SMAX=	117.11	SMIN=	-49.23	THAX=	83.37 ANGLE= -43.7
BOTT:	SMAX=	56.81	SMIN=	-131.39	THAX=	94.85 ANGLE= 48.0
		0.60	-20.32	-0.82	-1.57	0.97
		181.82	157.52	9.94	-0.49	-9.65
		137.54	161.17			
TOP :	SMAX=	-12.30	SMIN=	-137.54	THAX=	62.62 ANGLE= 30.7
BOTT:	SMAX=	161.17	SMIN=	7.57	THAX=	76.80 ANGLE= -52.4
733	7	-1.95	21.81	0.51	0.26	-1.08
		118.94	136.41	-4.57	0.11	4.65
		134.72	154.25			
TOP :	SMAX=	90.50	SMIN=	-64.21	THAX=	67.36 ANGLE= -42.5
BOTT:	SMAX=	49.52	SMIN=	-104.73	THAX=	77.12 ANGLE= 49.0
		0.92	-22.17	-0.89	-1.38	0.74
		105.89	134.38	8.41	0.28	-7.97
		123.77	142.04			
TOP :	SMAX=	-17.80	SMIN=	-173.77	THAX=	57.98 ANGLE= 25.8
BOTT:	SMAX=	142.04	SMIN=	16.97	THAX=	67.56 ANGLE= -56.7
DIF IMPORT OF 3D TRAMPA GRAS.DIF						
-- PAGE NO. 193						

ELEMENT STRESSES FORCE/LENGTH UNITS= MTON/MTRE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SOX VONT TRESCA	SOY VONB TRESCA	MX SX	MY SY	MXY SOY
734	7	-1.81	25.13	0.37	0.06	-0.87
		95.18	110.09	-4.02	-0.57	1.91
		109.00	125.64			
TOP :	SMAX=	66.70	SMIN=	-42.90	THAX=	54.50 ANGLE= -40.4
BOTT:	SMAX=	46.09	SMIN=	-79.55	THAX=	67.82 ANGLE= 50.6
		0.90	-21.42	-0.58	-1.57	0.57
		109.71	117.09	7.23	0.95	-6.59
		117.04	126.32			
TOP :	SMAX=	-19.34	SMIN=	-112.04	THAX=	46.35 ANGLE= 23.1
BOTT:	SMAX=	126.32	SMIN=	21.43	THAX=	57.45 ANGLE= -62.7
735	7	-1.57	26.07	0.78	-0.13	-0.69
		77.11	89.51	-3.61	-1.01	1.28
		88.99	103.04			
TOP :	SMAX=	46.89	SMIN=	-42.11	THAX=	44.50 ANGLE= -36.9
BOTT:	SMAX=	44.52	SMIN=	-58.57	THAX=	51.57 ANGLE= 53.4
		0.77	-24.29	-0.50	-1.43	0.43
		93.63	103.54	6.04	1.57	-5.43
		101.99	113.49			
TOP :	SMAX=	-19.95	SMIN=	-101.99	THAX=	41.02 ANGLE= 17.0
BOTT:	SMAX=	113.49	SMIN=	24.17	THAX=	44.66 ANGLE= -65.4
736	7	-1.29	26.71	0.71	-0.31	-0.54
		63.92	73.58	-3.31	-1.08	2.72
		73.50	84.96			
TOP :	SMAX=	30.86	SMIN=	-42.61	THAX=	36.71 ANGLE= -31.9
BOTT:	SMAX=	43.67	SMIN=	-41.29	THAX=	42.48 ANGLE= 57.7
		0.62	-24.87	-0.45	-1.08	0.30
		84.86	97.29	5.68	1.98	-4.43
		93.34	107.71			
TOP :	SMAX=	-29.83	SMIN=	-93.34	THAX=	36.25 ANGLE= 12.8
BOTT:	SMAX=	107.71	SMIN=	26.77	THAX=	47.97 ANGLE= -69.9
738	7	24.17	-11.81	-2.84	-0.13	-1.14
		240.55	210.94	-19.77	-0.77	-0.43
		249.84	220.51			
TOP :	SMAX=	11.30	SMIN=	-234.54	THAX=	124.87 ANGLE= -71.2
BOTT:	SMAX=	199.84	SMIN=	-20.67	THAX=	110.26 ANGLE= 21.6
		-30.09	7.22	4.09	0.36	0.46
		298.82	221.75	36.68	6.43	-4.43
		311.78	241.50			
TOP :	SMAX=	111.78	SMIN=	27.89	THAX=	141.91 ANGLE= 5.4
BOTT:	SMAX=	-11.95	SMIN=	-241.50	THAX=	114.78 ANGLE= -81.1
739	7	14.16	0.83	-0.46	0.71	-1.79
		238.72	219.87	-16.66	4.57	4.30
		250.23	211.78			
TOP :	SMAX=	127.46	SMIN=	-122.77	THAX=	125.12 ANGLE= -56.7

ACERO.TXT
 BOTT: SMAX= 112.20 SMIN= -141.88 TMAX= 126.64 ANGLE= 38.5
 DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 194

ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METER

STRESS = FORCE/UNIT WIDTH/THICK., MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VOMT TRESCAT	SQY VOMB TRESCAR	MX SX	MY SY	MXY SXY
8		-18.42 158.83 197.38	1.80 158.86 181.51	0.98 31.02	-0.71 -3.13	1.09 -10.45
TOP :	SMAX=	119.21	SMIN=	-72.96	TMAX=	96.09 ANGLE= 20.1
BOTT:	SMAX=	96.44	SMIN=	-86.91	TMAX=	91.67 ANGLE= -17.7
740	7	7.80 225.40 248.60	3.88 241.96 265.62	0.70 -13.26	1.42 4.94	-1.89 6.08
TOP :	SMAX=	191.02	SMIN=	-57.59	TMAX=	124.31 ANGLE= -52.7
BOTT:	SMAX=	17.77	SMIN=	-207.85	TMAX=	110.81 ANGLE= 43.8
8		-10.71 168.30 179.73	-7.60 192.11 199.65	-0.55 24.63	-1.67 -4.84	1.28 -11.99
TOP :	SMAX=	21.84	SMIN=	-153.89	TMAX=	89.87 ANGLE= 27.3
BOTT:	SMAX=	181.64	SMIN=	-16.01	TMAX=	99.83 ANGLE= -53.5
741	7	3.76 227.16 235.59	7.83 244.18 251.71	1.18 -10.49	1.91 3.89	-1.79 6.09
TOP :	SMAX=	217.67	SMIN=	-17.91	TMAX=	117.80 ANGLE= -52.7
BOTT:	SMAX=	20.40	SMIN=	-213.34	TMAX=	116.87 ANGLE= 43.1
8		-5.82 188.82 200.29	-6.28 210.86 224.91	-1.23 19.55	-2.41 -4.18	1.22 -11.10
TOP :	SMAX=	-21.54	SMIN=	-200.29	TMAX=	87.37 ANGLE= 26.7
BOTT:	SMAX=	224.91	SMIN=	11.67	TMAX=	96.62 ANGLE= -53.5
742	7	1.34 228.53 230.96	10.66 230.37 233.55	1.30 -8.53	2.21 2.63	-1.58 5.43
TOP :	SMAX=	220.36	SMIN=	7.92	TMAX=	106.22 ANGLE= -54.9
BOTT:	SMAX=	-6.49	SMIN=	-213.51	TMAX=	113.51 ANGLE= 18.7
8		-2.83 203.01 224.11	-9.94 216.64 240.75	-1.39 15.84	-2.91 -3.01	1.04 -9.48
TOP :	SMAX=	-17.50	SMIN=	-224.11	TMAX=	85.80 ANGLE= 22.1
BOTT:	SMAX=	240.75	SMIN=	61.53	TMAX=	89.61 ANGLE= -59.1
743	7	-0.02 200.72 212.14	12.78 212.22 222.85	1.23 -7.13	2.38 1.58	-1.34 4.68
TOP :	SMAX=	212.14	SMIN=	22.78	TMAX=	94.68 ANGLE= -58.4
BOTT:	SMAX=	-21.16	SMIN=	-222.85	TMAX=	99.81 ANGLE= 35.1
8		-1.12 213.61 237.77	-11.96 220.29 247.84	-1.34 13.07	-3.32 -1.86	0.84 -7.94
TOP :	SMAX=	-61.98	SMIN=	-217.77	TMAX=	87.89 ANGLE= 16.1
BOTT:	SMAX=	247.84	SMIN=	74.32	TMAX=	86.76 ANGLE= -66.3

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 195

ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METER

STRESS = FORCE/UNIT WIDTH/THICK., MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VOMT TRESCAT	SQY VOMB TRESCAR	MX SX	MY SY	MXY SXY
744	7	-0.68 187.65 200.62	14.29 191.54 209.38	1.09 -8.09	2.44 0.70	-1.12 4.02
TOP :	SMAX=	200.62	SMIN=	29.41	TMAX=	85.61 ANGLE= -62.2
BOTT:	SMAX=	-11.48	SMIN=	-209.38	TMAX=	88.97 ANGLE= 31.0
8		-0.26 222.48 246.68	-12.44 225.20 253.14	-1.23 10.98	-1.17 -0.84	0.67 -6.46
TOP :	SMAX=	-61.20	SMIN=	-246.68	TMAX=	92.74 ANGLE= 12.1
BOTT:	SMAX=	253.14	SMIN=	71.63	TMAX=	89.01 ANGLE= -72.4

ACERO.TXT

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745 7 -0.90 15.40 0.95 2.43 -0.94
      175.01 181.26 -1.33 -0.01 3.45
      188.68 196.14
TOP : SMAX= 188.68 SMIN= 31.56 TMAX= 78.56 ANGLE= -65.7
BOTT: SMAX= -34.80 SMIN= -196.14 TMAX= 80.67 ANGLE= 77.4
      8 0.08 -11.44 -1.08 -3.70 0.54
      178.35 179.31 9.42 0.02 -5.61
      111.43 116.51
TOP : SMAX= -57.60 SMIN= -251.43 TMAX= 96.92 ANGLE= 9.2
BOTT: SMAX= 256.51 SMIN= 71.41 TMAX= 92.55 ANGLE= -76.6

746 7 -0.89 16.25 0.86 2.37 -0.78
      167.44 167.60 -4.78 -0.56 2.94
      176.42 181.04
TOP : SMAX= 176.42 SMIN= 31.02 TMAX= 73.70 ANGLE= -68.5
BOTT: SMAX= -37.09 SMIN= -183.04 TMAX= 72.98 ANGLE= 74.3
      8 0.17 -14.22 -1.01 -3.75 0.44
      179.37 180.38 8.27 0.72 -4.70
      112.67 116.75
TOP : SMAX= -51.63 SMIN= -212.07 TMAX= 98.22 ANGLE= 7.2
BOTT: SMAX= 214.75 SMIN= 68.93 TMAX= 93.91 ANGLE= -79.4

747 7 -0.82 16.92 0.80 2.27 -0.62
      169.25 153.59 -4.39 -0.97 2.48
      163.80 169.73
TOP : SMAX= 163.80 SMIN= 35.51 TMAX= 64.34 ANGLE= -71.3
BOTT: SMAX= -40.30 SMIN= -169.73 TMAX= 64.71 ANGLE= 71.3
      8 0.21 -14.82 -0.97 -3.74 0.33
      177.39 178.02 7.43 1.26 -3.90
      149.97 154.44
TOP : SMAX= -51.71 SMIN= -249.97 TMAX= 97.13 ANGLE= 5.3
BOTT: SMAX= 254.44 SMIN= 68.61 TMAX= 92.92 ANGLE= -82.0

749 7 -0.48 -9.24 -3.41 -0.22 -0.86
      179.11 174.12 -20.18 -4.53 -1.14
      161.16 176.95
TOP : SMAX= -4.92 SMIN= -261.56 TMAX= 118.32 ANGLE= -76.5
BOTT: SMAX= 222.02 SMIN= -4.93 TMAX= 113.47 ANGLE= 14.8
DEF INPUT OF 50 TRAMPA GRAS.COF
-- PAGE NO. 596

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ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK. MOMENT = FORCE-LENGTH/UNIT WIDTH

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ELEMENT LOAD SOX SOY MX MY MXY
            VOROT VOROB SX SY SXY
            TRESCAT TRESOAB
      8 -32.50 3.72 4.74 0.48 0.21
        175.68 269.14 38.60 11.42 -1.81
        154.98 178.28
TOP : SMAX= 354.98 SMIN= 42.67 TMAX= 156.15 ANGLE= 2.3
BOTT: SMAX= -19.12 SMIN= -278.28 TMAX= 179.48 ANGLE= -86.4

750 7 16.88 -1.22 -0.72 0.78 -1.35
      185.34 173.33 -18.40 2.29 1.71
      213.90 199.79
TOP : SMAX= 101.10 SMIN= -112.80 TMAX= 106.95 ANGLE= -62.2
BOTT: SMAX= 89.63 SMIN= -110.36 TMAX= 99.90 ANGLE= 33.3
      8 -21.01 2.65 1.30 -0.49 0.16
      179.77 112.62 34.18 -0.55 -1.11
      179.42 179.97
TOP : SMAX= 176.69 SMIN= -52.72 TMAX= 89.71 ANGLE= 10.4
BOTT: SMAX= 61.64 SMIN= -68.33 TMAX= 64.99 ANGLE= -69.5

751 7 10.39 -0.06 0.72 1.70 -1.49
      196.13 201.24 -13.43 4.21 3.41
      209.20 209.89
TOP : SMAX= 179.72 SMIN= -29.68 TMAX= 104.60 ANGLE= -56.9
BOTT: SMAX= 18.60 SMIN= -191.29 TMAX= 104.94 ANGLE= 38.7
      8 -13.15 0.77 -0.52 -3.82 0.73
      142.69 140.03 28.31 -4.50 -7.03
      146.00 151.90
TOP : SMAX= 6.88 SMIN= -139.12 TMAX= 73.00 ANGLE= 17.4
BOTT: SMAX= 151.90 SMIN= 27.95 TMAX= 61.97 ANGLE= -58.0

752 7 5.94 2.32 1.40 2.42 -1.47
      216.74 224.62 -12.57 3.99 3.97
      226.00 236.65
TOP : SMAX= 226.00 SMIN= 39.90 TMAX= 103.05 ANGLE= -57.1
BOTT: SMAX= -28.41 SMIN= -236.65 TMAX= 105.12 ANGLE= 37.9
      8 -7.84 -1.06 -1.36 -2.78 0.74
      182.84 185.49 22.90 -4.91 -7.17
      203.00 212.31

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ACERO.TXT
TOP : SMAX= -55.01 SMIN= -203.00 TMAX= 71.99 ANGLE= 17.3
BOT: SMAX= 212.11 SMIN= 81.69 TMAX= 85.11 ANGLE= -60.3
753 7 1.02 4.09 1.62 2.95 -1.34
227.71 213.80 -10.28 1.05 3.89
248.39 256.63
TOP : SMAX= 248.39 SMIN= 49.12 TMAX= 99.44 ANGLE= -60.5
BOT: SMAX= -55.72 SMIN= -256.63 TMAX= 100.45 ANGLE= 34.0
8 -4.35 -2.56 -1.64 -3.53 0.65
218.83 218.59 18.59 -4.00 -6.56
248.09 251.58
TOP : SMAX= -87.69 SMIN= -248.09 TMAX= 82.83 ANGLE= 13.1
BOT: SMAX= 251.58 SMIN= 108.18 TMAX= 71.70 ANGLE= -68.1
END IMPORT OF 3D TRAMPA GRAS.END -- PAGE NO. 597

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ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VONM TRESCA	SQY VONB TRESCA	MX SX	MY SY	MXY SXY
754	7	1.71 213.83 258.89	5.45 217.64 264.85	1.59 -8.59	1.34 2.02	-1.17 1.57
	TOP : SMAX= 258.89 SMIN= 61.05 TMAX= 97.92 ANGLE= -65.2					
	BOT: SMAX= -70.24 SMIN= -264.85 TMAX= 97.30 ANGLE= 18.5					
	8 -2.70 -1.65 -1.67 -4.11 0.54					
	249.79 246.23 15.34 -2.77 -5.77					
	281.78 282.34					
	TOP : SMAX= -87.55 SMIN= -281.78 TMAX= 97.11 ANGLE= 8.0					
	BOT: SMAX= 282.34 SMIN= 112.14 TMAX= 85.30 ANGLE= -75.4					
755	7	0.22 218.70 264.51	6.44 241.00 269.68	1.45 -7.37	1.59 1.10	-1.02 1.71
	TOP : SMAX= 264.51 SMIN= 61.13 TMAX= 99.69 ANGLE= -68.7					
	BOT: SMAX= -73.09 SMIN= -269.68 TMAX= 98.00 ANGLE= 21.4					
	8 -1.05 -4.40 -1.47 -4.53 0.46					
	275.08 270.48 12.94 -1.61 -5.05					
	306.68 307.05					
	TOP : SMAX= -82.72 SMIN= -306.68 TMAX= 112.48 ANGLE= 6.7					
	BOT: SMAX= 307.05 SMIN= 104.01 TMAX= 101.52 ANGLE= -79.6					
756	7	-0.19 241.38 266.56	7.22 243.09 270.66	1.31 -6.48	1.73 0.31	-0.91 2.86
	TOP : SMAX= 266.56 SMIN= 62.77 TMAX= 101.89 ANGLE= -72.8					
	BOT: SMAX= -70.93 SMIN= -270.66 TMAX= 99.87 ANGLE= 19.7					
	8 -0.56 -1.04 -1.33 -4.79 0.43					
	292.38 288.16 12.17 -0.63 -4.47					
	322.64 323.88					
	TOP : SMAX= -75.19 SMIN= -322.64 TMAX= 123.72 ANGLE= 5.7					
	BOT: SMAX= 323.88 SMIN= 91.03 TMAX= 114.43 ANGLE= -81.5					
757	7	-0.30 239.76 264.18	7.95 240.90 268.19	1.22 -5.84	1.76 -0.23	-0.80 2.53
	TOP : SMAX= 264.18 SMIN= 62.06 TMAX= 101.06 ANGLE= -74.9					
	BOT: SMAX= -70.18 SMIN= -268.19 TMAX= 99.81 ANGLE= 17.7					
	8 -0.38 -1.71 -1.78 -4.97 0.40					
	300.15 297.27 9.88 0.13 -1.84					
	330.06 332.21					
	TOP : SMAX= -71.44 SMIN= -330.06 TMAX= 128.31 ANGLE= 5.7					
	BOT: SMAX= 332.21 SMIN= 91.32 TMAX= 120.45 ANGLE= -82.6					
758	7	-0.35 232.11 257.78	8.63 233.95 261.65	1.20 -5.39	1.73 -0.64	-0.67 2.19
	TOP : SMAX= 257.78 SMIN= 64.63 TMAX= 96.58 ANGLE= -77.0					
	BOT: SMAX= -72.82 SMIN= -261.65 TMAX= 94.42 ANGLE= 14.8					

END IMPORT OF 3D TRAMPA GRAS.END -- PAGE NO. 598

ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VONM TRESCA	SQY VONB TRESCA	MX SX	MY SY	MXY SXY
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ACERO.TXT

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      8      -0.21      -6.34      -1.79      -4.96      0.32
      100.78      298.81      8.95      0.70      -1.27
      111.44      314.11
TOP : SMAX= -75.83 SMIN= -351.44 TMAX= 127.80 ANGLE= 4.1
BOTT: SMAX= 314.11 SMIN= 87.45 TMAX= 120.81 ANGLE= -84.1
760      7      26.58      -6.25      -3.74      -0.31      -0.57
      265.15      231.66      -19.37      -6.05      -1.43
      274.71      235.75
TOP : SMAX= -30.90 SMIN= -274.71 TMAX= 127.71 ANGLE= -81.0
BOTT: SMAX= 235.75 SMIN= 8.47 TMAX= 113.67 ANGLE= 9.4
      8      -31.33      0.11      4.94      0.16      -0.07
      343.56      281.72      36.75      13.15      0.00
      365.91      292.42
TOP : SMAX= 365.91 SMIN= 10.23 TMAX= 157.84 ANGLE= -0.3
BOTT: SMAX= -23.93 SMIN= -292.42 TMAX= 134.25 ANGLE= 89.7
761      7      17.69      -2.20      -0.97      0.68      -0.68
      151.91      177.86      -18.30      0.74      -0.19
      174.13      147.64
TOP : SMAX= 68.70 SMIN= -505.43 TMAX= 87.06 ANGLE= -68.8
BOTT: SMAX= 74.62 SMIN= -75.02 TMAX= 73.82 ANGLE= 26.1
      8      -21.21      2.41      1.51      -0.16      0.01
      155.58      91.70      33.63      1.18      -1.22
      170.12      101.79
TOP : SMAX= 134.21 SMIN= -36.13 TMAX= 85.26 ANGLE= 0.2
BOTT: SMAX= 58.75 SMIN= -67.04 TMAX= 57.89 ANGLE= -88.4
762      7      11.18      -2.54      0.63      1.62      -1.01
      152.95      149.41      -16.01      3.35      1.04
      157.75      151.77
TOP : SMAX= 147.65 SMIN= -10.09 TMAX= 78.87 ANGLE= -61.2
BOTT: SMAX= -9.13 SMIN= -153.77 TMAX= 72.32 ANGLE= 35.7
      8      -13.88      2.69      -0.41      -1.88      0.13
      136.73      91.61      28.88      -3.77      -2.47
      117.55      110.09
TOP : SMAX= 1.64 SMIN= -115.90 TMAX= 58.77 ANGLE= 3.1
BOTT: SMAX= 110.39 SMIN= 54.05 TMAX= 28.17 ANGLE= -78.2
763      7      7.11      -1.56      1.45      2.41      -1.05
      184.64      186.70      -13.46      3.68      1.82
      202.91      208.91
TOP : SMAX= 202.91 SMIN= 44.78 TMAX= 79.06 ANGLE= -60.4
BOTT: SMAX= -58.95 SMIN= -208.91 TMAX= 75.28 ANGLE= 36.0
      8      -8.61      2.10      -1.17      -2.66      0.17
      160.29      154.37      23.96      -4.86      -3.15
      182.87      176.09
TOP : SMAX= -56.72 SMIN= -182.87 TMAX= 58.08 ANGLE= 4.2
BOTT: SMAX= 176.09 SMIN= 111.69 TMAX= 52.20 ANGLE= -76.4
END IMPORT OF 3D THAMPA GRAS.DXF
-- PAGE NO. 509

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ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE*LENGTH/UNIT WIDTH

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ELEMENT  LOAD      SQX      SQY      MX      MY      MXY
              VONM      VONB      SX      SY      SXY
              TRISCAT  TRISCAB
764      7      3.96      -0.79      1.76      3.85      -0.88
      209.55      211.20      -11.25      3.84      2.21
      236.86      240.91
TOP : SMAX= 236.86 SMIN= 71.58 TMAX= 80.64 ANGLE= -64.2
BOTT: SMAX= -87.91 SMIN= -240.95 TMAX= 74.52 ANGLE= 31.3
      8      -4.97      2.20      -1.71      -3.49      0.15
      206.83      200.03      19.79      -4.25      -3.43
      237.10      230.17
TOP : SMAX= -93.75 SMIN= -237.10 TMAX= 71.68 ANGLE= 2.7
BOTT: SMAX= 230.17 SMIN= 151.74 TMAX= 49.22 ANGLE= -82.0
765      7      1.88      -0.23      1.75      3.55      -0.89
      229.39      229.54      -9.56      2.54      2.35
      259.98      262.36
TOP : SMAX= 259.98 SMIN= 86.09 TMAX= 86.95 ANGLE= -69.7
BOTT: SMAX= -98.54 SMIN= -262.36 TMAX= 81.91 ANGLE= 24.3
      8      -2.60      2.10      -1.87      -4.16      0.13
      247.52      238.85      16.56      -3.10      -3.43
      280.90      275.52
TOP : SMAX= -84.75 SMIN= -280.90 TMAX= 93.07 ANGLE= 1.6
BOTT: SMAX= 275.52 SMIN= 127.05 TMAX= 74.23 ANGLE= -85.4
766      7      0.74      0.10      1.59      3.93      -0.82

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                                ACERO-EXT
                                1.27      2.33
247.67 246.92 -8.31
278.33 280.21
TOP : SMAX= 278.33 SMIN= 82.27 TMAX= 98.03 ANGLE= -73.8
BOTT: SMAX= -94.48 SMIN= -280.21 TMAX= 92.87 ANGLE= 19.0
8      -1.37 2.33 -1.48 -4.69 0.17
282.11 271.34 14.17 -1.94 -3.34
314.60 311.50
TOP : SMAX= -84.13 SMIN= -314.60 TMAX= 115.73 ANGLE= 1.9
BOTT: SMAX= 311.50 SMIN= 111.70 TMAX= 99.90 ANGLE= -85.9
767    7      0.33 0.46 1.43 4.16 -0.81
261.78 261.12 -7.41 0.54 2.23
291.12 291.40
TOP : SMAX= 291.12 SMIN= 75.09 TMAX= 108.01 ANGLE= -71.8
BOTT: SMAX= -85.53 SMIN= -291.40 TMAX= 103.44 ANGLE= 16.4
8      -0.99 1.96 -1.13 -5.03 0.27
306.30 299.08 12.42 -0.96 -3.17
306.98 306.08
TOP : SMAX= -75.43 SMIN= -336.96 TMAX= 130.77 ANGLE= 3.2
BOTT: SMAX= 336.08 SMIN= 99.27 TMAX= 118.43 ANGLE= -84.9
768    7      0.27 1.06 1.79 4.26 -0.79
266.76 266.74 -6.76 -0.02 2.07
291.85 298.71
TOP : SMAX= 291.85 SMIN= 71.66 TMAX= 113.10 ANGLE= -76.5
BOTT: SMAX= -84.34 SMIN= -298.71 TMAX= 107.19 ANGLE= 15.3
END IMPORT OF 3D THAMPA GRAS.DXF
-- PAGE NO. 600

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ELEMENT STRESSES FORCE-LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SXX		SYY		MX	MY	MXY
		VONT	TRESCA	VONT	TRESCA			
8		-0.94	1.96	-1.33	-5.19	0.35		
		316.66	311.50	11.15	-0.72	-2.93		
		347.80	348.58					
	TOP :	SMAX= -75.16	SMIN= -347.80	TMAX= 125.82	ANGLE= 4.3			
	BOTT:	SMAX= 348.58	SMIN= 97.23	TMAX= 125.68	ANGLE= -84.0			
769		0.17	1.81	1.43	4.25	-0.70		
		262.42	262.91	-8.79	-0.41	1.87		
		292.92	292.99					
	TOP :	SMAX= 292.92	SMIN= 79.26	TMAX= 106.81	ANGLE= -77.7			
	BOTT:	SMAX= -89.58	SMIN= -295.99	TMAX= 103.20	ANGLE= 13.9			
8		-0.72	0.56	-1.44	-5.73	0.32		
		316.42	312.98	10.72	0.32	-2.62		
		330.00	311.65					
	TOP :	SMAX= -84.20	SMIN= -350.00	TMAX= 132.90	ANGLE= 4.1			
	BOTT:	SMAX= 351.65	SMIN= 105.62	TMAX= 124.01	ANGLE= -84.4			
771		14.07	-3.51	-3.83	-0.40	-0.32		
		262.24	230.96	-17.13	-6.03	-5.43		
		275.09	239.70					
	TOP :	SMAX= -80.34	SMIN= -275.09	TMAX= 122.32	ANGLE= -88.6			
	BOTT:	SMAX= 239.70	SMIN= 18.62	TMAX= 110.55	ANGLE= 5.7			
8		-27.45	-3.09	4.72	0.58	-0.23		
		325.16	271.88	17.16	12.67	1.09		
		347.91	283.54					
	TOP :	SMAX= 347.91	SMIN= 10.64	TMAX= 148.63	ANGLE= -2.7			
	BOTT:	SMAX= -25.85	SMIN= -283.54	TMAX= 129.24	ANGLE= 86.4			
772		17.03	-2.46	-1.16	0.47	-0.46		
		126.22	95.15	-17.61	0.05	-1.47		
		141.26	108.39					
	TOP :	SMAX= 106.16	SMIN= -102.00	TMAX= 70.58	ANGLE= -76.5			
	BOTT:	SMAX= 68.73	SMIN= -39.88	TMAX= 34.30	ANGLE= 16.1			
8		-29.52	1.62	1.58	-0.39	-0.44		
		156.62	106.50	30.40	1.80	1.75		
		168.96	119.91					
	TOP :	SMAX= 140.32	SMIN= -28.64	TMAX= 84.48	ANGLE= -9.6			
	BOTT:	SMAX= 36.32	SMIN= -83.59	TMAX= 39.96	ANGLE= 74.3			
773		11.62	-3.88	0.49	1.32	-0.56		
		106.53	97.54	-15.30	2.62	-0.88		
		106.96	107.74					
	TOP :	SMAX= 106.96	SMIN= 0.87	TMAX= 53.01	ANGLE= -66.8			
	BOTT:	SMAX= -25.45	SMIN= -107.74	TMAX= 43.15	ANGLE= 31.5			
8		-13.09	1.57	-0.29	-1.36	-0.43		
		107.46	90.66	24.79	-1.05	1.29		
		113.73	107.16					
	TOP :	SMAX= 113.73	SMIN= -99.84	TMAX= 56.86	ANGLE= -13.7			
	BOTT:	SMAX= 23.88	SMIN= -107.16	TMAX= 43.15	ANGLE= 31.5			

ACERO.EVT
 BOTI: SMAX= 102.16 SMIN= 31.27 TMAX= 35.44 ANGLE= 62.8
 DXF IMPORT OF 3D TRIANGA GRAS.DXF -- PAGE NO. 601

ELEMENT STRESSES FORCE-LENGTH UNITS= MTON MERE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VONT TRESCA	SQY VOMB TRESCA	MX SX	MY SY	MXY SXY
774	7	7.39 141.02 180.95	-4.61 141.62 165.43	1.40 -13.22	3.05 3.11	-0.62 -0.60
TOP :	SMAX=	160.95	SMIN=	19.07	TMAX=	50.94 ANGLE= -61.0
BOTT:	SMAX=	-76.82	SMIN=	-163.43	TMAX=	43.30 ANGLE= 31.9
8		-8.37 139.53 118.92	4.67 137.03 157.03	-3.78 22.83	-3.23 -4.28	-0.37 0.39
TOP :	SMAX=	-56.48	SMIN=	-118.92	TMAX=	51.22 ANGLE= -14.1
BOTT:	SMAX=	137.03	SMIN=	91.49	TMAX=	30.76 ANGLE= 61.0
775	7	4.38 171.70 197.44	-4.30 172.76 198.74	1.77 -13.40	2.68 2.67	-0.39 0.69
TOP :	SMAX=	197.44	SMIN=	90.30	TMAX=	53.17 ANGLE= -67.0
BOTT:	SMAX=	-106.47	SMIN=	-198.74	TMAX=	46.11 ANGLE= 29.9
8		-4.74 181.60 208.50	5.40 177.01 203.11	-3.64 19.40	-3.99 -3.83	-0.36 -0.35
TOP :	SMAX=	-84.91	SMIN=	-208.50	TMAX=	61.79 ANGLE= -11.7
BOTT:	SMAX=	203.11	SMIN=	121.40	TMAX=	40.85 ANGLE= 72.5
776	7	1.92 196.29 225.89	-4.35 195.12 225.76	1.71 -9.98	1.21 1.95	-0.33 1.21
TOP :	SMAX=	225.89	SMIN=	96.87	TMAX=	64.11 ANGLE= -71.9
BOTT:	SMAX=	-113.06	SMIN=	-225.76	TMAX=	56.35 ANGLE= 20.4
8		-2.25 221.08 250.68	6.29 212.34 245.10	-3.51 18.72	-3.67 -3.87	-0.34 -1.28
TOP :	SMAX=	-83.51	SMIN=	-250.68	TMAX=	83.18 ANGLE= -8.2
BOTT:	SMAX=	245.10	SMIN=	116.79	TMAX=	64.15 ANGLE= 80.4
777	7	0.73 222.22 252.34	-4.88 225.97 252.73	1.52 -8.92	1.65 1.22	-0.35 1.50
TOP :	SMAX=	252.34	SMIN=	84.84	TMAX=	83.65 ANGLE= -77.6
BOTT:	SMAX=	-100.17	SMIN=	-252.73	TMAX=	76.03 ANGLE= 15.0
8		-1.09 257.40 284.57	7.37 246.69 280.17	-3.26 14.69	-4.23 -1.84	-0.39 -1.75
TOP :	SMAX=	-67.97	SMIN=	-284.57	TMAX=	108.30 ANGLE= -3.9
BOTT:	SMAX=	280.17	SMIN=	97.67	TMAX=	91.43 ANGLE= 86.5
778	7	0.60 245.00 272.65	-5.13 242.89 271.93	1.33 -8.13	1.94 0.57	-0.64 1.62
TOP :	SMAX=	272.65	SMIN=	70.99	TMAX=	100.83 ANGLE= -77.5
BOTT:	SMAX=	-84.83	SMIN=	-271.93	TMAX=	94.15 ANGLE= 14.5
DXF IMPORT OF 3D TRIANGA GRAS.DXF		-- PAGE NO. 602				

ELEMENT STRESSES FORCE-LENGTH UNITS= MTON MERE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SQX VONT TRESCA	SQY VOMB TRESCA	MX SX	MY SY	MXY SXY
8		-1.20 181.32 307.64	7.87 277.82 305.88	-1.06 13.19	-4.60 -0.97	0.88 -2.61
TOP :	SMAX=	-57.44	SMIN=	-307.64	TMAX=	125.10 ANGLE= 0.7
BOTT:	SMAX=	305.88	SMIN=	83.63	TMAX=	111.13 ANGLE= -88.2
779	7	0.87 254.81 282.48	-4.54 254.61 284.94	3.35 -7.54	4.05 0.04	-0.77 1.63
TOP :	SMAX=	282.48	SMIN=	69.94	TMAX=	106.77 ANGLE= -76.0
BOTT:	SMAX=	-82.39	SMIN=	-284.94	TMAX=	101.30 ANGLE= 11.8

ACERO.TXT

8	-1.62	7.35	-1.18	-4.73	0.32
	281.64	285.34	12.08	-0.34	-2.09
	318.34	318.59			
TOP : SMAX=	-64.06	SMIN=	-318.34	THAX=	127.34
BOTT: SMAX=	318.59	SMIN=	87.30	THAX=	115.64
				ANGLE=	4.3
				ANGLE=	-84.2
780	7	0.80	-3.48	1.52	4.03
	250.03	250.45	-7.11	-0.27	1.56
	280.80	283.86			
TOP : SMAX=	280.80	SMIN=	82.34	THAX=	99.23
BOTT: SMAX=	-94.04	SMIN=	-283.86	THAX=	94.91
				ANGLE=	-75.7
				ANGLE=	16.1
8	-3.42	5.86	-2.44	-4.73	0.32
	286.38	282.63	11.26	0.10	-1.99
	318.72	319.99			
TOP : SMAX=	-83.03	SMIN=	-318.72	THAX=	117.85
BOTT: SMAX=	319.99	SMIN=	104.47	THAX=	107.76
				ANGLE=	5.2
				ANGLE=	-83.2
782	7	20.98	-1.23	-3.74	-0.46
	248.96	227.44	-15.78	-5.09	-1.19
	264.81	234.08			
TOP : SMAX=	-35.49	SMIN=	-264.81	THAX=	114.66
BOTT: SMAX=	234.08	SMIN=	25.47	THAX=	104.30
				ANGLE=	-87.4
				ANGLE=	2.2
8	-22.81	-5.80	4.17	0.51	-0.58
	282.76	244.61	26.48	10.67	1.56
	306.77	254.78			
TOP : SMAX=	306.77	SMIN=	44.11	THAX=	131.33
BOTT: SMAX=	-21.80	SMIN=	-254.78	THAX=	116.49
				ANGLE=	-5.2
				ANGLE=	83.3
783	7	15.39	-2.34	-1.79	0.24
	111.31	80.68	-14.91	0.18	-2.39
	118.88	87.50			
TOP : SMAX=	17.02	SMIN=	-101.86	THAX=	59.44
BOTT: SMAX=	71.44	SMIN=	-18.06	THAX=	43.75
				ANGLE=	-84.4
				ANGLE=	4.4
8	-18.36	0.64	3.52	-0.22	-0.79
	158.48	130.73	25.10	1.75	3.88
	173.00	146.34			
TOP : SMAX=	341.88	SMIN=	-29.12	THAX=	85.50
BOTT: SMAX=	43.20	SMIN=	-103.14	THAX=	73.17
				ANGLE=	-17.5
				ANGLE=	64.5

END INPUT OF 3D TRAMPA GRAS.DAT

--- PAGE NO. 603

ELEMENT STRESSES FORCE/LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE*LENGTH/UNIT WIDTH

ELEMENT	LOAD	SOX	SOY	MX	MY	MOY
		VSOCAT	VSOCB	SX	SY	SOY
784	7	10.85	-4.29	0.33	0.90	-0.23
		64.96	54.57	-13.47	2.08	-2.38
		66.88	63.01			
TOP : SMAX=	66.88	SMIN=	4.03	THAX=	31.42	ANGLE=
BOTT: SMAX=	-30.70	SMIN=	-63.01	THAX=	16.36	ANGLE=
8	-11.39	3.72	-0.18	-0.96	-0.83	
	114.13	115.74	22.49	-2.48	4.34	
	127.83	121.72				
TOP : SMAX=	36.13	SMIN=	-91.70	THAX=	63.91	ANGLE=
BOTT: SMAX=	108.63	SMIN=	-15.07	THAX=	60.86	ANGLE=
785	7	6.99	-5.17	1.30	1.49	-0.26
	96.42	101.35	-12.02	2.34	-1.49	
	111.05	113.38				
TOP : SMAX=	113.05	SMIN=	64.75	THAX=	23.15	ANGLE=
BOTT: SMAX=	-81.78	SMIN=	-113.38	THAX=	15.80	ANGLE=
8	-7.20	5.63	-1.15	-3.61	-0.80	
	129.55	140.14	19.85	-3.30	3.02	
	140.87	154.86				
TOP : SMAX=	-26.85	SMIN=	-140.87	THAX=	57.01	ANGLE=
BOTT: SMAX=	156.86	SMIN=	43.97	THAX=	56.45	ANGLE=
786	7	3.75	-5.90	1.71	2.00	-0.23
	125.39	130.74	-10.84	2.00	-0.44	
	143.63	143.23				
TOP : SMAX=	141.63	SMIN=	96.85	THAX=	22.39	ANGLE=
BOTT: SMAX=	-112.93	SMIN=	-143.23	THAX=	15.15	ANGLE=
8	-1.63	7.06	-1.52	-2.70	-0.80	
	158.14	163.84	17.69	-2.92	1.56	
	178.23	187.87				
TOP : SMAX=	-54.72	SMIN=	-178.23	THAX=	62.75	ANGLE=
BOTT: SMAX=	187.87	SMIN=	74.62	THAX=	56.62	ANGLE=
787	7	1.15	-6.85	1.66	2.47	-0.17
	146.25	148.00	-9.93	1.50	0.37	

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ACERO.TXT

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167.98      166.16
TOP : SMAX= 167.98 SMIN= 99.02 TMAX= 34.48 ANGLE= -80.9
BOTT: SMAX= -117.69 SMIN= -166.16 TMAX= 24.23 ANGLE= 14.2
      8      -0.75      8.83      -1.34      -2.77      -0.80
      186.87      181.54      13.99      -2.18      0.34
      207.45      209.71
TOP : SMAX= -52.55 SMIN= -207.45 TMAX= 77.56 ANGLE= -21.1
BOTT: SMAX= 209.71 SMIN= 77.69 TMAX= 66.01 ANGLE= 62.9

788      7      -0.15      -8.68      1.18      2.92      -0.23
      171.31      169.72      -9.24      0.98      0.85
      196.99      191.85
TOP : SMAX= 196.99 SMIN= 74.29 TMAX= 61.35 ANGLE= -81.1
BOTT: SMAX= -91.94 SMIN= -195.85 TMAX= 51.96 ANGLE= 8.9
OUT IMPORT OF 3D TRANSF GRAS.DXF
-- PAGE NO. 604

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ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

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ELEMENT LOAD      SQX      SQY      MX      MY      MXY
                VONT      VOMB      SX      SY      SXY
                TRESCA      TRESCA
      8      0.34      11.57      -0.81      -1.30      -0.59
      216.27      205.35      14.65      -1.39      -0.52
      230.13      228.47
TOP : SMAX= -31.10 SMIN= -230.13 TMAX= 99.52 ANGLE= -11.9
BOTT: SMAX= 228.47 SMIN= 59.28 TMAX= 84.60 ANGLE= 76.1

789      7      0.56      -10.03      0.97      3.23      -0.51
      205.98      198.53      -8.68      0.46      1.11
      222.13      222.92
TOP : SMAX= 222.13 SMIN= 49.48 TMAX= 86.32 ANGLE= -78.9
BOTT: SMAX= -65.13 SMIN= -222.92 TMAX= 79.89 ANGLE= 13.1
      8      -1.13      11.15      -0.49      -1.62      -0.10
      237.21      225.00      13.59      -0.72      -1.68
      245.93      244.17
TOP : SMAX= -18.50 SMIN= -245.93 TMAX= 113.71 ANGLE= -2.0
BOTT: SMAX= 244.17 SMIN= 45.78 TMAX= 99.30 ANGLE= 88.1

790      7      1.99      -9.12      1.11      3.31      -0.80
      216.07      211.09      -8.23      0.04      1.25
      236.67      239.65
TOP : SMAX= 236.67 SMIN= 49.91 TMAX= 91.16 ANGLE= -71.1
BOTT: SMAX= -65.15 SMIN= -239.65 TMAX= 88.15 ANGLE= 19.1
      8      -1.00      11.90      -0.78      -1.76      -0.16
      237.32      229.63      12.77      -0.24      -1.19
      253.17      254.05
TOP : SMAX= -36.80 SMIN= -253.17 TMAX= 108.18 ANGLE= 1.9
BOTT: SMAX= 254.05 SMIN= 61.13 TMAX= 96.16 ANGLE= -82.4

791      7      1.97      -7.14      1.52      3.25      -0.81
      208.00      210.81      -7.88      -0.70      1.18
      235.91      240.21
TOP : SMAX= 235.91 SMIN= 74.06 TMAX= 80.94 ANGLE= -69.6
BOTT: SMAX= -85.97 SMIN= -240.21 TMAX= 77.12 ANGLE= 23.0
      8      -2.77      9.16      -1.37      -1.70      0.41
      223.14      220.82      12.12      0.02      -1.45
      250.91      251.77
TOP : SMAX= -74.86 SMIN= -250.91 TMAX= 88.05 ANGLE= 9.0
BOTT: SMAX= 251.77 SMIN= 97.32 TMAX= 77.72 ANGLE= -78.6

793      7      17.33      1.01      -3.49      -0.46      -0.03
      230.02      207.55      -12.66      -3.49      -1.18
      245.16      219.79
TOP : SMAX= -34.08 SMIN= -245.16 TMAX= 105.14 ANGLE= -89.1
BOTT: SMAX= 219.79 SMIN= 27.15 TMAX= 96.12 ANGLE= 0.1
      8      -16.65      -8.28      1.55      0.18      -0.50
      234.16      201.72      18.90      7.63      2.01
      247.04      211.00
TOP : SMAX= 247.04 SMIN= 28.34 TMAX= 109.15 ANGLE= -8.1
BOTT: SMAX= -11.22 SMIN= -211.10 TMAX= 99.94 ANGLE= 79.7
OUT IMPORT OF 3D TRANSF GRAS.DXF
-- PAGE NO. 605

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ELEMENT STRESSES FORCE,LENGTH UNITS= MTON METE

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

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ELEMENT LOAD      SQX      SQY      MX      MY      MXY
                VONT      VOMB      SX      SY      SXY
                TRESCA      TRESCA

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ACERO.TXT

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794      7      12.93      -1.42      -1.36      0.04      0.05
          104.41      81.20      -11.55      0.98      -1.47
          106.27      82.41
TOP : SMAX=      1.83  SMIN=-107.44  TMAX=      51.11  ANGLE=      90.0
BOTT: SMAX=      79.94  SMIN=      -2.47  TMAX=      41.20  ANGLE=      -4.9
      8      -12.82      -0.03      1.38      -0.12      -1.07
          114.79      149.45      17.49      -0.12      1.63
          171.33      168.46
TOP : SMAX=      136.34  SMIN=      -34.99  TMAX=      85.96  ANGLE=      -73.2
BOTT: SMAX=      50.93  SMIN=      -117.54  TMAX=      84.23  ANGLE=      59.7

795      7      9.39      -3.87      0.19      0.48      0.00
          17.98      27.93      -10.49      1.49      -1.33
          33.74      31.47
TOP : SMAX=      13.74  SMIN=      1.17  TMAX=      16.08  ANGLE=      -81.6
BOTT: SMAX=      -21.83  SMIN=      -31.47  TMAX=      4.82  ANGLE=      -19.9
      8      -9.64      3.33      -0.09      -0.55      -1.07
          127.75      137.35      16.08      -1.83      1.76
          160.17      155.11
TOP : SMAX=      51.67  SMIN=      -84.10  TMAX=      70.09  ANGLE=      -34.8
BOTT: SMAX=      106.22  SMIN=      -48.88  TMAX=      77.15  ANGLE=      47.3

796      7      6.10      -5.12      1.19      0.84      -0.01
          64.67      78.20      -10.10      1.18      -2.17
          70.17      89.53
TOP : SMAX=      70.57  SMIN=      56.44  TMAX=      7.07  ANGLE=      -17.3
BOTT: SMAX=      -54.93  SMIN=      -89.53  TMAX=      17.50  ANGLE=      -89.5
      8      -6.38      5.46      -1.04      -0.92      -1.08
          131.97      157.49      15.51      -1.97      4.22
          186.41      155.03
TOP : SMAX=      9.44  SMIN=      -129.98  TMAX=      68.21  ANGLE=      -43.0
BOTT: SMAX=      149.82  SMIN=      -1.21  TMAX=      77.12  ANGLE=      40.3

797      7      2.99      -6.21      1.65      1.17      0.04
          81.76      105.54      -9.83      1.14      -0.99
          100.10      120.34
TOP : SMAX=      100.50  SMIN=      79.12  TMAX=      10.19  ANGLE=      1.8
BOTT: SMAX=      -76.86  SMIN=      -120.34  TMAX=      21.74  ANGLE=      -85.5
      8      -2.91      7.17      -1.41      -1.27      -1.14
          151.12      167.65      15.13      -1.68      2.52
          155.84      175.29
TOP : SMAX=      -5.64  SMIN=      -155.84  TMAX=      71.40  ANGLE=      -43.5
BOTT: SMAX=      171.29  SMIN=      16.49  TMAX=      79.40  ANGLE=      40.3

798      7      0.07      -7.36      1.38      1.49      0.16
          99.61      109.02      -9.55      0.92      -0.05
          188.83      120.06
TOP : SMAX=      108.83  SMIN=      86.79  TMAX=      11.02  ANGLE=      51.0
BOTT: SMAX=      -92.82  SMIN=      -120.06  TMAX=      13.62  ANGLE=      -63.5
END INPUT OF 3D TRAMPA GRAS.GRF
-- PAGE NO. 606

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ELEMENT STRESSES FORCE/LENGTH UNITS= WTON METE

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STRESS = FORCE/UNIT WIDTH/THICK., MOMENT = FORCE-LENGTH/UNIT WIDTH
ELEMENT LOAD      SQX      SQY      MX      MY      MXY
                VORIT  VORIB      SX      SY      SXY
                TRESCAT  TRESCEB
      8      0.11      9.08      -1.15      -1.61      -1.77
          168.25      174.36      14.74      -1.25      1.14
          168.98      181.70
TOP : SMAX=      -1.48  SMIN=      -168.98  TMAX=      83.75  ANGLE=      -36.8
BOTT: SMAX=      181.70  SMIN=      15.74  TMAX=      82.98  ANGLE=      47.6

799      7      -2.35      -10.97      0.91      1.86      0.16
          109.98      108.30      -9.34      0.66      0.52
          126.02      124.89
TOP : SMAX=      126.02  SMIN=      49.48  TMAX=      38.27  ANGLE=      81.7
BOTT: SMAX=      -67.88  SMIN=      -124.89  TMAX=      28.45  ANGLE=      -10.1
      8      2.40      14.72      -0.18      -2.02      -1.06
          183.35      173.84      14.29      -0.75      0.18
          197.15      177.99
TOP : SMAX=      51.76  SMIN=      -161.40  TMAX=      98.58  ANGLE=      -22.8
BOTT: SMAX=      169.36  SMIN=      -8.64  TMAX=      89.00  ANGLE=      63.6

800      7      -0.01      -15.49      0.25      2.15      -0.35
          145.68      138.80      -9.13      0.28      0.79
          147.39      147.97
TOP : SMAX=      147.39  SMIN=      1.49  TMAX=      71.95  ANGLE=      -80.8
BOTT: SMAX=      -20.66  SMIN=      -147.97  TMAX=      61.66  ANGLE=      11.7
      8      -1.08      20.30      0.54      -2.34      -0.26

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                                ACERO.TVT
                                -0.29      -0.30
      TOP : SMASS= 188.49   SWIN= 170.12   TNAX= 13.81   ANGLE= -4.8
      BOTI : SMASS= 208.76   SWIN= 180.64   TNAX= 104.38   ANGLE= 84.7
      801  7      3.12   -13.02   0.41   2.18   -0.95
            169.88   169.12   -8.95   -0.06   1.00
            172.97   177.96
      TOP : SMASS= 172.97   SWIN= 6.34   TNAX= 83.31   ANGLE= -65.8
      BOTI : SMASS= -19.36   SWIN= -177.96   TNAX= 79.30   ANGLE= 77.1
      8      -5.37   15.84   -0.18   -2.36   0.54
            169.33   159.52   13.37   -0.08   -0.91
            173.65   166.71
      TOP : SMASS= 9.00   SWIN= -164.65   TNAX= 86.81   ANGLE= 11.9
      BOTI : SMASS= 166.71   SWIN= 15.57   TNAX= 75.60   ANGLE= -75.4
      802  7      2.76   -8.58   1.54   2.07   -0.97
            163.94   170.05   -8.71   -0.18   1.05
            187.76   191.41
      TOP : SMASS= 187.76   SWIN= 48.65   TNAX= 67.05   ANGLE= -54.6
      BOTI : SMASS= -57.77   SWIN= -191.41   TNAX= 66.87   ANGLE= 59.7
      8      -4.17   10.31   -1.33   -2.16   0.58
            146.15   150.12   12.90   0.02   -1.01
            166.66   173.16
      TOP : SMASS= -60.36   SWIN= -166.66   TNAX= 53.15   ANGLE= 22.4
      BOTI : SMASS= 173.16   SWIN= 79.69   TNAX= 46.73   ANGLE= -60.8
      INF IMPORT OF 3D TRIANGULAR.GR3
      --- PAGE NO. 607

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ELEMENT STRESSES FORCE/LENGTH UNITS= MTON/MT

STRESS = FORCE/UNIT WIDTH/THICK, MOMENT = FORCE-LENGTH/UNIT WIDTH

ELEMENT	LOAD	SXX		SYY		MX	MY	MXX
		YONT	YONB	YONT	YONB			
		THICK	THICK	THICK	THICK	SA	SY	SXX
804	7	12.12	3.27	-3.14	-0.28	0.03		
		205.83	195.40	-5.58	-0.65	-2.24		
		214.68	203.62					
	TOP : SMASS=	-19.04	SWIN=	-214.68	TNAX=	97.82	ANGLE=	-90.0
	BOTT: SMASS=	203.62	SWIN=	17.64	TNAX=	92.99	ANGLE=	-1.4
	8	-4.62	-8.85	2.47	0.10	-0.53		
		174.11	170.94	4.94	3.10	2.71		
		175.72	173.55					
	TOP : SMASS=	175.72	SWIN=	3.27	TNAX=	86.25	ANGLE=	-11.1
	BOTT: SMASS=	5.34	SWIN=	-168.20	TNAX=	84.77	ANGLE=	77.0
806	7	11.25	-0.65	-1.41	-0.02	0.09		
		98.49	90.23	-4.65	0.90	-4.04		
		98.91	90.79					
	TOP : SMASS=	-0.47	SWIN=	-98.91	TNAX=	49.23	ANGLE=	88.7
	BOTT: SMASS=	90.79	SWIN=	1.11	TNAX=	44.81	ANGLE=	-6.4
	8	-5.34	0.01	1.75	-0.11	-0.94		
		134.61	144.29	4.95	-0.75	6.04		
		148.43	161.19					
	TOP : SMASS=	114.26	SWIN=	-54.57	TNAX=	74.21	ANGLE=	-24.9
	BOTT: SMASS=	44.86	SWIN=	-116.53	TNAX=	80.70	ANGLE=	60.8
808	7	8.94	-2.64	0.08	0.12	0.05		
		9.39	14.80	-0.42	0.54	-2.84		
		9.97	16.07					
	TOP : SMASS=	8.67	SWIN=	-1.30	TNAX=	4.99	ANGLE=	87.1
	BOTT: SMASS=	-1.00	SWIN=	-16.07	TNAX=	6.54	ANGLE=	-14.0
	8	-3.87	2.45	-0.04	-0.18	-1.01		
		108.90	125.23	7.93	-0.69	4.91		
		125.67	144.03					
	TOP : SMASS=	59.01	SWIN=	-66.66	TNAX=	62.84	ANGLE=	-40.9
	BOTT: SMASS=	81.08	SWIN=	-60.95	TNAX=	77.07	ANGLE=	45.1
810	7	5.10	-3.72	1.12	0.26	0.04		
		59.77	76.03	-7.95	0.41	-1.78		
		66.57	82.85					
	TOP : SMASS=	66.57	SWIN=	17.48	TNAX=	24.54	ANGLE=	2.4
	BOTT: SMASS=	-16.77	SWIN=	-82.85	TNAX=	33.29	ANGLE=	-85.1
	8	-0.47	3.98	-0.97	-0.29	-1.04		
		125.24	144.74	10.64	-0.59	3.43		
		138.36	158.06					
	TOP : SMASS=	12.08	SWIN=	-106.08	TNAX=	69.08	ANGLE=	-12.1
	BOTT: SMASS=	126.08	SWIN=	-31.98	TNAX=	79.03	ANGLE=	34.5
812	7	1.33	-4.65	1.67	0.39	0.15		
		90.43	108.07	-8.83	0.37	-0.86		
		100.29	118.11					

ACERO.TXT
TOP : SAKS= 300.29 SWIN= 24.95 TRACE= 57.67 ANGLE= 6.9
BOTT: SAKS= -24.15 SWIN= -118.11 TRACE= 46.98 ANGLE= -83.4
END IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 608

DISEÑO DE VIGAS Y COLUMNAS.pdf
DISEÑO DE VIGAS Y COLUMNAS

BEAM NO. 639 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	17.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 639 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.00 KNS Vc= 55.03 KNS Vu= 0.00 KNS
 Ts= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.08 KNS Vc= 55.03 KNS Vu= 0.00 KNS
 Ts= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

123 100X 300X 300 1123

3#12 @ 243. 0 TO 500
3#12 @ 17. 0 TO 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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END IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1798

BEAM NO. 640 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 100. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	17.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

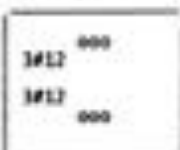
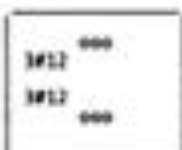
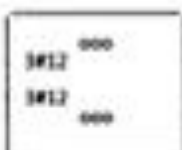
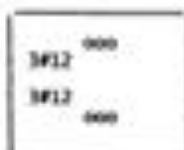
BEAM NO. 640 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.37 KNS Vc= 54.03 KNS Vu= 0.00 KNS
 Ts= 0.03 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.30 KNS Vc= 54.62 KNS Vu= 0.00 KNS
 Ts= 0.03 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

153 499X 300X 300 11193

3#12 @ 243. 0 TO 500
3#12 @ 17. 0 TO 500

DISEÑO DE VIGAS Y COLUMNAS.pdf



EXP IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1299

BEAM NO. 641 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	17.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 641 DESIGN RESULTS - SHEAR

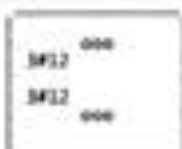
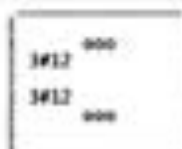
AT START SUPPORT - $V_u = 0.22$ KNS $V_c = 54.03$ KNS $V_u < V_c$ 0.00 KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_u < T_c$ 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.30$ KNS $V_c = 54.62$ KNS $V_u < V_c$ 0.00 KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_u < T_c$ 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

122 495X 300X 300 4841

3#12 = 243. 0 TO 500

3#12 = 17. 0 TO 500



EXP IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1300

BEAM NO. 642 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	17.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 642 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.00$ KNS $V_c = 55.03$ KNS $V_u < V_c$ 0.00 KNS
 $T_u = 0.19$ KN-MET $T_c = 1.9$ KN-MET $T_u < T_c$ 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.08$ KNS $V_c = 55.03$ KNS $V_u < V_c$ 0.00 KNS

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DESIGN DE VIGAS Y COLUMNAS.pdf
 Tm= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

S1 500x 300x 300 8002

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1301

BEAM NO. 671 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	7.	500.	NO	YES

BEAM NO. 671 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.27 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tm= 0.04 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.26 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tm= 0.04 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

S23 400x 300x 300 5873

3#12 H 243. 0.70 477
3#12 H 57. 0.70 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1302

BEAM NO. 673 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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DISEÑO DE VIGAS Y COLUMNAS.ppt

LEVEL	57.	3 - 12MM	0.	500.	YES	YES
	243.	3 - 12MM	0.	477.	YES	NO
	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 673 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.24$ KNS $V_c = 55.03$ KNS $V_n = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_n = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.29$ KNS $V_c = 55.03$ KNS $V_n = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_n = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

343 499X 300X 300 7003

3#12 @ 243. 0.70 477
 3#12 @ 57. 0.70 500

3#12 @ 000
 3#12 @ 000

3#12 @ 000
 3#12 @ 000

3#12 @ 000
 3#12 @ 000

3#12 @ 000
 3#12 @ 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1303

BEAM NO. 676 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM $F_y = 417$. $F_c = 25$. MPA, SIZE = 300. X 300. MMS
 LEVEL HEIGHT BAR INFO FROM TO ANCHOR
 (MM) (MM) (MM) STA END

1 243. 3 - 12MM 0. 500. YES YES

BEAM NO. 676 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.35$ KNS $V_c = 54.53$ KNS $V_n = 0.00$ KNS
 $T_u = 0.33$ KN-MET $T_c = 1.9$ KN-MET $T_n = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.07$ KNS $V_c = 54.53$ KNS $V_n = 0.00$ KNS
 $T_u = 0.33$ KN-MET $T_c = 1.9$ KN-MET $T_n = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

372 499X 300X 300 2603

3#12 @ 243. 0.70 500

3#12 @ 000

3#12 @ 000

3#12 @ 000

3#12 @ 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 680 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN -	500. MM	FY -	412.	FC -	21. MPA, SIZE - 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 680 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.55 KNS Vc= 54.53 KNS Vs= 0.00 KNS
 Tu= 0.55 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.07 KNS Vc= 54.53 KNS Vs= 0.00 KNS
 Tu= 0.55 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

393 499x 300x 300 9082

Bns12 H 243. 0 TO 500

3#12 000

3#12 000

3#12 000

3#12 000

DOF IMPORT OF 3D TRAMPA GRAS.DOF

-- PAGE NO. 1305

BEAM NO. 682 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN -	500. MM	FY -	412.	FC -	21. MPA, SIZE - 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	2.	500.	NO YES

BEAM NO. 682 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.27 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.04 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.26 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.04 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

402 499x 300x 300 12402

Bns12 H 243. 0 TO 477

Bns12 H 57. 0 TO 500

DISEÑO DE VIGAS Y COLUMNAS.pdf

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
IMP INPUT OF 3D TRAMPA GRAS.DWG			-- PAGE NO. 1306

BEAM NO. 684 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 684 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.31$ KNS $V_c = 54.69$ KNS $V_u = 0.00$ KNS
 $T_u = 1.12$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.39$ KNS $V_c = 54.69$ KNS $V_u = 0.00$ KNS
 $T_u = 1.12$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

412 499K 300K 300 3683

3#12 H 243. 0.70 500

000 3#12	000 3#12	000 3#12	000 3#12
IMP INPUT OF 3D TRAMPA GRAS.DWG			-- PAGE NO. 1307

BEAM NO. 686 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 686 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.34$ KNS $V_c = 55.83$ KNS $V_u = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.29$ KNS $V_c = 55.83$ KNS $V_u = 0.00$ KNS

DESIGN DE VIGAS Y COLUMNAS.dxf
 Ts= 0.12 KN-MET Tcs= 1.9 KN-MET Tcs= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

412 495X 300X 300 11321

3#12 H 243. 0. TO 477

3#12 H 57. 0. TO 500

3#12 000

3#12 000

3#12 000

3#12 000

3#12 000

3#12 000

END INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1308

BEAM NO. 689 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS
 LEVEL HEIGHT BAR INFO FROM TO ANCHOR
 (MM) (MM) STA END
 1 243. 3 - 12MM 0. 500. YES YES

BEAM NO. 689 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vm= 0.12 KNS Vc= 54.69 KNS Vm= 0.00 KNS
 Ts= 1.52 KN-MET Tcs= 1.9 KN-MET Tcs= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vm= 0.39 KNS Vc= 54.69 KNS Vm= 0.00 KNS
 Ts= 1.52 KN-MET Tcs= 1.9 KN-MET Tcs= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

412 495X 300X 300 10361

3#12 H 243. 0. TO 500

3#12 000

3#12 000

3#12 000

3#12 000

END INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1309

BEAM NO. 803 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS
 LEVEL HEIGHT BAR INFO FROM TO ANCHOR
 (MM) (MM) STA END
 1 57. 3 - 12MM 0. 500. YES YES

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3 243. 3 - 12mm 0. 500. YES YES

BEAM NO. 803 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_{UH} 0.07 KNS V_{CL} 54.86 KNS V_{SL} 0.00 KNS
 T_{UH} 0.13 KN-MET T_{CL} 1.9 KN-MET T_{SL} 0.0 KN-MET LOAD 38
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - V_{UH} 0.01 KNS V_{CL} 54.86 KNS V_{SL} 0.00 KNS
 T_{UH} 0.13 KN-MET T_{CL} 1.9 KN-MET T_{SL} 0.0 KN-MET LOAD 38
 STIRRUPS ARE NOT REQUIRED.

1523	500x 300x 300	1533
3No12 H 243. 0.70 500		
3No12 H 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1330

BEAM NO. 805 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN -	500. MM	FY -	412. MPa	SIZE -	300. x 300. MM
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	17.	3 - 12mm	0.	500.	YES YES
2	243.	3 - 12mm	0.	500.	YES YES

BEAM NO. 805 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_{UH} 0.01 KNS V_{CL} 54.75 KNS V_{SL} 0.00 KNS
 T_{UH} 0.45 KN-MET T_{CL} 1.9 KN-MET T_{SL} 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - V_{UH} 0.01 KNS V_{CL} 54.75 KNS V_{SL} 0.00 KNS
 T_{UH} 0.45 KN-MET T_{CL} 1.9 KN-MET T_{SL} 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

1533	500x 300x 300	1543
3No12 H 243. 0.70 500		
3No12 H 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

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DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 807 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 807 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.01$ KNS $V_c = 54.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.65$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.09$ KNS $V_c = 54.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.65$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

1543 500X 300X 300 1551

3No12 H 243. 0.TO 500
3No12 H 57. 0.TO 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DIP IMPORT OF 3D TRAMPA CARL.DWG

-- PAGE NO. 1112

BEAM NO. 809 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 809 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.10$ KNS $V_c = 54.68$ KNS $V_s = 0.00$ KNS
 $T_u = 1.01$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.18$ KNS $V_c = 54.68$ KNS $V_s = 0.00$ KNS
 $T_u = 1.01$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

1553 500X 300X 300 1561

3No12 H 243. 0.TO 500
3No12 H 57. 0.TO 500

DISEÑO DE VIGAS Y COLUMNAS.dwg

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 811 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 811 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.39 KNS Vc= 54.77 KNS Vs= 0.00 KNS
 Tu= 1.90 KN-MET Tc= 1.9 KN-MET Ts= 2.3 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.2.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.MM.

AT END SUPPORT - Vu= 0.45 KNS Vc= 54.77 KNS Vs= 0.00 KNS
 Tu= 1.90 KN-MET Tc= 1.9 KN-MET Ts= 2.3 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.2.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.MM.

1563 499x 300x 300 1171

2#12 @ 243.	0.70 500	2#12 @ 106	2#12 @ 106
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3#12 000	3#12 000	3#12 000	3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 813 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 813 DESIGN RESULTS - SHEAR

DISEÑO DE VIGAS Y COLUMNAS.pdf

AT START SUPPORT - $V_u = 0.55$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.55$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL. 11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

AT END SUPPORT - $V_u = 0.54$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.55$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL. 11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

1571	499X 300X 300	1581
3#12 @ 243. 0.70 300 2#12 @ 106 2#12 @ 106		

3#12 @ 000	3#12 @ 000	3#12 @ 000	3#12 @ 000
OUT IMPORT OF 3D TRAMPA GRAL.DXF		-- PAGE NO. 1313	

BEAM NO. 815 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 250. MM FY = 412. FC = 21. MPa. SIZE = 300. X 300. MM					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	1 - 12MM	0.	250.	YES YES
2	243.	1 - 12MM	0.	250.	YES YES

BEAM NO. 815 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 815 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 815 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

1581	250X 300X 300	21773
3#12 @ 243. 0.70 250 3#12 @ 57. 0.70 250		

3#12 @ 000	3#12 @ 000	3#12 @ 000	3#12 @ 000
3#12 @ 000	3#12 @ 000	3#12 @ 000	3#12 @ 000
OUT IMPORT OF 3D TRAMPA GRAL.DXF		-- PAGE NO. 1314	

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 817 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21.
MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 817 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.50$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.13.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 506. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

AT END SUPPORT - $V_u = 0.44$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.13.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 506. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.



EXP (IMPORT OF 30 TRAMPA GAS,EXP)

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BEAM NO. 819 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21.
MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 819 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.39$ KNS $V_c = 54.69$ KNS $V_s = 0.00$ KNS
 $T_u = 1.32$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.31$ KNS $V_c = 54.69$ KNS $V_s = 0.00$ KNS
 $T_u = 1.32$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



DISEÑO DE VIGAS Y COLUMNAS.pdf

3#12 @ 243. 0.70 500

3#12 @ 243

3#12 @ 243

3#12 @ 243

3#12 @ 243

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 921 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 921 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.05$ KNS $V_c = 54.49$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.05$ KNS $V_c = 54.49$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

1603 100X 300X 300 2433

3#12 @ 243. 0.70 500

3#12 @ 243

3#12 @ 243

3#12 @ 243

3#12 @ 243

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 923 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

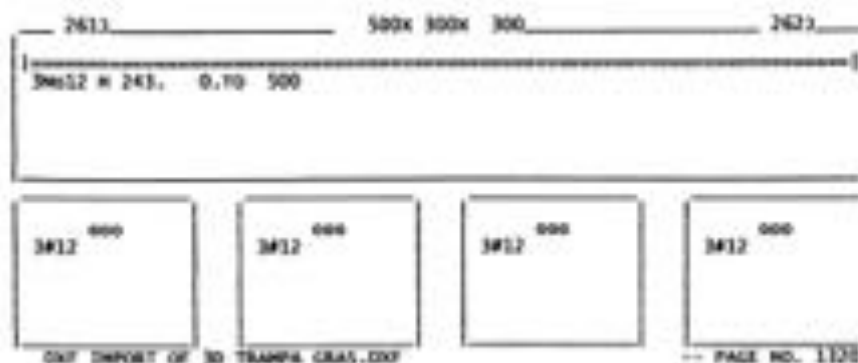
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 923 DESIGN RESULTS - SHEAR

DISEÑO DE VIGAS Y COLUMNAS.ppt

AT START SUPPORT - $V_u = 0.02$ KNS $V_c = 54.54$ KNS $V_d = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_d = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.10$ KNS $V_c = 54.54$ KNS $V_d = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_d = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



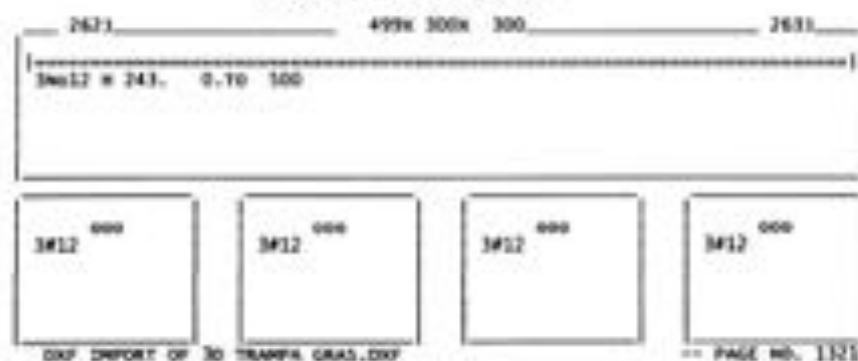
BEAM NO. 925 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412, FC = 21, MPA, SIZE = 300, X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243,	3 - 12MM	0.	500.	YES YES

BEAM NO. 925 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.02$ KNS $V_c = 54.83$ KNS $V_d = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_d = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.06$ KNS $V_c = 54.83$ KNS $V_d = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_d = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.



BEAM NO. 927 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412, FC = 21, MPA, SIZE = 300, X 300. MMS

LEVEL	HEIGHT	BAR INFO	FROM	TO	ANCHOR

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		DISEÑO DE VIGAS Y COLUMNAS.dxf		STA END	
(MM)	(MM)	(MM)	(MM)		
1	57.	1 - 12MM	0.	500.	YES YES
2	243.	1 - 12MM	0.	500.	YES YES

BEAM NO. 927 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 7.53$ KNS $V_c = 97.46$ KNS $V_{u/c} = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_{u/c} = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

AT END SUPPORT - $V_u = 7.46$ KNS $V_c = 97.46$ KNS $V_{u/c} = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_{u/c} = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

2633	500X 300X 300	2643
3#12 @ 143.	0.70 500	2#12 @ 106
2#12 @ 106		
3#12 @ 57.	0.70 500	

3#12 @ 143	3#12 @ 143	3#12 @ 143	3#12 @ 143
3#12 @ 106	3#12 @ 106	3#12 @ 106	3#12 @ 106
3#12 @ 57	3#12 @ 57	3#12 @ 57	3#12 @ 57

EXP INPUT OF 3D TRAMPA GRAS EXP

-- PAGE NO. 1172

BEAM NO. 929 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FF =	432.	FC =	21.
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	1 - 12MM	0.	500.	YES YES
2	243.	1 - 12MM	0.	500.	YES YES

BEAM NO. 929 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 7.46$ KNS $V_c = 97.46$ KNS $V_{u/c} = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_{u/c} = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

AT END SUPPORT - $V_u = 7.53$ KNS $V_c = 97.46$ KNS $V_{u/c} = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_{u/c} = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

2643	499X 300X 300	2651
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DISEÑO DE VIGAS Y COLUMNAS.pdf

Barra 12 # 243.	0.70	500	2*12c/c106
2*12c/c106	1		
Barra 12 # 57.	0.70	500	

Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12
Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12
Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12

DIF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1323

BEAM NO. 933 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21. MPA, SIZE = 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 933 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.06 KNS Vc= 54.83 KNS Vs= 0.00 KNS
 Tu= 1.65 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD = 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.02 KNS Vc= 54.83 KNS Vs= 0.00 KNS
 Tu= 1.65 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD = 10
 STIRRUPS ARE NOT REQUIRED.

2433	499X 300X 300	2663
Barra 12 # 243.	0.70	500

Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12
Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12
Barra 12 # 12	Barra 12 # 12	Barra 12 # 12	Barra 12 # 12

DIF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1324

BEAM NO. 933 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21. MPA, SIZE = 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 933 DESIGN RESULTS - SHEAR

DISEÑO DE VIGAS Y COLUMNAS.pdf

AT START SUPPORT - Vu= 0.10 KNS Vc= 54.54 KNS Vs= 0.00 KNS
 Tu= 0.74 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.02 KNS Vc= 54.54 KNS Vs= 0.00 KNS
 Tu= 0.74 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

2661 500X 300X 300 2671

3#12 H 243, 0 TO 300

3#12 000

3#12 000

3#12 000

3#12 000

DNF IMPORT OF 30 TRAMPA GRAS.DNF

-- PAGE NO. 1175

BEAM NO. 935 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 432. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
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1	243.	3 - 12MM	0.	300.	YES YES
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BEAM NO. 935 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.03 KNS Vc= 54.49 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.05 KNS Vc= 54.49 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

2671 400X 300X 300 2681

3#12 H 243, 0 TO 300

3#12 000

3#12 000

3#12 000

3#12 000

DNF IMPORT OF 30 TRAMPA GRAS.DNF

-- PAGE NO. 1176

BEAM NO. 937 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 432. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT	BAR INFO	FROM	TO	ANCHOR
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(MM)	DISEÑO DE VIGAS Y COLUMNAS.dxf				STA	END
	(MM)	(MM)	(MM)	(MM)		
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 937 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.07$ KNS $V_c = 34.53$ KNS $V_s = 0.00$ KNS
 $T_u = 0.51$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.15$ KNS $V_c = 34.53$ KNS $V_s = 0.00$ KNS
 $T_u = 0.51$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

2683	500X 300X 300	412
3#12 H 243. 0 TO 500		

3#12	000	3#12	000	3#12	000	3#12	000
EXP IMPORT OF 3D TRAMPA GRAB.DXF				-- PAGE NO. 1377			

BEAM NO. 1048 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21. MPA, SIZE = 300. X 300. MM
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1048 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.44$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.13.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 306. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.
 AT END SUPPORT - $V_u = 0.50$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.13.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 306. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

3683	499X 300X 300	3693
3#12 W 243. 0 TO 500		
2*12c/c106		2*12c/c106

000	000	000	000
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3#12	3#12	3#12	3#12
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DXT INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1328

BEAM NO. 1050 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	3 - 12MM	0.	250.	YES	YES

BEAM NO. 1050 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 1050 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 1050 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

3#12	250X300X300	71011
3#12 H 243.	0.70	250
3#12 H 57.	0.70	250

3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12

DXT INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1329

BEAM NO. 1052 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12mm	0.	500.	YES	YES

BEAM NO. 1052 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.58 KNS Vu= 52.38 KNS Vs= 0.00 KNS
 Tu= 5.55 KN-MET Tc= 1.9 KN-MET Td= 7.4 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 500. MM C/C FOR 12. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

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DISEÑO DE VIGAS Y COLUMNAS.pdf

AT END SUPPORT - $V_u = 0.51$ KNS $V_c = 52.39$ KNS $V_u = 0.00$ KNS
 $T_u = 5.55$ KN-MET $T_c = 1.9$ KN-MET $T_u = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

3703		499X 300X 300		3713	
3No12 @ 243. 0.70 500					
2*12c/c106				2*12c/c106	

3#12 000

3#12 000

3#12 000

3#12 000

DXF INPUT OF 3D TRIANGULAR.DXF -- PAGE NO. 1130

BEAM NO. 1054 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM PY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1054 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.47$ KNS $V_c = 54.77$ KNS $V_u = 0.00$ KNS
 $T_u = 1.90$ KN-MET $T_c = 1.9$ KN-MET $T_u = 2.5$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

AT END SUPPORT - $V_u = 0.59$ KNS $V_c = 54.77$ KNS $V_u = 0.00$ KNS
 $T_u = 1.90$ KN-MET $T_c = 1.9$ KN-MET $T_u = 2.5$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

3713		499X 300X 300		3723	
3No12 @ 243. 0.70 500					
2*12c/c106				2*12c/c106	

3#12 000

3#12 000

3#12 000

3#12 000

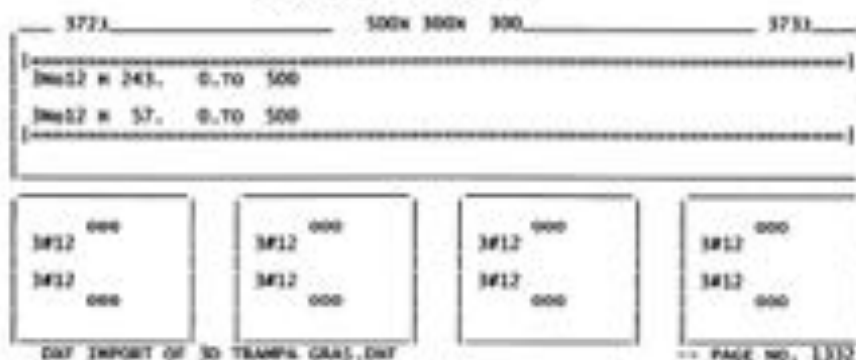
DXF INPUT OF 3D TRIANGULAR.DXF -- PAGE NO. 1131

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1056 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPa. SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1056 DESIGN RESULTS - SHEAR

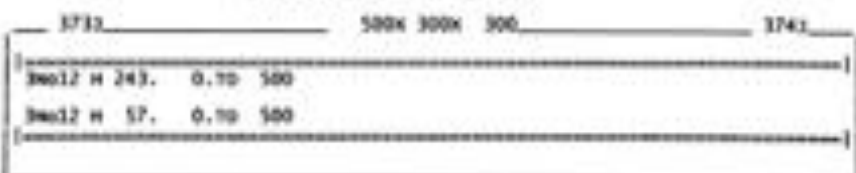
AT START SUPPORT - $V_u = 0.18$ KNS $V_c = 54.68$ KNS $V_s = 0.00$ KNS
 $T_u = 1.01$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.10$ KNS $V_c = 54.68$ KNS $V_s = 0.00$ KNS
 $T_u = 1.01$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



BEAM NO. 1058 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPa. SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1058 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.09$ KNS $V_c = 14.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.65$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.01$ KNS $V_c = 14.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.65$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



DISEÑO DE VIGAS Y COLUMNAS.pdf

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
END IMPORT OF 3D TRAMPA GRAS.DWG			-- PAGE NO. 1333

BEAM NO. 1060 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	1 - 12MM	0.	500.	YES	YES	
2	243.	1 - 12MM	0.	500.	YES	YES	

BEAM NO. 1060 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.05$ KNS $V_c = 54.75$ KNS $V_s = 0.00$ KNS
 $T_u = 0.45$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.05$ KNS $V_c = 54.75$ KNS $V_s = 0.00$ KNS
 $T_u = 0.45$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

3743	499X 300X 300	3753
Incl2 = 243. 0 TO 500		
Incl2 = 57. 0 TO 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
END IMPORT OF 3D TRAMPA GRAS.DWG			-- PAGE NO. 1334

BEAM NO. 1062 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	1 - 12MM	0.	500.	YES	YES	
2	243.	1 - 12MM	0.	500.	YES	YES	

BEAM NO. 1062 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.05$ KNS $V_c = 54.86$ KNS $V_s = 0.00$ KNS
 $T_u = 0.33$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.07$ KNS $V_c = 54.86$ KNS $V_s = 0.00$ KNS

DESIGN DE VIGAS Y COLUMNAS.dxf
 Tu= 0.53 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

3753 500x 300x 300 3763

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1335

BEAM NO. 1064 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1064 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.08 KNS Vc= 55.03 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.00 KNS Vc= 55.03 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

3763 500x 300x 300 3773

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1336

BEAM NO. 1077 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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1 57. 3 - 12mm 0. 500. YES YES
 2 243. 3 - 12mm 0. 477. YES NO
 3 243. 3 - 12mm 2. 500. NO YES

BEAM NO. 1077 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.29$ KNS $V_c = 55.03$ KNS $V_s = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.14$ KNS $V_c = 55.03$ KNS $V_s = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

3963	500x 300x 300	373
3No12 @ 243. 0.70 477		
3No12 @ 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
EXP IMPORT OF 3D TRAMPA GRAL.DXF			

-- PAGE NO. 1337

BEAM NO. 1089 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FV = 412. FC = 21. MPA, SIZE = 300. x 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12mm	0.	500.	YES YES
2	243.	3 - 12mm	0.	500.	YES YES
3	243.	3 - 12mm	0.	500.	YES YES

BEAM NO. 1089 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.36$ KNS $V_c = 55.08$ KNS $V_s = 0.00$ KNS
 $T_u = 0.43$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.36$ KNS $V_c = 55.08$ KNS $V_s = 0.00$ KNS
 $T_u = 0.43$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

4073	499x 300x 300	3963
3No12 @ 243. 0.70 500		
3No12 @ 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
EXP IMPORT OF 3D TRAMPA GRAL.DXF			

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DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1101 DESIGN RESULTS - FLEXURE PER CODE ACT 318-01

LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	250.	YES YES
2	243.	3 - 12MM	0.	250.	YES YES

BEAM NO. 1101 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 1101 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 1101 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

4181	249X 300X 300	27031
Incl H 243. 0.70 250		
Incl H 57. 0.70 250		

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

EXP IMPORT OF 30 TRAMPA GRAS.COX

-- PAGE NO. 1119

BEAM NO. 1113 DESIGN RESULTS - FLEXURE PER CODE ACT 318-01

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1113 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.30 KNS Vc= 55.14 KNS Vu= 0.00 KNS
 Tu= 0.46 KN-MET Tc= 1.9 KN-MET Tu= 0.0 KN-MET LOMO 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.23 KNS Vc= 55.14 KNS Vu= 0.00 KNS
 Tu= 0.46 KN-MET Tc= 1.9 KN-MET Tu= 0.0 KN-MET LOMO 10
 STIRRUPS ARE NOT REQUIRED.

4293	500X 300X 300	4181
Incl H 243. 0.70 500		

DISEÑO DE VIGAS Y COLUMNAS.pdf

3#12 H 57. 0.70 500

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DIF IMPORT OF 3D TRAMPA GRAS.DIF

-- PAGE NO. 1340

BEAM NO. 1125 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1125 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.25 KNS Vc= 13.12 KNS Vs= 0.00 KNS
 Tu= 0.16 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.25 KNS Vc= 13.12 KNS Vs= 0.00 KNS
 Tu= 0.16 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

4401 500X 300X 300 4291

3#12 H 243. 0.70 477

3#12 H 57. 0.70 500

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DIF IMPORT OF 3D TRAMPA GRAS.DIF

-- PAGE NO. 1341

BEAM NO. 1137 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1137 DESIGN RESULTS - SHEAR

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AT START SUPPORT - Vu= 0.25 KNS Vc= 53.71 KNS Vs= 0.00 KNS
 Tu= 0.30 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.28 KNS Vc= 53.88 KNS Vs= 0.00 KNS
 Tu= 0.30 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

4511	500X 300X 300	4401
3No12 H 243. 0.70 477		
3No12 H 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DOF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1342

BEAM NO. 1149 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	23. MPA, SIZE = 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	100.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1149 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.25 KNS Vc= 54.00 KNS Vs= 0.00 KNS
 Tu= 0.07 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.28 KNS Vc= 54.17 KNS Vs= 0.00 KNS
 Tu= 0.07 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

4621	500X 300X 300	4511
3No12 H 243. 0.70 477		
3No12 H 57. 0.70 500		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DOF IMPORT OF 3D TRAMPA GRAS.DXF

--- PAGE NO. 1343

BEAM NO. 1161 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
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DOSEÑO DE VIGAS Y COLUMNAS.dwg
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1163 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.24 KNS Vc= 54.48 KNS Vs= 0.00 KNS
Tu= 0.05 KN-MET Tcu= 1.9 KN-MET Tsv= 0.0 KN-MET LOAD 30
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - Vu= 0.29 KNS Vc= 54.92 KNS Vs= 0.00 KNS
Tu= 0.05 KN-MET Tcu= 1.9 KN-MET Tsv= 0.0 KN-MET LOAD 30
STIRRUPS ARE NOT REQUIRED.

4731	500X 300X 300	4621
3#12 H 243. 0.70 500		
3#12 H 57. 0.70 500		

3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

EXP IMPORT OF 3D TRAMPA GRAL.DWG

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BEAM NO. 1173 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1173 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.20 KNS Vc= 54.80 KNS Vs= 0.00 KNS
Tu= 0.03 KN-MET Tcu= 1.9 KN-MET Tsv= 0.0 KN-MET LOAD 30
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - Vu= 0.33 KNS Vc= 56.55 KNS Vs= 0.00 KNS
Tu= 0.03 KN-MET Tcu= 1.9 KN-MET Tsv= 0.0 KN-MET LOAD 30
STIRRUPS ARE NOT REQUIRED.

4843	500X 300X 300	4733
3#12 H 243. 0.70 500		
3#12 H 57. 0.70 500		

3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DISEÑO DE VIGAS Y COLUMNAS.pdf

3#12 000	3#12 000	3#12 000	3#12 000
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DXF INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1343

BEAM NO. 1195 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1195 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.04$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.27$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.04$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

5043 499X 300X 300 343

Rein H 243. 0. TO 477
 Rein H 57. 0. TO 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DXF INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1346

BEAM NO. 1207 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1207 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.02$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.02$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

DISEÑO DE VIGAS Y COLUMNAS.pdf

5153 500X 300X 300 5043

3#12 H 243. 0.70 477
3#12 H 57. 0.70 500

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1347

BEAM NO. 1219 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1219 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u = 0.27 KNS V_c = 55.01 KNS V_s = 0.00 KNS
 T_u = 0.09 KN-MET T_c = 3.9 KN-MET T_s = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - V_u = 0.26 KNS V_c = 55.01 KNS V_s = 0.00 KNS
 T_u = 0.09 KN-MET T_c = 3.9 KN-MET T_s = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

5163 499X 300X 300 5153

3#12 H 243. 0.70 477
3#12 H 57. 0.70 500

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1348

BEAM NO. 1231 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES

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2 243. 3 - 12MM 0. 477. YES NO
3 243. 3 - 12MM 2. 500. NO YES

BEAM NO. 1231 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.27 KNS Vc= 55.03 KNS Vd= 0.00 KNS
Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - Vu= 0.26 KNS Vc= 55.03 KNS Vd= 0.00 KNS
Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.

5371	500X 300X 300	5261
3#12 H 243. 0.70 477		
3#12 H 57. 0.70 500		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DNF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1349

BEAM NO. 1243 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1243 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.29 KNS Vc= 55.14 KNS Vd= 0.00 KNS
Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - Vu= 0.82 KNS Vc= 55.14 KNS Vd= 0.00 KNS
Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.

5483	500X 300X 300	5371
3#12 H 243. 0.70 500		
3#12 H 57. 0.70 500		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

DNF IMPORT OF 3D TRAMPA GRAS.DXF

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DISEÑO DE VIGAS Y COLUMNAS.dwt

BEAM NO. 1255 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1255 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.82 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.79 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

5593 500x 300x 300 5483

3No12 H 243. 0.70 500
3No12 H 57. 0.70 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

(EXP IMPORT OF 3D TRAMPA GRAL.DWT

-- PAGE NO. 1351

BEAM NO. 1267 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1267 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.26 KNS Vc= 55.63 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.27 KNS Vc= 55.63 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

5703 499x 300x 300 5593

3No12 H 243. 0.70 477
3No12 H 57. 0.70 500

DISEÑO DE VIGAS Y COLUMNAS.pdf

000 3#12 000 3#12 000	000 3#12 000 3#12 000	000 3#12 000 3#12 000	000 3#12 000 3#12 000
DXF IMPORT OF 3D TRAMPA GRAS.DXF			-- PAGE NO. 1312

BEAM NO. 1279 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1279 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 51.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.27$ KNS $V_c = 51.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

5811	500X 300X 300	5701
3#12 @ 243. 0.70 477		
3#12 @ 57. 0.70 500		

000 3#12 000 3#12 000	000 3#12 000 3#12 000	000 3#12 000 3#12 000	000 3#12 000 3#12 000
DXF IMPORT OF 3D TRAMPA GRAS.DXF			-- PAGE NO. 1313

BEAM NO. 1291 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1291 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 51.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.07$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10

DISEÑO DE VIGAS Y COLUMNAS.pdf

STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.36 \text{ KNS}$ $V_c = 51.03 \text{ KNS}$ $V_u = 0.00 \text{ KNS}$
 $T_u = 0.07 \text{ KN-MET}$ $T_c = 1.9 \text{ KN-MET}$ $T_u = 0.0 \text{ KN-MET}$ LOAD 10
 STIRRUPS ARE NOT REQUIRED.

5323 500x 300x 300 5833

3#12 H 243. 0.TO 477
3#12 H 57. 0.TO 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1354

BEAM NO. 1322 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM $F_y = 412.$ $F_c = 23.$ MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	1 - 12MM	0.	500.	YES	YES
2	243.	1 - 12MM	0.	500.	YES	YES

BEAM NO. 1322 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.30 \text{ KNS}$ $V_c = 54.67 \text{ KNS}$ $V_u = 0.00 \text{ KNS}$
 $T_u = 0.03 \text{ KN-MET}$ $T_c = 1.9 \text{ KN-MET}$ $T_u = 0.0 \text{ KN-MET}$ LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.22 \text{ KNS}$ $V_c = 54.03 \text{ KNS}$ $V_u = 0.00 \text{ KNS}$
 $T_u = 0.03 \text{ KN-MET}$ $T_c = 1.9 \text{ KN-MET}$ $T_u = 0.0 \text{ KN-MET}$ LOAD 10
 STIRRUPS ARE NOT REQUIRED.

6123 500x 300x 300 53

3#12 H 243. 0.TO 500
3#12 H 57. 0.TO 500

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1355

BEAM NO. 1334 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM $F_y = 412.$ $F_c = 23.$ MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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DISEÑO DE VIGAS Y COLUMNAS.pdf

1	57.	3 - 12mm	0.	500.	YES	YES
2	243.	3 - 12mm	0.	500.	YES	YES
3	243.	3 - 12mm	0.	500.	YES	YES

BEAM NO. 1334 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.33$ KNS $V_c = 56.55$ KNS $V_s = 0.00$ KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.20$ KNS $V_c = 54.80$ KNS $V_s = 0.00$ KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

6232	499X 300X 300	6123
Reinforcement Details:		
Reinforcement H 243. 0.70 500		
Reinforcement H 57. 0.70 500		

000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

DXF EXPORT OF 3D TRAMPA GRAS.DXF

PAGE NO. 1356

BEAM NO. 1346 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12mm	0.	500.	YES	YES
2	243.	3 - 12mm	0.	500.	YES	YES
3	243.	3 - 12mm	0.	500.	YES	YES

BEAM NO. 1346 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.29$ KNS $V_c = 54.92$ KNS $V_s = 0.00$ KNS
 $T_u = 0.05$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.24$ KNS $V_c = 54.48$ KNS $V_s = 0.00$ KNS
 $T_u = 0.05$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

6341	499X 300X 300	6233
Reinforcement Details:		
Reinforcement H 243. 0.70 500		
Reinforcement H 57. 0.70 500		

000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

BEAM NO. 1358 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	1 - 12MM	0.	500.	YES	YES
2	243.	1 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1358 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.28$ KNS $V_c = 54.17$ KNS $V_s = 0.00$ KNS
 $T_u = 0.07$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.25$ KNS $V_c = 54.00$ KNS $V_s = 0.00$ KNS
 $T_u = 0.07$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

6413 500X 300X 300 6341

Rein H 243. 0 TO 500
Rein H 57. 0 TO 500

000	000	000	000
1#12	1#12	1#12	1#12
000	000	000	000

COF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1358

BEAM NO. 1370 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	1 - 12MM	0.	500.	YES	YES
2	243.	1 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1370 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.28$ KNS $V_c = 53.88$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.21$ KNS $V_c = 53.75$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

6163 499X 300X 300 6413

Rein H 243. 0 TO 500

DISEÑO DE VIGAS Y COLUMNAS.pdf

3#12 H 57. 0. TO 500

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DXT IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1359

BEAM NO. 1382 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1382 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.29$ KNS $V_c = 55.12$ KNS $V_u = 0.00$ KNS
 $T_u = 0.56$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 3D
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.21$ KNS $V_c = 55.12$ KNS $V_u = 0.00$ KNS
 $T_u = 0.56$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 3D
 STIRRUPS ARE NOT REQUIRED.

6671 500X 300X 300 6562

3#12 H 243. 0. TO 500

3#12 H 57. 0. TO 500

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DXT IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 1384 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1394 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.23 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.46 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.30 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.46 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

6781	499X 300X 300	6671
3#12 H 243. 0.70 300		
3#12 H 57. 0.70 300		

3#12 000 3#12 000	3#12 000 3#12 000	3#12 000 3#12 000	3#12 000 3#12 000
DXF IMPORT OF 3D TRAMPA GRAS.DXF		-- PAGE NO. 1363	

BEAM NO. 1406 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	3 - 12MM	0.	250.	YES	YES	
2	243.	3 - 12MM	0.	250.	YES	YES	

BEAM NO. 1406 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 1406 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 1406 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

6893	249X 300X 300	22363
3#12 H 243. 0.70 250		
3#12 H 57. 0.70 250		

3#12 000 3#12 000	3#12 000 3#12 000	3#12 000 3#12 000	3#12 000 3#12 000
DXF IMPORT OF 3D TRAMPA GRAS.DXF		-- PAGE NO. 1362	

DISEÑO DE VIGAS Y COLUMNAS.pdf
 BEAM NO. 1418 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1418 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.16 KNS Vc= 55.08 KNS Vu= 0.00 KNS
 Tu= 0.43 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.16 KNS Vc= 55.08 KNS Vu= 0.00 KNS
 Tu= 0.43 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

7001 500X 300X 300 6892

Rein12 n 243. 0.70 500
Rein12 n 57. 0.70 500

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END INPUT OF 30 TRAMPA GRAS.IND

-- PAGE NO. 1343

BEAM NO. 1529 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1529 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.07 KNS Vc= 54.86 KNS Vu= 0.00 KNS
 Tu= 0.33 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.01 KNS Vc= 54.86 KNS Vu= 0.00 KNS
 Tu= 0.33 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

8001 500X 300X 300 8023

Rein12 n 243. 0.70 500
Rein12 n 57. 0.70 500

000	000	000	000
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3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DESIGN DE VIGAS Y COLUMNAS.dwg

DXF IMPORT OF 3D TRAMPA GRAS.DWG

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BEAM NO. 1532 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 432. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1532 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.03$ KNS $V_c = 14.71$ KNS $V_s = 0.00$ KNS
 $T_u = 0.41$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.01$ KNS $V_c = 14.71$ KNS $V_s = 0.00$ KNS
 $T_u = 0.41$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

8011	500X 300X 300	8021
3#12 H 243, 0.70	500	
3#12 H 57, 0.70	500	

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3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DXF IMPORT OF 3D TRAMPA GRAS.DWG

--- PAGE NO. 1365

BEAM NO. 1533 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 432. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1533 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.01$ KNS $V_c = 14.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.41$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.09$ KNS $V_c = 14.69$ KNS $V_s = 0.00$ KNS
 $T_u = 0.41$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

DISEÑO DE VIGAS Y COLUMNAS.dxf

8033 500X 300X 300 8033

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

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3#12
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3#12
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3#12
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3#12
000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1366

BEAM NO. 1535 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1535 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.00 KNS Vc= 54.68 KNS Vs= 0.00 KNS
 Tu= 1.00 KN-MET Tc= 1.9 KN-MET Ft= 0.0 KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.00 KNS Vc= 54.68 KNS Vs= 0.00 KNS
 Tu= 1.00 KN-MET Tc= 1.9 KN-MET Ft= 0.0 KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

8033 500X 300X 300 8043

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

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3#12
000

000
3#12
000

000
3#12
000

000
3#12
000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1367

BEAM NO. 1537 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1537 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.39$ KNS $V_c = 54.77$ KNS $V_u = 0.00$ KNS
 $T_u = 1.90$ KN-MET $T_c = 1.9$ KN-MET $T_u = 2.5$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

AT END SUPPORT - $V_u = 0.45$ KNS $V_c = 54.77$ KNS $V_u = 0.00$ KNS
 $T_u = 1.90$ KN-MET $T_c = 1.9$ KN-MET $T_u = 2.5$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

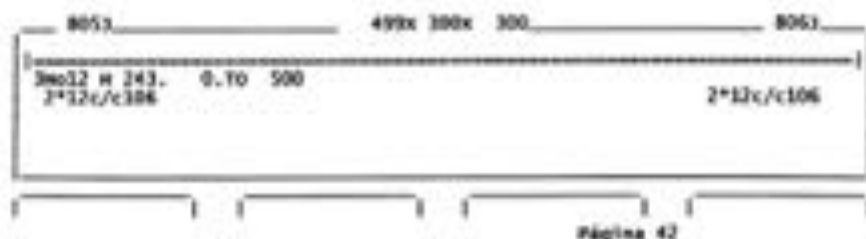


BEAM NO. 1539 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 23. MPA. SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1539 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.51$ KNS $V_c = 52.39$ KNS $V_u = 0.00$ KNS
 $T_u = 5.55$ KN-MET $T_c = 1.9$ KN-MET $T_u = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

AT END SUPPORT - $V_u = 0.58$ KNS $V_c = 52.39$ KNS $V_u = 0.00$ KNS
 $T_u = 5.55$ KN-MET $T_c = 1.9$ KN-MET $T_u = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.



BEAM NO. 2141 DESIGN RESULTS - FLEXURE PER CODE ACI 318-01					
LEN = 250. MM PY = 432. KC = 21. MPa, SIZE = 300. X 300. MM					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	37.	1 - 12MM	0.	250.	YES YES
2	241.	1 - 12MM	0.	250.	YES YES

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** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER [14] IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

⁴⁴ LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER [54] IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

Model	250w	500w	900	7200r
Max32 = 243.	0.70	250		
Max32 = 57.	0.70	250		

[illegible]

BEAM NO. 1543 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. mm FY = 412. MPa FC = 21. MPa SIZE = 300. x 300. mm					
LEVEL	HEIGHT (mm)	BAR INFO	FROM (mm)	TO (mm)	ANCHOR STA END
1	241.	3 - 12mm	0.	500.	YES YES

BEAM NO. 1543 DESIGN RESULTS - 1984A

AT START SUPPORT - V_{max} 0.10 KNS V_{min} 57.39 KNS V_{avg} 0.00 KNS
 T_{max} 5.12 KN-MET T_{min} 3.8 KN-MET T_{avg} 7.8 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL 17.5.3.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM
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ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

AT END SUPPORT - $V_u = 0.44$ KNS $V_c = 52.39$ KNS $V_u = 0.00$ KNS $T_u = 5.22$ KN-MET $T_c = 1.9$ KN-MET $T_u = 7.0$ KN-MET LOAD 11

STIRRUPS ARE REQUIRED FOR TORSION.

REINFORCEMENT FOR SHEAR IS PER CL.11.5.5-1.

PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM

ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

8071	300x 300x 300	8081
2No12 H 243. 0 TO 500 2*12c/c306		

3#12	3#12	3#12	3#12
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EXP EXPORT OF 3D TRAMPA GAS.DXF

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BEAM NO. 1545 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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1	243.	3 - 12MM	0.	500.	YES	YES
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BEAM NO. 1545 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.39$ KNS $V_c = 34.69$ KNS $V_u = 0.00$ KNS $T_u = 1.32$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10

STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.11$ KNS $V_c = 34.69$ KNS $V_u = 0.00$ KNS $T_u = 1.32$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10

STIRRUPS ARE NOT REQUIRED.

8081	300x 300x 300	390
2No12 H 243. 0 TO 500		

3#12	3#12	3#12	3#12
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EXP EXPORT OF 3D TRAMPA GAS.DXF

-- PAGE NO. 1372

BEAM NO. 1647 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

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LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1647 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.05$ KNS $V_c = 14.49$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.03$ KNS $V_c = 14.49$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9081 500X 300X 300 9093

20x12 H 243. 0.70 100

3#12 000

3#12 000

3#12 000

3#12 000

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BEAM NO. 1649 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN - 500. MM $F_y = 412$. $F_c = 21$. MPa. SIZE - 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1649 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.02$ KNS $V_c = 14.54$ KNS $V_s = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.03$ KNS $V_c = 14.54$ KNS $V_s = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9093 500X 300X 300 9093

20x12 H 243. 0.70 500

3#12 000

3#12 000

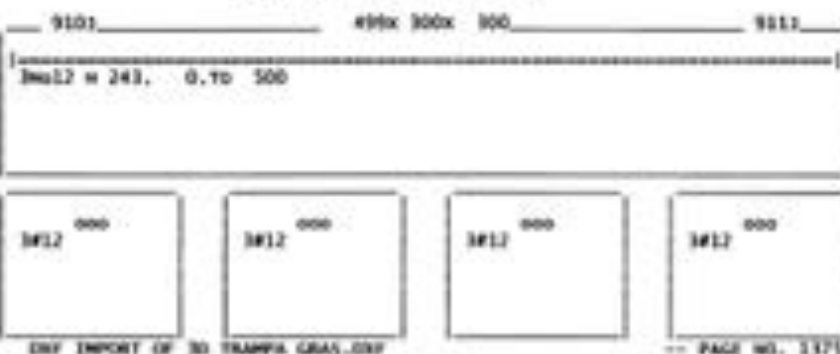
3#12 000

3#12 000

BEAM NO. 1651 DESIGN RESULTS - FLEXURE PER CODE ACT 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1651 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.02$ KNS $V_c = 14.83$ KNS $V_s = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.06$ KNS $V_c = 14.83$ KNS $V_s = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



BEAM NO. 1653 DESIGN RESULTS - FLEXURE PER CODE ACT 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1653 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 7.53$ KNS $V_c = 97.46$ KNS $V_s = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_s = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.MM.
 AT END SUPPORT - $V_u = 7.46$ KNS $V_c = 97.46$ KNS $V_s = 0.00$ KNS
 $T_u = 7.75$ KN-MET $T_c = 2.0$ KN-MET $T_s = 10.3$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 14. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.MM.

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9112 500x 300x 300 9121

3#12 H 243. 0.70 500	2*12c/c106
2*12c/c106 1	
3#12 H 57. 0.70 500	

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

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BEAM NO. 1655 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1655 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 7.46 KNS Vc= 97.46 KNS Vd= 0.00 KNS
 Tu= 7.75 KN-MET Tc= 2.0 KN-MET Ts= 10.3 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.3.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 11. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

AT END SUPPORT - Vu= 7.13 KNS Vc= 97.46 KNS Vd= 0.00 KNS
 Tu= 7.75 KN-MET Tc= 2.0 KN-MET Ts= 10.3 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.3.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 11. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.79 SQ.CM.

9171 499x 300x 300 9172

3#12 H 243. 0.70 500	2*12c/c106
2*12c/c106 1	
3#12 H 57. 0.70 500	

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

3#12 000
3#12 000

EXP IMPORT OF 3D TRAMPA GRAL.DXF -- PAGE NO. 1377

BEAM NO. 1657 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

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LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1657 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.06$ KNS $V_c = 54.83$ KNS $V_s = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.02$ KNS $V_c = 54.83$ KNS $V_s = 0.00$ KNS
 $T_u = 1.69$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9133	499K 300K 300	9143
Beam 1657 = 243. 0.70 500		

1#12 000	1#12 000	1#12 000	1#12 000
EXP IMPORT OF 3D TRAMPA GRAS.DWG		-- PAGE NO. 1178	

BEAM NO. 1659 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN =	500. MM	FY =	412.	FC =	21.	MPA, SIZE =	300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END		
1	243.	3 - 12MM	0.	500.	YES YES		

BEAM NO. 1659 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.20$ KNS $V_c = 54.54$ KNS $V_s = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.02$ KNS $V_c = 54.54$ KNS $V_s = 0.00$ KNS
 $T_u = 0.74$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9143	500K 300K 300	9153
Beam 1659 = 243. 0.70 500		

1#12 000	1#12 000	1#12 000	1#12 000
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BEAM NO. 1661 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM Fy = 412, Fc = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1661 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.03 KNS Vc= 54.49 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.03 KNS Vc= 54.49 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9153 499X 300X 300 9161

3no12 @ 243. 0 TO 500

3#12 @ 000

3#12 @ 000

3#12 @ 000

3#12 @ 000

BEAM NO. 1663 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM Fy = 412, Fc = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1663 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.07 KNS Vc= 54.53 KNS Vs= 0.00 KNS
 Tu= 0.11 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.07 KNS Vc= 54.53 KNS Vs= 0.00 KNS
 Tu= 0.11 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

9163 500X 300X 300 9171

3no12 @ 243. 0 TO 500

000 3#12	000 3#12	000 3#12	000 3#12
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DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1381

BEAM NO. 1774 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412, FC = 21, MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1774 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.44$ KNS $V_c = 52.35$ KNS $V_s = 0.00$ KNS
 $T_u = 3.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 306. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

AT END SUPPORT - $V_u = 0.50$ KNS $V_c = 52.35$ KNS $V_s = 0.00$ KNS
 $T_u = 3.22$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.0$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 306. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 1.88 SQ.CM.

30562 499x 300x 300 30171

3#12 H 243. 0.70 500 2*12c/c306	2*12c/c306
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000 3#12	000 3#12	000 3#12	000 3#12
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DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1382

BEAM NO. 1775 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 250. MM FY = 412, FC = 21, MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	3 - 12MM	0.	250.	YES	YES

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1776 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 1776 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 1776 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

10172	250x 300x 300	22021
12m12 H 243. 0.70 250		
12m12 H 17. 0.70 250		

000	000	000	000
12m12	12m12	12m12	12m12
000	000	000	000

OUT IMPORT OF 30 TRAMPA GARS.CXX

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BEAM NO. 1776 DESIGN RESULTS - FLEXURE PER CODE ACI 318-01

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	243.	1 - 12MM	0.	500.	YES	YES

BEAM NO. 1776 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.58$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.15$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 11. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

AT END SUPPORT - $V_u = 0.51$ KNS $V_c = 52.39$ KNS $V_s = 0.00$ KNS
 $T_u = 5.15$ KN-MET $T_c = 1.9$ KN-MET $T_s = 7.4$ KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL.11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 11. MM
 ADDITIONAL LONGITUDINAL STEEL REQD. FOR TORSIONAL RESISTANCE = 2.00 SQ.CM.

10181	499x 300x 300	10191
12m12 H 243. 0.70 500		
2*12c/c306		

000	000	000	000
12m12	12m12	12m12	12m12

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DESIGN DE VEGAS Y COLUMNAS.dwt
 DWF IMPORT OF 3D TRAMPA GRAS.DWT -- PAGE NO. 1384

BEAM NO. 1780 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1780 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.45 KNS Vc= 54.77 KNS Vs= 0.00 KNS
 Tu= 1.90 KN-MET Tc= 1.9 KN-MET Ts= 2.5 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL-11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQB. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

AT END SUPPORT - Vu= 0.39 KNS Vc= 54.77 KNS Vs= 0.00 KNS
 Tu= 1.90 KN-MET Tc= 1.9 KN-MET Ts= 2.5 KN-MET LOAD 11
 STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT FOR SHEAR IS PER CL-11.5.5.1.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 106. MM C/C FOR 13. MM
 ADDITIONAL LONGITUDINAL STEEL REQB. FOR TORSIONAL RESISTANCE = 0.68 SQ.CM.

10091	499x 300x 300	10201
Dwg12 H 243. 0.70 500 2*12c/c106		
2*12c/c106		

10091	499x 300x 300	10201
10091	499x 300x 300	10201
10091	499x 300x 300	10201
10091	499x 300x 300	10201

DWF IMPORT OF 3D TRAMPA GRAS.DWT -- PAGE NO. 1381

BEAM NO. 1782 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	100.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1782 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.28 KNS Vc= 54.68 KNS Vs= 0.00 KNS
 Tu= 1.01 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.10 KNS Vc= 54.68 KNS Vs= 0.00 KNS
 Tu= 1.01 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10

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STIRRUPS ARE NOT REQUIRED.

10203	500X 300X 300	10213
3#12 @ 243, 0.70 300		
3#12 @ 57, 0.70 300		

3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57
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EXP. IMPORT OF 30 TRAMPA GRAS.EXP

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BEAM NO. 1784 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412, FC = 21, MPA, SIZE = 300. X 300. MM					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57, 243,	3 - 12MM	0,	500,	YES YES
		3 - 12MM	0,	500,	YES YES

BEAM NO. 1784 DESIGN RESULTS - SHEAR					
AT START SUPPORT - Vu= 0.09 KNS Vc= 14.69 KNS Vs= 0.00 KNS					
Tu= 0.65 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10					
STIRRUPS ARE NOT REQUIRED.					
AT END SUPPORT - Vu= 0.01 KNS Vc= 14.69 KNS Vs= 0.00 KNS					
Tu= 0.65 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10					
STIRRUPS ARE NOT REQUIRED.					

10213	500X 300X 300	10223
3#12 @ 243, 0.70 300		
3#12 @ 57, 0.70 300		

3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57	3#12 @ 243 3#12 @ 57
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EXP. IMPORT OF 30 TRAMPA GRAS.EXP

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BEAM NO. 1785 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM FY = 412, FC = 21, MPA, SIZE = 300. X 300. MM					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57,	3 - 12MM	0,	500,	YES YES

2 243. 3 - 12MM DISEÑO DE VIGAS Y COLUMNAS.pdf
0. 500. YES YES

BEAM NO. 1786 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u= 0.01 KNS V_c= 54.75 KNS V_s= 0.00 KNS
T_u= 0.45 KN-MET T_c= 1.9 KN-MET T_s= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - V_u= 0.01 KNS V_c= 54.75 KNS V_s= 0.00 KNS
T_u= 0.45 KN-MET T_c= 1.9 KN-MET T_s= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.

10233 495X 300X 300 10233

3#12 @ 243. 0 TO 500
3#12 @ 57. 0 TO 500

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 1788 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 500. MM F _y = 412. F _c = 21. MPa. SIZE = 300. X 300. MM					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1st	57.	3 - 12MM	0.	500.	YES YES
2nd	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1788 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u= 0.01 KNS V_c= 54.86 KNS V_s= 0.00 KNS
T_u= 0.13 KN-MET T_c= 1.9 KN-MET T_s= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.
AT END SUPPORT - V_u= 0.07 KNS V_c= 54.86 KNS V_s= 0.00 KNS
T_u= 0.13 KN-MET T_c= 1.9 KN-MET T_s= 0.0 KN-MET LOAD 10
STIRRUPS ARE NOT REQUIRED.

10233 500X 300X 300 10243

3#12 @ 243. 0 TO 500
3#12 @ 57. 0 TO 500

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

3#12 @ 000
3#12 @ 000

DXF IMPORT OF 3D TRAMPA GRAS.DXF

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DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1790 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1790 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.08$ KNS $V_c = 55.03$ KNS $V_s = 0.00$ KNS
 $T_u = 0.19$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.00$ KNS $V_c = 55.03$ KNS $V_s = 0.00$ KNS
 $T_u = 0.19$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

10243 500X 300X 300 81

3no12 H 243. 0.TO 500
3no12 H 57. 0.TO 500

3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DNF IMPORT OF 3D TRAMPA GRAL.DXF

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BEAM NO. 1892 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1892 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.30$ KNS $V_c = 54.62$ KNS $V_s = 0.00$ KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.22$ KNS $V_c = 54.03$ KNS $V_s = 0.00$ KNS
 $T_u = 0.03$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.

11243 500X 300X 300 81

3no12 H 243. 0.TO 500
3no12 H 57. 0.TO 500

000 3#12 3#12 000	000 3#12 3#12 000	000 3#12 3#12 000	000 3#12 3#12 000
DIF IMPORT OF 3D TRAMPA GRAS.DXF		DESIGN DE VIGAS Y COLUMNAS.pdf	
		-- PAGE NO. 1191	

BEAM NO. 1894 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM PY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1894 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.33 KNS Vc= 56.55 KNS Vs= 0.00 KNS
 Tu= 0.03 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.20 KNS Vc= 54.80 KNS Vs= 0.00 KNS
 Tu= 0.03 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11213	499X 300X 300	11241
3#12 @ 243. 0 TO 500		
3#12 @ 57. 0 TO 500		

000 3#12 3#12 000	000 3#12 3#12 000	000 3#12 3#12 000	000 3#12 3#12 000
DIF IMPORT OF 3D TRAMPA GRAS.DXF		-- PAGE NO. 1192	

BEAM NO. 1896 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 300. MM PY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	300.	YES	YES
2	243.	3 - 12MM	0.	300.	YES	YES
3	243.	3 - 12MM	0.	300.	YES	YES

BEAM NO. 1896 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.29 KNS Vc= 54.92 KNS Vs= 0.00 KNS
 Tu= 0.05 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.24 KNS Vc= 54.48 KNS Vs= 0.00 KNS

DESIGN DE VIGAS Y COLUMNAS.dxf
 T_u= 0.05 KN-MET T_u= 1.9 KN-MET T_u= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11263 499X 300X 300 11213

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1393

BEAM NO. 1898 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1898 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u= 0.28 KNS V_c= 14.17 KNS V_s= 0.00 KNS
 T_u= 0.07 KN-MET T_u= 1.9 KN-MET T_u= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - V_u= 0.25 KNS V_c= 14.00 KNS V_s= 0.00 KNS
 T_u= 0.07 KN-MET T_u= 1.9 KN-MET T_u= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11272 500X 300X 300 11263

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

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DXF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1394

BEAM NO. 1900 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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DISEÑO DE VIGAS Y COLUMNAS.pdf

1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 1900 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.38$ KNS $V_c = 59.88$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.35$ KNS $V_c = 59.71$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11281 499X 300X 300 11271

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

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DIF IMPORT OF 3D TRAMPA GRAS.DIF

-- PAGE NO. 1395

BEAM NO. 1902 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	3 - 12MM	0.	500.	YES	YES	
2	243.	3 - 12MM	0.	500.	YES	YES	
3	243.	3 - 12MM	2.	500.	NO	YES	

BEAM NO. 1902 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.29$ KNS $V_c = 15.12$ KNS $V_s = 0.00$ KNS
 $T_u = 0.16$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.23$ KNS $V_c = 15.12$ KNS $V_s = 0.00$ KNS
 $T_u = 0.16$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11291 500X 300X 300 11281

3#12 H 243. 0.70 500
3#12 H 57. 0.70 500

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DIF IMPORT OF 3D TRAMPA GRAS.DIF

-- PAGE NO. 1395

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 1904 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	500. MM	FY =	412.	FC =	21. MPA, SIZE = 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	500.	YES YES
3	243.	3 - 12MM	0.	500.	YES YES

BEAM NO. 1904 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.23$ KNS $V_c = 55.14$ KNS $V_s = 0.00$ KNS
 $T_u = 0.46$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.30$ KNS $V_c = 55.14$ KNS $V_s = 0.00$ KNS
 $T_u = 0.46$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11303	490X 300X 300	11293
3No12 H 243. 0.70 300		
3No12 H 57. 0.70 300		

3#12	000	3#12	000	3#12	000	3#12	000
3#12	000	3#12	000	3#12	000	3#12	000

EXP INPUT OF 3D TRIANGULAR GRAB.DXF

-- PAGE NO. 1397

BEAM NO. 1906 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN =	250. MM	FY =	412.	FC =	21. MPA, SIZE = 300. X 300. MMS
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	250.	YES YES
2	243.	3 - 12MM	0.	250.	YES YES

BEAM NO. 1906 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 1906 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 1906 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

11313	240X 300X 300	77373
3No12 H 243. 0.70 250		

DISEÑO DE VIGAS Y COLUMNAS.pdf

3#12 H 57. 0 TO 250

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DEF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1358

BEAM NO. 1908 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 1908 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_{up} = 0.16 KNS V_{down} = 55.08 KNS V_{av} = 0.00 KNS
 T_{up} = 0.43 KN-MET T_{down} = 1.9 KN-MET T_{av} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - V_{up} = 0.16 KNS V_{down} = 55.08 KNS V_{av} = 0.00 KNS
 T_{up} = 0.43 KN-MET T_{down} = 1.9 KN-MET T_{av} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11323 300X 300X 300 11313

3#12 H 243. 0 TO 500

3#12 H 57. 0 TO 500

3#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 0003#12 000
3#12 000

DEF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1359

BEAM NO. 2000 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
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1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

DESIGN DE VIGAS Y COLUMNAS.pdf
 BEAM NO. 2010 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.04$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.27$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.04$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12323	499X 300X 300	423
3No12 H 243. 0. TO 477		
3No12 H 57. 0. TO 500		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 30 TRAMPA GRAS.DWG

--- PAGE NO. 1400

BEAM NO. 2012 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 2012 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.02$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.02$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12333	500X 300X 300	12323
3No12 H 243. 0. TO 477		
3No12 H 57. 0. TO 500		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 30 TRAMPA GRAS.DWG

--- PAGE NO. 1401

BEAM NO. 2014 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

DISEÑO DE VIGAS Y COLUMNAS.pdf

LEN = 500. MM FY = 412. FC = 23. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	2.	500.	NO YES

BEAM NO. 2016 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.27$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.09$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12143 499X 300X 300 12153

3No12 @ 243. 0. TO 477
3No12 @ 57. 0. TO 100

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3#12	3#12	3#12	3#12
000	000	000	000

INF INFORT OF 30 TRAMPA CRAL.DXF

-- PAGE NO. 1402

BEAM NO. 2016 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 23. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	2.	500.	NO YES

BEAM NO. 2016 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.27$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.19$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.26$ KNS $V_c = 55.01$ KNS $V_s = 0.00$ KNS
 $T_u = 0.19$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12153 500X 300X 300 12143

3No12 @ 243. 0. TO 477
3No12 @ 57. 0. TO 100

000	000	000	000
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DISEÑO DE VIGAS Y COLUMNAS.dxf

3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1403

BEAM NO. 2018 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2018 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.29 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.82 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12363 500x 300x 300 12353

3#12 H 243. 0.YD 500
3#12 H 57. 0.YD 500

000	000	000	000
3#12	3#12	3#12	3#12
3#12	3#12	3#12	3#12
000	000	000	000

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1404

BEAM NO. 2020 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2020 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.82 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.29 KNS Vc= 55.14 KNS Vs= 0.00 KNS
 Tu= 0.77 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

DISEÑO DE VIGAS Y COLUMNAS.dxf

12373 500x 300x 300 12361

3no12 H 243. 0. TO 500
3no12 H 57. 0. TO 500

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3#12
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3#12
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3#12
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DXF IMPORT OF 3D TRAMPA GRAS.DXF-- PAGE NO. 1405

BEAM NO. 2022 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FV = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

BEAM NO. 2022 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.26 KNS Vc= 11.53 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 0.27 KNS Vc= 11.53 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12383 490x 300x 300 12371

3no12 H 243. 0. TO 477
3no12 H 57. 0. TO 500

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3#12
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3#12
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3#12
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000
3#12
000

DXF IMPORT OF 3D TRAMPA GRAS.DXF-- PAGE NO. 1406

BEAM NO. 2024 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FV = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO

3 243. 3 - 12MM DISEÑO DE VIGAS Y COLUMNAS.dxf 2. 500. NO YES

BEAM NO. 2024 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.26 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.27 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.09 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12393 500X 300X 300 17383

3#12 H 243. 0.70 477

3#12 H 17. 0.70 500

3#12 000 3#12 000 3#12 000 3#12 000

3#12 000 3#12 000 3#12 000 3#12 000

DXF EXPORT OF 3D TRAMPA GAAS.DXF -- PAGE NO. 1407

BEAM NO. 2026 DESIGN RESULTS - FLEXURE PER CODE ACI 318-01

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA. END
1	57.	3 - 12MM	0.	500.	YES YES
2	243.	3 - 12MM	0.	477.	YES NO
3	243.	3 - 12MM	2.	500.	NO YES

BEAM NO. 2026 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 0.26 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.02 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 0.26 KNS Vc= 55.01 KNS Vs= 0.00 KNS
 Tu= 0.02 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

12403 500X 300X 300 12393

3#12 H 243. 0.70 477

3#12 H 17. 0.70 500

3#12 000 3#12 000 3#12 000 3#12 000

3#12 000 3#12 000 3#12 000 3#12 000

DXF EXPORT OF 3D TRAMPA GAAS.DXF -- PAGE NO. 1408

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 2118 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END	
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	477.	YES	NO
3	243.	3 - 12MM	2.	500.	NO	YES

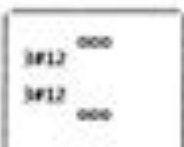
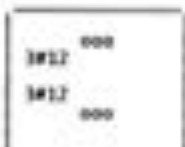
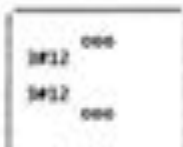
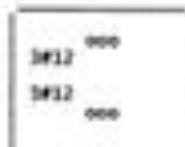
BEAM NO. 2118 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.29$ KNS $V_c = 55.03$ KNS $V_u = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.24$ KNS $V_c = 55.03$ KNS $V_u = 0.00$ KNS
 $T_u = 0.12$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11111 500X 300X 300 401

3No12 H 243. 0.70 477
3No12 H 57. 0.70 500



DOF INPUT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1409

BEAM NO. 2130 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END	
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2130 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.36$ KNS $V_c = 55.08$ KNS $V_u = 0.00$ KNS
 $T_u = 0.43$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 0.16$ KNS $V_c = 55.08$ KNS $V_u = 0.00$ KNS
 $T_u = 0.43$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

11121 499X 300X 300 11111

3No12 H 243. 0.70 500
3No12 H 57. 0.70 500

DISEÑO DE VIGAS Y COLUMNAS.pdf

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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OUT IMPORT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1430

BEAM NO. 2132 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	3 - 12MM	0.	250.	YES	YES

BEAM NO. 2132 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 2132 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 2132 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

15333	249X 300X 300	22311
3#12 H 243. 0. TO 250		
3#12 H 57. 0. TO 250		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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OUT IMPORT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1411

BEAM NO. 2134 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2134 DESIGN RESULTS - SHEAR

DISEÑO DE VIGAS Y COLUMNAS.pdf

AT START SUPPORT - $V_u = 0.30$ KNS $V_c = 55.14$ KNS $V_s = 0.00$ KNS
 $T_u = 0.46$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.23$ KNS $V_c = 55.14$ KNS $V_s = 0.00$ KNS
 $T_u = 0.46$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13343	300X 300X 300	13333

Rein H 243, 0.70 500		
Rein H 57, 0.70 500		

000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

DNF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1413

BEAM NO. 2136 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	17.	3 - 12mm	0.	500.	YES	YES
2	243.	3 - 12mm	0.	477.	YES	NO
3	243.	3 - 12mm	0.	500.	YES	YES

BEAM NO. 2136 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.23$ KNS $V_c = 55.12$ KNS $V_s = 0.00$ KNS
 $T_u = 0.16$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.29$ KNS $V_c = 55.12$ KNS $V_s = 0.00$ KNS
 $T_u = 0.16$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13353	300X 300X 300	13343

Rein H 243, 0.70 477		
Rein H 57, 0.70 500		

000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

DNF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1413

BEAM NO. 2138 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	DISEÑO DE VIGAS Y COLUMNAS.DOT		ANCHOR	
			FROM (MM)	TO (MM)	STA	END
13353	57.	3 - 12MM	0.	500.	YES	YES
	243.	3 - 12MM	0.	477.	YES	NO
	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2138 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.25$ KNS $V_c = 53.71$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.28$ KNS $V_c = 53.88$ KNS $V_s = 0.00$ KNS
 $T_u = 0.10$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13353	500X 300X 300	13353
3#12 @ 243. 0.70 477		
3#12 @ 57. 0.70 500		

3#12	3#12	3#12	3#12
000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

DOT IMPORT OF 3D TRAMPA GRAS.DOT

-- PAGE NO. 1454

BEAM NO. 2140 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 452. FC = 25. MPA. SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	
					STA	END
13371	57.	3 - 12MM	0.	500.	YES	YES
	243.	3 - 12MM	0.	477.	YES	NO
	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2140 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 0.25$ KNS $V_c = 54.00$ KNS $V_s = 0.00$ KNS
 $T_u = 0.07$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 0.28$ KNS $V_c = 54.17$ KNS $V_s = 0.00$ KNS
 $T_u = 0.07$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13371	500X 300X 300	13371
3#12 @ 243. 0.70 477		
3#12 @ 57. 0.70 500		

3#12	3#12	3#12	3#12
000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

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000	000	000	000
DIF IMPORT OF 30 TRAMPA GRAS.DIF		DESIGN DE VIGAS Y COLUMNAS.dif	
		-- PAGE NO. 1415	

BEAM NO. 2142 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2142 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u = 0.24 KNS V_c = 54.48 KNS V_{st} = 0.00 KNS
 T_u = 0.05 KN-MET T_c = 1.9 KN-MET T_{st} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - V_u = 0.25 KNS V_c = 54.57 KNS V_{st} = 0.00 KNS
 T_u = 0.05 KN-MET T_c = 1.9 KN-MET T_{st} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13381	500x 300x 300	13371	
3#12 @ 243. 0.70 500 3#12 @ 57. 0.70 500			
3#12 3#12 000	3#12 3#12 000	3#12 3#12 000	3#12 3#12 000
DIF IMPORT OF 30 TRAMPA GRAS.DIF		-- PAGE NO. 1416	

BEAM NO. 2144 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 500. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	500.	YES	YES
2	243.	3 - 12MM	0.	500.	YES	YES
3	243.	3 - 12MM	0.	500.	YES	YES

BEAM NO. 2144 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_u = 0.20 KNS V_c = 54.80 KNS V_{st} = 0.00 KNS
 T_u = 0.03 KN-MET T_c = 1.9 KN-MET T_{st} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - V_u = 0.13 KNS V_c = 56.55 KNS V_{st} = 0.00 KNS
 T_u = 0.03 KN-MET T_c = 1.9 KN-MET T_{st} = 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

13391	500x 300x 300	13381
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3#12 @ 243, 0.70 500

3#12 @ 57, 0.70 500

3#12 @
3#12 @
000

3#12 @
3#12 @
000

3#12 @
3#12 @
000

3#12 @
3#12 @
000

OKF IMPORT OF 3D TRAMPA GRAS.CXF

-- PAGE NO. 1417

BEAM NO. 3155 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 250, MM FY = 412, FC = 21, MPA, SIZE = 300, X 300, MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57,	3 - 12MM	0,	250,	YES YES
2	243,	3 - 12MM	0,	250,	YES YES

BEAM NO. 3155 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3155 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3155 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

21771 249X 300X 300 1593

3#12 @ 243, 0.70 250

3#12 @ 57, 0.70 250

3#12 @
3#12 @
000

3#12 @
3#12 @
000

3#12 @
3#12 @
000

3#12 @
3#12 @
000

OKF IMPORT OF 3D TRAMPA GRAS.CXF

-- PAGE NO. 1418

BEAM NO. 3156 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750, MM FY = 412, FC = 21, MPA, SIZE = 300, X 300, MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57,	4 - 12MM	78,	3516,	NO NO
2	241,	4 - 16MM	0,	1150,	YES NO

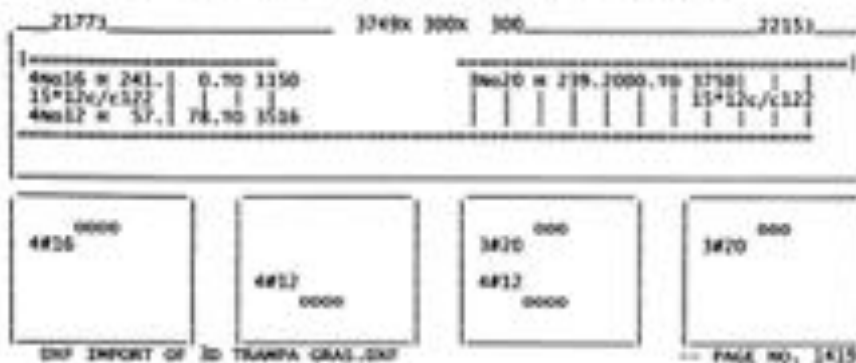
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3 239. 3 - 20MM 2000. 3750. NO YES

BEAM NO. 3156 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 86.83$ KNS $V_c = 18.23$ KNS $V_n = 57.54$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_n = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - $V_u = 96.31$ KNS $V_c = 16.56$ KNS $V_n = 71.88$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_n = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM



BEAM NO. 3177 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN - 250. MM FY - 412. FC - 21. MPA. SIZE - 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	5 - 12MM	0.	250.	YES	YES

BEAM NO. 3177 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3177 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3177 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.



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000	000	000	000

000

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BEAM NO. 3178 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	4 - 12MM	0.	3497.	YES NO
2	241.	4 - 10MM	0.	1462.	YES NO
3	241.	4 - 10MM	2112.	3750.	NO YES

BEAM NO. 3178 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 71.43$ KNS $V_c = 57.34$ KNS $V_u - V_c = 14.09$ KNS
 $T_u = 0.00$ KN-MET $T_c = 2.0$ KN-MET $T_u - T_c = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - $V_u = 78.56$ KNS $V_c = 56.44$ KNS $V_u - V_c = 22.12$ KNS
 $T_u = 0.00$ KN-MET $T_c = 2.0$ KN-MET $T_u - T_c = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

2643.	3749X 300X 300.	22711
4No16 @ 241.	0.70 1462	4No16 @ 241, 2112, 0.0 3750
15*12c/c122	1 1 1	15*12c/c122
4No12 @ 57.	0.70 3497	

0000	0000	0000	0000
4#16	4#16	4#16	4#16
4#12	4#12	4#12	4#12
0000	0000	0000	0000

000

000

BEAM NO. 3179 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	250.	YES YES
2	241.	5 - 12MM	0.	250.	YES YES

BEAM NO. 3179 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3179 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

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** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3179 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

32012	250x300x300	3701
3#12 H 243. 0.70 250		
3#12 H 57. 0.70 250		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 3D TRAMPA GRAS.DWG -- PAGE NO. 1422

BEAM NO. 3180 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS
 LEVEL HEIGHT BAR INFO FROM TO ANCHOR STA END
 (MM) (MM)

1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	3 - 12MM	0.	250.	YES	YES

BEAM NO. 3180 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3180 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3180 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

32023	250x300x300	30181
3#12 H 243. 0.70 250		
3#12 H 57. 0.70 250		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000

OUT IMPORT OF 3D TRAMPA GRAS.DWG -- PAGE NO. 1423

BEAM NO. 3181 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	DISEÑO DE VIGAS Y COLUMNAS.dwg			
			FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	4 - 12MM	78.	3536.	NO	NO
2	243.	4 - 12MM	0.	1150.	YES	NO
3	239.	3 - 20MM	2000.	3750.	NO	YES

BEAM NO. 3181 DESIGN RESULTS - SHEAR

AT START SUPPORT - V_{u1} 86.83 KNS V_{u2} 58.23 KNS V_{u3} 57.54 KNS
 T_{u1} 0.10 KN-MET T_{u2} 2.0 KN-MET T_{u3} 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - V_{u1} 96.33 KNS V_{u2} 56.56 KNS V_{u3} 71.88 KNS
 T_{u1} 0.10 KN-MET T_{u2} 2.0 KN-MET T_{u3} 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

22013	3749X 300X 300	22273
4#16 H 243.	0.70 1150	3#20 H 239.2000.70 3750
15*12C/C122		15*12C/C122
4#12 H 57.	78.70 3536	

4#16	4#12	3#20	3#20
0000	0000	0000	0000

OUT IMPORT OF 3D TRAMPA GRAS.DWG

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BEAM NO. 3182 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN - 250. MM FY - 412. FC - 21. MPA, SIZE - 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	250.	YES	YES
2	243.	3 - 12MM	0.	250.	YES	YES

BEAM NO. 3182 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3182 IS BEYOND
 THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3182 IS BEYOND
 THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

22031	250X 300X 300	4073
3#12 H 243.	0.70 250	
3#12 H 57.	0.70 250	

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000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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IMP IMPORT OF 3D TRAMPA GRAS.DWG

-- PAGE NO. 1425

BEAM NO. 3183 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES	
2	243.	3 - 12MM	0.	3750.	YES	YES	

BEAM NO. 3183 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 5.45 KNS Vc= 54.39 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 4.27 KNS Vc= 57.51 KNS Vs= 0.00 KNS
 Tu= 0.19 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

22031 3750x 300x 300 22151

3#12 H 243. 0 TO 3750
3#12 H 57. 0 TO 3750

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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IMP IMPORT OF 3D TRAMPA GRAS.DWG

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BEAM NO. 3182 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	59.	2 - 10MM	279.	3315.	NO	NO	
2	239.	3 - 20MM	0.	1781.	YES	NO	
3	239.	3 - 20MM	2313.	3750.	NO	YES	

BEAM NO. 3182 DESIGN RESULTS - SHEAR

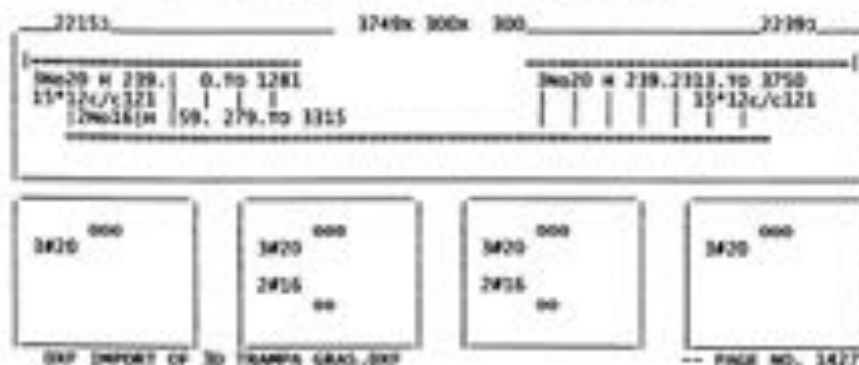
AT START SUPPORT - Vu= 92.27 KNS Vc= 55.46 KNS Vs= 67.57 KNS
 Tu= 0.01 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11

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NO STIRRUPS ARE REQUIRED FOR TORSION.
REINFORCEMENT IS REQUIRED FOR SHEAR.
PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - $V_u = 90.89$ KNS $V_c = 55.60$ KNS $V_u = 65.39$ KNS
 $T_u = 0.00$ KN-MET $T_c = 2.0$ KN-MET $T_u = 0.0$ KN-MET LOAD 11
NO STIRRUPS ARE REQUIRED FOR TORSION.
REINFORCEMENT IS REQUIRED FOR SHEAR.
PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM



BEAM NO. 3199 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

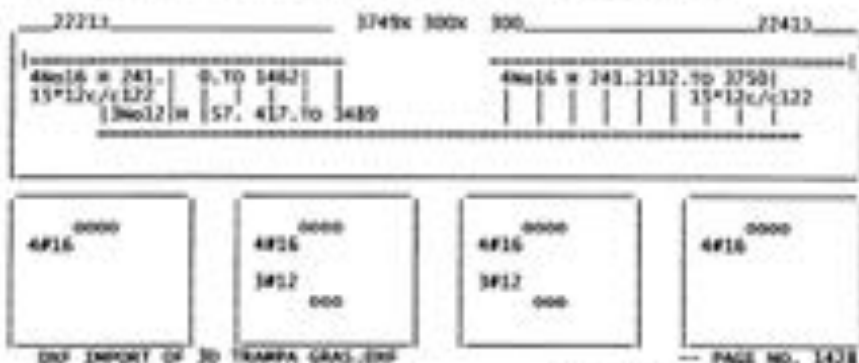
LEN - 3750. MM FY - 412. FC - 21. MPa, SIZE - 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	412.	1489.	NO	NO
2	241.	4 - 16MM	0.	1487.	YES	NO
3	241.	4 - 16MM	2132.	3750.	NO	YES

BEAM NO. 3199 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 76.28$ KNS $V_c = 55.31$ KNS $V_u = 46.40$ KNS
 $T_u = 0.00$ KN-MET $T_c = 2.0$ KN-MET $T_u = 0.0$ KN-MET LOAD 11
NO STIRRUPS ARE REQUIRED FOR TORSION.
REINFORCEMENT IS REQUIRED FOR SHEAR.
PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - $V_u = 75.51$ KNS $V_c = 55.39$ KNS $V_u = 45.29$ KNS
 $T_u = 0.00$ KN-MET $T_c = 2.0$ KN-MET $T_u = 0.0$ KN-MET LOAD 11
NO STIRRUPS ARE REQUIRED FOR TORSION.
REINFORCEMENT IS REQUIRED FOR SHEAR.
PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM



LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
2	59.	2 - 10MM	279.	3321.	NO	NO
	239.	3 - 10MM	0.	1281.	YES	NO
3	239.	3 - 10MM	2333.	3750.	NO	YES

AT END SUPPORT - $V_{max} = 90.89 \text{ KNS}$ $V_{min} = 55.60 \text{ KNS}$ $V_{avg} = 81.59 \text{ KNS}$
 $T_{top} = 0.01 \text{ KN-MET}$ $T_{bot} = 2.0 \text{ KN-MET}$ $T_{avg} = 0.9 \text{ KN-MET}$ LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 171. MM C/C FOR 1618. MM



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LEVEL	HEIGHT (mm)	BAR INFO	FROM (mm)	TO (mm)	ANCHOR STA. END
1	57.	3 - 12mm	0.	250.	YES YES
2	243.	3 - 12mm	0.	250.	YES YES

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3235 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

DISEÑO DE VIGAS Y COLUMNAS.pdf

32150	250x 300x 300	33321
3No12 @ 243. 0.70 250		
3No12 @ 17. 0.70 250		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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END INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1430

BEAM NO. 3216 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	3750.	YES YES
2	243.	3 - 12MM	0.	3750.	YES YES

BEAM NO. 3216 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 5.56$ KNS $V_c = 54.72$ KNS $V_s = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - $V_u = 4.17$ KNS $V_c = 17.51$ KNS $V_s = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

3483	3750x 300x 300	77393
3No12 @ 243. 0.70 3750		
3No12 @ 17. 0.70 3750		

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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END INPUT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1431

BEAM NO. 3217 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 250. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	250.	YES YES

2 243. 3 - 12mm DISEÑO DE VIGAS Y COLUMNAS.pdf
0. 250. YES YES

BEAM NO. 3217 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3217 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3217 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

22163	250x 300x 300	6783
3no12 H 243. 0.TO 250		
3no12 H 57. 0.TO 250		

3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000
OUT IMPORT OF 3D TRAMPA GRAS.DXF		-- PAGE NO. 1432	

BEAM NO. 3218 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 250. MM FY = 412. FC = 21. WPA, SIZE = 300. X 300. MMS					
LEVEL	HIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12mm	0.	250.	YES YES
2	243.	3 - 12mm	0.	250.	YES YES

BEAM NO. 3218 DESIGN RESULTS - SHEAR

** LOCATION FOR DESIGN FOR SHEAR AT START OF MEMBER 3218 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

** LOCATION FOR DESIGN FOR SHEAR AT END OF MEMBER 3218 IS BEYOND THE MIDPOINT OF MEMBER. DESIGN FOR SHEAR AND TORSION NOT PERFORMED.

22173	250x 300x 300	11380
3no12 H 243. 0.TO 250		
3no12 H 57. 0.TO 250		

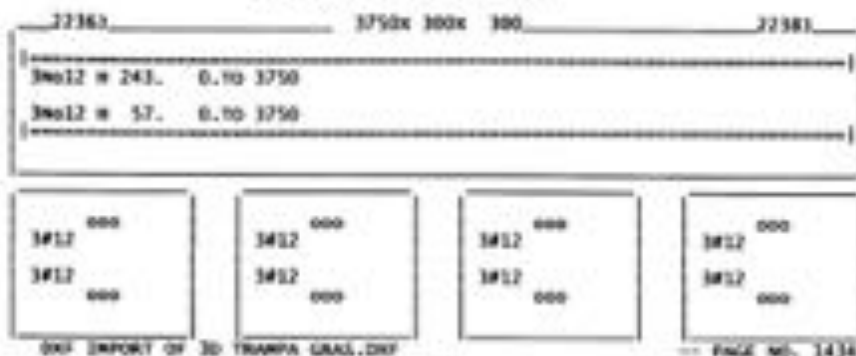
3#12 000	3#12 000	3#12 000	3#12 000
3#12 000	3#12 000	3#12 000	3#12 000
OUT IMPORT OF 3D TRAMPA GRAS.DXF		-- PAGE NO. 1433	

DISEÑO DE VIGAS Y COLUMNAS.pdf

BEAM NO. 3219 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 3750. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	3750.	YES YES
2	243.	3 - 12MM	0.	3750.	YES YES

BEAM NO. 3219 DESIGN RESULTS - SHEAR

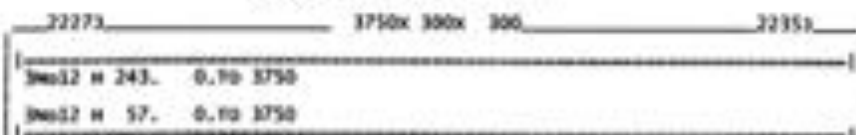
AT START SUPPORT - $V_u = 5.45$ KNS $V_c = 54.39$ KNS $V_s = 0.00$ KNS
 $T_u = 0.29$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 4.27$ KNS $V_c = 57.51$ KNS $V_s = 0.00$ KNS
 $T_u = 0.29$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.



BEAM NO. 3220 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05					
LEN = 3750. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MMS					
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END
1	57.	3 - 12MM	0.	3750.	YES YES
2	243.	3 - 12MM	0.	3750.	YES YES

BEAM NO. 3220 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 4.27$ KNS $V_c = 57.51$ KNS $V_s = 0.00$ KNS
 $T_u = 0.29$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 5.45$ KNS $V_c = 54.39$ KNS $V_s = 0.00$ KNS
 $T_u = 0.29$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 20
 STIRRUPS ARE NOT REQUIRED.



DISEÑO DE VIGAS Y COLUMNAS.dxf

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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ENT INPUT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1435

BEAM NO. 3221 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES
2	243.	3 - 12MM	0.	3750.	YES	YES

BEAM NO. 3221 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 5.27 KNS Vc= 54.47 KNS Vs= 0.00 KNS
 Tu= 0.13 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 4.46 KNS Vc= 56.00 KNS Vs= 0.00 KNS
 Tu= 0.13 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

32213 37494 300X 300 32273

3#12 H 243. 0 TO 3750
3#12 H 57. 0 TO 3750

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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ENT INPUT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1436

BEAM NO. 3222 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

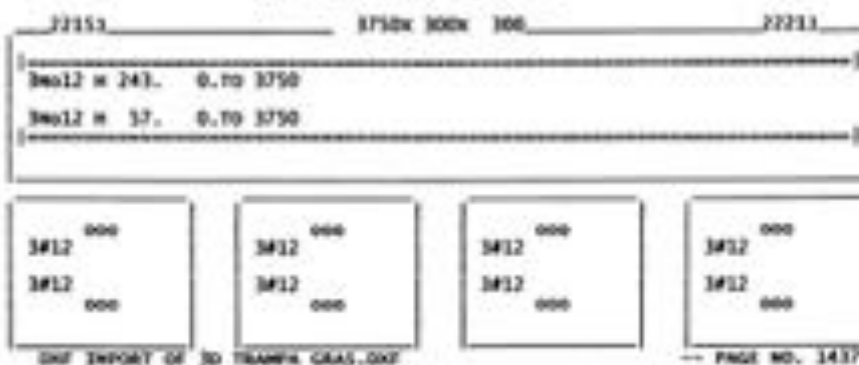
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES
2	243.	3 - 12MM	0.	3750.	YES	YES

BEAM NO. 3222 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 4.46 KNS Vc= 56.00 KNS Vs= 0.00 KNS
 Tu= 0.13 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 10
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AT END SUPPORT - $V_u = 5.27$ KNS $V_c = 54.47$ KNS $V_s = 0.00$ KNS
 $T_u = 0.13$ KN-MET $T_c = 1.9$ KN-MET $T_s = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.



BEAM NO. 3223 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

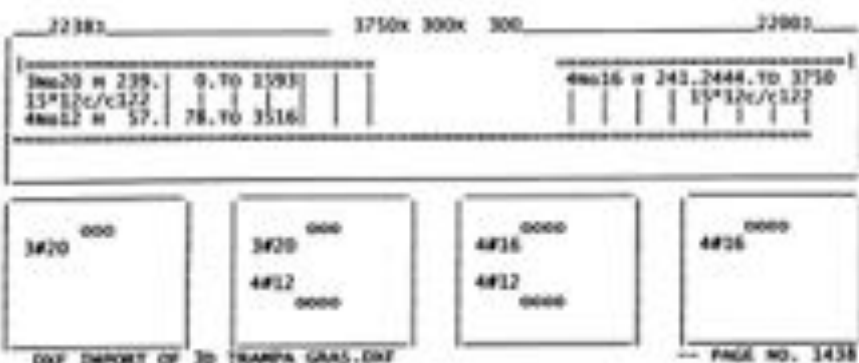
LEN = 3750. MM FY = 412. FC = 21. MPA. SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	4 - 12MM	78.	3516.	NO	NO
2	239.	3 - 20MM	0.	1593.	YES	NO
3	241.	4 - 16MM	2444.	3750.	NO	YES

BEAM NO. 3223 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 96.31$ KNS $V_c = 56.56$ KNS $V_s = 71.88$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM

AT END SUPPORT - $V_u = 86.83$ KNS $V_c = 58.23$ KNS $V_s = 57.54$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM



BEAM NO. 3224 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

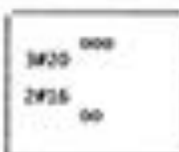
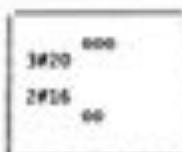
LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END	
1	59.	2 - 16MM	279.	3115.	NO	NO
2	239.	3 - 20MM	0.	1281.	YES	NO
3	239.	3 - 20MM	2313.	3750.	NO	YES

BEAM NO. 3224 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 90.89 KNS Vc= 55.60 KNS Vs= 65.59 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 121. MM C/C FOR 1638. MM

AT END SUPPORT - Vu= 92.27 KNS Vc= 55.46 KNS Vs= 67.57 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 121. MM C/C FOR 1638. MM

322393	3745H 300X 300	27383
3#20 H 239.	0.79 1281	3#20 H 239.2313.79 3750
15*12C/C/121		15*12C/C/121
12#16H	59.279.79 3115	



EXP IMPORT OF 3D TRAMPA GRAS.DWG

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BEAM NO. 3225 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05
 LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END	
1	57.	4 - 16MM	97.	3750.	NO	YES
2	241.	4 - 16MM	0.	1462.	YES	NO
3	241.	4 - 16MM	2332.	3750.	NO	YES

BEAM NO. 3225 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 78.36 KNS Vc= 56.66 KNS Vs= 48.04 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM

AT END SUPPORT - Vu= 73.43 KNS Vc= 57.34 KNS Vs= 40.37 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM

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22403 3750X 300X 300 9173

4No16 @ 241.	0.70 1462	4No16 @ 241.2132.70 3750	15*12/c/c122
15*12/c/c122	97.70 3750		

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4#16

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4#16
4#12
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4#16
4#12
0000

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4#16
4#12
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DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1440

BEAM NO. 3226 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	104.	3177.	NO	NO
2	241.	4 - 16MM	0.	1462.	YES	NO
3	241.	4 - 16MM	2132.	3750.	NO	YES

BEAM NO. 3226 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 75.53 KNS Vc= 55.39 KNS Vs= 45.29 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

AT END SUPPORT - Vu= 76.28 KNS Vc= 55.31 KNS Vs= 46.40 KNS
 Tu= 0.00 KN-MET Tc= 2.0 KN-MET Ts= 0.0 KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1638. MM

22411 3745X 300X 300 22403

4No16 @ 241.	0.70 1462	4No16 @ 241.2132.70 3750	15*12/c/c122
15*12/c/c122	104.70 3177		

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4#16

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4#16
3#12
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4#16
3#12
000

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4#16

DXF IMPORT OF 3D TRAMPA GRAS.DXF -- PAGE NO. 1441

BEAM NO. 3227 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

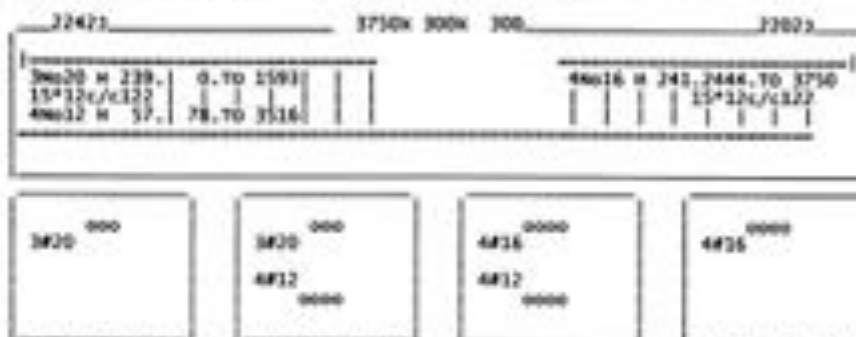
LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	DISEÑO DE VIGAS Y COLUMNAS.ppt			
			FROM (MM)	TO (MM)	ANCHOR STA END	
1	57.	4 - 12MM	78.	3516.	NO	NO
2	239.	3 - 20MM	0.	1593.	YES	NO
3	241.	4 - 16MM	2444.	3750.	NO	YES

BEAM NO. 3227 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 96.33$ KNS $V_c = 56.56$ KNS $V_s = 71.88$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM

AT END SUPPORT - $V_u = 86.81$ KNS $V_c = 58.23$ KNS $V_s = 57.54$ KNS
 $T_u = 0.10$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 122. MM C/C FOR 1639. MM



IMP IMPUT OF 30 TRAMPA GAS.GIF

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BEAM NO. 3228 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

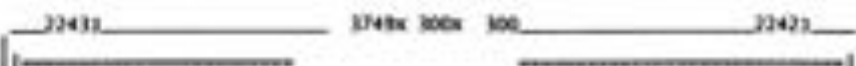
LEN = 3750. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MM

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA END	
1	59.	2 - 16MM	279.	3155.	NO	NO
2	239.	3 - 20MM	0.	1281.	YES	NO
3	239.	3 - 20MM	2311.	3750.	NO	YES

BEAM NO. 3228 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 90.89$ KNS $V_c = 55.60$ KNS $V_s = 65.59$ KNS
 $T_u = 0.01$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 123. MM C/C FOR 1638. MM

AT END SUPPORT - $V_u = 92.27$ KNS $V_c = 55.46$ KNS $V_s = 67.57$ KNS
 $T_u = 0.01$ KN-MET $T_c = 2.0$ KN-MET $T_s = 0.0$ KN-MET LOAD 11
 NO STIRRUPS ARE REQUIRED FOR TORSION.
 REINFORCEMENT IS REQUIRED FOR SHEAR.
 PROVIDE 12 MM 2-LEGGED STIRRUPS AT 123. MM C/C FOR 1638. MM



DISEÑO DE VIGAS Y COLUMNAS.pdf

3#20 H 239. 0. TO 3281 3#20 H 239. 2313. TO 3750
 15*12c/c123 15. 279. TO 3315 15*12c/c123

3#20

3#20

2#16

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3#20

2#16

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3#20

DWT IMPORT OF 3D TRAMPA GRAS.DWT

-- PAGE NO. 1443

BEAM NO. 3229 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES
2	243.	3 - 12MM	0.	3750.	YES	YES

BEAM NO. 3229 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 4.37 KNS Vu= 57.53 KNS Vs= 0.00 KNS
 Ts= 0.00 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LWD= 10
 STIRRUPS ARE NOT REQUIRED.

AT END SUPPORT - Vu= 5.56 KNS Vu= 54.22 KNS Vs= 0.00 KNS
 Ts= 0.00 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LWD= 10
 STIRRUPS ARE NOT REQUIRED.

22433 3750x 300x 300 37563

3#12 H 243. 0. TO 3750

3#12 H 57. 0. TO 3750

3#12

3#12

3#12

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3#12

3#12

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3#12

3#12

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DWT IMPORT OF 3D TRAMPA GRAS.DWT

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BEAM NO. 3230 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPA, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES
2	243.	3 - 12MM	0.	3750.	YES	YES

BEAM NO. 3230 DESIGN RESULTS - SHEAR

DISEÑO DE VIGAS Y COLUMNAS.pdf

AT START SUPPORT - $V_u = 5.28$ KNS $V_c = 54.46$ KNS $V_u = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 4.45$ KNS $V_c = 56.02$ KNS $V_u = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

22413 3749x 300x 300 22433

3#12 H 243. 0.70 3750
3#12 H 57. 0.70 3750

000 3#12 000	000 3#12 000	000 3#12 000	000 3#12 000
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DNF IMPORT OF 3D TRAMPA GRAS.DXF

-- PAGE NO. 1445

BEAM NO. 3232 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR	STA	END
1	57.	3 - 12MM	0.	3750.	YES	YES	
2	243.	3 - 12MM	0.	3750.	YES	YES	

BEAM NO. 3232 DESIGN RESULTS - SHEAR

AT START SUPPORT - $V_u = 4.45$ KNS $V_c = 56.02$ KNS $V_u = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - $V_u = 5.28$ KNS $V_c = 54.46$ KNS $V_u = 0.00$ KNS
 $T_u = 0.00$ KN-MET $T_c = 1.9$ KN-MET $T_u = 0.0$ KN-MET LOAD 10
 STIRRUPS ARE NOT REQUIRED.

22393 3750x 300x 300 22413

3#12 H 243. 0.70 3750
3#12 H 57. 0.70 3750

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DNF IMPORT OF 3D TRAMPA GRAS.DXF

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BEAM NO. 3232 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

1	57.	3 - 12mm	0.	3750.	YES	YES
2	243.	3 - 12mm	0.	3750.	YES	YES

BEAM NO. 3232 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 4.27 KNS Vc= 57.51 KNS Vs= 0.00 KNS
 Tu= 0.29 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 5.45 KNS Vc= 54.39 KNS Vs= 0.00 KNS
 Tu= 0.29 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

22423	3750x 300x 300	22373

Rein H 243. 0 TO 3750		
Rein H 57. 0 TO 3750		

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3#12	3#12	3#12	3#12
000	000	000	000

DOF IMPORT OF 3D TRAPPA GRAS.DOF

PAGE NO. 3447

BEAM NO. 3233 DESIGN RESULTS - FLEXURE PER CODE ACI 318-05

LEN = 3750. MM FY = 412. FC = 21. MPa, SIZE = 300. X 300. MMS

LEVEL HEIGHT BAR INFO FROM TO ANCHOR

LEVEL	HEIGHT (MM)	BAR INFO	FROM (MM)	TO (MM)	ANCHOR L/A	END
1	57.	3 - 12mm	0.	3750.	YES	YES
2	243.	3 - 12mm	0.	3750.	YES	YES

BEAM NO. 3233 DESIGN RESULTS - SHEAR

AT START SUPPORT - Vu= 5.77 KNS Vc= 54.47 KNS Vs= 0.00 KNS
 Tu= 0.13 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.
 AT END SUPPORT - Vu= 4.46 KNS Vc= 56.00 KNS Vs= 0.00 KNS
 Tu= 0.13 KN-MET Tc= 1.9 KN-MET Ts= 0.0 KN-MET LOAD 30
 STIRRUPS ARE NOT REQUIRED.

22403	3750x 300x 300	22423

Rein H 243. 0 TO 3750		
Rein H 57. 0 TO 3750		

000	000	000	000
3#12	3#12	3#12	3#12
000	000	000	000

ESFUERZOS MAXIMOS Y MINIMOS EN EL CONCRETO

Pila	L/C	SMAX		SMIN	
		Top MTon/m2	Bottom MTon/m2	Top MTon/m2	Bottom MTon/m2
831	7	-117.662	687.856	-693.554	115.727
833	7	-117.662	687.856	-693.554	115.727
829	7	-117.065	686.979	-691.62	115.097
835	7	-117.065	686.979	-691.62	115.097
827	7	-115.645	681.645	-687.16	113.847
837	7	-115.645	681.645	-687.16	113.847
525	7	-114.01	673.929	-679.223	111.952
529	7	-114.011	673.929	-679.223	111.952
523	7	-111.457	661.854	-666.804	109.295
845	7	-111.457	661.854	-666.804	109.295
714	7	-107.964	644.555	-649.002	105.634
941	7	-107.964	644.555	-649.002	105.634
713	7	-103.191	621.197	-624.94	100.597
943	7	-103.191	621.197	-624.94	100.597
711	7	-96.709	590.72	-593.497	93.7
945	7	-96.709	590.72	-593.497	93.7
709	7	-55.02	551.616	-553.054	84.354
517	7	-55.02	551.616	-553.054	84.354
707	7	-51.556	501.967	-501.507	71.847
949	7	-51.556	501.967	-501.507	71.847
706	7	-41.701	440.202	-436.755	55.356
951	7	-41.701	440.202	-436.755	55.356
703	7	-42.864	366.002	-357.735	34.054
953	7	-42.864	366.002	-357.735	34.054
845	7	-53.693	315.485	-320.345	49.894
846	7	-53.693	315.485	-320.345	49.893
844	7	-52.494	313.968	-318.766	48.632
847	7	-52.494	313.968	-318.766	48.632
843	7	-50.345	310.606	-315.154	46.328
842	7	-50.345	310.606	-315.154	46.328
512	7	-47.511	304.718	-308.855	43.195
811	7	-47.511	304.718	-308.855	43.195
850	7	-43.995	295.856	-299.326	39.176
725	7	-43.995	295.856	-299.326	39.176
960	7	-39.393	283.849	-286.316	33.799
1025	7	-39.393	283.849	-286.316	33.799
771	7	-30.343	239.698	-275.089	18.606
760	7	-30.343	239.698	-275.089	18.606
1014	7	-20.296	235.754	-274.713	8.422
724	7	-20.296	235.754	-274.713	8.422
861	7	-32.9	268.879	-269.91	26.154
751	7	-32.9	268.879	-269.91	26.154
555	7	-20.782	283.286	-266.627	8.66
752	7	-20.782	283.286	-266.627	8.66
1036	7	-35.49	234.076	-264.806	25.469

749	7	-4.915	222.019	-261.558	-4.927
1003	7	-4.915	222.02	-261.558	-4.927
723	7	-23.386	251.499	-250.529	15.003
962	7	-23.386	251.499	-250.529	15.003
793	7	-34.077	219.791	-245.161	27.15
1047	7	-34.077	219.792	-245.161	27.15
992	7	15.296	199.845	-234.543	-20.668
738	7	15.296	199.845	-234.542	-20.668
1601	7	-19.386	229.803	-230.897	15.226
1602	7	-19.386	229.803	-230.897	15.226
722	7	-9.473	232.698	-229.013	-1.202
963	7	-9.473	232.698	-229.013	-1.202
1600	7	-24.087	227.156	-228.105	19.768
1603	7	-24.087	227.156	-228.105	19.768
1599	7	-30.873	222.718	-223.419	26.256
1604	7	-30.873	222.718	-223.419	26.256
1611	7	-6.508	221.707	-222.66	1.744
1512	7	-6.508	221.707	-222.66	1.744
1515	7	-11.788	218.458	-219.247	9.874
1513	7	-11.788	218.458	-219.247	9.874
1596	7	-36.732	217.866	-218.276	31.204
1605	7	-36.732	217.866	-218.276	31.204
804	7	-19.039	203.618	-214.683	17.64
1066	7	-19.039	203.618	-214.683	17.64
1591	7	-24.478	212.721	-214.05	21.025
1592	7	-24.478	212.721	-214.05	21.025
1597	7	-37.765	213.765	-213.671	32.213
1606	7	-37.765	213.765	-213.671	32.213
1609	7	-28.416	213.084	-213.613	21.219
1614	7	-28.416	213.084	-213.613	21.219
1550	7	-27.011	210.589	-211.787	23.406
1553	7	-27.011	210.589	-211.787	23.406
1495	7	-35.487	210.505	-210.286	29.255
1719	7	-35.487	210.505	-210.286	29.255
1590	7	-30.732	206.885	-207.657	26.843
1594	7	-30.732	206.885	-207.657	26.843
1608	7	-35.22	207.523	-207.752	29.626
1615	7	-35.22	207.523	-207.752	29.626
721	7	10.308	214.015	-206.832	-23.941
964	7	10.308	214.015	-206.832	-23.941
1487	7	-31.93	206.812	-206.197	24.77
1720	7	-31.93	206.812	-206.197	24.77
1607	7	-37.243	203.568	-203.502	31.149
1516	7	-37.243	203.568	-203.502	31.149
1523	7	-33.755	202.503	-203.198	29.469
1525	7	-33.755	202.503	-203.198	29.469
1498	7	-32.235	201.66	-201.335	25.517
1730	7	-32.235	201.66	-201.335	25.517
1497	7	-24.046	200.366	-199.733	16.518
1731	7	-24.046	200.366	-199.733	16.518
1486	7	-30.642	200.654	-199.524	22.202
1721	7	-30.642	200.654	-199.524	22.202
1587	7	-34.768	198.18	-198.574	29.971
1596	7	-34.768	198.18	-198.574	29.971

1496	7	-18.626	197.044	-196.107	10.063
1732	7	-18.626	197.044	-196.107	10.063
981	7	35.699	173.044	-194.02	-34.435
727	7	35.699	173.044	-194.019	-34.435
1478	7	-33.87	193.945	-194.004	28.4
1708	7	-33.87	193.945	-194.004	28.4
1621	7	15.309	192.884	-193.808	-20.573
1622	7	15.309	192.884	-193.808	-20.573
1620	7	0.731	189.498	-190.252	-6.095
1623	7	0.731	189.498	-190.252	-6.095
1477	7	-32.62	188.934	-188.581	26.228
1709	7	-32.62	188.934	-188.581	26.228
1485	7	-33.77	190.178	-188.409	23.608
1722	7	-33.77	190.178	-188.409	23.608
1495	7	-19.545	189.531	-188.365	9.758
1733	7	-19.545	189.531	-188.365	9.758
723	7	36.734	197.408	-186.074	-53.697
923	7	36.734	197.408	-186.074	-53.697
1519	7	-15.456	183.474	-183.975	12.874
1574	7	-15.456	183.474	-183.975	12.874
1476	7	-33.154	181.738	-180.85	25.485
1710	7	-33.154	181.738	-180.85	25.485
1618	7	-32.237	177.137	-177.331	26.305
1625	7	-32.237	177.137	-177.331	26.305
1494	7	-24.96	176.738	-175.689	13.847
1734	7	-24.96	176.738	-175.689	13.847
1506	7	3.661	175.596	-175.259	-11.772
1743	7	3.661	175.596	-175.259	-11.772
1505	7	6.513	174.286	-174.454	-14.924
1744	7	6.513	174.286	-174.454	-14.924
1507	7	-9.445	174.065	-173.619	1.894
1742	7	-9.445	174.065	-173.619	1.894
917	7	-35.073	172.887	-172.776	26.674
926	7	-35.073	172.887	-172.776	26.674
1498	7	-25.783	172.194	-171.854	18.838
1741	7	-25.783	172.194	-171.854	18.838
1484	7	-40.396	174.232	-171.796	27.993
1723	7	-40.396	174.232	-171.796	27.993
1504	7	2.634	168.369	-169.731	-10.346
1745	7	2.634	168.369	-169.731	-10.346
959	7	3.248	201.959	-169.674	-15.729
957	7	3.248	201.959	-169.674	-15.729
1475	7	-36.861	170.935	-169.377	27.458
1711	7	-36.861	170.935	-169.377	27.458
713	7	67.518	134.644	-168.688	-87.818
928	7	67.518	134.644	-168.688	-87.818
1581	7	-22.038	165.741	-167.38	19.382
1582	7	-22.038	165.741	-167.38	19.382
1580	7	-23.209	163.91	-165.43	20.415
1583	7	-23.209	163.91	-165.43	20.415
1579	7	-24.93	160.605	-161.915	21.879
1584	7	-24.93	160.605	-161.915	21.879
1503	7	-0.954	157.125	-160.608	-7.001
1746	7	-0.954	157.125	-160.608	-7.001

1493	7	-28.815	158.498	-158.405	16.391
1735	7	-28.815	158.498	-158.405	16.391
1578	7	-26.308	156.407	-157.457	22.898
1585	7	-26.308	156.407	-157.457	22.898
1514	7	37.415	152.688	-156.515	-42.493
1756	7	37.415	152.688	-156.515	-42.493
1513	7	30.941	150.075	-156.254	-34.537
1757	7	30.941	150.075	-156.254	-34.537
1239	7	-22.933	154.549	-156.16	12.808
1974	7	-22.933	154.549	-156.16	12.808
718	7	94.365	178.397	-155.033	-115.918
967	7	94.365	178.397	-155.033	-115.918
1251	7	-26.49	153.717	-154.941	15.19
1975	7	-26.49	153.717	-154.941	15.19
1227	7	-26.215	152.673	-154.454	16.999
1973	7	-26.215	152.673	-154.454	16.999
1474	7	-43.368	155.432	-153.118	31.688
1712	7	-43.368	155.432	-153.118	31.688
1577	7	-26.716	151.841	-152.607	22.845
1596	7	-26.716	151.841	-152.607	22.845
1263	7	-35.551	150.321	-151.256	23.084
1976	7	-35.551	150.321	-151.256	23.084
1215	7	-33.642	149.24	-150.775	24.887
1972	7	-33.642	149.24	-150.775	24.888
1515	7	44.619	148.091	-149.946	-51.146
1756	7	44.619	148.091	-149.946	-51.146
1483	7	-46.552	152.34	-149.473	31.341
1724	7	-46.552	152.34	-149.473	31.341
1512	7	32.868	140.396	-149.09	-35.652
1758	7	32.868	140.396	-149.09	-35.652
1523	7	62.834	141.555	-148.48	-63.415
1768	7	62.834	141.555	-148.48	-63.415
1671	7	48.211	146.794	-147.841	-53.871
1672	7	48.211	146.794	-147.841	-53.871
1468	7	-26.264	147.026	-147.481	21.791
1697	7	-26.264	147.026	-147.481	21.791
1203	7	-40.576	146.19	-147.069	31.83
1971	7	-40.576	146.19	-147.069	31.83
1522	7	58.727	138.633	-146.966	-57.883
1769	7	58.727	138.633	-146.966	-57.884
1275	7	-45.696	145.797	-146.89	32.388
1977	7	-45.697	145.797	-146.89	32.388
717	7	100.316	172.478	-146.567	-118.114
968	7	100.316	172.478	-146.567	-118.114
1502	7	4.371	139.992	-146.509	-12.3
1747	7	4.372	139.992	-146.509	-12.3
1630	7	22.692	145.318	-146.228	-28.301
1633	7	22.692	145.318	-146.228	-28.301
1240	7	-14.012	144.887	-146.106	2.622
1984	7	-14.012	144.887	-146.106	2.622
1191	7	-43.477	145.086	-145.13	34.477
1970	7	-43.477	145.086	-145.13	34.477
1425	7	-41.899	145.712	-145.003	32.589
1661	7	-41.899	145.712	-145.003	32.589

1238	7	-24.53	142.712	-144.849	15.839
1994	7	-24.53	142.712	-144.849	15.839
1414	7	-38.86	145.872	-144.531	29.166
1890	7	-38.86	145.872	-144.531	29.166
1252	7	-19.3	144.003	-144.492	6.378
1985	7	-19.3	144.003	-144.492	6.378
1250	7	-26.909	142.093	-144.082	17.332
1965	7	-26.909	142.093	-144.082	17.332
1287	7	-52.367	142.112	-144.03	38.771
1978	7	-52.367	142.113	-144.03	38.771
1228	7	-20.485	142.112	-143.815	10.319
1983	7	-20.485	142.112	-143.815	10.319
1963	7	-26.196	141.599	-143.709	18.168
1226	7	-26.196	141.599	-143.708	18.168
716	7	44.15	148.515	-143.616	-36.61
970	7	44.15	148.515	-143.616	-36.61
1298	7	-53.661	140.272	-143.413	40.098
1979	7	-53.661	140.272	-143.413	40.098
1073	7	-51.48	139.108	-143.108	37.535
2088	7	-51.48	139.108	-143.108	37.535
1202	7	-32.617	139.839	-141.758	22.166
1966	7	-32.617	139.839	-141.758	22.166
1467	7	-25.852	141.546	-141.64	20.57
1698	7	-25.852	141.546	-141.64	20.57
1629	7	-7.963	140.769	-141.514	2.318
1634	7	-7.963	140.769	-141.514	2.318
1214	7	-30.504	139.495	-141.268	22.787
1902	7	-30.504	139.495	-141.268	22.787
1524	7	77.3	135.58	-141.06	-79.789
1767	7	77.3	135.58	-141.06	-79.789
1402	7	-38.813	142.83	-140.887	28.495
1859	7	-38.814	142.83	-140.887	28.495
1795	7	-49.623	135.956	-139.991	34.426
2090	7	-49.623	135.956	-139.991	34.426
1516	7	37.584	139.153	-139.652	-44.908
1754	7	37.584	139.153	-139.652	-44.908
1264	7	-33.861	139.586	-139.519	19.463
1986	7	-33.861	139.586	-139.519	19.463
1274	7	-39.181	136.876	-139.088	28.144
1967	7	-39.181	136.876	-139.088	28.144
1202	7	-34.902	137.64	-138.786	27.141
1961	7	-34.902	137.641	-138.786	27.141
1216	7	-33.108	137.146	-138.735	23.63
1982	7	-33.108	137.146	-138.735	23.63
1072	7	-44.671	132.843	-138.188	33.749
2078	7	-44.671	132.843	-138.188	33.749
1297	7	-45.382	133.384	-137.614	34.405
1909	7	-45.382	133.384	-137.614	34.405
1288	7	-43.862	134.494	-137.533	32.702
1968	7	-43.862	134.494	-137.533	32.702
1190	7	-37.284	137.005	-137.386	29.247
1060	7	-37.284	137.005	-137.386	29.247
1084	7	-43.679	131.15	-137.307	32.438
2079	7	-43.679	131.15	-137.307	32.438

1434	7	-37.384	137.408	-137.055	28.957
1851	7	-37.384	137.408	-137.055	28.957
1462	7	-24.176	134.518	-138.837	10.477
1736	7	-24.176	134.518	-138.837	10.477
1413	7	-37.016	137.388	-136.364	28.052
1850	7	-37.016	137.388	-136.364	28.052
1521	7	60.827	125.845	-135.289	-59.772
1770	7	60.827	125.844	-135.289	-59.772
1628	7	-27.992	134.221	-134.662	22.102
1635	7	-27.992	134.221	-134.662	22.102
1466	7	-26.728	134.625	-134.295	20.36
1699	7	-26.728	134.625	-134.295	20.36
1204	7	-43.984	132.831	-133.664	34.527
1981	7	-43.984	132.831	-133.664	34.527
1096	7	-43.227	126.738	-133.662	31.49
2080	7	-43.225	126.738	-133.662	31.49
1276	7	-49.364	133.444	-133.397	33.863
1987	7	-49.364	133.444	-133.397	33.863
1401	7	-38.733	135.027	-133.326	28.93
1849	7	-38.733	135.027	-133.326	28.93
728	7	132.747	139.538	-133.188	-149.856
979	7	132.747	139.538	-133.188	-149.856
1415	7	-34.68	134.575	-133.103	24.632
1870	7	-34.68	134.575	-133.103	24.632
1511	7	42.552	121.242	-132.401	-46.286
1759	7	42.552	121.242	-132.401	-46.286
1390	7	-44.248	134.836	-132.25	32.883
1858	7	-44.248	134.836	-132.25	32.883
1097	7	-50.195	128.68	-132.175	33.067
2090	7	-50.195	128.68	-132.175	33.067
1426	7	-42.852	133.145	-132.173	32.907
1871	7	-42.852	133.145	-132.173	32.907
1473	7	-50.124	134.531	-131.511	35.965
1713	7	-50.124	134.531	-131.511	35.965
1192	7	-47.525	131.533	-131.348	37.779
1980	7	-47.526	131.533	-131.348	37.779
1517	7	10.991	131.192	-131.006	-18.37
1763	7	10.991	131.192	-131.006	-18.37
1403	7	-30.506	132.234	-130.506	20.381
1809	7	-30.506	132.234	-130.506	20.381
1288	7	-58.533	128.526	-129.457	42.707
1988	7	-58.533	128.526	-129.457	42.707
1074	7	-52.913	125.943	-129.451	36.819
2098	7	-52.913	125.943	-129.451	36.819
1299	7	-58.602	128.551	-129.164	43.042
1989	7	-58.602	128.551	-129.164	43.042
1627	7	-32.832	128.224	-128.262	26.447
1636	7	-32.832	128.224	-128.262	26.447
1536	7	65.323	122.33	-127.491	-43.097
1787	7	65.323	122.33	-127.491	-43.097
1108	7	-41.741	118.84	-127.053	29.762
2081	7	-41.741	118.84	-127.053	29.762
1618	7	-18.692	126.771	-126.514	11.731
1762	7	-18.692	126.771	-126.514	11.731

1389	7	-43.834	128.908	-126.485	32.72
1848	7	-43.834	128.908	-126.485	32.72
1086	7	-48.352	122.767	-125.522	30.111
2099	7	-48.352	122.767	-125.522	30.111
1536	7	73.814	119.687	-125.055	-73.439
1785	7	73.814	119.687	-125.055	-73.439
1465	7	-29.756	125.425	-124.676	22.021
1700	7	-29.756	125.425	-124.676	22.021
1501	7	19.873	113.664	-123.74	-29.305
1748	7	19.873	113.664	-123.74	-29.305
1391	7	-34.709	124.618	-123.058	24.644
1868	7	-34.709	124.618	-123.058	24.644
739	7	127.464	112.201	-122.768	-141.08
990	7	127.464	112.201	-122.768	-141.08
1482	7	-45.949	124.24	-121.848	27.485
1725	7	-45.949	124.24	-121.848	27.485
1109	7	-51.225	116.741	-119.814	32.017
2091	7	-51.225	116.741	-119.814	32.017
1534	7	61.968	114.673	-119.189	-58.245
1789	7	61.968	114.673	-119.189	-58.245
1241	7	4.542	118.078	-119.045	-16.557
1994	7	4.542	118.078	-119.045	-16.557
1378	7	-53.595	121.496	-118.191	40.527
1857	7	-53.595	121.496	-118.191	40.527
1253	7	-4.518	117.964	-117.796	-9.837
1995	7	-4.518	117.964	-117.796	-9.837
1525	7	97.814	114.017	-117.541	-102.548
1766	7	97.814	114.017	-117.541	-102.548
1120	7	-36.096	106.949	-117.237	24.144
2082	7	-36.096	106.949	-117.237	24.144
1229	7	-8.282	114.788	-116.795	-2.432
1993	7	-8.282	114.788	-116.795	-2.432
1107	7	-24.505	101.245	-115.606	21.114
2071	7	-24.505	101.245	-115.606	21.114
1377	7	-50.869	118.545	-115.524	37.932
1847	7	-50.869	118.545	-115.524	37.932
1098	7	-49.421	114.462	-115.301	27.852
2100	7	-49.421	114.462	-115.301	27.852
1119	7	-17.503	96.87	-114.591	15.863
2072	7	-17.503	96.87	-114.591	15.863
1095	7	-28.124	102.839	-114.497	23.276
2070	7	-28.124	102.839	-114.497	23.276
1520	7	64.337	103.771	-113.777	-66.109
1771	7	64.337	103.771	-113.777	-66.109
750	7	101.104	89.635	-112.799	-110.158
1001	7	101.104	89.635	-112.799	-110.158
1265	7	-27.673	113.389	-112.541	11.716
1996	7	-27.673	113.389	-112.541	11.716
1464	7	-34.656	113.298	-112.383	25.431
1701	7	-34.656	113.298	-112.383	25.431
1583	7	-30.101	102.69	-112.287	24.228
2069	7	-30.101	102.69	-112.287	24.228
1379	7	-44.134	112.07	-111.449	34.487
1887	7	-44.134	112.07	-111.449	34.487

1217	7	-29.813	109.001	-111.219	20.142
1992	7	-29.813	109.001	-111.219	20.142
1071	7	-31.561	101.531	-109.348	24.837
2068	7	-31.561	101.531	-109.347	24.837
1491	7	-6.36	102.263	-108.512	-9.376
1737	7	-6.36	102.263	-108.512	-9.376
1131	7	-5.866	87.337	-108.399	5.374
2073	7	-5.866	87.337	-108.399	5.374
1540	7	94.205	103.139	-108.212	-95.826
1763	7	94.204	103.139	-108.211	-95.826
1237	7	-19.475	104.446	-107.211	12.356
1954	7	-19.475	104.446	-107.211	12.356
1416	7	-24.772	108.555	-107.022	14.612
1880	7	-24.772	108.555	-107.022	14.612
1249	7	-21.031	104.073	-106.849	13.248
1965	7	-21.031	104.073	-106.849	13.248
1404	7	-12.851	107.789	-106.516	3.37
1679	7	-12.851	107.789	-106.516	3.37
1225	7	-20.286	103.867	-106.485	13.658
1953	7	-20.286	103.867	-106.485	13.658
1296	7	-32.335	100.369	-106.439	24.735
1959	7	-32.335	100.369	-106.439	24.735
1632	7	55.573	102.579	-105.801	-51.787
1791	7	55.573	102.579	-105.801	-51.788
1261	7	-24.535	102.795	-105.682	16.146
1956	7	-24.535	102.795	-105.682	16.146
781	7	68.695	74.624	-105.431	-73.015
1012	7	68.695	74.624	-105.431	-73.015
1277	7	-50.808	106.17	-105.14	33.449
1997	7	-50.808	106.17	-105.14	33.449
1213	7	-22.766	102.793	-105.007	16.329
1952	7	-22.766	102.793	-105.007	16.329
1205	7	-46.368	103.489	-104.675	36.651
1091	7	-46.368	103.489	-104.675	36.651
1265	7	-31.481	100.177	-104.663	23.13
1958	7	-31.481	100.177	-104.663	23.13
1273	7	-28.58	101.196	-104.586	19.934
1967	7	-28.58	101.196	-104.586	19.934
1472	7	-52.124	107.818	-104.489	34.092
1714	7	-52.125	107.818	-104.489	34.092
1427	7	-41.697	105.302	-104.11	31.316
1661	7	-41.697	105.302	-104.11	31.316
1121	7	-47.71	100.523	-103.749	26.429
2092	7	-47.71	100.523	-103.749	26.429
1392	7	-14.365	103.33	-103.729	6.782
1878	7	-14.366	103.33	-103.729	6.782
1201	7	-25.535	101.985	-103.557	18.986
1951	7	-25.535	101.985	-103.557	18.986
1412	7	-28.736	103.824	-103.366	20.963
1840	7	-28.736	103.824	-103.366	20.963
1423	7	-28.112	102.963	-103.094	20.847
1841	7	-28.112	102.963	-103.094	20.847
1075	7	-49.188	98.715	-103.063	32.231
2108	7	-49.188	98.715	-103.063	32.231

1189	7	-27.38	102.064	-102.891	20.52
1960	7	-27.38	102.064	-102.891	20.52
1400	7	-30.579	103.509	-102.591	22.124
1839	7	-30.579	103.509	-102.591	22.124
794	7	3.832	79.935	-102.437	-2.474
1045	7	3.832	79.935	-102.437	-2.474
772	7	39.161	68.732	-101.999	-39.86
1023	7	39.161	68.732	-101.999	-39.861
783	7	17.015	71.441	-101.862	-16.058
1034	7	17.015	71.441	-101.862	-16.058
1510	7	57.512	88.57	-101.799	-65.321
1760	7	57.512	88.57	-101.799	-65.321
1132	7	-23.933	89.608	-101.765	10.874
2083	7	-23.933	89.608	-101.765	10.874
1365	7	-54.888	104.298	-101.747	40.21
1846	7	-54.888	104.298	-101.747	40.21
1193	7	-51.09	102.056	-101.707	40.771
1990	7	-51.09	102.056	-101.707	40.771
1300	7	-61.265	97.837	-100.939	44.724
1999	7	-61.265	97.837	-100.939	44.724
1388	7	-33.918	101.245	-100.18	24.696
1838	7	-33.918	101.245	-100.18	24.696
1380	7	-23.119	96.338	-100.065	18.984
1877	7	-23.119	96.338	-100.065	18.984
1289	7	-63.855	99.865	-99.771	45.847
1968	7	-63.855	99.865	-99.771	45.847
1110	7	-53.48	101.042	-99.752	28.184
2101	7	-53.48	101.042	-99.752	28.184
1366	7	-61.931	103.22	-99.161	46.163
1856	7	-61.931	103.22	-99.161	46.163
806	7	-0.475	90.79	-98.931	1.133
1065	7	-0.475	90.79	-98.931	1.133
1087	7	-39.483	96.587	-98.88	19.005
2109	7	-39.483	96.587	-98.88	19.005
1483	7	-39.042	97.999	-97.912	28.86
1702	7	-39.042	97.999	-97.912	28.86
1367	7	-50.459	95.577	-97.469	42.084
1866	7	-50.459	95.577	-97.469	42.084
1839	7	6.466	95.556	-97.094	-11.465
1844	7	6.466	95.556	-97.094	-11.465
930	7	67.702	81.872	-96.957	-68.285
932	7	67.702	81.871	-96.957	-68.285
1376	7	-36.672	97.022	-96.817	27.023
1837	7	-36.672	97.022	-96.817	27.023
1640	7	48.401	94.422	-95.915	-53.845
1843	7	48.401	94.422	-95.915	-53.845
1368	7	-27.373	87.375	-95.495	27.52
1876	7	-27.373	87.374	-95.495	27.52
729	7	168.289	108.072	-95.342	-187.247
978	7	168.289	108.072	-95.341	-187.248
1130	7	18.586	66.192	-95.132	-6.84
2063	7	18.586	66.192	-95.132	-6.84
1364	7	-34.078	91.422	-94.333	25.438
1836	7	-34.078	91.422	-94.333	25.438

1638	7	-19.437	91.334	-92.917	14.559
1645	7	-19.437	91.334	-92.917	14.559
1352	7	-21.993	83.701	-91.948	15.321
1835	7	-21.993	83.701	-91.948	15.321
1143	7	10.832	68.858	-91.268	-13.197
2074	7	10.832	68.858	-91.268	-13.197
1369	7	-0.997	81.783	-91.073	5.167
1886	7	-0.997	81.783	-91.073	5.167
1142	7	30.171	59.483	-90.972	-17.109
2064	7	30.171	59.483	-90.972	-17.109
1118	7	9.697	64.426	-90.04	-0.119
2062	7	9.697	64.426	-90.04	-0.119
1481	7	-30.803	88.892	-88.98	8.84
1726	7	-30.803	88.892	-88.98	8.84
1381	7	6.435	81.776	-88.571	-6.207
1887	7	6.435	81.776	-88.571	-6.207
1099	7	-39.682	89.361	-88.351	14.802
2110	7	-39.682	89.361	-88.351	14.802
1526	7	68.897	86.671	-88.046	-95.545
1765	7	68.897	86.671	-88.046	-95.545
1353	7	-47.601	86.643	-88.003	33.011
1845	7	-47.601	86.643	-88.003	33.011
1356	7	-22.83	75.319	-87.625	26.281
1875	7	-22.831	75.319	-87.625	26.281
1357	7	-0.915	76.709	-87.411	7.937
1885	7	-0.915	76.709	-87.411	7.937
697	7	2.226	139.723	-86.895	8.323
959	7	2.226	139.723	-86.895	8.323
1500	7	45.993	72.955	-86.47	-60.163
1749	7	45.993	72.955	-86.47	-60.163
1571	7	-11.89	84.169	-86.175	10.099
1572	7	-11.89	84.169	-86.175	10.099
1570	7	-12.118	82.425	-84.299	10.188
1573	7	-12.118	82.425	-84.299	10.188
1641	7	100.39	82.825	-84.26	-106.321
1642	7	100.39	82.825	-84.26	-106.321
1402	7	-36.957	79.871	-83.383	28.096
1703	7	-36.957	79.871	-83.383	28.096
1133	7	-35.77	79.79	-82.503	10.666
2093	7	-35.77	79.79	-82.503	10.666
818	7	39.433	63.737	-82.497	-39.795
1053	7	39.433	63.737	-82.497	-39.795
1355	7	-46.317	75.453	-82.377	40.379
1865	7	-46.317	75.453	-82.377	40.379
1340	7	-0.509	68.493	-81.94	-6.5
1834	7	-0.509	68.493	-81.94	-6.5
1269	7	-15.557	81.679	-81.737	0.199
2006	7	-15.557	81.679	-81.737	0.199
1637	7	-29.145	80.441	-81.412	23.636
1646	7	-29.145	80.441	-81.412	23.636
1106	7	3.237	58.798	-81.243	4.165
2061	7	3.238	58.798	-81.243	4.165
1230	7	9.718	77.665	-81.168	-20.141
2003	7	9.718	77.665	-81.168	-20.141

1569	7	-12.418	79.184	-80.825	10.232
1574	7	-12.418	79.184	-80.825	10.232
2102	7	-52.448	83.908	-80.822	23.252
1122	7	-52.448	83.908	-80.821	23.252
1530	7	24.731	78.165	-79.138	-27.849
1792	7	24.731	78.165	-79.138	-27.849
1371	7	15.878	72.811	-78.668	-12.22
1901	7	15.878	72.811	-78.668	-12.22
1254	7	23.877	78.918	-78.567	-39.144
2005	7	23.877	78.918	-78.567	-39.144
1339	7	27.158	60.704	-78.56	-25.446
1824	7	27.158	60.704	-78.56	-25.446
1363	7	20.131	75.493	-78.077	-25.017
1888	7	20.131	75.493	-78.077	-25.017
1359	7	11.797	73.776	-77.611	-5.944
1899	7	11.797	73.776	-77.611	-5.944
1218	7	-21.974	72.99	-77.499	13.816
2002	7	-21.974	72.99	-77.499	13.816
1242	7	36.94	76.471	-77.452	-50.253
2004	7	36.94	76.471	-77.452	-50.253
1351	7	10.792	63.874	-77.448	-8.895
1825	7	10.792	63.874	-77.448	-8.895
1278	7	-44.087	74.905	-76.709	28.824
2007	7	-44.087	74.905	-76.709	28.824
1568	7	-12.541	74.886	-76.236	10.005
1575	7	-12.541	74.886	-76.236	10.005
1292	7	-22.581	57.373	-76.223	21.445
2027	7	-22.581	57.373	-76.223	21.445
1354	7	-62.76	80.426	-75.882	42.923
1855	7	-62.76	80.426	-75.882	42.923
1076	7	-37.269	65.021	-75.309	24.358
2118	7	-37.269	65.021	-75.309	24.358
1144	7	-4.404	64.559	-75.304	-14.768
2084	7	-4.404	64.559	-75.304	-14.768
1111	7	-46.079	78.034	-75.147	17.8
2111	7	-46.079	78.034	-75.147	17.8
1345	7	3.318	63.035	-74.823	5.54
1884	7	3.318	63.035	-74.823	5.54
1301	7	-53.853	61.416	-74.494	45.874
2009	7	-53.853	61.416	-74.494	45.874
1302	7	-20.714	51.439	-74.099	20.932
2028	7	-20.714	51.439	-74.099	20.932
730	7	165.121	85.159	-73.738	-185.03
977	7	165.121	85.159	-73.738	-185.03
1527	7	35.425	73.508	-73.472	-42.593
1764	7	35.425	73.507	-73.472	-42.593
1471	7	-41.071	75.042	-72.813	19.185
1715	7	-41.071	75.042	-72.813	19.185
1417	7	-8.755	74.083	-72.671	-1.133
1890	7	-8.755	74.083	-72.671	-1.133
1528	7	-14.481	71.902	-71.825	7.827
1763	7	-14.481	71.902	-71.825	7.827
1094	7	-1.375	52.063	-71.676	6.785
2060	7	-1.375	52.063	-71.676	6.785

1344	7	-11.914	55.981	-71.327	15.731
1874	7	-11.914	55.981	-71.327	15.731
1296	7	-45.317	67.11	-71.248	37.99
2001	7	-45.317	67.11	-71.248	37.99
1405	7	18.345	72.007	-71.153	-27.14
1889	7	18.345	72.007	-71.153	-27.14
1567	7	-12.295	70.01	-71.043	9.321
1576	7	-12.295	70.01	-71.043	9.321
1290	7	-60.713	65.351	-70.941	47.314
2006	7	-60.713	65.351	-70.941	47.314
1341	7	-25.028	63.361	-70.806	9.913
1844	7	-25.028	63.361	-70.806	9.913
1428	7	-37.636	70.585	-70.041	27.856
1891	7	-37.636	70.585	-70.041	27.856
2055	7	44.961	40.306	-69.373	-35.626
1154	7	44.961	40.306	-69.373	-35.626
1280	7	-16.927	56.49	-68.971	11.748
2025	7	-16.927	56.49	-68.971	11.748
1461	7	-21.637	59.143	-68.892	16.165
1704	7	-21.637	59.143	-68.892	16.165
1490	7	28.987	57.833	-68.588	-49.596
1738	7	28.987	57.833	-68.588	-49.596
1363	7	-1.935	59.059	-68.245	0.141
1826	7	-1.935	59.059	-68.245	0.141
1383	7	28.359	61.279	-67.74	-27.42
1903	7	28.359	61.279	-67.74	-27.42
1347	7	10.178	65.916	-67.051	-1.8
1897	7	10.178	65.916	-67.051	-1.8
1141	7	54.749	30.634	-66.965	-30.391
2054	7	54.749	30.634	-66.965	-30.391
1458	7	-11.761	64.856	-65.546	8.229
1696	7	-11.761	64.856	-65.546	8.229
1650	7	-2.438	60.6	-64.614	-0.088
1664	7	-2.438	60.6	-64.614	-0.088
1088	7	-19.697	60.849	-64.01	-1.918
2119	7	-19.697	60.849	-64.01	-1.918
1194	7	-55.713	63.97	-63.349	44.77
2000	7	-55.713	63.97	-63.349	44.77
1153	7	57.036	26.821	-63.344	-29.449
2055	7	57.036	26.821	-63.344	-29.449
1519	7	44.598	51.809	-62.79	-53.03
1773	7	44.598	51.809	-62.79	-53.03
1082	7	-4.912	45.528	-62.577	8.498
2059	7	-4.912	45.528	-62.577	8.498
1123	7	-43.619	63.517	-61.923	14.944
2112	7	-43.619	63.517	-61.923	14.944
1343	7	-31.008	49.768	-61.387	24.795
1864	7	-31.008	49.768	-61.387	24.795
1208	7	-20.155	49.701	-61.341	19.79
2013	7	-20.155	49.701	-61.341	19.79
1196	7	-23.479	50.83	-61.242	23.242
2011	7	-23.479	50.83	-61.242	23.242
1112	7	-21.458	56	-61.232	0.279
2121	7	-21.458	56	-61.232	0.279

1652	7	20.564	58.245	-61.2	-24.222
1662	7	20.564	58.245	-61.2	-24.222
1542	7	137.56	56.306	-61.176	-141.562
1781	7	137.56	56.306	-61.176	-141.562
2280	7	-10.304	60.675	-60.657	10.286
2281	7	-10.304	60.675	-60.657	10.286
1327	7	48.281	41.136	-60.61	-50.951
1623	7	48.281	41.136	-60.61	-50.951
2279	7	-10.266	60.536	-60.531	10.261
2282	7	-10.266	60.536	-60.531	10.261
2278	7	-10.189	60.217	-60.231	10.204
2283	7	-10.189	60.217	-60.231	10.204
1457	7	-11.384	59.426	-59.734	7.124
1687	7	-11.384	59.426	-59.734	7.124
2277	7	-10.068	59.646	-59.683	10.104
2284	7	-10.068	59.646	-59.683	10.104
1078	7	-11.312	37.361	-58.915	7.777
2129	7	-11.312	37.361	-58.915	7.777
2276	7	-9.891	58.746	-58.803	9.948
2286	7	-9.891	58.746	-58.803	9.948
1134	7	-39.813	64.122	-58.734	5.233
2100	7	-39.813	64.122	-58.734	5.233
731	7	144.62	67.809	-58.668	-162.467
976	7	144.62	67.809	-58.668	-162.467
1375	7	-8.308	52.723	-58.099	5.305
1827	7	-8.308	52.723	-58.099	5.305
1114	7	5.282	42.01	-57.798	-16.034
2135	7	5.282	42.01	-57.798	-16.033
740	7	191.023	57.774	-57.589	-207.847
989	7	191.023	57.774	-57.589	-207.847
2393	7	-9.541	57.438	-57.52	9.723
2166	7	-9.541	57.438	-57.519	9.723
1129	7	53.67	24.446	-57.471	-33.286
2053	7	53.67	24.446	-57.471	-33.286
1124	7	-18.58	45.516	-56.589	2.148
2122	7	-18.58	45.516	-56.589	2.148
1100	7	-16.711	57.405	-56.524	-9.898
2120	7	-16.711	57.405	-56.524	-9.898
1155	7	34.005	39.742	-56.036	-47.978
2075	7	34.005	39.742	-56.036	-47.978
2166	7	-9.292	55.635	-55.756	9.413
2394	7	-9.292	55.635	-55.756	9.413
1268	7	2.531	50.08	-55.466	-12.653
2023	7	2.531	50.08	-55.466	-12.653
1070	7	-7.983	39.837	-54.321	9.691
2058	7	-7.983	39.837	-54.321	9.691
1328	7	31.512	38.676	-54.02	-45.918
1833	7	31.512	38.676	-54.02	-45.918
1220	7	-5.733	44.423	-53.793	1.681
2015	7	-5.733	44.423	-53.793	1.681
1456	7	-11.834	53.501	-53.433	6.669
1688	7	-11.834	53.501	-53.433	6.669
2165	7	-8.809	53.222	-53.41	8.997
2395	7	-8.809	53.222	-53.41	8.997

1338	7	59.86	34.473	-53.286	-52.169
1814	7	59.86	34.473	-53.286	-52.169
1429	7	-16.776	47.463	-53.284	13.362
1910	7	-16.776	47.463	-53.284	13.362
1648	7	-13.085	48.129	-52.6	11.079
1665	7	-13.085	48.129	-52.6	11.079
1145	7	-13.527	53.764	-52.055	-21.238
2094	7	-13.527	53.764	-52.055	-21.238
1342	7	-45.563	53.24	-51.889	22.72
1854	7	-45.563	53.24	-51.889	22.72
1326	7	64.568	30.913	-51.49	-54.742
1813	7	64.568	30.913	-51.49	-54.742
1451	7	10.601	32.324	-51.138	-2.158
1693	7	10.601	32.324	-51.138	-2.158
1128	7	-0.795	32.118	-51.111	-8.084
2137	7	-0.795	32.118	-51.111	-8.084
2154	7	-8.151	50.034	-50.325	8.442
2396	7	-8.151	50.034	-50.325	8.443
1480	7	9.141	45.154	-50.181	-35.759
1727	7	9.141	45.154	-50.181	-35.759
1387	7	-11.565	47.567	-50.156	6.885
1828	7	-11.565	47.567	-50.156	6.885
1335	7	5.322	52.629	-50.087	5.2
1895	7	5.322	52.629	-50.087	5.2
1333	7	4.54	37.176	-49.754	3.394
1883	7	4.54	37.176	-49.754	3.394
732	7	117.506	56.309	-49.233	-133.385
975	7	117.506	56.309	-49.233	-133.385
820	7	98.134	36.977	-47.885	-107.702
1051	7	98.134	36.977	-47.885	-107.702
1295	7	-10.642	35.685	-47.193	10.042
1949	7	-10.642	35.684	-47.193	10.042
1135	7	-25.517	47.326	-47.064	-4.237
2113	7	-25.517	47.326	-47.064	-4.237
855	7	-5.691	43.037	-47.055	0.025
856	7	-5.69	43.037	-47.055	0.025
1455	7	-13.57	46.826	-46.689	7.569
1689	7	-13.57	46.826	-46.689	7.569
1452	7	-3.243	31.644	-46.675	8.615
1692	7	-3.243	31.644	-46.675	8.615
854	7	-3.21	42.921	-46.62	-2.763
857	7	-3.21	42.921	-46.62	-2.763
2153	7	-7.271	45.849	-46.285	7.707
2397	7	-7.271	45.849	-46.285	7.707
853	7	1.545	42.763	-45.724	-8.227
856	7	1.545	42.763	-45.724	-8.227
1399	7	-12.433	43.705	-44.769	6.817
1829	7	-12.433	43.705	-44.769	6.817
852	7	8.58	42.767	-44.565	-16.372
859	7	8.58	42.767	-44.565	-16.372
733	7	90.504	49.521	-44.213	-104.727
974	7	90.504	49.521	-44.213	-104.727
851	7	18.22	43.086	-43.476	-27.334
860	7	18.22	43.086	-43.476	-27.334

1117	7	53.719	14.646	-43.467	-37.441
2052	7	53.72	14.646	-43.467	-37.441
736	7	30.864	43.672	-42.632	-41.285
971	7	30.864	43.672	-42.632	-41.285
734	7	66.697	46.091	-42.304	-79.548
973	7	66.697	46.091	-42.304	-79.548
735	7	46.886	44.517	-42.108	-58.523
972	7	46.886	44.517	-42.108	-58.523
1396	7	56.209	38.311	-42.021	-60.043
1905	7	56.209	38.311	-42.021	-60.042
1419	7	9.58	41.499	-41.996	-17.01
1909	7	9.58	41.499	-41.996	-17.01
1136	7	-4.623	32.451	-41.975	-14.982
2123	7	-4.623	32.451	-41.975	-14.982
1654	7	66.161	40.075	-41.896	-71.153
1660	7	66.161	40.075	-41.896	-71.153
1480	7	5.773	31.403	-41.831	-15.316
1705	7	5.773	31.403	-41.831	-15.316
1294	7	-12.27	33.722	-41.82	8.921
1948	7	-12.27	33.722	-41.82	8.921
2152	7	-4.077	40.401	-41.01	6.686
2398	7	-4.077	40.401	-41.01	6.686
1350	7	56.249	25.896	-40.981	-50.979
1815	7	56.249	25.896	-40.981	-50.979
1411	7	-12.622	40.456	-40.965	6.648
1830	7	-12.622	40.456	-40.964	6.648
1450	7	25.647	22.317	-40.838	-16.057
1694	7	25.647	22.317	-40.838	-16.057
1454	7	-15.613	39.436	-40.829	10.09
1690	7	-15.613	39.437	-40.829	10.09
1453	7	-13.04	32.824	-40.533	12.504
1691	7	-13.04	32.824	-40.533	12.504
1329	7	14.284	30.333	-40.266	-37.174
1843	7	14.284	30.333	-40.266	-37.174
1323	7	-11.473	54.238	-39.72	12.302
1893	7	-11.473	54.238	-39.72	12.302
1509	7	63.671	24.037	-39.323	-79.647
1762	7	63.671	24.037	-39.323	-79.647
1272	7	-12.107	33.627	-38.894	6.583
1947	7	-12.107	33.626	-38.894	6.583
1236	7	-7.694	34.824	-38.264	2.244
1944	7	-7.694	34.824	-38.264	2.244
1248	7	-8.614	34.758	-38.243	2.58
1945	7	-8.614	34.758	-38.243	2.58
1422	7	-12.785	37.59	-38.15	6.775
1831	7	-12.785	37.59	-38.15	6.775
1260	7	-10.446	34.259	-38.116	4.156
1946	7	-10.446	34.259	-38.116	4.156
1232	7	28.47	32.471	-38.035	-37.897
2017	7	28.47	32.471	-38.035	-37.897
1224	7	-8.064	34.53	-37.846	3.057
1943	7	-8.063	34.53	-37.846	3.057
1332	7	-1.376	22.533	-37.529	-1.262
1873	7	-1.376	22.533	-37.529	-1.262

1470	7	-4.334	36.46	-37.474	-22.572
1716	7	-4.334	36.46	-37.474	-22.572
1212	7	-9.49	34.188	-37.012	4.544
1942	7	-9.49	34.188	-37.012	4.544
1188	7	-12.49	35.418	-36.52	6.739
1940	7	-12.49	35.418	-36.519	6.739
1200	7	-11.264	34.313	-36.3	5.983
1941	7	-11.264	34.313	-36.3	5.983
1256	7	49.795	34.128	-34.564	-63.358
2021	7	49.795	34.128	-34.564	-63.358
1146	7	-9.396	41.482	-34.496	-31.598
2104	7	-9.396	41.482	-34.496	-31.598
2161	7	-4.678	33.598	-34.358	5.437
2399	7	-4.678	33.598	-34.358	5.437
2085	7	26.666	32.119	-33.655	-62.704
1156	7	26.666	32.119	-33.654	-62.704
1128	7	7.773	18.444	-33.306	-21.533
2139	7	7.773	18.444	-33.306	-21.533
1165	7	57.55	12.741	-30.122	-41.672
2056	7	57.55	12.741	-30.122	-41.672
1105	7	54.965	5.635	-29.689	-43.128
2051	7	54.965	5.635	-29.689	-43.128
1147	7	9.962	29.774	-29.5	-43.29
2114	7	9.962	29.774	-29.5	-43.29
751	7	179.722	18.597	-29.48	-191.292
1000	7	179.722	18.597	-29.48	-191.292
2658	7	-0.628	28.948	-28.95	0.63
2659	7	-0.628	28.948	-28.95	0.63
915	7	170.142	12.146	-26.995	-170.482
916	7	170.142	12.146	-26.995	-170.482
1547	7	-8.87	24.801	-26.548	4.24
1775	7	-8.87	24.801	-26.548	4.24
1330	7	-2.375	21.933	-26.024	-25.094
1853	7	-2.375	21.933	-26.024	-25.094
2160	7	-2.586	25.127	-25.894	3.353
2400	7	-2.586	25.127	-25.894	3.353
1362	7	54.797	14.292	-25.749	-51.491
1816	7	54.797	14.292	-25.749	-51.491
1148	7	27.514	18.905	-24.326	-52.979
2124	7	27.514	18.905	-24.326	-52.979
1152	7	66.373	-6.706	-24.203	-36.889
2044	7	66.373	-6.706	-24.203	-36.889
1495	7	80.47	6.91	-23.973	-103.276
1751	7	80.47	6.91	-23.973	-103.277
1331	7	-9.209	17.58	-23.369	-11.476
1863	7	-9.209	17.58	-23.369	-11.476
1090	7	7.047	15.38	-21.632	-28.559
2131	7	7.047	15.38	-21.632	-28.559
2526	7	-3.445	20.317	-20.324	3.452
2766	7	-3.445	20.317	-20.324	3.452
2537	7	-3.458	20.311	-20.303	3.451
2776	7	-3.458	20.311	-20.303	3.451
2515	7	-3.418	20.268	-20.295	3.445
2756	7	-3.418	20.268	-20.295	3.445

2548	7	-3.462	20.295	-20.281	3.447
2796	7	-3.462	20.295	-20.281	3.447
2806	7	-3.446	20.281	-20.277	3.442
2559	7	-3.457	20.288	-20.276	3.445
2570	7	-3.446	20.281	-20.276	3.442
2796	7	-3.457	20.288	-20.276	3.445
2581	7	-3.428	20.242	-20.248	3.433
2816	7	-3.428	20.243	-20.248	3.433
2746	7	-3.371	20.105	-20.154	3.419
2504	7	-3.371	20.105	-20.153	3.419
2594	7	-3.399	20.135	-20.15	3.414
2835	7	-3.399	20.136	-20.15	3.414
2836	7	-3.353	19.922	-19.946	3.377
3063	7	-3.353	19.922	-19.946	3.377
2493	7	-3.295	19.769	-19.839	3.365
2736	7	-3.295	19.769	-19.839	3.365
2649	7	-3.278	19.564	-19.602	3.316
3073	7	-3.278	19.564	-19.602	3.316
2249	7	-3.177	19.202	-19.296	3.273
2490	7	-3.177	19.202	-19.296	3.273
2990	7	-3.155	19.01	-19.078	3.223
3083	7	-3.155	19.01	-19.078	3.223
2236	7	-3.003	18.35	-18.481	3.134
2471	7	-3.003	18.35	-18.481	3.134
1166	7	63.293	13.237	-18.417	-81.269
2066	7	63.293	13.237	-18.417	-81.269
2871	7	-2.962	18.178	-18.297	3.081
3093	7	-2.962	18.178	-18.297	3.081
1164	7	47.839	-0.524	-18.208	-14.925
2046	7	47.839	-0.524	-18.208	-14.925
1093	7	57.166	-0.988	-18.151	-49.857
2050	7	57.166	-0.988	-18.151	-49.858
741	7	217.667	20.404	-17.927	-233.341
988	7	217.667	20.404	-17.927	-233.341
2159	7	-1.958	17.535	-17.911	2.335
2401	7	-1.958	17.535	-17.911	2.335
1407	7	72.269	18.253	-17.338	-80.721
1907	7	72.269	18.253	-17.338	-80.721
2225	7	-2.754	17.151	-17.333	2.936
2461	7	-2.754	17.151	-17.333	2.936
2882	7	-2.674	16.948	-17.145	2.87
3103	7	-2.674	16.948	-17.145	2.87
1157	7	29.813	23.004	-16.018	-78.29
2095	7	29.813	23.004	-16.018	-78.29
2214	7	-2.41	15.535	-15.786	2.661
2451	7	-2.41	15.535	-15.786	2.661
1102	7	27.638	13.595	-15.617	-53.241
2133	7	27.638	13.595	-15.617	-53.241
2893	7	-2.235	15.162	-15.453	2.526
3113	7	-2.235	15.162	-15.453	2.526
1150	7	35.118	8.375	-14.843	-56.847
2141	7	35.118	8.375	-14.843	-56.847
1489	7	90.433	-2.977	-14.233	-118.77
1740	7	90.433	-2.977	-14.233	-118.77

2263	7	-1.973	13.438	-13.771	2.306
2441	7	-1.973	13.438	-13.771	2.306
2904	7	-1.762	12.751	-13.114	2.125
3123	7	-1.762	12.751	-13.114	2.125
1140	7	87.982	-9.826	-12.99	-71.914
1374	7	55.492	4.553	-12.99	-53.886
1617	7	55.492	4.553	-12.99	-53.886
2042	7	87.982	-9.826	-12.99	-71.914
1433	7	42.874	-3.017	-11.329	-30.214
1683	7	42.874	-3.017	-11.329	-30.214
2192	7	-1.347	10.785	-11.188	1.75
2431	7	-1.347	10.785	-11.188	1.75
1325	7	74.99	-2.93	-11.17	-63.621
1796	7	74.99	-2.93	-11.17	-63.621
1158	7	46.651	15.071	-10.462	-92.91
2105	7	46.651	15.071	-10.462	-92.909
782	7	147.656	-9.129	-10.091	-153.767
1011	7	147.656	-9.129	-10.091	-153.767
2931	7	-1.569	9.721	-9.827	1.674
3138	7	-1.569	9.721	-9.827	1.674
2930	7	-1.486	9.607	-9.796	1.675
3139	7	-1.486	9.607	-9.796	1.675
2915	7	-0.56	9.444	-9.77	0.885
3133	7	-0.56	9.445	-9.77	0.885
1159	7	66.458	9.173	-9.739	-104.631
2115	7	66.458	9.173	-9.739	-104.631
1307	7	61.312	1.665	-9.611	-65.307
1812	7	61.312	1.665	-9.611	-65.307
2932	7	-1.584	9.555	-9.607	1.635
3137	7	-1.584	9.555	-9.607	1.635
1081	7	59.935	-5.304	-9.362	-56.665
2049	7	59.935	-5.304	-9.362	-56.665
2929	7	-1.264	9.029	-9.321	1.556
3140	7	-1.264	9.029	-9.321	1.556
2933	7	-1.55	9.24	-9.264	1.575
3136	7	-1.55	9.24	-9.264	1.575
1321	7	-5.92	7.377	-9.22	-5.888
1682	7	-5.919	7.377	-9.22	-5.888
1160	7	82.281	5.455	-9.041	-112.026
2125	7	82.281	5.455	-9.041	-112.026
2935	7	-1.491	8.854	-8.869	1.506
3135	7	-1.491	8.854	-8.869	1.506
1309	7	76.856	-2.739	-8.841	-68.904
1622	7	76.856	-2.739	-8.841	-68.904
1479	7	90.626	-7.069	-8.513	-122.009
1729	7	90.626	-7.069	-8.513	-122.009
2626	7	-2.693	8.464	-8.466	2.695
3143	7	-2.693	8.464	-8.466	2.695
3034	7	-1.423	8.437	-8.448	1.433
3044	7	-1.423	8.437	-8.448	1.433
2181	7	-1.054	7.999	-8.369	1.424
2421	7	-1.054	7.999	-8.369	1.424
2928	7	-1.111	7.92	-8.289	1.479
3141	7	-1.111	7.92	-8.289	1.479

3035	7	-1.259	8.016	-8.016	1.262
3042	7	-1.259	8.016	-8.016	1.262
3036	7	-1.31	7.625	-7.614	1.299
3041	7	-1.31	7.625	-7.614	1.299
1435	7	54.965	-3.945	-7.56	-49.943
1681	7	54.965	-3.945	-7.56	-49.943
3037	7	-1.278	7.316	-7.289	1.251
3040	7	-1.278	7.316	-7.289	1.251
1244	7	97.44	6.657	-7.141	-113.749
2019	7	97.44	6.657	-7.141	-113.749
3038	7	-1.263	7.143	-7.105	1.225
3039	7	-1.263	7.143	-7.105	1.225
2627	7	0.154	5.838	-6.176	0.184
3142	7	0.154	5.838	-6.176	0.184
2147	7	31.795	3.557	-5.706	-29.647
2382	7	31.795	3.557	-5.706	-29.647
1311	7	88.938	-9.076	-5.603	-119.958
1832	7	88.938	-9.076	-5.603	-119.958
1162	7	90.083	2.191	-5.557	-113.291
2143	7	90.083	2.191	-5.557	-113.291
1869	7	80.111	-6.269	-5.51	-110.671
1718	7	80.111	-6.269	-5.51	-110.671
1546	7	50.531	4.647	-4.499	-56.981
1777	7	50.531	4.647	-4.499	-56.981
2158	7	7.533	4.561	-4.482	-7.853
2402	7	7.533	4.561	-4.482	-7.853
1319	7	31.829	-5.335	-4.309	-51.724
1872	7	31.829	-5.335	-4.309	-51.724
2179	7	1.505	3.969	-4.172	-1.298
2411	7	1.505	3.969	-4.172	-1.298
1386	7	57.729	-2.173	-4.023	-57.511
1818	7	57.729	-2.173	-4.023	-57.511
1459	7	61.193	-1.844	-3.95	-65.065
1707	7	61.193	-1.844	-3.95	-65.065
2680	7	1.314	3.442	-3.443	-1.313
2681	7	1.314	3.442	-3.443	-1.313
2658	7	-1.486	3.353	-3.353	1.486
2671	7	-1.486	3.353	-3.353	1.486
1069	7	62.669	-7.966	-3.039	-62.664
2048	7	62.67	-7.966	-3.039	-62.664
1213	7	91.723	-13.291	-2.725	-125.178
1842	7	91.723	-13.291	-2.725	-125.178
2679	7	-0.237	2.183	-2.183	0.237
2682	7	-0.237	2.183	-2.183	0.237
1337	7	103.977	-8.88	-1.884	-100.35
1798	7	103.977	-8.88	-1.884	-100.35
1317	7	62.365	-11.489	-1.866	-69.087
1862	7	62.365	-11.489	-1.866	-69.087
1449	7	41.164	2.399	-1.714	-49.348
1696	7	41.164	2.399	-1.714	-49.348
1167	7	73.884	5.904	-1.628	-118.902
2076	7	73.884	5.904	-1.628	-118.902
2302	7	-0.254	1.538	-1.551	0.287
2303	7	-0.254	1.538	-1.551	0.287

2301	7	-0.249	1.53	-1.548	0.268
2304	7	-0.249	1.53	-1.548	0.268
2300	7	-0.241	1.514	-1.542	0.27
2305	7	-0.241	1.514	-1.542	0.27
2299	7	-0.23	1.49	-1.531	0.272
2306	7	-0.23	1.49	-1.531	0.272
2298	7	-0.218	1.456	-1.514	0.274
2308	7	-0.218	1.456	-1.514	0.274
2190	7	-0.197	1.41	-1.488	0.275
2413	7	-0.197	1.41	-1.488	0.275
2188	7	-0.173	1.365	-1.451	0.278
2414	7	-0.173	1.365	-1.451	0.278
2187	7	-0.141	1.287	-1.401	0.274
2415	7	-0.141	1.287	-1.401	0.274
1215	7	82.835	-14.133	-1.378	-114.371
1852	7	82.835	-14.133	-1.378	-114.371
2186	7	-0.1	1.184	-1.33	0.265
2416	7	-0.1	1.184	-1.33	0.265
2547	7	3.44	1.315	-1.311	-3.444
2549	7	3.44	1.315	-1.311	-3.444
808	7	8.886	-3	-1.304	-18.074
1003	7	8.886	-3	-1.304	-18.074
2185	7	-0.06	1.046	-1.233	0.247
2417	7	-0.06	1.046	-1.233	0.247
938	7	96.728	-7.266	-1.171	-104.54
934	7	96.728	-7.266	-1.171	-104.54
2384	7	0.013	0.901	-1.082	0.168
2418	7	0.013	0.901	-1.082	0.168
2383	7	-0.131	0.972	-0.996	0.215
2419	7	-0.131	0.972	-0.996	0.215
1174	7	181.457	-1.578	-0.946	-183.651
1145	7	181.457	-1.578	-0.946	-183.651
2645	7	-0.008	0.587	-0.585	0.006
2650	7	-0.008	0.587	-0.585	0.006
2635	7	-0.139	0.552	-0.552	0.139
2638	7	-0.139	0.552	-0.552	0.139
2517	7	-0.073	0.501	-0.526	0.098
2754	7	-0.073	0.501	-0.526	0.098
2506	7	-0.065	0.49	-0.525	0.101
2744	7	-0.065	0.49	-0.525	0.101
2528	7	-0.06	0.51	-0.524	0.094
2764	7	-0.06	0.51	-0.524	0.094
2539	7	-0.084	0.515	-0.522	0.092
2774	7	-0.084	0.515	-0.522	0.092
2495	7	-0.096	0.473	-0.521	0.104
2500	7	-0.087	0.517	-0.521	0.09
2734	7	-0.096	0.473	-0.521	0.104
2784	7	-0.087	0.517	-0.521	0.09
2561	7	-0.087	0.517	-0.52	0.09
2572	7	-0.084	0.514	-0.52	0.09
2583	7	-0.081	0.509	-0.52	0.091
2794	7	-0.087	0.517	-0.52	0.09
2804	7	-0.084	0.514	-0.52	0.09
2814	7	-0.081	0.509	-0.52	0.091

2598	7	-0.077	0.502	-0.518	0.093
2831	7	-0.077	0.502	-0.518	0.093
2840	7	-0.071	0.491	-0.515	0.095
3061	7	-0.071	0.491	-0.515	0.095
2253	7	-0.046	0.451	-0.511	0.106
2486	7	-0.046	0.451	-0.511	0.106
2851	7	-0.063	0.475	-0.51	0.097
3071	7	-0.063	0.475	-0.51	0.097
2862	7	-0.052	0.452	-0.499	0.099
3081	7	-0.052	0.452	-0.499	0.099
2238	7	-0.034	0.422	-0.494	0.106
2469	7	-0.034	0.422	-0.494	0.106
2873	7	-0.037	0.421	-0.48	0.097
3091	7	-0.037	0.421	-0.48	0.097
2227	7	-0.02	0.386	-0.468	0.102
2459	7	-0.02	0.386	-0.468	0.102
2884	7	-0.025	0.383	-0.449	0.091
3101	7	-0.025	0.383	-0.449	0.091
2216	7	-0.005	0.344	-0.427	0.088
2449	7	-0.005	0.344	-0.427	0.088
2895	7	0.011	0.337	-0.391	0.043
3111	7	0.011	0.337	-0.391	0.043
2906	7	-0.135	0.389	-0.39	0.135
3121	7	-0.135	0.389	-0.39	0.135
2656	7	-0.092	0.386	-0.384	0.09
2861	7	-0.092	0.386	-0.384	0.09
2205	7	-0.013	0.314	-0.374	0.073
2439	7	-0.013	0.314	-0.374	0.073
2182	7	1.134	0.424	-0.367	-1.19
2420	7	1.134	0.424	-0.367	-1.19
2691	7	0.211	0.309	-0.31	-0.211
2892	7	0.211	0.309	-0.31	-0.211
2909	7	-0.01	0.213	-0.264	0.061
3118	7	-0.01	0.213	-0.264	0.061
2908	7	-0.006	0.2	-0.26	0.066
3119	7	-0.006	0.2	-0.26	0.066
1128	7	113.648	-15.466	-0.258	-106.433
2040	7	113.648	-15.466	-0.258	-106.433
2910	7	-0.02	0.221	-0.258	0.057
3117	7	-0.02	0.221	-0.258	0.057
2194	7	0.088	0.243	-0.251	-0.08
2429	7	0.088	0.243	-0.251	-0.08
2911	7	-0.026	0.222	-0.246	0.05
3116	7	-0.026	0.222	-0.246	0.05
2913	7	-0.03	0.218	-0.233	0.045
3115	7	-0.03	0.218	-0.233	0.045
2907	7	0.045	0.177	-0.228	0.007
3120	7	0.045	0.177	-0.228	0.007
3012	7	-0.032	0.212	-0.22	0.04
3022	7	-0.032	0.212	-0.22	0.04
2636	7	0.313	0.208	-0.214	-0.306
2637	7	0.313	0.208	-0.214	-0.306
3013	7	-0.034	0.206	-0.207	0.035
3020	7	-0.034	0.206	-0.207	0.035

Code	Year	Value	Value	Value	Value
2311	0	0.000	0.000	0.000	0.000
2312	0	0.000	0.000	0.000	0.000
2313	0	0.000	0.000	0.000	0.000
2314	0	0.000	0.000	0.000	0.000
2315	0	0.000	0.000	0.000	0.000
2316	0	0.000	0.000	0.000	0.000
2317	0	0.000	0.000	0.000	0.000
2318	0	0.000	0.000	0.000	0.000
2319	0	0.000	0.000	0.000	0.000
2320	0	0.000	0.000	0.000	0.000
2321	0	0.000	0.000	0.000	0.000
2322	0	0.000	0.000	0.000	0.000
2323	0	0.000	0.000	0.000	0.000
2324	0	0.000	0.000	0.000	0.000
2325	0	0.000	0.000	0.000	0.000
2326	0	0.000	0.000	0.000	0.000
2327	0	0.000	0.000	0.000	0.000
2328	0	0.000	0.000	0.000	0.000
2329	0	0.000	0.000	0.000	0.000
2330	0	0.000	0.000	0.000	0.000
2331	0	0.000	0.000	0.000	0.000
2332	0	0.000	0.000	0.000	0.000
2333	0	0.000	0.000	0.000	0.000
2334	0	0.000	0.000	0.000	0.000
2335	0	0.000	0.000	0.000	0.000
2336	0	0.000	0.000	0.000	0.000
2337	0	0.000	0.000	0.000	0.000
2338	0	0.000	0.000	0.000	0.000
2339	0	0.000	0.000	0.000	0.000
2340	0	0.000	0.000	0.000	0.000
2341	0	0.000	0.000	0.000	0.000
2342	0	0.000	0.000	0.000	0.000
2343	0	0.000	0.000	0.000	0.000
2344	0	0.000	0.000	0.000	0.000
2345	0	0.000	0.000	0.000	0.000
2346	0	0.000	0.000	0.000	0.000
2347	0	0.000	0.000	0.000	0.000
2348	0	0.000	0.000	0.000	0.000
2349	0	0.000	0.000	0.000	0.000
2350	0	0.000	0.000	0.000	0.000
2351	0	0.000	0.000	0.000	0.000
2352	0	0.000	0.000	0.000	0.000
2353	0	0.000	0.000	0.000	0.000
2354	0	0.000	0.000	0.000	0.000

3069	7	0.007	0.011	-0.021	0.003
3079	7	0.007	0.011	-0.021	0.002
2842	7	0.006	0.01	-0.02	0.005
3059	7	0.006	0.01	-0.02	0.005
2206	7	0.049	0.013	-0.019	-0.044
2438	7	0.049	0.013	-0.019	-0.044
2530	7	0.004	0.008	-0.019	0.007
2602	7	0.004	0.008	-0.019	0.006
2612	7	0.003	0.015	-0.019	0.001
2617	7	0.003	0.015	-0.019	0.001
2762	7	0.004	0.008	-0.019	0.007
2827	7	0.004	0.008	-0.019	0.008
2541	7	0.002	0.009	-0.018	0.007
2585	7	0.003	0.008	-0.018	0.007
2772	7	0.002	0.009	-0.018	0.007
2812	7	0.003	0.008	-0.018	0.007
2875	7	0.007	0.009	-0.018	0.003
3089	7	0.007	0.009	-0.018	0.003
2552	7	0.001	0.01	-0.017	0.006
2563	7	0.001	0.01	-0.017	0.006
2574	7	0.002	0.009	-0.017	0.006
2782	7	0.001	0.01	-0.017	0.006
2792	7	0.001	0.01	-0.017	0.006
2802	7	0.002	0.009	-0.017	0.006
2220	7	0.02	0.019	-0.015	-0.025
2221	7	0.022	0.02	-0.015	-0.026
2229	7	0.004	0.008	-0.015	0.003
2234	7	0.014	0.014	-0.015	-0.013
2342	7	0.014	0.014	-0.015	-0.013
2352	7	0.014	0.014	-0.015	-0.013
2444	7	0.022	0.02	-0.015	-0.026
2445	7	0.02	0.019	-0.015	-0.025
2453	7	0.014	0.014	-0.015	-0.013
2457	7	0.004	0.008	-0.015	0.003
2613	7	0.008	0.005	-0.015	0.002
2616	7	0.008	0.005	-0.015	0.002
2632	7	-0.003	0.017	-0.015	0.002
2642	7	-0.003	0.017	-0.015	0.002
2223	7	0.021	0.019	-0.014	-0.025
2232	7	0.013	0.013	-0.014	-0.012
2343	7	0.013	0.013	-0.014	-0.012
2350	7	0.013	0.013	-0.014	-0.012
2443	7	0.021	0.019	-0.014	-0.025
2454	7	0.013	0.013	-0.014	-0.012
2344	7	0.012	0.012	-0.013	-0.011
2349	7	0.012	0.012	-0.013	-0.011
2644	7	0.09	0.011	-0.013	-0.088
2651	7	0.09	0.011	-0.013	-0.088
2331	7	0.019	0.017	-0.012	-0.024
2341	7	0.019	0.017	-0.012	-0.024
2345	7	0.011	0.011	-0.012	-0.01
2348	7	0.011	0.011	-0.012	-0.01
2886	7	-0.003	0.01	-0.012	0.005
3099	7	-0.003	0.01	-0.012	0.005

2219	7	0.017	0.013	-0.011	-0.02
2231	7	0.01	0.011	-0.011	-0.01
2346	7	0.01	0.011	-0.011	-0.01
2347	7	0.01	0.011	-0.011	-0.01
2446	7	0.017	0.013	-0.011	-0.02
2455	7	0.01	0.011	-0.011	-0.01
2688	7	0.004	0.006	-0.011	0.001
3097	7	0.004	0.006	-0.011	0.001
2332	7	0.017	0.015	-0.01	-0.022
2339	7	0.017	0.015	-0.01	-0.022
2353	7	0.01	0.01	-0.01	-0.01
2354	7	0.01	0.01	-0.01	-0.01
2355	7	0.01	0.01	-0.01	-0.01
2360	7	0.01	0.01	-0.01	-0.01
2361	7	0.01	0.01	-0.01	-0.01
2363	7	0.01	0.01	-0.01	-0.01
2889	7	0.004	0.005	-0.01	0.001
3096	7	0.004	0.005	-0.01	0.001
2245	7	0.01	0.009	-0.009	-0.01
2356	7	0.01	0.009	-0.009	-0.01
2357	7	0.009	0.009	-0.009	-0.01
2358	7	0.009	0.009	-0.009	-0.01
2359	7	0.01	0.009	-0.009	-0.01
2373	7	0.008	0.008	-0.009	-0.007
2375	7	0.008	0.008	-0.009	-0.007
2463	7	0.01	0.009	-0.009	-0.01
2611	7	0.003	0.009	-0.009	-0.003
2618	7	0.003	0.009	-0.009	-0.003
2622	7	0.003	0.006	-0.009	0
2629	7	0.003	0.006	-0.009	0
2887	7	0.004	0.003	-0.009	0.002
2891	7	0.002	0.004	-0.009	0.002
3085	7	0.002	0.004	-0.009	0.002
3088	7	0.004	0.003	-0.009	0.002
2343	7	0.008	0.008	-0.008	-0.008
2371	7	0.007	0.009	-0.008	-0.008
2377	7	0.007	0.009	-0.008	-0.008
2464	7	0.008	0.008	-0.008	-0.008
2665	7	0	0.008	-0.008	-0.001
2675	7	0	0.008	-0.008	-0.001
2718	7	-0.002	0.009	-0.008	0.001
2720	7	-0.002	0.009	-0.008	0.001
2333	7	0.015	0.013	-0.007	-0.02
2338	7	0.015	0.013	-0.007	-0.02
2365	7	0.007	0.007	-0.007	-0.007
2382	7	0.007	0.007	-0.007	-0.007
2643	7	0.003	0.009	-0.007	-0.005
2653	7	0.003	0.009	-0.007	-0.005
2917	7	1.122	0.137	-0.007	-1.252
2990	7	0.001	0.004	-0.007	0.002
3000	7	0.001	0.004	-0.007	0.002
3131	7	1.122	0.137	-0.007	-1.252
2264	7	0.006	0.006	-0.006	-0.006
2334	7	0.013	0.011	-0.006	-0.018

2337	7	0.013	0.011	-0.006	-0.018
2367	7	0.009	0.007	-0.006	-0.009
2369	7	0.008	0.008	-0.006	-0.01
2379	7	0.008	0.008	-0.006	-0.01
2381	7	0.009	0.007	-0.006	-0.009
2474	7	0.006	0.006	-0.006	-0.006
2621	7	0.001	0.007	-0.006	-0.001
2631	7	0.001	0.007	-0.006	-0.001
2991	7	-0.001	0.005	-0.006	0.001
2998	7	-0.001	0.005	-0.006	0.001
2230	7	0.006	0.003	-0.005	-0.004
2335	7	0.012	0.01	-0.005	-0.017
2336	7	0.012	0.01	-0.005	-0.017
2456	7	0.006	0.003	-0.005	-0.004
2218	7	-0.001	0.013	-0.004	-0.007
2242	7	0.004	0.005	-0.004	-0.004
2263	7	0.004	0.004	-0.004	-0.004
2447	7	-0.001	0.013	-0.004	-0.007
2465	7	0.004	0.005	-0.004	-0.004
2476	7	0.004	0.004	-0.004	-0.004
2498	7	0.006	0.005	-0.004	-0.006
2509	7	0.006	0.005	-0.004	-0.006
2579	7	0.001	0.003	-0.004	0
2587	7	0.003	0.003	-0.004	-0.003
2606	7	0.004	0.004	-0.004	-0.003
2610	7	0.006	0.004	-0.004	-0.006
2620	7	0.006	0.004	-0.004	-0.006
2731	7	0.006	0.005	-0.004	-0.006
2741	7	0.006	0.005	-0.004	-0.006
2788	7	0.001	0.003	-0.004	0
2810	7	0.003	0.003	-0.004	-0.003
2823	7	0.004	0.004	-0.004	-0.003
2843	7	0.006	0.005	-0.004	-0.007
2844	7	0.004	0.004	-0.004	-0.003
2854	7	0.006	0.005	-0.004	-0.007
2855	7	0.003	0.003	-0.004	-0.003
2992	7	-0.002	0.007	-0.004	0
2993	7	-0.003	0.008	-0.004	-0.001
2994	7	-0.002	0.008	-0.004	-0.002
2995	7	-0.002	0.008	-0.004	-0.002
2996	7	-0.003	0.008	-0.004	-0.001
2997	7	-0.002	0.007	-0.004	0
3057	7	0.004	0.004	-0.004	-0.003
3058	7	0.006	0.005	-0.004	-0.007
3067	7	0.003	0.003	-0.004	-0.003
3068	7	0.006	0.005	-0.004	-0.007
2259	7	0.005	0.004	-0.003	-0.006
2480	7	0.005	0.004	-0.003	-0.006
2502	7	0.004	0.004	-0.003	-0.004
2510	7	0.002	0.003	-0.003	-0.002
2520	7	0.005	0.005	-0.003	-0.007
2521	7	0.003	0.003	-0.003	-0.003
2532	7	0.003	0.003	-0.003	-0.003
2543	7	0.003	0.003	-0.003	-0.002

2554	7	0.003	0.003	-0.003	-0.002
2565	7	0.003	0.003	-0.003	-0.003
2576	7	0.003	0.003	-0.003	-0.003
2590	7	0.001	0.003	-0.003	-0.001
2604	7	0.005	0.005	-0.003	-0.007
2608	7	0.003	0.003	-0.003	-0.003
2676	7	0.007	0.005	-0.003	-0.009
2686	7	0.007	0.005	-0.003	-0.009
2710	7	0.001	0.002	-0.003	-0.001
2727	7	0.001	0.002	-0.003	-0.001
2728	7	0.004	0.004	-0.003	-0.004
2740	7	0.002	0.003	-0.003	-0.002
2750	7	0.003	0.003	-0.003	-0.003
2751	7	0.005	0.005	-0.003	-0.007
2760	7	0.003	0.003	-0.003	-0.003
2770	7	0.003	0.003	-0.003	-0.002
2780	7	0.003	0.003	-0.003	-0.002
2790	7	0.003	0.003	-0.003	-0.003
2800	7	0.003	0.003	-0.003	-0.003
2808	7	0.001	0.003	-0.003	-0.001
2821	7	0.003	0.003	-0.003	-0.003
2825	7	0.005	0.005	-0.003	-0.007
2845	7	0.003	0.003	-0.003	-0.003
2865	7	0.005	0.005	-0.003	-0.006
3056	7	0.003	0.003	-0.003	-0.003
3078	7	0.005	0.005	-0.003	-0.006
2499	7	0.002	0.002	-0.002	-0.001
2500	7	0.001	0.002	-0.002	-0.001
2531	7	0.005	0.004	-0.002	-0.007
2542	7	0.004	0.003	-0.002	-0.006
2544	7	0.002	0.002	-0.002	-0.002
2546	7	0	0.002	-0.002	0
2555	7	0.002	0.002	-0.002	-0.002
2566	7	0.002	0.002	-0.002	-0.002
2568	7	0.002	0.001	-0.002	-0.001
2575	7	0.004	0.003	-0.002	-0.006
2577	7	0.002	0.002	-0.002	-0.003
2586	7	0.005	0.004	-0.002	-0.006
2588	7	0.003	0.002	-0.002	-0.003
2609	7	0.002	0.002	-0.002	-0.002
2716	7	0.009	0.001	-0.002	-0.008
2722	7	0.009	0.001	-0.002	-0.008
2729	7	0.001	0.002	-0.002	-0.001
2730	7	0.002	0.002	-0.002	-0.001
2761	7	0.005	0.004	-0.002	-0.007
2768	7	0	0.002	-0.002	0
2769	7	0.002	0.002	-0.002	-0.002
2771	7	0.004	0.003	-0.002	-0.006
2779	7	0.002	0.002	-0.002	-0.002
2788	7	0.002	0.001	-0.002	-0.001
2789	7	0.002	0.002	-0.002	-0.002
2799	7	0.002	0.002	-0.002	-0.003
2801	7	0.004	0.003	-0.002	-0.006
2809	7	0.003	0.002	-0.002	-0.003

2811	7	0.005	0.004	-0.002	-0.006
2819	7	0.002	0.002	-0.002	-0.002
2847	7	0.002	0.002	-0.002	-0.002
2856	7	0.002	0.002	-0.002	-0.002
2866	7	0.002	0.002	-0.002	-0.002
2947	7	0	0.003	-0.002	0
2948	7	0	0.003	-0.002	-0.001
2953	7	0	0.003	-0.002	-0.001
2954	7	0	0.003	-0.002	0
2972	7	0.001	0.002	-0.002	-0.002
2973	7	0.001	0.002	-0.002	-0.002
2982	7	0.003	0.001	-0.002	-0.002
2983	7	0.003	0.001	-0.002	-0.002
2984	7	0.003	0.001	-0.002	-0.002
2985	7	0.003	0.001	-0.002	-0.002
3055	7	0.002	0.002	-0.002	-0.002
3066	7	0.002	0.002	-0.002	-0.002
3077	7	0.002	0.002	-0.002	-0.002
2261	7	0	0.001	-0.001	-0.001
2478	7	0	0.001	-0.001	-0.001
2513	7	0.003	0.001	-0.001	-0.003
2522	7	0.001	0.001	-0.001	-0.001
2533	7	0.002	0.001	-0.001	-0.002
2535	7	0	0.001	-0.001	0
2553	7	0.004	0.003	-0.001	-0.006
2564	7	0.004	0.003	-0.001	-0.005
2699	7	0.006	-0.001	-0.001	-0.005
2706	7	0.006	-0.001	-0.001	-0.005
2738	7	0.003	0.001	-0.001	-0.003
2749	7	0.001	0.001	-0.001	-0.001
2758	7	0	0.001	-0.001	0
2759	7	0.002	0.001	-0.001	-0.002
2781	7	0.004	0.003	-0.001	-0.006
2791	7	0.004	0.003	-0.001	-0.005
2858	7	0.001	0.001	-0.001	-0.001
2867	7	0.001	0.001	-0.001	-0.001
2876	7	0.003	0.001	-0.001	-0.004
2945	7	0.001	0.001	-0.001	-0.001
2950	7	0.002	0	-0.001	-0.001
2951	7	0.002	0	-0.001	-0.001
2956	7	0.001	0.001	-0.001	-0.001
2957	7	0.001	0.001	-0.001	-0.001
2958	7	0.001	0.001	-0.001	-0.001
2959	7	0.001	0.001	-0.001	-0.001
2960	7	0.001	0.001	-0.001	-0.001
2961	7	0.001	0.001	-0.001	-0.001
2962	7	0.001	0.001	-0.001	-0.001
2963	7	0.001	0.001	-0.001	-0.001
2964	7	0.001	0.001	-0.001	-0.001
2965	7	0.001	0.001	-0.001	-0.001
2967	7	0.001	0.001	-0.001	-0.001
2969	7	0	0.001	-0.001	-0.001
2970	7	0.001	0.001	-0.001	-0.001
2971	7	0.001	0.001	-0.001	-0.001

2974	7	0.001	0.001	-0.001	-0.001
2975	7	0.001	0.001	-0.001	-0.001
2976	7	0	0.001	-0.001	-0.001
2981	7	0.002	0	-0.001	-0.001
2986	7	0.002	0	-0.001	-0.001
3065	7	0.001	0.001	-0.001	-0.001
3076	7	0.001	0.001	-0.001	-0.001
3088	7	0.003	0.001	-0.001	-0.004
2241	7	0.002	0.001	0	-0.003
2466	7	0.002	0.001	0	-0.003
2511	7	0	0	0	0
2524	7	0.003	0	0	-0.002
2557	7	0.002	0	0	-0.002
2614	7	0.01	0.004	0	-0.014
2615	7	0.01	0.004	0	-0.014
2654	7	0.008	0.001	0	-0.008
2664	7	0.008	0.001	0	-0.008
2688	7	0.005	0	0	-0.006
2708	7	0.005	0	0	-0.006
2714	7	0.015	-0.001	0	-0.015
2724	7	0.015	-0.001	0	-0.015
2739	7	0	0	0	0
2748	7	0.003	0	0	-0.002
2778	7	0.002	0	0	-0.002
2869	7	0	0	0	0
2877	7	0	0.001	0	-0.001
2878	7	0.001	0.001	0	-0.002
2880	7	0.001	0.001	0	-0.002
2949	7	0.001	0.001	0	-0.002
2952	7	0.001	0.001	0	-0.002
2968	7	0	0.001	0	0
2978	7	0	0.001	0	0
2979	7	0.001	0	0	-0.001
2980	7	0.001	0	0	-0.001
2987	7	0.001	0	0	-0.001
2989	7	0.001	0	0	-0.001
3075	7	0	0	0	0
3085	7	0.001	0.001	0	-0.002
3086	7	0.001	0.001	0	-0.002
3087	7	0	0.001	0	-0.001
2712	7	0.005	-0.001	0.001	-0.005
2726	7	0.005	-0.001	0.001	-0.005
3005	7	0.036	-0.011	0.001	-0.027
3006	7	0.036	-0.011	0.001	-0.027
3004	7	0.035	-0.009	0.002	-0.028
3007	7	0.035	-0.009	0.002	-0.028
2987	7	0.015	-0.003	0.003	-0.016
2997	7	0.015	-0.003	0.003	-0.016
3003	7	0.034	-0.007	0.004	-0.031
3008	7	0.034	-0.007	0.004	-0.031
2897	7	0.023	0.014	0.006	-0.043
3002	7	0.033	-0.005	0.006	-0.034
3009	7	0.033	-0.005	0.006	-0.034
3109	7	0.023	0.014	0.006	-0.043

2623	7	0.063	-0.004	0.007	-0.065
2628	7	0.063	-0.004	0.007	-0.065
2678	7	0.586	-0.007	0.007	-0.586
2683	7	0.586	-0.007	0.007	-0.586
2689	7	0.105	-0.008	0.008	-0.105
2694	7	0.105	-0.008	0.008	-0.105
3001	7	0.032	-0.003	0.008	-0.037
3011	7	0.032	-0.003	0.008	-0.037
2902	7	0.031	0	0.011	-0.041
3105	7	0.031	0	0.011	-0.041
2633	7	0.065	-0.013	0.013	-0.065
2640	7	0.065	-0.013	0.013	-0.065
2900	7	0.029	0.002	0.014	-0.045
3106	7	0.029	0.002	0.014	-0.045
2885	7	0.05	0.01	0.016	-0.076
2899	7	0.026	0.005	0.016	-0.048
3100	7	0.05	0.01	0.016	-0.076
3107	7	0.026	0.005	0.016	-0.048
2551	7	0.08	-0.011	0.017	-0.086
2562	7	0.08	-0.011	0.017	-0.086
2783	7	0.08	-0.011	0.017	-0.086
2793	7	0.08	-0.011	0.017	-0.086
2573	7	0.079	-0.01	0.018	-0.086
2803	7	0.079	-0.01	0.018	-0.086
2898	7	0.024	0.006	0.018	-0.049
3108	7	0.024	0.006	0.018	-0.049
2217	7	0.05	0.005	0.019	-0.074
2448	7	0.05	0.005	0.019	-0.074
2540	7	0.078	-0.009	0.019	-0.087
2584	7	0.076	-0.008	0.019	-0.087
2702	7	0.041	-0.018	0.019	-0.042
2703	7	0.041	-0.018	0.019	-0.042
2773	7	0.078	-0.009	0.019	-0.087
2813	7	0.076	-0.008	0.019	-0.087
2529	7	0.075	-0.007	0.021	-0.089
2600	7	0.073	-0.006	0.021	-0.088
2763	7	0.075	-0.007	0.021	-0.089
2829	7	0.073	-0.006	0.021	-0.088
1437	7	64.707	-7.115	0.022	-64.777
1679	7	64.707	-7.115	0.022	-64.777
2624	7	0.08	-0.016	0.022	-0.085
2627	7	0.08	-0.016	0.022	-0.085
2518	7	0.071	-0.003	0.023	-0.091
2753	7	0.071	-0.003	0.023	-0.091
2841	7	0.07	-0.003	0.023	-0.09
3060	7	0.07	-0.003	0.023	-0.09
2852	7	0.065	0.001	0.025	-0.09
3070	7	0.065	0.001	0.025	-0.09
2228	7	0.048	0.013	0.026	-0.066
2456	7	0.048	0.013	0.026	-0.066
2507	7	0.066	0.001	0.026	-0.094
2743	7	0.066	0.001	0.026	-0.094
2863	7	0.059	0.004	0.026	-0.09
2874	7	0.054	0.007	0.026	-0.086

2896	7	0.066	-0.024	0.026	-0.067
3080	7	0.059	0.004	0.026	-0.09
3090	7	0.054	0.007	0.026	-0.086
3110	7	0.066	-0.024	0.026	-0.067
2496	7	0.061	0.005	0.029	-0.095
2733	7	0.061	0.005	0.029	-0.095
2239	7	0.051	0.012	0.031	-0.093
2255	7	0.055	0.009	0.031	-0.096
2468	7	0.051	0.012	0.031	-0.093
2484	7	0.055	0.009	0.031	-0.096
2313	7	0.236	-0.031	0.051	-0.256
2314	7	0.236	-0.031	0.051	-0.256
2195	7	0.157	-0.007	0.052	-0.203
2428	7	0.157	-0.007	0.052	-0.203
2312	7	0.233	-0.029	0.053	-0.257
2315	7	0.233	-0.029	0.053	-0.257
2311	7	0.227	-0.025	0.055	-0.258
2316	7	0.227	-0.025	0.055	-0.258
2196	7	0.128	0.038	0.059	-0.225
2310	7	0.219	-0.019	0.059	-0.259
2317	7	0.219	-0.019	0.059	-0.259
2427	7	0.128	0.038	0.059	-0.225
2309	7	0.209	-0.012	0.064	-0.261
2319	7	0.209	-0.012	0.064	-0.261
2201	7	0.196	-0.003	0.069	-0.262
2423	7	0.196	-0.003	0.069	-0.262
2199	7	0.18	0.007	0.074	-0.261
2424	7	0.18	0.007	0.074	-0.261
2197	7	0.145	0.027	0.075	-0.248
2426	7	0.145	0.027	0.075	-0.248
2198	7	0.162	0.018	0.077	-0.257
2425	7	0.162	0.018	0.077	-0.257
2667	7	0.386	-0.092	0.09	-0.384
2672	7	0.386	-0.092	0.09	-0.384
2690	7	0.552	-0.139	0.139	-0.552
2693	7	0.552	-0.139	0.139	-0.552
2905	7	1.928	-0.032	0.158	-2.054
3122	7	1.928	-0.032	0.158	-2.054
3027	7	1.168	-0.221	0.197	-1.145
3028	7	1.168	-0.221	0.197	-1.145
3026	7	1.19	-0.218	0.201	-1.173
3029	7	1.19	-0.218	0.201	-1.173
3025	7	1.231	-0.216	0.208	-1.223
3030	7	1.231	-0.216	0.208	-1.223
3024	7	1.285	-0.217	0.218	-1.286
3031	7	1.285	-0.217	0.218	-1.286
3023	7	1.346	-0.222	0.231	-1.355
3033	7	1.346	-0.222	0.231	-1.355
2646	7	2.184	-0.238	0.236	-2.182
2649	7	2.184	-0.238	0.236	-2.182
2924	7	1.407	-0.228	0.245	-1.424
3125	7	1.407	-0.228	0.245	-1.424
2922	7	1.481	-0.231	0.25	-1.489
3126	7	1.481	-0.231	0.25	-1.489

2921	7	1.495	-0.225	0.275	-1.545
3127	7	1.495	-0.225	0.275	-1.545
2919	7	1.447	-0.161	0.262	-1.567
3129	7	1.447	-0.161	0.262	-1.567
2920	7	1.497	-0.205	0.267	-1.579
3128	7	1.497	-0.205	0.267	-1.579
2918	7	1.344	-0.143	0.269	-1.491
3130	7	1.344	-0.143	0.269	-1.491
2193	7	1.727	-0.164	0.309	-1.872
2430	7	1.727	-0.164	0.309	-1.872
2204	7	2.056	-0.183	0.361	-2.233
2440	7	2.056	-0.183	0.361	-2.233
2894	7	2.326	-0.263	0.41	-2.474
3112	7	2.326	-0.263	0.41	-2.474
2215	7	2.392	-0.285	0.447	-2.553
2450	7	2.392	-0.285	0.447	-2.553
2883	7	2.615	-0.337	0.463	-2.741
3102	7	2.615	-0.337	0.463	-2.741
2226	7	2.659	-0.358	0.491	-2.792
2460	7	2.659	-0.358	0.491	-2.792
2872	7	2.835	-0.412	0.504	-2.927
3092	7	2.835	-0.412	0.504	-2.927
2237	7	2.864	-0.416	0.521	-2.968
2470	7	2.864	-0.416	0.521	-2.968
2861	7	2.989	-0.463	0.524	-3.051
3082	7	2.989	-0.463	0.524	-3.051
2850	7	3.093	-0.496	0.536	-3.133
3072	7	3.093	-0.496	0.536	-3.133
2251	7	3.013	-0.458	0.539	-3.093
2488	7	3.013	-0.458	0.539	-3.093
2839	7	3.16	-0.517	0.543	-3.186
3062	7	3.16	-0.517	0.543	-3.186
2596	7	3.201	-0.53	0.547	-3.218
2833	7	3.201	-0.53	0.547	-3.218
2494	7	3.115	-0.489	0.549	-3.175
2582	7	3.225	-0.54	0.549	-3.234
2735	7	3.115	-0.489	0.549	-3.175
2815	7	3.225	-0.54	0.549	-3.234
2571	7	3.238	-0.548	0.55	-3.24
2805	7	3.238	-0.548	0.55	-3.24
2560	7	3.244	-0.553	0.551	-3.241
2795	7	3.244	-0.553	0.551	-3.241
2549	7	3.246	-0.555	0.552	-3.243
2785	7	3.246	-0.555	0.552	-3.244
2538	7	3.245	-0.551	0.553	-3.247
2775	7	3.245	-0.551	0.553	-3.247
2505	7	3.18	-0.512	0.554	-3.223
2745	7	3.18	-0.512	0.554	-3.223
2627	7	3.237	-0.542	0.555	-3.25
2765	7	3.237	-0.542	0.555	-3.25
2516	7	3.218	-0.529	0.556	-3.245
2755	7	3.218	-0.529	0.556	-3.245
2669	7	28.948	-0.628	0.629	-28.949
2670	7	28.948	-0.628	0.629	-28.949

2172	7	5.142	-0.297	0.654	-5.498
2409	7	5.142	-0.297	0.654	-5.498
2916	7	2.077	-0.674	0.674	-2.077
3132	7	2.077	-0.674	0.674	-2.077
2171	7	4.593	-0.674	0.636	-4.755
2410	7	4.593	-0.674	0.636	-4.755
773	7	106.965	-25.452	0.873	-107.744
1022	7	106.965	-25.452	0.873	-107.744
2173	7	6.25	-0.711	1.073	-6.612
2408	7	6.25	-0.711	1.073	-6.612
2174	7	7.118	-0.933	1.239	-7.424
2407	7	7.118	-0.933	1.239	-7.424
2175	7	7.626	-1.137	1.371	-8.06
2406	7	7.626	-1.137	1.371	-8.06
1294	7	65.005	-9.624	1.406	-67.33
1939	7	65.005	-9.624	1.406	-67.33
2176	7	8.374	-1.287	1.456	-8.543
2405	7	8.374	-1.287	1.456	-8.543
2657	7	3.353	-1.486	1.486	-3.353
2660	7	3.353	-1.486	1.486	-3.353
2177	7	8.791	-1.397	1.517	-8.91
2404	7	8.791	-1.397	1.517	-8.91
2179	7	9.101	-1.475	1.56	-9.186
2403	7	9.101	-1.475	1.56	-9.186
795	7	33.735	-21.828	1.565	-31.47
1044	7	33.735	-21.828	1.565	-31.47
2287	7	9.327	-1.531	1.592	-9.387
2297	7	9.327	-1.531	1.592	-9.387
2288	7	9.485	-1.573	1.613	-9.526
2295	7	9.485	-1.573	1.613	-9.526
1398	7	60.633	-6.344	1.626	-61.465
1819	7	60.633	-6.344	1.626	-61.465
2289	7	9.591	-1.604	1.627	-9.614
2294	7	9.591	-1.604	1.627	-9.614
2290	7	9.654	-1.626	1.636	-9.664
2293	7	9.654	-1.626	1.636	-9.664
2291	7	9.684	-1.638	1.639	-9.685
2292	7	9.684	-1.638	1.639	-9.685
2937	7	21.592	-2.31	3.035	-22.317
3153	7	21.592	-2.31	3.035	-22.317
800	7	147.392	-20.66	3.493	-147.973
1039	7	147.392	-20.66	3.493	-147.973
784	7	66.883	-30.695	4.034	-63.009
1033	7	66.883	-30.695	4.034	-63.009
2936	7	13.556	-4.519	4.295	-13.332
3154	7	13.556	-4.519	4.295	-13.332
1305	7	54.578	-8.537	4.547	-31.214
1794	7	54.578	-8.537	4.547	-31.214
1283	7	66.632	-10.791	4.568	-70.463
1938	7	66.632	-10.791	4.568	-70.463
1410	7	63.498	-8.78	4.946	-65.092
1820	7	63.498	-8.78	4.946	-65.092
1544	7	166.238	-7.632	5.249	-172.732
1779	7	166.238	-7.632	5.249	-172.732

2925	7	34.393	-4.755	5.509	-35.145
3144	7	34.393	-4.755	5.509	-35.145
1439	7	71.785	-9.759	5.616	-73.907
1677	7	71.785	-9.759	5.616	-73.907
2169	7	26.204	-4.757	5.839	-27.295
2412	7	26.204	-4.757	5.839	-27.295
821	7	137.964	-10.368	5.943	-152.916
1049	7	137.964	-10.368	5.943	-152.916
801	7	172.968	-19.364	6.344	-177.964
1038	7	172.968	-19.364	6.344	-177.964
1557	7	34.142	-7.508	6.652	-36.579
1559	7	34.142	-7.508	6.652	-36.579
616	7	70.776	-15.611	6.677	-79.432
9055	7	70.776	-15.611	6.677	-79.432
1555	7	36.646	-7.49	6.704	-39.142
1561	7	36.646	-7.49	6.704	-39.142
1421	7	65.784	-10.213	6.842	-68.022
1621	7	65.784	-10.213	6.842	-68.022
1271	7	67.493	-11.803	6.895	-72.125
1937	7	67.494	-11.803	6.895	-72.125
1553	7	41.031	-7.668	6.967	-43.602
1563	7	41.031	-7.668	6.967	-43.602
1172	7	156.209	-11.439	7.385	-190.926
2126	7	156.209	-11.439	7.385	-190.926
3049	7	44.378	-7.506	7.443	-44.315
3050	7	44.378	-7.506	7.443	-44.315
1551	7	46.479	-8.185	7.536	-49.106
1565	7	46.479	-8.185	7.536	-49.106
3048	7	45.522	-7.706	7.664	-45.48
3051	7	45.522	-7.706	7.664	-45.48
2938	7	38.338	-6.746	7.735	-39.327
3152	7	38.338	-6.746	7.735	-39.327
742	7	220.363	-6.494	7.916	-233.552
987	7	220.363	-6.494	7.916	-233.552
1431	7	36.676	-5.483	7.926	-16.924
1685	7	36.676	-5.483	7.926	-16.924
1187	7	67.356	-11.2	7.996	-70.08
1930	7	67.356	-11.2	7.996	-70.08
3047	7	47.554	-8.06	8.049	-47.543
3052	7	47.554	-8.06	8.049	-47.543
1549	7	52.324	-9.008	8.36	-54.997
1566	7	52.324	-9.008	8.36	-54.997
3046	7	50.09	-8.503	8.513	-50.1
3053	7	50.09	-8.503	8.513	-50.1
2180	7	47.583	-7.605	8.602	-48.58
2422	7	47.583	-7.605	8.602	-48.58
1259	7	67.756	-12.764	8.623	-72.621
1936	7	67.757	-12.764	8.623	-72.621
1441	7	74.205	-11.209	8.797	-77.158
1675	7	74.205	-11.209	8.797	-77.158
1199	7	68.143	-12.083	8.849	-71.264
1931	7	68.143	-12.083	8.849	-71.264
1168	7	93.309	-3.14	8.952	-150.291
2086	7	93.309	-3.14	8.952	-150.291

3045	7	52.782	-8.972	8.987	-52.798
3054	7	52.782	-8.972	8.987	-52.798
2939	7	50.388	-8.492	9.231	-51.127
3151	7	50.388	-8.492	9.231	-51.127
1349	7	132.718	-16.285	9.249	-132.574
1800	7	132.718	-16.285	9.249	-132.574
1448	7	58.18	-9.981	9.285	-60.914
1667	7	58.18	-9.981	9.285	-60.914
2945	7	55.422	-9.432	9.439	-55.429
3145	7	55.422	-9.432	9.439	-55.429
1211	7	68.278	-12.945	9.584	-71.765
1932	7	68.278	-12.945	9.584	-71.765
1247	7	67.754	-13.537	9.77	-72.449
1935	7	67.754	-13.538	9.77	-72.449
2944	7	57.895	-9.866	9.868	-57.898
3146	7	57.895	-9.866	9.868	-57.898
1447	7	63.828	-10.896	10.094	-66.665
1669	7	63.828	-10.896	10.094	-66.665
1223	7	68.055	-13.628	10.132	-71.935
1933	7	68.055	-13.628	10.132	-71.935
1116	7	138.168	-20.988	10.159	-138.547
2038	7	138.168	-20.988	10.159	-138.547
1443	7	72.813	-11.718	10.23	-75.865
1673	7	72.813	-11.718	10.23	-75.865
1235	7	67.817	-13.869	10.262	-72.128
1934	7	67.817	-13.869	10.262	-72.128
2943	7	60.02	-10.246	10.272	-60.047
3147	7	60.02	-10.246	10.272	-60.047
2940	7	57.847	-9.935	10.389	-58.301
3150	7	57.847	-9.935	10.389	-58.301
1445	7	68.947	-11.541	10.517	-71.917
1671	7	68.947	-11.541	10.517	-71.917
2942	7	61.349	-10.497	10.596	-61.448
3148	7	61.349	-10.497	10.596	-61.448
2941	7	61.031	-10.46	10.698	-61.268
3149	7	61.031	-10.46	10.698	-61.268
2914	7	59.723	-10.021	10.965	-60.697
3134	7	59.723	-10.021	10.965	-60.697
1171	7	147.338	-16.243	12.198	-191.244
2116	7	147.338	-16.243	12.198	-191.243
2191	7	68.079	-11.521	12.256	-68.813
2432	7	68.079	-11.521	12.256	-68.813
1169	7	115.605	-10.724	12.959	-172.789
2096	7	115.605	-10.724	12.959	-172.789
1170	7	134.41	-15.455	13.661	-186.049
2106	7	134.41	-15.455	13.661	-186.049
1184	7	228.345	-21.234	13.942	-255.207
2146	7	228.345	-21.234	13.942	-255.207
2903	7	80.418	-13.493	14.217	-81.141
3124	7	80.418	-13.493	14.217	-81.141
2202	7	84.848	-14.441	14.936	-85.343
2442	7	84.848	-14.441	14.936	-85.343
2892	7	96.08	-16.359	16.808	-96.53
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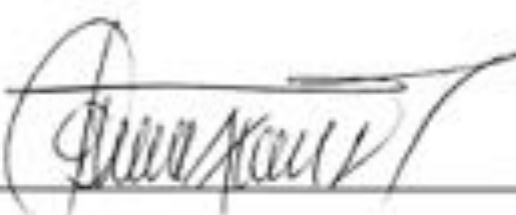
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2391	7	94.585	-15.238	16.817	-96.164
2213	7	98.016	-16.742	17.068	-98.342
2452	7	98.017	-16.742	17.068	-98.342
890	7	98.566	-16.287	17.479	-82.85
1081	7	98.566	-16.287	17.479	-82.85
1104	7	159.612	-25.696	17.974	-161.325
2036	7	159.612	-25.697	17.974	-161.325
1361	7	157.593	-22.802	18.133	-158.755
1802	7	157.593	-22.802	18.133	-158.755
2881	7	107.01	-18.254	18.501	-107.257
3104	7	107.01	-18.254	18.501	-107.258
2224	7	108.011	-18.459	18.671	-108.223
2462	7	108.011	-18.459	18.671	-108.223
2870	7	114.418	-19.524	19.644	-114.538
3094	7	114.418	-19.524	19.644	-114.538
2235	7	115.383	-19.713	19.856	-115.526
2472	7	115.384	-19.713	19.856	-115.526
752	7	225.999	-26.412	19.895	-236.653
999	7	225.999	-26.412	19.895	-236.653
2859	7	119.383	-20.361	20.412	-119.434
3084	7	119.384	-20.361	20.412	-119.435
2247	7	120.609	-20.594	20.696	-120.711
2491	7	120.609	-20.594	20.696	-120.711
2848	7	122.699	-20.915	20.937	-122.721
3074	7	122.699	-20.915	20.937	-122.721
2492	7	124.062	-21.169	21.245	-124.139
2737	7	124.063	-21.169	21.245	-124.139
2837	7	124.852	-21.272	21.267	-124.868
3064	7	124.853	-21.272	21.267	-124.868
2592	7	126.127	-21.48	21.492	-126.139
2836	7	126.127	-21.48	21.492	-126.139
2503	7	126.069	-21.494	21.548	-126.122
2747	7	126.069	-21.494	21.548	-126.122
2547	7	126.907	-21.588	21.553	-126.872
2787	7	126.908	-21.588	21.553	-126.872
2558	7	126.883	-21.585	21.557	-126.855
2797	7	126.884	-21.585	21.557	-126.855
2580	7	126.731	-21.574	21.578	-126.735
2817	7	126.731	-21.574	21.578	-126.735
2569	7	126.897	-21.594	21.582	-126.885
2807	7	126.897	-21.594	21.582	-126.885
2536	7	127.043	-21.616	21.59	-127.017
2777	7	127.044	-21.616	21.59	-127.018
2525	7	127.166	-21.649	21.646	-127.164
2787	7	127.167	-21.649	21.646	-127.164
2514	7	126.973	-21.631	21.658	-126.999
2757	7	126.973	-21.631	21.658	-127
905	7	244.453	-35.737	21.913	-245.094
906	7	244.453	-35.737	21.913	-245.094
1176	7	77.059	16.83	22.109	-106.162
2057	7	77.059	16.83	22.109	-106.161
1656	7	158.676	-24.514	22.465	-165.34
1658	7	158.676	-24.513	22.465	-165.339

743	7	212.137	-23.158	22.776	-222.852
986	7	212.137	-23.158	22.776	-222.852
1092	7	177.109	-29.428	23.674	-180.834
2034	7	177.109	-29.428	23.674	-180.835
1177	7	136.07	-7.659	23.705	-186.529
2067	7	136.069	-7.659	23.705	-186.528
1373	7	176.638	-27.693	24.439	-178.318
1804	7	176.638	-27.693	24.439	-178.318
812	7	100.285	-24.149	24.948	-118.105
1059	7	100.285	-24.149	24.948	-118.105
1175	7	46.224	25.915	25.26	-31.339
2047	7	46.224	25.915	25.26	-31.339
814	7	99.18	-27.801	27.183	-118.338
1057	7	99.18	-27.801	27.183	-118.338
865	7	138.384	-34.88	27.443	-141.655
866	7	138.384	-34.88	27.443	-141.655
2149	7	157.175	-25.981	27.691	-158.905
2390	7	157.175	-25.981	27.691	-158.905
1080	7	190.712	-32.236	27.761	-195.649
2032	7	190.712	-32.236	27.761	-195.649
1385	7	190.416	-31.171	28.74	-192.369
1806	7	190.417	-31.172	28.74	-192.37
1178	7	190.898	-28.411	29.044	-252.927
2077	7	190.898	-28.411	29.044	-252.927
744	7	200.618	-31.441	29.406	-209.376
985	7	200.618	-31.441	29.406	-209.376
1183	7	244.969	-41.535	30.033	-284.74
2127	7	244.969	-41.535	30.033	-284.74
1068	7	200.763	-34.251	30.64	-206.404
2030	7	200.763	-34.252	30.64	-206.404
894	7	138.089	-38.31	30.93	-141.43
897	7	138.089	-38.31	30.93	-141.43
745	7	188.68	-34.797	31.559	-196.136
984	7	188.68	-34.797	31.559	-196.136
1397	7	200.068	-33.536	31.577	-202.293
1808	7	200.068	-33.537	31.577	-202.293
1293	7	207.674	-35.642	32.635	-213.674
1929	7	207.674	-35.642	32.635	-213.675
746	7	176.415	-37.087	33.018	-183.038
983	7	176.415	-37.087	33.018	-183.038
1409	7	206.694	-35.084	33.383	-209.255
1810	7	206.695	-35.084	33.383	-209.255
1292	7	211.906	-36.581	34.005	-218.016
1928	7	211.907	-36.581	34.005	-218.016
914	7	167.345	-47.812	34.007	-168.991
917	7	167.345	-47.812	34.007	-168.991
1179	7	231.648	-42.9	34.251	-297.049
2087	7	231.648	-42.9	34.251	-297.049
1420	7	211.06	-36.076	34.498	-214.014
1811	7	211.06	-36.076	34.498	-214.014
1270	7	214.036	-37.212	34.941	-220.066
1926	7	214.037	-37.212	34.941	-220.066
1186	7	213.651	-36.73	35.182	-217.033
1912	7	213.651	-36.73	35.182	-217.033

747	7	163.798	-40.303	35.513	-169.727
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1258	7	214.769	-37.627	35.566	-220.579
1924	7	214.77	-37.627	35.566	-220.579
1196	7	214.86	-37.197	35.618	-218.682
1914	7	214.86	-37.197	35.618	-218.683
863	7	139.005	-42.801	35.698	-142.637
868	7	139.005	-42.801	35.698	-142.637
1210	7	215.135	-37.553	35.909	-219.397
1916	7	215.136	-37.553	35.909	-219.397
1246	7	214.844	-37.862	35.943	-220.333
1922	7	214.844	-37.862	35.943	-220.334
1222	7	214.985	-37.804	36.079	-219.677
1918	7	214.985	-37.804	36.079	-219.678
1234	7	214.837	-37.918	36.103	-219.944
1920	7	214.837	-37.918	36.104	-219.945
2150	7	211.193	-35.546	36.854	-212.501
2389	7	211.193	-35.546	36.854	-212.501
1182	7	259.038	-50.846	37.441	-307.373
2117	7	259.038	-50.846	37.441	-307.373
1180	7	255.57	-50.995	37.889	-318.38
2097	7	255.57	-50.995	37.889	-318.38
861	7	152.053	-43.747	38.146	-157.192
870	7	152.053	-43.747	38.146	-157.192
922	7	148.83	-39.48	38.176	-165.855
939	7	148.83	-39.48	38.176	-165.855
862	7	143.339	-45.096	38.623	-147.621
869	7	143.339	-45.096	38.623	-147.621
1181	7	263.728	-53.444	39.211	-320.158
2107	7	263.728	-53.444	39.211	-320.158
2151	7	254.912	-43.35	44.214	-255.776
2388	7	254.912	-43.35	44.214	-255.776
926	7	120.616	-46.684	44.763	-135.438
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763	7	202.909	-58.354	44.781	-208.908
1010	7	202.909	-58.354	44.781	-208.908
895	7	289.121	-57.585	45.147	-290.305
896	7	289.121	-57.585	45.147	-290.305
875	7	248.039	-56.026	46.824	-250.557
876	7	248.039	-56.026	46.824	-250.557
802	7	162.759	-57.773	48.651	-191.405
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799	7	126.024	-67.985	49.475	-124.89
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789	7	222.127	-65.129	49.481	-222.917
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753	7	248.387	-55.725	49.508	-256.632
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2152	7	288.762	-49.226	49.759	-289.295
2387	7	288.762	-49.226	49.759	-289.295
790	7	236.672	-63.352	49.946	-239.651
1027	7	236.672	-63.352	49.946	-239.651
924	7	140.741	-51.941	51.9	-158.138
938	7	140.741	-51.941	51.9	-158.138

885	7	294.235	-63.774	52.895	-296.054
886	7	294.235	-63.774	52.895	-296.054
874	7	245.965	-62.163	52.919	-248.481
877	7	245.965	-62.163	52.919	-248.481
904	7	234.724	-67.575	53.605	-235.394
907	7	234.724	-67.575	53.605	-235.394
2153	7	314.564	-53.658	53.965	-314.872
2386	7	314.565	-53.658	53.965	-314.872
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2385	7	334.131	-56.985	57.153	-334.299
774	7	160.949	-76.824	59.067	-163.426
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2155	7	348.945	-59.49	59.585	-349.04
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873	7	243.905	-70.592	61.369	-246.529
878	7	243.905	-70.592	61.369	-246.529
2157	7	360.045	-61.36	61.424	-360.109
2363	7	360.045	-61.36	61.424	-360.109
757	7	264.176	-70.181	62.065	-268.194
994	7	264.176	-70.181	62.065	-268.194
2265	7	368.105	-62.713	62.763	-368.156
2275	7	368.105	-62.713	62.763	-368.156
756	7	266.563	-70.931	62.774	-270.663
995	7	266.563	-70.931	62.774	-270.663
754	7	258.892	-70.243	63.047	-264.847
997	7	258.892	-70.243	63.047	-264.847
884	7	289.878	-74.322	63.339	-291.865
887	7	289.878	-74.322	63.339	-291.865
894	7	281.995	-76.049	63.443	-283.127
897	7	281.995	-76.049	63.443	-283.127
2266	7	373.615	-63.63	63.664	-373.648
2273	7	373.615	-63.63	63.664	-373.648
2267	7	377.047	-64.194	64.199	-377.052
2272	7	377.047	-64.194	64.199	-377.052
2268	7	378.915	-64.495	64.467	-378.887
2271	7	378.915	-64.495	64.467	-378.887
2269	7	379.7	-64.618	64.568	-379.649
2270	7	379.7	-64.619	64.568	-379.65
758	7	257.784	-72.622	64.633	-261.654
993	7	257.784	-72.622	64.633	-261.654
785	7	111.052	-81.783	64.754	-113.382
1032	7	111.052	-81.783	64.754	-113.382
755	7	264.507	-73.096	65.129	-269.085
996	7	264.507	-73.096	65.129	-269.085
872	7	244.836	-76.157	67.219	-247.805
879	7	244.836	-76.157	67.219	-247.805
871	7	250.107	-76.249	67.737	-253.582
880	7	250.107	-76.249	67.737	-253.582
779	7	282.481	-82.39	69.944	-284.982
1016	7	282.481	-82.39	69.944	-284.982
778	7	272.654	-84.831	70.99	-273.93
1017	7	272.654	-84.831	70.99	-273.93

758	7	295.854	-84.342	73.655	-298.715
1005	7	295.854	-84.342	73.655	-298.715
791	7	235.946	-85.973	74.064	-240.21
1026	7	235.946	-85.973	74.064	-240.21
786	7	196.991	-91.94	74.287	-195.853
1029	7	196.991	-91.94	74.287	-195.853
767	7	291.118	-86.534	75.088	-293.404
1006	7	291.118	-86.534	75.088	-293.404
764	7	236.857	-87.91	75.581	-240.954
1009	7	236.857	-87.91	75.581	-240.954
883	7	284.44	-88.509	77.464	-286.297
888	7	284.44	-88.509	77.464	-286.297
769	7	292.916	-89.583	79.259	-295.991
1004	7	292.916	-89.583	79.259	-295.991
797	7	100.503	-76.861	79.315	-120.336
1042	7	100.503	-76.861	79.315	-120.336
766	7	278.334	-94.477	82.274	-280.213
1007	7	278.334	-94.477	82.274	-280.213
780	7	280.804	-94.041	82.339	-283.856
1015	7	280.804	-94.041	82.339	-283.856
777	7	252.144	-100.168	84.84	-252.225
1018	7	252.144	-100.168	84.84	-252.225
881	7	286.521	-96.537	86.068	-289.29
880	7	286.521	-96.537	86.068	-289.29
765	7	259.978	-98.542	86.088	-262.359
1008	7	259.978	-98.542	86.088	-262.359
882	7	282.62	-97.358	86.506	-284.834
889	7	282.62	-97.358	86.506	-284.834
798	7	108.828	-92.817	86.79	-120.056
1041	7	108.828	-92.817	86.79	-120.056
893	7	272.494	-99.633	86.852	-273.658
898	7	272.494	-99.633	86.852	-273.658
775	7	197.444	-106.468	90.3	-198.738
1020	7	197.444	-106.468	90.3	-198.738
911	7	168.543	-97.45	90.503	-178.664
920	7	168.544	-97.451	90.503	-178.664
903	7	220.923	-106.911	92.535	-221.486
908	7	220.923	-106.911	92.535	-221.486
913	7	148.945	-106.372	93.016	-151.474
918	7	148.945	-106.372	93.016	-151.474
891	7	272.985	-108.728	96.854	-275.614
900	7	272.985	-108.728	96.854	-275.614
788	7	141.628	-112.929	96.855	-143.229
1031	7	141.628	-112.929	96.855	-143.229
776	7	225.892	-113.062	96.866	-225.764
1019	7	225.892	-113.062	96.866	-225.764
787	7	167.981	-117.693	99.017	-166.158
1030	7	167.981	-117.693	99.017	-166.158
892	7	268.326	-112.81	100.279	-270.01
899	7	268.326	-112.81	100.279	-270.01
901	7	224.203	-113.732	101.629	-227.893
910	7	224.203	-113.732	101.629	-227.893
909	7	215.089	-125.878	111.986	-216.538
902	7	215.089	-125.878	111.987	-216.538



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